THAI-YAZAKI ELECTRIC WIRE CO., LTD.

Technical Data

For
Electric Wires
and Cables

Publication : 2013 (Revised)

This catalog provides a comprehensive descriptions of the main products of Thai-Yazaki Electric Wire Co., Ltd.

These products are manufactured in conformity to the Thai Industrial Standard (TIS), Thai-Yazaki Standard, and IEC 60502 Standard.

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YAZAKI

C Aluminium Conductor Cables

D Electrical Insulation Tape

YAZAKI

Technical Data and General Information

A

Wire Gauges

Gauge				Diameter		Sectional Area			Weight	
B.W.G.	A.W.G.	S.W.G.	mm.G	Mil	mm.	Cir.Mil	in^2	mm^2	lb/1,000 ft	kg/km
5/0	-	7/0	-	500	12.700	250,000	0.1964	126.7	756.9	1,126
-	-	-	12	472.4	12.000	223,162	0.1753	113.1	675.6	1,005
-	-	6/0	-	464	11.786	215,296	0.1691	109.1	651.7	969.9
-	4/0	-	-	460	11.684	211,600	0.1662	107.2	640.5	953.0
4/0	-	-	-	454	11.532	206,100	0.1619	104.4	624.0	928.1
-	-	5/0	-	432	10.973	186,624	0.1466	94.56	565.0	840.6
3/0	-	-	-	425	10.795	180,600	0.1419	91.52	546.9	813.6
-	3/0	-	-	409.6	10.404	167,772	0.1318	85.03	508.0	755.9
-	-	4/0	-	400	10.160	160,000	0.1257	81.07	484.5	720.7
-	-	-	10	393.7	10.000	155,000	0.1217	78.54	468.0	698.2
2/0	-	-	-	380	9.652	144,400	0.1134	73.17	437.1	650.5
-	-	3/0	-	372	9.440	138,384	0.1087	70.12	418.9	623.4
-	2/0	-	-	364.8	9.266	133,079	0.1045	67.42	402.7	599.4
-	-	-	9	354.3	9.000	125,528	0.09859	63.62	380.0	565.6
-	-	2/0	-	348	8.839	121,104	0.09512	61.36	366.6	545.5
0	-	-	-	340	8.636	115,600	0.09079	58.58	349.9	520.8
-	0	-	-	324.9	8.250	105,560	0.08291	53.49	319.5	475.5
-	-	0	-	324	8.230	104,976	0.08245	53.19	317.8	472.8
-	-	-	8	315	8.000	99,225	0.07793	50.27	300.3	446.9
1	-	1	-	300	7.629	90,000	0.07069	45.60	272.4	405.4
-	1	-	-	289.3	7.348	83,694	0.06573	42.41	253.3	377.0
2	-	-	-	284	7.214	80,660	0.06335	40.87	244.2	363.3
-	-	2	-	276	7.010	76,176	0.05983	39.60	230.6	343.2
-	-	-	7.0	275.6	7.000	75,955	0.05966	38.48	229.9	342.1
3	-	-	-	259	6.579	67,080	0.05269	33.99	203.1	302.2
-	2	-	-	257.6	6.544	66,358	0.05212	33.63	200.9	299.0
-	-	-	6.5	255.9	6.500	65,485	0.05143	22.18	189.2	295.0
-	-	3	-	252	6.401	63,504	0.04988	32.18	192.2	286.1
4	-	-	-	238	6.045	56,640	0.04449	28.70	171.5	255.1
-	-	-	6.0	236.2	6.000	55,790	0.04382	28.27	168.9	251.1
-	-	4	-	232	5.893	53,824	0.04227	27.27	162.9	242.4
-	3	-	-	229.4	5.827	52,624	0.04133	26.66	159.3	237.0
5	-	-	-	220	5.588	48,400	0.03801	24.52	146.5	218.0
-	-	-	5.5	216.5	5.500	46,872	0.03681	23.72	141.9	210.9
-	-	5	-	212	5.385	44,944	0.03530	22.77	136.0	202.4
-	4	-	-	204.3	5.189	41,738	0.03278	21.15	126.3	188.0
6	-	-	-	203	5.156	41,210	0.03237	20.88	124.8	185.6
-	-	-	5.0	196.9	5.000	38,770	0.03045	19.63	117.4	174.5
-	-	6	-	192	4.877	36,864	0.02895	18.68	111.6	166.3
-	5	-	-	181.9	4.621	33,088	0.02599	16.77	100.2	149.1
7	-	-	-	180	4.572	32,400	0.02545	16.42	98.08	146.0
-	-	-	4.5	177.2	4.500	31,400	0.02466	15.90	95.04	141.4
-	-	7	-	176	4.470	30,976	0.02433	15.70	93.77	139.6
8	-	-	-	165	4.191	27,220	0.02138	13.80	82.40	122.7
-	6	-	-	162	4.115	26,244	0.02061	13.30	79.43	118.2

Gauge				Diameter		Sectional Area			Weight	
B.W.G.	A.W.G.	S.W.G.	mm.G	Mil	mm.	Cir.Mil	in^2	mm^2	lb/1,000 ft	kg/km
-	-	8	-	160	4.064	25,600	0.02011	12.97	77.50	115.30
-	-	-	4.0	157.5	4.000	24,806	0.01948	12.57	75.08	111.80
9	-	-	-	148	3.759	21,900	0.01720	11.10	66.29	98.68
-	7	-	-	144.3	3.665	20,822	0.01635	10.55	63.01	93.79
-	-	9	-	144	3.658	20,736	0.01629	10.52	62.78	93.52
-	-	-	3.5	137.8	3.500	18,989	0.01491	9.621	57.46	85.53
10	-	-	-	134	3.404	17,960	0.01410	9.098	54.34	80.88
-	8	-	-	128.5	3.264	16,512	0.01297	8.368	49.99	74.39
-	-	10	-	128	3.251	16,384	0.01287	8.302	49.60	73.81
-	-	-	3.2	126	3.200	15,876	0.01247	8.042	48.06	71.49
11	-	-	-	120	3.048	14,400	0.01131	7.297	43.59	64.87
-	-	11	-	116	2.946	13,456	0.01057	6.818	40.74	60.61
-	9	-	-	114.4	2.906	13,087	0.01028	6.632	39.62	58.96
-	-	-	2.9	114.2	2.900	13,042	0.01024	6.605	39.47	58.72
12	-	-	-	109	2.769	11,880	0.009331	6.020	35.96	53.52
-	-	12	-	104	2.642	10,816	0.008495	5.481	32.74	48.73
-	-	-	2.6	102.4	2.600	10,486	0.008246	5.309	31.78	47.29
-	10	-	-	101.9	2.588	10,384	0.008156	5.262	31.43	46.78
13	-	-	-	95	2.413	9,025	0.007088	4.573	27.32	40.65
-	-	13	-	92	2.337	8,464	0.006648	4.289	25.62	38.13
-	11	-	-	90.74	2.305	8,234	0.006467	4.172	24.92	37.09
-	-	-	2.3	90.55	2.300	8,199	0.006439	4.155	24.82	36.94
14	-	-	-	83	2.108	6,889	0.005411	3.491	20.85	31.04
-	12	-	-	80.81	2.053	6,530	0.005129	3.309	19.77	29.42
-	-	14	-	80	2.032	6,400	0.005027	3.243	19.37	28.83
-	-	-	2.0	78.74	2.000	6,200	0.004869	3.142	18.77	27.93
15	-	15	-	72	1.829	5,184	0.004072	2.627	18.46	27.36
-	13	-	-	71.96	1.828	5,178	0.004067	2.624	15.67	23.33
-	-	-	1.8	70.87	1.800	5,023	0.003945	2.545	15.20	22.63
16	-	-	-	65	1.651	4,225	0.003318	2.141	12.79	19.03
-	14	-	-	64.08	1.628	4,106	0.003225	2.081	12.43	18.50
-	-	16	-	64	1.626	4,096	0.003217	2.075	12.40	18.45
-	-	-	1.6	62.99	1.600	3,968	0.003116	2.011	12.01	17.88
17	-	-	-	58	1.473	3,364	0.002642	1.705	10.18	15.16
-	15	-	-	57.07	1.450	3,257	0.002558	1.650	9.859	14.67
-	-	17	-	56	1.422	3,136	0.002463	1.589	9.493	14.13
-	-	-	1.4	55.12	1.400	3,038	0.002386	1.539	9.196	13.68
-	16	-	-	50.82	1.291	2,583	0.002029	1.309	7.820	11.64
18	-	-	-	49	1.245	2,401	0.001886	1.217	7.269	10.82
-	-	18	-	48	1.219	2,304	0.001810	1.167	6.976	10.38
-	-	-	1.2	47.24	1.200	2,232	0.001753	1.131	6.756	10.06
-	17	-	-	45.26	1.150	2,048	0.001608	1.037	6.197	9.219
19	-	-	-	42	1.067	1,764	0.001385	0.8938	5.388	7.946
-	18	-	-	40.3	1.024	1,624	0.001275	0.8226	4.914	7.313
-	-	19	-	40	1.016	1,600	0.001257	0.8107	4.845	7.207
-	-	-	1.0	39.37	1.000	1,550	0.001217	0.7854	4.690	6.982
-	-	20	-	36	0.914	1,296	0.001018	0.6576	3.923	5.838

Gauge				Diameter		Sectional Area			Weight	
B.W.G.	A.W.G.	S.W.G.	mm.G	Mil	mm.	Cir.Mil	in^2	mm^2	lb/1,000 ft	kg/km
-	19	-	-	35.89	0.9116	1,288	0.001012	0.6529	3.900	5.804
-	-	-	0.90	35.43	0.9000	1,255	0.0009857	0.6362	3.799	5.656
20	-	-	-	35	0.8890	1,225	0.0009621	0.6207	3.708	5.518
21	-	21	-	32	0.8128	1,024	0.0008042	0.5189	3.099	4.613
-	20	-	-	31.96	0.8118	1,021	0.0008019	0.5174	3.091	4.600
-	-	-	0.80	31.50	0.8000	992.3	0.0007794	0.5027	3.004	4.469
-	21	-	-	28.46	0.7229	810	0.0006362	0.4105	2.452	3.649
22	-	22	-	28	0.7112	784	0.0006158	0.3973	2.373	3.532
-	-	-	0.70	27.56	0.7000	759.6	0.0005966	0.3848	2.299	3.421
-	-	-	0.65	25.59	0.6500	654.8	0.0005143	0.3318	1.982	2.950
-	22	-	-	25.35	0.6438	642.6	0.0005047	0.3256	1.945	2.895
23	-	-	-	25	0.6350	625	0.0004909	0.3167	1.892	2.816
-	-	23	-	24	0.6096	576	0.0004524	0.2919	1.744	2.595
-	-	-	0.60	23.62	0.6000	557.9	0.0004382	0.2827	1.689	2.513
-	23	-	-	22.57	0.5733	509.4	0.0004001	0.2581	1.542	2.295
24	-	24	-	22	0.5583	484	0.0003801	0.2452	1.465	2.180
-	-	-	0.55	21.65	0.5500	468.7	0.0003681	0.2376	1.419	2.112
-	24	-	-	20.10	0.5106	404	0.0003173	0.2047	1.223	1.820
25	-	25	-	20	0.5080	400	0.0003142	0.2027	1.211	1.802
-	-	-	0.50	19.69	0.5000	387.7	0.0003045	0.1963	1.174	1.745
26	-	26	-	18	0.4572	324	0.0002545	0.1642	0.9809	1.460
-	25	-	-	17.90	0.4547	320.4	0.0002516	0.1623	0.9697	1.443
-	-	-	0.45	17.72	0.4500	314	0.0002466	0.1590	0.9504	1.414
-	-	27	-	16.4	0.4166	269	0.0002113	0.1363	0.7844	1.212
27	-	-	-	16	0.4064	256	0.0002011	0.1297	0.7750	1.153
-	26	-	-	15.94	0.4049	254.1	0.0001996	0.1288	0.7693	1.145
-	-	-	0.40	15.75	0.400	248.1	0.0001949	0.1257	0.7512	1.118
-	-	28	-	14.8	0.3759	219	0.0001720	0.1110	0.6629	0.9868
-	27	-	-	14.20	0.361	201.6	0.0001583	0.1021	0.6101	0.9077
28	-	-	-	14	0.3556	196	0.0001539	0.09932	0.5931	0.8330
-	-	-	0.35	13.78	0.3500	189.9	0.0001491	0.09621	0.5746	0.8553
-	-	29	-	13.6	0.3454	185	0.0001453	0.09372	0.5600	0.8332
29	-	-	-	13	0.3302	169	0.0001327	0.08563	0.5114	0.7613
-	28	-	-	12.64	0.3211	159.8	0.0001255	0.08097	0.4837	0.7198
-	-	-	0.30	12.60	0.3200	158.8	0.0001246	0.08042	0.7806	0.7149
-	-	30	-	12.4	0.3150	153.8	0.0001208	0.07791	0.4656	0.6926
30	-	-	-	12	0.3048	144	0.0001131	0.07297	0.4359	0.6487
-	-	31	-	11.6	0.2946	134.6	0.0001057	0.06818	0.4074	0.6061
-	-	-	0.29	11.42	0.2900	130.4	0.0001024	0.06605	0.3947	0.5872
-	29	-	-	11.26	0.2859	126.8	0.00009959	0.06425	0.3838	0.5712
-	-	32	-	10.8	0.2743	116.6	0.00009158	0.05913	0.3530	0.5257
-	-	-	0.26	10.24	0.2600	104.9	0.00008239	0.05309	0.3175	0.4720
-	30	-	-	10.03	0.2546	100.6	0.00007901	0.05097	0.305	0.4531
31	-	33	-	10	0.2540	100	0.00007954	0.05067	0.3027	0.4505
-	-	34	-	9.2	0.2337	84.64	0.00006648	0.04289	0.2562	0.3813
-	-	-	0.23	9.055	0.2300	81.99	0.00006440	0.04155	0.2482	0.3694

Gauge				Diameter		Sectional Area			Weight	
B.W.G.	A.W.G.	S.W.G.	mm.G	Mil	mm.	Cir.Mil	in^2	mm^2	lb/1,000 ft	kg/km
32	-	-	-	9	0.2286	81.102	0.00006362	0.04104	0.2452	0.3649
-	31	-	-	8.928	0.2238	79.71	0.00006260	0.04039	0.2413	0.3591
-	-	35	-	8.4	0.2134	70.56	0.00005542	0.03575	0.2136	0.3178
33	-	-	-	8	0.2032	64	0.00005027	0.03243	0.1937	0.2883
-	32	-	-	7.950	0.2019	65.20	0.00004964	0.03203	0.1913	0.2847
-	-	-	0.20	7.874	0.2000	62	0.00004869	0.03142	0.1877	0.2793
-	-	36	-	7.6	0.1930	57.76	0.00004536	0.02927	0.1748	0.2602
-	-	-	0.18	7.087	0.1800	50.23	0.00003945	0.02545	0.1520	0.2263
-	33	-	-	7.080	0.1798	50.13	0.00003937	0.02540	0.1517	0.2258
34	-	-	-	7.	0.1778	49	0.00003848	0.02483	0.1483	0.2207
-	-	37	-	6.8	0.1727	46.24	0.00003632	0.02343	0.1400	0.2083
-	34	-	-	6.305	0.1601	39.75	0.00003122	0.02014	0.1203	0.1790
-	-	-	0.16	6.299	0.1600	39.68	0.00003116	0.02011	0.1201	0.1788
-	-	38	-	6	0.1524	36	0.00002827	0.01824	0.1090	0.1622
-	35	-	-	5.615	0.1426	31.53	0.00002476	0.01597	0.09543	0.1420
-	-	-	0.14	5.512	0.1400	30.38	0.00002386	0.01539	0.09196	0.1368
-	-	39	-	5.2	0.1321	27.04	0.00002124	0.01370	0.08186	0.1218
35	36	-	-	5.000	0.1270	25	0.00001963	0.01267	0.07565	0.1126
-	-	40	-	4.8	0.1219	23.04	0.00001810	0.01167	0.06976	0.1037
-	-	-	0.12	4.724	0.1200	22.32	0.00001753	0.01131	0.06756	0.1006
-	37	-	-	4.453	0.1131	19.83	0.00001557	0.01005	0.06001	0.08934
-	-	41	-	4.4	0.1118	19.36	0.00001521	0.009810	0.05812	0.08721
36	-	42	-	4	0.1016	16.00	0.00001257	0.008107	0.04845	0.07207
-	38	-	-	3.965	0.1007	15.72	0.00001235	0.007968	0.04760	0.07084
-	-	-	0.10	3.937	0.1000	15.50	0.00001217	0.007854	0.04690	0.06982
-	-	43	-	3.6	0.09114	12.96	0.00001018	0.006567	0.03923	0.05838
-	39	-	-	3.531	0.08969	12.47	0.000009794	0.006319	0.03775	0.05618
-	-	44	-	3.2	0.08138	10.24	0.000008042	0.005819	0.03099	0.04613
-	40	-	-	3.145	0.07987	9.891	0.000007768	0.005012	0.02994	0.04456
-	41	45	-	3.800	0.07113	7.842	0.000006159	0.003973	0.02374	0.03532
-	42	-	-	2.494	0.06334	6.219	0.000004884	0.003151	0.01882	0.02801
-	-	46	-	2.4	0.06096	5.760	0.000004528	0.002929	0.01744	0.02595
-	43	-	-	2.221	0.05641	4.932	0.000003873	0.002495	0.01498	0.02222
-	-	47	-	2	0.05080	4.000	0.000003142	0.002027	0.01211	0.01802
-	44	-	-	1.987	0.05023	3.911	0.000003072	0.001982	0.01184	0.01762
-	-	-	0.05	1.969	0.05000	3.877	0.000003045	0.001963	0.01174	0.01745
-	45	-	-	1.761	0.04473	3.102	0.000002436	0.001572	0.009383	0.01398
-	-	48	-	1.6	0.04064	2.560	0.000002011	0.001297	0.007750	0.01153
-	46	-	-	1.568	0.03984	2.460	0.000001931	0.001246	0.007446	0.01108
-	47	-	-	1.397	0.03547	1.951	0.000001532	0.0009884	0.005904	0.008787
-	48	-	-	1.224	0.03159	1.547	0.000001215	0.0007838	0.004683	0.006968
-	-	49	-	1.2	0.03048	1.440	0.000001131	0.0007297	0.004359	0.006487
-	49	-	-	1.108	0.02813	1.227	0.000009635	0.0006216	0.003713	0.005526
-	-	50	-	1	0.02540	1.000	0.000007854	0.0005067	0.003027	0.004505
-	50	-	-	0.986	0.02505	0.9728	0.000007641	0.0004929	0.002945	0.004382

NOTE
B.W.G. - Birmingham Iron Wire Gauge
A.W.G. - American Wire Gauge
S.W.G. - British Standard Wire Gauge
mm.G. - Millimeter Gauge

YAZAKI

Continuous Current Rating
for Each Condition of Wires & Cables

1. Maximum allowable current carrying capacities for the insulated cables installed in location where the ambient temperature is not exceed 40°C shall not be less than those stated in the tables.

2. In location where the ambient temperature differ from 40°C (Install in free air) and 30°C (Install in ground). The multiplier in the table below shall be used to obtain the maximum allowble current carrying capacities.

Temperature (°C)	Multiplier			
	In air (Ambient temperature 40 °C) Insulation grade		In ground (Ambient temperature 30 °C) Insulation grade	
	70 °C	90 °C	70 °C	90 °C
21-25	1.23	1.14	1.06	1.04
26-30	1.16	1.09	1	1
31-35	1.08	1.05	0.94	0.96
36-40	1	1	0.87	0.91
41-45	0.91	0.95	0.79	0.87
46-50	0.82	0.89	0.71	0.82
51-55	0.71	0.84	0.61	0.77
56-60	0.58	0.78	0.5	0.71
61-65	0.41	0.71	0.35	0.65
66-70	-	0.63	-	0.58
71-75	-	0.54	-	0.5
76-80	-	0.45	-	0.41
81-85	-	0.32	-	0.29
86-90	-	-	-	-

3. In a single conduit where the conductors are installed, the allowable ampacity of each conductor shall be reduced as shown in the following table.

Number of Core	Multiplier
4-6	0.82
7-9	0.72
10-20	0.56
21-30	0.48
31-40	0.44
Over - 40	0.38

Remark : For multicore cables, the number of core is counted as number of wire by excepting the ground.
* Ref to MEA (Metropolitan Electricity Authority)

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Temperature Correction Factors for
Conductor Resistance

Factors for correcting resistances at various temperatures of conductor to the standard reference temperature of 20 °C and reciprocals of the factors for calculating resistances at other temperatures from the value at 20 °C

Temperature °C	Correction Factor		Reciprocal of Factor	
	Copper	Aluminum	Copper	Aluminum
0	1.085	1.088	0.921	0.919
5	1.063	1.064	0.941	0.940
10	1.041	1.042	0.961	0.960
15	1.020	1.021	0.980	0.980
20	1.000	1.000	1.000	1.000
25	0.981	0.980	1.020	1.020
30	0.962	0.961	1.039	1.040
35	0.944	0.943	1.059	1.060
40	0.927	0.925	1.079	1.081
45	0.911	0.908	1.098	1.101
50	0.895	0.892	1.118	1.121
55	0.879	0.876	1.138	1.141
60	0.864	0.861	1.157	1.161
65	0.850	0.846	1.177	1.181
70	0.836	0.832	1.197	1.202
75	0.822	0.819	1.216	1.222
80	0.809	0.805	1.236	1.242
85	0.797	0.792	1.255	1.262
90	0.784	0.780	1.275	1.282

The correction factor is given by:

$$k = \frac{1}{k_1} = \frac{1}{1 + \alpha(\theta - 20)}$$

Where :

k = temperature correction factor of conductor

k_1 = reciprocal of k

α = constant mass temperature coefficient at 20 °C per °C
= 0.00393 for copper (based on 100% conductivity)
= 0.00403 for aluminum (based on 61% conductivity)

θ = referred temperature, °C

Condition of Installation

Minimum Bending Radius

D : Overall diameter of cable

Type of cable \ Number of core		Single core: Round conductor	Single core: Sector shape conductor	Multi-cores
PVC & PE Sheath	Unshield cable	8D	12D	6D
	Shield cable	10D	12D	8D
Wire armoured cable		10D	12D	10D
Lead sheathed		10D	12D	10D
Corrugated metal armouredcable		-	-	8D
Flattape armoured cable		-	-	8D
Al. flat sheathed cable		20D	20D	20D
Al. corrugated sheathed cable		15D	15D	15D
Al. solidconductor		-	-	10D
Cabtyre cable		6D	-	4D

Permissible maximun pulling tension

Unit : kgf.

Pulling tool	Material of conductor	Permissible maximun pulling tension
Pulling eye	Copper	7 x (Number or core) x (Cross-sectional area of conductor)
	Aluminium	4 x (Number of core) x (Cross-sectional area of conductor)
Cable grip	Copper & Aluminium	The same as using the pulling eye, but the maximum tension should be less than 1.5 tons.

Note : When cable grip is used is should cover more than 500 mm. in length of the cable end and be bound to the cable sheath

AC/DC Resistance Ratios

The AC/DC resistance ratio of the conductor is given by the following formula.

$$k_2 = 1 + \lambda_s + \lambda_p$$

Where :

k_2 = AC/DC resistance ratio of conductor

λ_s = skin effect factor

λ_p = proximity effect factor

The skin effect factor is given by;

$$\lambda_s = \frac{X^4}{192 + 0.8\,X^4}$$

Where :

$$X = \sqrt{\frac{8\pi f}{R_O\, k_1 \times 10^4}}$$

f = supply frequency, Hz

R_O = DC resistance of conductor at 20 °C, Ω/km

k_1 = reciprocal factor of temperature correction factor

The proximity effect factor is given by;

$$\lambda_p = \frac{X'^4}{192 + 0.8\,X'^4}\left(\frac{d_1}{s}\right)^2 \left\{ 0.312\left(\frac{d_1}{s}\right)^2 + \frac{1.18}{\dfrac{X'^4}{192 + 0.8\,X'^4} + 0.27} \right\}$$

Where :

$X' = \sqrt{0.8}\,X$

d_1 = diameter of conductor, mm

s = distance between conductor axis, mm

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Properties of Insulation and Jacket Materials

Resistance to Industrial Chemicals

Reagent	BR	CR	ERC	PVC	PE	XLPE	NYLON	Reagent	BR	CR	ERC	PVC	PE	XLPE	NYLON
	Relative Rating								Relative Rating						
Acetone	◎	○	◎	×	◎	◎	○	Chlorine Gas	△	△	×	×	×	×	◎
Aniline	○	×	○	○	○	○		Ozone	○		○	○	◎	◎	×
Ethanol	◎	◎	◎	△	○	○	○	Bromine	×	×	×	×	×	×	
Ethyleneglycol	○	◎	○	△	◎	◎	○	Nirtic Acid, conc.	×	×	×	×	△	△	×
Xylene	×	×	×	×	○	○	○	Nitric Acid, 10%	×	×	△	○	○	○	△
Glycerin	◎	◎	◎	○	◎	◎	○	Fuming Nitric Acid	×	×		×	×	×	
Cresol	○	△	○	△	○	○	×	Tap Water	◎	◎	◎	◎	◎	◎	◎
Chloroform	×	×	×	×	△	△	×	Sea Water	○	◎	◎	◎	◎	◎	
Acetic Acid, conc.	○	△	○	×	○	○	△	Sulfuric Acid, conc.	×	×	×	△	△	△	×
Acetic Acid, 10%	○	×	○	△	◎	◎	○	Sulfuric Acid, 10%	○	○	○	◎	○	○	○
Ethyl Acetate	○	×	△	×	○	○	○	Phosphoric Acid	○	△	○	×	◎	◎	○
Carbon Tetrachloride	×	×	×	×	×	×	△	Sodium Hydroxide, 10%	○	○	○	○	○	○	◎
Cyclohexane	△	×	×		△	△		Freon	×	×		○	○	○	
Dioctyl Phthalate	◎	×		×				Formic Acid	△	×		○	○	○	◎
Trichloroethylene	×	×	×	△	△	△	△	JIC No.1 Oil (OF Oil)	×	△	×	△	○	○	
Trichlorobenzene	×	×	×		△	△		ASTM No.1 Oil	○	○	△	△	○	○	
Toluene	×	×	×	×	△	△	○	ASTM No.2 Oil	△	○	△	△	○	○	
Carbon Disulfide	×	×	×	△	○	○		ASTM No.3 Oil	×	△	×	△	△	△	
Phenol	○	△	○	×	○	○	×	Gasoline	×	△	×	×	○	○	○
Furfural	◎	○	◎	△	◎	◎		Creosote Oil	△	×	×	×	△	△	
Hexane	×	△	×	△	○	○		JIS No.2 Oil	×	×	×	△	○	○	
Benzene	×	×	×	×	△	△	○	Heavy Oil	×	×	×	△	△	△	
Methanol	◎	◎	◎	×	○	○	△	Lube Oil	×	△	△	△	△	△	○
Methyl Ethyl Ketone	△	×	△	×	○	○		Silicone Oil	◎	◎	◎	○	◎	◎	
Dioxane				×	○	○		Vegetable Oil	◎	◎	○		◎	◎	
Nitrobenzene	○	×	○	×	○	○		Petroleum Ether	△	△		×	◎	◎	
Formaline	○	○		○	○	○	△	Trans Oil	×	△	×	○	○	○	
Ammonia, conc.	○	△	○	△	○	○	○	Naphtha	×	×	×	○	○	○	○
Ammonia,10%	○	△	○	○	○	○	◎	Coal Tar					○	○	
Sodium Chloride	○	○	○	○	◎	◎	◎								
Hydrochloric Acid, conc.	○	○	○	△	○	○	×								
Hydrochloric Acid, 10%	◎	○	○	○	◎	◎	○								

Where : ◎ : High Resistance ○ : Fair Resistance
× : Not Applicable △ : Poor Resistance, care on use

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Properties Of Insulation And Jacket Materials

General Comparison Data

Material		Polyvinyl Chloride	Low Density Polyethylene	Cross-liked Polyethylene	Polyisoprene	Styrene Butadiene Copolymer	Polyisprene	Chlorosulphonated Polyethylene
Designation		PVC	PE	XLPE	NR	SBR	CR	CSM
Chemical structure		$-(CH_2-\underset{Cl}{CH})_n-$	$-(CH_2-CH_2)_n-$	$\sim CH_2-CH-CH_2\sim$ / $\sim CH_2-CH-CH_2\sim$	$-(CH_2-\overset{CH_3}{C}=CH-CH_2)_n-$	$-[(CH_2-CH=CH-CH_2)_x-(CH_2-\underset{C_6H_5}{CH})_y]_n-$	$-(CH_2-\overset{Cl}{C}=CH-CH_2)_n-$	$-[(CH_2)_x-\overset{Cl}{CH}-(CH_2)_y-\underset{SO_2Cl}{CH}]_n-$
Density		1.3 - 1.5	0.91-0.93	0.91 - 0.93	0.93 - 0.94	0.93 - 0.94	1.15 - 1.23	1.10
Hardness (Shore)		D30 - 90	D45 - 60		30 - 90	10 - 95	20 - 90	50 - 90
Max. Operating Temp.	°C	70	75	90	60	75	80	90
Emergency Temp. Rating	°C	85	90	130	85			
Short Circuit Temp. Rating	°C	120	150	250	150			
Brittleness Temp.	°C	~ - 40	< - 70	< - 70	-55 ~ -58	-30 ~ -65	-30 ~ -50	-20 ~ -50
Softening Temp.	°C	120 - 140	100 - 115					
Thermal Expansion	/°C	$0.7 - 2.5 \times 10^{-4}$	$1.6 - 1.8 \times 10^{-4}$	$1.6 - 1.8 \times 10^{-4}$	1.8×10^{-4}	1.8×10^{-4}	1.9×10^{-4}	1.8×10^{-4}
Thermal Conductivity Cal / cm•sec•	°C	$3.0 - 4.0 \times 10^{-4}$	8.0×10^{-4}	8.0×10^{-4}	5.1×10^{-4}	5.8×10^{-4}	5.6×10^{-4}	6.3×10^{-4}
Specific Heat	Cal /°C•g	0.3 - 0.5	0.55	0.55	0.52	-	0.52	
Tensile Strength	kg / mm²	1.5 - 2.5	1.5 - 2.0	1.8 - 3.0	0.8 - 3.0	0.4 - 3.0	0.7 - 3.0	0.5 - 2.0
Elongation	%	200 - 400	300 - 700	300 - 700	300 - 700	100 - 700	400 -900	100 - 500
Abrasion Resistance		Excellent	Good	Excellent	Good	Good	Good	Good
Voltage Breakdown	kv / mm	20 - 30	30 - 50	30 - 50	16 - 32	16 - 30	15 - 25	16 - 32
Volume Resistivity	Ω* cm	$10^{12} - 10^{15}$	$>10^{16}$	$>10^{16}$	10^{15}	$10^{14} - 10^{15}$	$10^{10} - 10^{12}$	$10^{13} - 10^{14}$
Dielectric Constant		5.7	2.2 - 2.4	2.2 - 2.4	3 - 5	3 - 5	7 - 10	
Dissipation Factor (tan δ)		0.1 - 0.03	<0.0005	<0.0005	0.3 - 0.5	2 - 5	1.7 - 4	-
Weathering		Good	Inferior*	Inferior*	Poor	Poor	Excellent	Good
Ozone Resistance		Excellent	Excellent	Excellent	Poor	Inferior	Good	Good
Flame Resistance		Self - Extinguish	Burns	Burns	Burn	Burn	Self - Extinguish	Self - Extinguish
Track Resistance		Inferior	Excellent	Excellent	Fair	Fair	Inferior	Good
Water Resistance		Fair	Excellent	Excellent	Fair	Fair	Fair	Fair
Acid Resistance		Excellent	Good	Good	Good	Fair	Excellent	Good
Alcari Resistance		Excellent	Excellent	Excellent	Good	Good	Excellent	Excellent
Oil Resistance		Good	Excellent	Excellent	Poor	Inferior	Good	Fair
Solvent Resistance		Fair	Excellent	Excellent	Inferior	Inferior	Fair	Fair

* Improved to "good" with mixture of carbon black.

Properties Of Insulation And Jacket Materials

General Comparison Data (Continued)

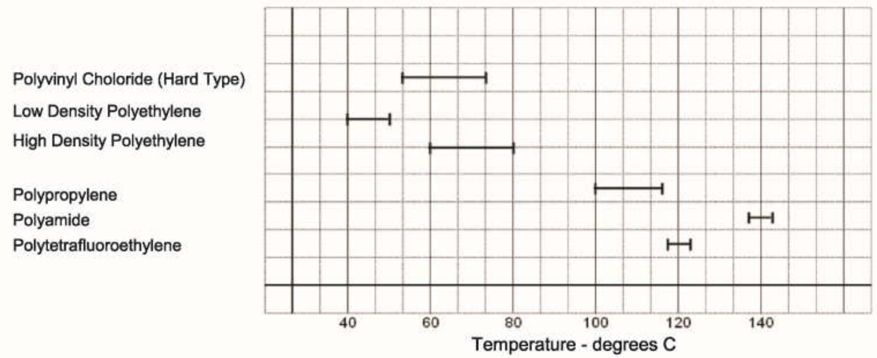
Material		Ethylene Propylene Copolymer	Hexafluoropropylene Vinylidenefluoride Copolymer	Polyorganosiloxane	Polypropylene	Polytetra Fluoroethylene	Polychloro Trifluoroethylene	Polyamide
Designation		EPM, EPDM	FPM	Q	PP	PTFE	PCTFE	Nylon(12)
Chemical structure		$-[(CH_2-CH_2)_x-(CH(CH_3)-CH_2)_y]_n-$	$[(CF(CF_3)-CF_2)_x(CH_2-CF_2)_y]_n$	$-(Si(R)(R)-O)_n-$	$-(CH_2-CH(CH_3))_n-$	$-(CF_2-CF_2)_n-$	$-(CF_2-CFCl)_n-$	$-[HN(CH_2)_{11}C(=O)]_n-$
Density		0.86 - 0.87	1.82 - 1.85	0.97 - 1.40	0.9 - 0.915	2.13 - 2.2	2.1	1.01 - 1.02
Hardness (Shore)		40 - 85	60 - 90	50 - 85	R85 - 110	D50 - 65	R110 - 115	R100 - 110
Max. Operating Temp.	°C	90	200	180	80	260	180	90
Emergency Temp. Rating	°C							
Short Circuit Temp. Rating	°C				150	310		120
Brittleness Temp.	°C	-40 ~ -60	-44 ~ -60	-70 ~ -100		< - 70	< - 70	- 70
Softening Temp.	°C						210	170 - 180
Thermal Expansion	/°C		1.6×10^{-4}	2.6×10^{-4}	$6.0 - 8.5 \times 10^{-4}$	1.0×10^{-5}	$4.5 - 7.0 \times 10^{-5}$	12×10^{-5}
Thermal Conductivity Cal / cm•sec•	°C		5.5×10^{-4}	5.7×10^{-4}	2.8×10^{-4}	6×10^{-4}	6×10^{-4}	$5.9 - 8.3 \times 10^{-4}$
Specific Heat	Cal /°C•g				0.46	0.25	0.22	0.62
Tensile Strength	kg / mm²	0.5 - 1.5	1.5 - 2.5	0.3 - 1.0	2.0 - 4.0	1.4 - 2.1	2.8 - 3.5	5.0 - 6.0
Elongation	%	300 - 700	200 - 600	50 - 300	200 - 700	200	10 - 100	180 - 285
Abrasion Resistance		Good	Good	Fair	Excellent	Excellent	Excellent	Excellent
Voltage Breakdown	kv / mm	20 - 35	24	20 - 40	20 - 32	15 - 30	10 - 20	20 - 30
Volume Resistivity	Ω* cm	$10^{14} - 10^{15}$	$10^{12} - 10^{14}$	$10^{14} - 10^{15}$	$>10^{16}$	$>10^{18}$	$1.2 - 10^{18}$	$10^{14} - 10^{15}$
Dielectric Constant		3 - 5	6 - 7	3 - 4	2.0 - 2.2	2.0	2.24 - 2.8	3.5 - 4.5
Dissipation Factor (tan δ)		0.2 - 0.8		0.1 - 1.0	0.0002 - 0.0006	<0.0002	0.0012 - 0.0036	0.03 - 0.06
Weathering		Excellent	Good	Good	Inferior*	Excellent	Excellent	Inferior*
Ozone Resistance		Excellent	Good	Excellent	Excellent	Excellent	Excellent	Good
Flame Resistance		Burn	Self - Extinguish	Burn	Burn	No Burn	No Burn	Burn
Track Resistance		Excellent	Fair	Excellent	Excellent	Excellent	Excellent	Good
Water Resistance		Good	Excellent	Fair	Excellent	Excellent	Excellent	Excellent
Acid Resistance		Excellent	Excellent	Poor	Excellent	Excellent	Excellentt	Good
Alcari Resistance		Excellent	Excellent	Good	Excellent	Excellent	Excellent	Excellent
Oil Resistance		Inferior*	Excellent	Fair	Excellent	Excellent	Excellent	Excellent
Solvent Resistance		Poor	Excellent	Fair	Excellent	Excellent	Excellentt	Good

* Improved to "good" with mixture of carbon black.

Properties of Insulation and Jacket Materials

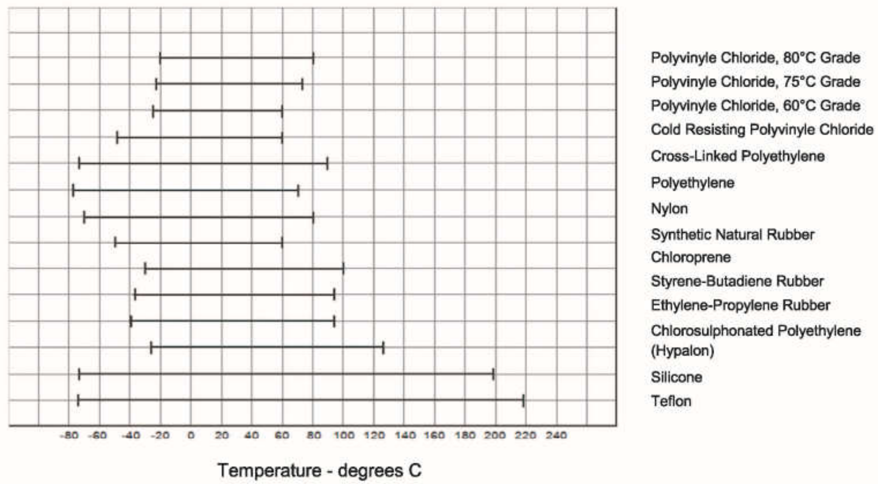
Thermal Properties

Deflection temperature of plastics under load [ASTM D648]



Operating Temperature

[Max. point : Max Continuous Operating Temperature
Min.point : Brittleness Temperature]



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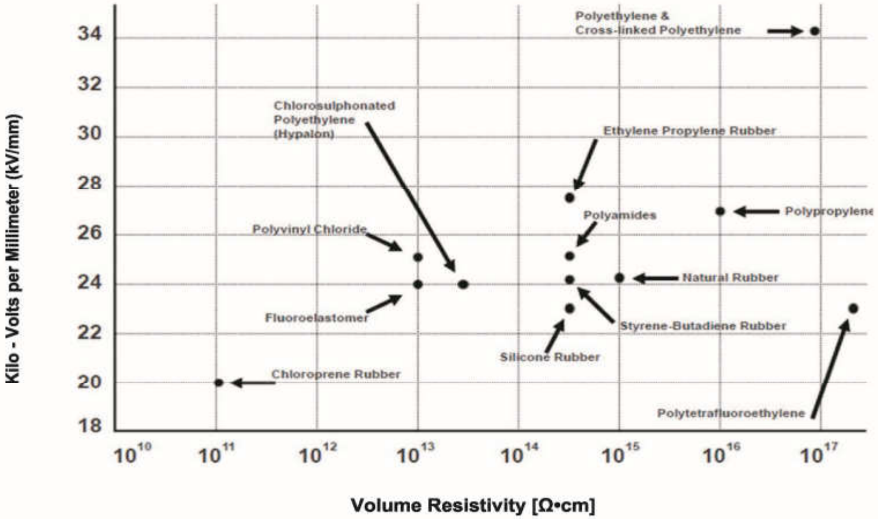
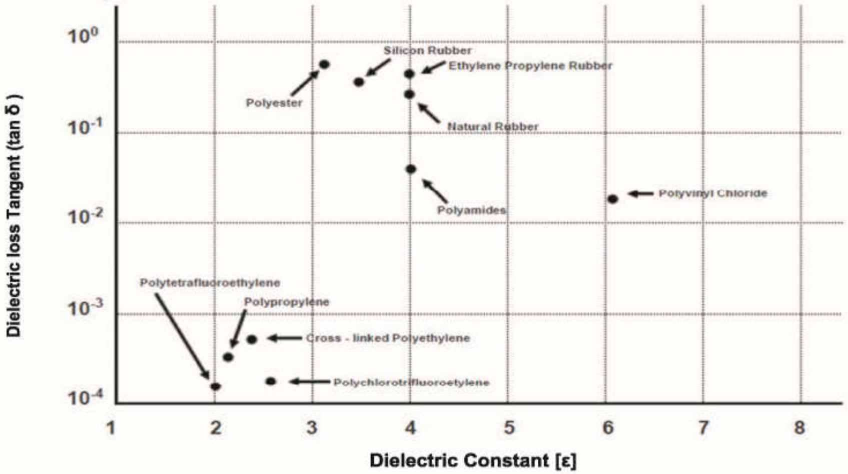
Properties of Insulation and Jacket Materials

Electrical Properties





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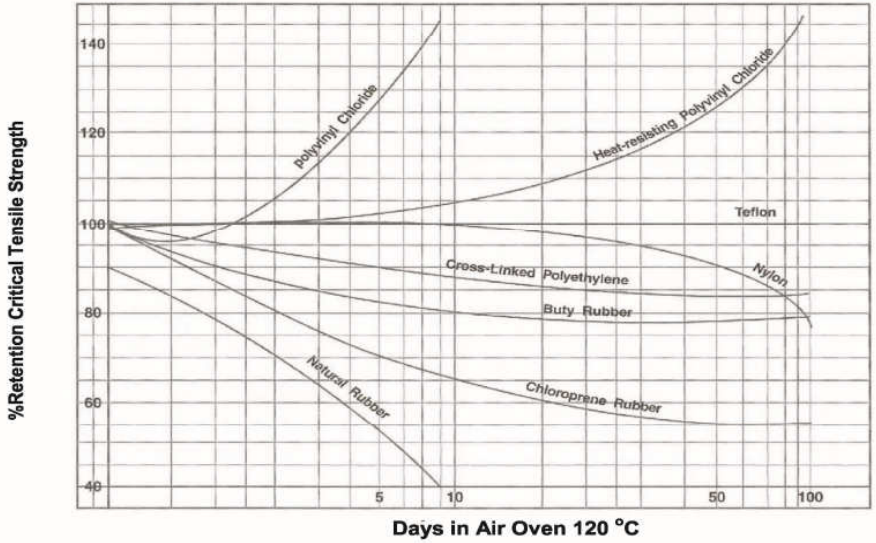
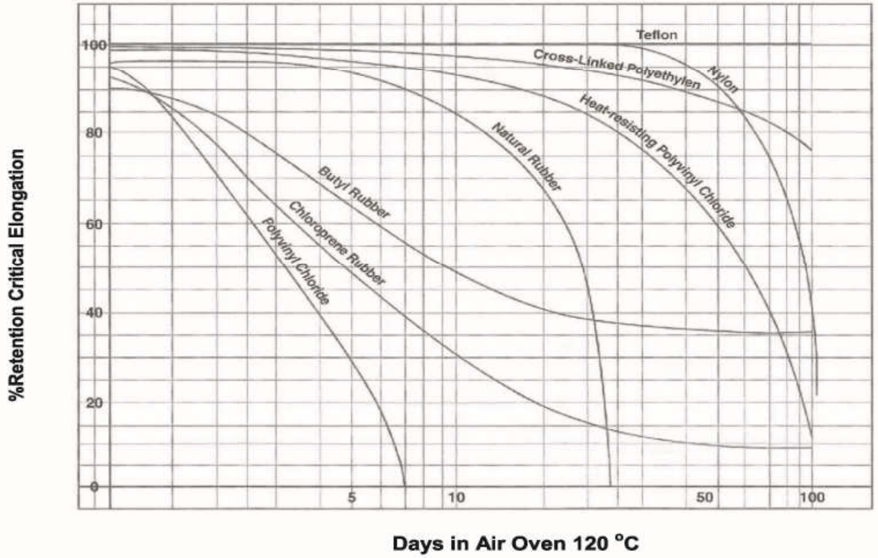
Properties of Insulation and Jacket Materials

Long - Time Heat Aging Curves





Symbols of Electrical Units

Electrical Unit		Symbol
CURRENT	(AMPERE)	A
VOLTAGE	(VOLT)	V (kV)
RESISTANCE	(OHM)	Ω (kΩ- MΩ)
ELECTRIC POWER	(WATT)	W (kW, MW.)
ELECTRIC ENERGY	(WATT HOUR)	Wh (kWh.)
HORSE POWER		HP
POWER FACTOR	(COS Ø)	P.F.
FREQUENCY	(HERTZ)	Hz
CAPACITANCE	(FARAD)	F (μF , pF.)
APPARENT POWER	(VOLTAMPERE)	VA (kVA)
DIRECT CURRENT		DC
ALTERNATING CURRENT		AC
EFFICENCY		Eff.
MAXIMUM VALUES	(VOLTAMPERE)	Em, Im
AVERAGE VALUES	(VOLTAMPERE)	Eav, Iav
EFFECTIVE VALUES	(VOLTAMPERE)	E. I
INSTANTANEOUS VALUES	(VOLTAMPERE)	e, I

Electrical Formulas

Electrical formulas for determining Ampere, Kilowatt, Kilovolt - Ampere and Horse Power

Direct Current	Alternating Current	
	Single Phase	Three Phase
$A = \frac{kW \times 1000}{V}$	$A = \frac{kW \times 1000}{V \times P.F.}$	$A = \frac{kW \times 1000}{1.73 \times V \times P.F.}$
$A = \frac{kVA \times 1000}{V}$	$A = \frac{kVA \times 1000}{V}$	$A = \frac{kVA \times 1000}{1.73 \times V}$
$A = \frac{HP \times 746}{V \times (\%Eff.)}$	$A = \frac{HP \times 746}{V \times (\%Eff.) \times P.F.}$	$A = \frac{HP \times 746}{1.73 \times V \times (\%Eff.) \times P.F.}$
$kW = \frac{A \times V}{1000}$	$kW = \frac{A \times V \times P.F.}{1000}$	$kW = \frac{A \times V \times 1.73 \times P.F.}{1000}$
$kVA = \frac{A \times V}{1000}$	$kVA = \frac{A \times V}{1000}$	$kVA = \frac{A \times V \times 1.73}{1000}$
$HP = \frac{A \times V \times (\%Eff.)}{746}$	$HP = \frac{A \times V \times (\%Eff.) \times P.F.}{746}$	$HP = \frac{A \times V \times 1.73(\%Eff.) \times P.F.}{746}$

APPROXIMATE MOTER AMPERES PER TERMINAL

	220 V ac = 4	amperes per H.P.
3 phase	200 V ac = 2.5	amperes per H.P.
3 phase	380 V ac = 1.41	amperes per H.P.
3 phase	440 V ac = 1	amperes per H.P.
3 phase	550 V ac = 1	amperes per H.P.

Standard Coefficient of Conversion

Items		Descriptions			
1. LENGTH	1 micron	= 0.001 mm	= 3.94 x 10^{-5} in.		
	1 mil	= 0.0254 mm	= 0.001 in		
	1 mm	= 39.37 mils	= 0.03937 in.		
	1 cm	= 0.3937 in	= 0.0328 ft.		
	1 inch	= 25.4 mm	= 0.083 ft.	= 0.0278 yd.	= 2.54 cm.
	1 feet	= 0.305 m	= 0.33 yd.		
	1 yard	= 0.914 m	= 91.44 cm.		
	1 meter	= 39.37 in	= 3.28 ft.	= 1.094 yd.	
	1 kilometer	= 3,281 ft.	= 1,094 yd.	= 0.6213 mile	
	1 mile	= 5,280 ft.	= 1,760 yd.	= 1,609 m	= 1.609 km
2. AREA	1 MCM	= 1000 CM	(Circular Mil)	= 0.5067 mm^2	= 1/1000in^2
	1 CM	= 0.0005067 mm^2	= 0.0000007854 in^2		= 0.7854 sq. mil.
	1 mm^2	= 1973 CM	= 0.00155 in^2	= 1,550 sq. mil.	
	1 in^2	= 1273240 CM	= 645.1 mm^2	= 0.0069 $ft.^2$	
	1 yd^2	= 1,296 in^2	= 0.83613 m^2		
	1 m^2	= 1,550 in^2	= 10.7 $ft.^2$	= 1.195 $yd.^2$	
	1 km^2	= 0.001562 $mile^2$			
	1 $mile^2$	= 27,880,000 $ft.^2$	= 3,098,000 $yd.^2$	= 2,590,000 m^2	= 2.59 km^2
3. VOLUME	1 cm^3	= 0.061 in^3			
	1 in^3	= 16.39 cm^3	= 0.0036 gal.	= 0.0005787 $ft.^3$	
	1 l	= 1,000 cm^3	= 61.023 in^3	= 0.2642 gal	= 0.03531 $ft.^3$
	1 gal.	= 3,785 cm^3	= 231 in^3	= 0.1337 $ft.^3$	= 0.004951 $yd.^3$
	1 $ft.^3$	= 28,317 cm^3	= 1,728 in^3	= 28.32 l.	= 7.48 gal
	1 yd^3	= 46,656 in^3	= 0.7646 m^3		
	1 m^3	= 61,023 in^3	= 35.31 $ft.^3$	= 1.308 yd^3	
4. WEIGHT	1 g.	= 15.43 gr.	= 0.03527 oz.	= 0.002205 lb.	
	1 oz.	= 437.5 gr.	= 28.35 g.	= 0.0625 lb.	
	1 lb.	= 7,000 gr.	= 453.6 g.	= 16 oz.	= 0.4536 kg.
	1 kg.	= 15,432 gr.	= 35.27 oz.	= 2.205 lb.	
	1 ton (short)	= 2,000 lb.	= 907.2 kg.	= 0.8928 ton (long)	
	1 ton (long)	= 2,240 lb.	= 1.12 ton (short)	= 1.016 ton (metric)	
	1 ton (metric)	= 2,204.62 lb.			
5. ENERGY	1 Btu.	= 1,055 joules	= 778.1 ft.-lb	= 252 g-cal.	= 107.6 kg.-m.
		= 0.2930 watt-hr.			
	1 watt-hr.	= 3,600 joules	= 2,655.4 ft. -lb.	= 860 g-cal.	= 367.1 kg.-m.
		= 3.413 B.t.u.	= 0.001341 hp.-hr.		
	1 hp.-hr.	= 2,684,000 joules	= 1,980,000 ft.-lb.	= 273,700 kg.-cm.	
		= 745.6 watt-hr.			
	1 kw-hr.	= 2,655,000 ft.-lb.	= 367,100 kg.-m.	= 1.34 hp.-hr.	
6. POWER	1 watt	= 44.26 ft.-lb./min	= 6.199 kg-m/min	= 0.001341 hp.	
	1 hp	= 33,000 ft.-lb./min		= 745.6 watts	= 550 ft.-lb./sec.
		= 76.04 kg-m/sec			
	1 kw.	= 44,256.7 ft-lb./min		= 101.979 kg-m/sec.	= 1.341 hp.
		= 1,000 watts.			
7. TEMPERATURE	Temp °C	= 5/9 (temp °F-32)			
	Temp °F	= (9/5 x temp °C) +32			

Conductivity And Density of Metals

Kind	Symbol	Conductivity at 20 °C (% IACS)	Density (g/cm³)
SILVER	Ag	108.6	10.50
STANDARD COPPER	Cu	100.0	8.89
(ANNEALED)			
GOLD	Au	72.5	19.30
ALUMINIUM	Al	61.0	2.70
IRON	Fe	13.0	7.78
TIN	Sn	12.2	7.29
STEEL	-	11.6	7.78

Conductor Materials

Material	Specific resistance 20 °C			Temperature coefficient, 20 °C	Density (g/cm³)
	μΩ-cm	μΩ-in.	Ω-cmil/ft		
Annealed copper	1.724	0.6788	10.37	0.00393	8.89
Hard-drawn copper	1.79	0.695	10.77	0.00378	8.89
Annealed aluminium	2.82	1.113	17.0	0.0039	2.7
Hard-drawn aluminium	2.92	1.15	17.5	0.0038	2.7
Pure iron	10.0	3.93	60.0	0.006	7.86
Steel wire	10.7-17.5	4.2-6.9	64-106	0.006-0.00036	7.78
Cast iron	75-100	29.5-39.4	450-600	0.001-0.00074	7.32

Table of The Dimensions for The Motor Starters

The figures are based on normal 3 - phase motors for a.c. at 50 c.p.s. 1400 - 1450 r.p.m.

Motor ratings in HP at service voltage						Rating of motor starter (A)	Relay setting (A)	Max. quick-blow back-up fuse (A)	Min cross section of cables (mm^2)
220 V		380 V		440 V					
HP	Full load current (A)	HP	Full load current (A)	HP	Full load current (A)				
		0.05		0.05		15	0.15 - 0.25	1	1.5
0.05		0.1		0.1		15	0.25 - 0.4	2	1.5
		0.15		0.20		15	0.4 - 0.65	4	1.5
0.1		0.2		0.25	0.5	15	0.4 - 0.65	4	1.5
0.15		0.25	0.6	0.50	0.9	15	0.6 - 1	6	1.5
0.25	1.1	0.5	1.0			15	1.0 - 1.6	6	1.5
		0.75	1.5	0.75	1.2	15	1.0 - 1.6	6	1.5
0.5	1.8	1.0	1.9	1.0	1.6	15	1.5 - 2.5	15 (10)	1.5
0.75	2.5	1.5	2.6	2	3.2	15	2.5 - 4	25 (15)	1.5
1.0	3.2	2	3.4	2.5	3.9	15	2.5 - 4	25 (15)	1.5
1.5	4.4	2.5	4.2	3	4.5	15	4 - 6.5	25 (20)	1.5
2.0	5.8	3	4.9	4	6.0	15	4 - 6.5	25 (20)	1.5
2.5	7.3	4	6.3	5	7.5	15	6 - 10	35 (25)	1.5
3	8.4	5	7.8	6	8.5	15	6 - 10	35 (25)	1.5
4	11	6	9.3	7.5	11.0	15	9 - 14	35	1.5
5	13.5	7.5	11.5			15	9 - 14	35	1.5
		10	15	10	14	25	13 - 20	60	2.5
7.5	19.5	15	22	15	21	25	16 - 25	60	4
10	26	20	29	20	27	60	20 - 31	100	6
15	39	25	36	30	39	60	28 - 43	125	10
20	51	30	42			60	40 - 60	160	16
		35	50	35	46	60	40 - 60	160	16
		40	56	40	52	60	40 - 60	160	16
25	63	50	69	50	65	100	50 - 75	200	16
35	91	60	83	60	76	100	70 - 100	200	25
40	100	75	104	75	96	200	84 - 120	400	35
50	125	100	136	100	125	200	105 - 150	500	50
75	184	125	167	125	155	200	140 - 200	500	95
		150	200	150	180	350	175 - 250	600	120
100	245	175	235	175	215	350	175 - 250	600	120
120	295	200	268	200	240	350	210 - 300	850	150
150	370	250	335	250	300	600	280 - 400	850	240
175	425	300	400	300	360	600	350 - 500	1000	400
200	475	350	470	350	410	600	350 - 500	1000	400
225	540	400	535	400	450	600	420 - 600	1000	

Figures in brackets apply to hand operated motor starters.

Copper Conductor Cables

Building Wires and Cables

TIS 11 Part 3-2553 : Non-Sheathed Cables for Fixed Wiring

60227 IEC 01 THW

TIS 11 Part 3-2553

450/750 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED, SINGLE CORE

CABLE STRUCTURE

Conductor : Solid and stranded annealed copper, Size 1.5 mm^2 up to 400 mm^2

Insulation : Polyvinyl chloride (PVC/C)

Core identification

Single-core : Any color

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts

Reference standard : TIS 11 Part 3-2553, Table 1

APPLICATION

Building wiring for installation on insulator or in raceway, dry location.

Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Overall diameter		Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
			Minimum (mm)	Maximum (mm)					
1.5	1	0.7	2.6	3.2	12.1	0.011	21	21	100/C
1.5	2	0.7	2.7	3.3	12.1	0.010	21	22	100/C
2.5	1	0.8	3.2	3.9	7.41	0.010	29	32	100/C
2.5	2	0.8	3.3	4.0	7.41	0.009	29	35	100/C
4	1	0.8	3.6	4.4	4.61	0.0085	39	47	100/C
4	2	0.8	3.8	4.6	4.61	0.0077	39	50	100/C
6	1	0.8	4.1	5.0	3.08	0.0070	49	65	100/C
6	2	0.8	4.3	5.2	3.08	0.0065	49	70	100/C
10	1	1.0	5.3	6.4	1.83	0.0070	69	110	100/C
10	2	1.0	5.6	6.7	1.83	0.0065	69	120	100/C
16	2	1.0	6.4	7.8	1.15	0.0050	92	180	100/C
25	2	1.2	8.1	9.7	0.727	0.0050	125	280	100/C
35	2	1.2	9.0	10.9	0.524	0.0043	154	370	100/C
50	2	1.4	10.6	12.8	0.387	0.0043	188	500	500/D
70	2	1.4	12.1	14.6	0.268	0.0035	239	700	500/D
95	2	1.6	14.1	17.1	0.193	0.0035	297	1,000	500/D
120	2	1.6	15.6	18.8	0.153	0.0032	347	1,200	500/D
150	2	1.8	17.3	20.9	0.124	0.0032	398	1,500	500/D
185	2	2.0	19.3	23.3	0.0991	0.0032	461	1,900	500/D
240	2	2.2	22.0	26.6	0.0754	0.0032	552	2,500	500/D
300	2	2.4	24.5	29.6	0.0601	0.0030	640	3,100	500/D
400	2	2.6	27.5	33.2	0.0470	0.0028	749	3.900	500/D

Class of conductor 1 : Solid
2 : Strand

C : Packing in coil
D : Packing in drum

YAZAKI

60227 IEC 01 THW

TIS 11 Part 3-2553

450/750 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED, SINGLE CORE

CABLE STRUCTURE	TECHNICAL DATA
Conductor : Solid and stranded annealed copper. Size 1.5 mm^2 up to 400 mm^2	**Classification** : Maximum conductor temperature 70°C : Circuit voltage not exceeding 450/750 Volts 450 Volts between Line-to-Earth 750 Volts between Line-to-Line
Insulation : Polyvinyl chloride (PVC/C)	**Testing voltage** : 2,500 Volts
Core identification Single-core : Any color	**Reference standard** : TIS 11 Part 3-2553, Table 1

APPLICATION

Building wiring for installation on insulator or in raceway, dry location.

Size mm^2	A.C. Resistance R (Ohm/km.)	Inductance L (mH/km.)	Reactance XL (Ohm/km.)	Impedance Z (Ohm/km.)
1.5(1)	14.5	0.53540	0.1682	14.5010
1.5(7)	14.5	0.52489	0.1649	14.5009
2.5(1)	8.87	0.50866	0.1598	8.8714
2.5(7)	8.87	0.50102	0.1574	8.8714
4(1)	5.52	0.49847	0.1566	5.5222
4(7)	5.52	0.48701	0.1530	5.5221
6(1)	3.69	0.47174	0.1482	3.6930
6(7)	3.69	0.47174	0.1482	3.6930
10(1)	2.19	0.47174	0.1461	2.1949
10(7)	2.19	0.46505	0.1461	2.1949
16	1.38	0.44786	0.1407	1.3872
25	0.861	0.44532	0.1399	0.8723
35	0.6271	0.43481	0.1366	0.6418
50	0.4633	0.43481	0.1366	0.4830
70	0.3210	0.42590	0.1338	0.3478
95	0.2314	0.42367	0.1331	0.2669
120	0.1837	0.41953	0.1318	0.2261
150	0.1492	0.41921	0.1317	0.1990
185	0.1196	0.41858	0.1315	0.1778
240	0.0915	0.41635	0.1308	0.1596
300	0.0736	0.41508	0.1304	0.1497
400	0.0583	0.41317	0.1298	0.1423

(_) : No of copper wire

YAZAKI

60227 IEC 02 THW (f)

TIS 11 Part 3-2553

450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED, SINGLE CORE

CABLE STRUCTURE	TECHNICAL DATA
Conductor : Flexible annealed copper wire Size 1.5 mm^2 up to 240 mm^2	**Classification** : Maximum conductor temperature 70°C : Circuit voltage not exceeding 450/750 Volts 450 Volts between Line-to-Earth 750 Volts between Line-to-Line
Insulation : Polyvinyl chloride (PVC/C)	**Testing voltage** : 2,500 Volts
Core identification Single-core : Any color	**Reference standard** : TIS 11 Part 3-2553, Table 3

APPLICATION

For indoor fixed installations in dry locations, for electrical panels connection or for electrical apparatus

Nominal cross sectional area (mm^2)	Class of conductor	Insulation thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
1.5	5	0.7	2.8	3.4	13.3	0.010	21	24	100/C
2.5	5	0.8	3.4	4.1	7.98	0.009	28	37	100/C
4	5	0.8	3.9	4.8	4.95	0.007	38	54	100/C
6	5	0.8	4.4	5.3	3.30	0.0060	48	75	100/C
10	5	1.0	5.7	6.8	1.91	0.0056	69	130	100/C
16	5	1.0	6.7	8.1	1.21	0.0046	92	185	100/C
25	5	1.2	8.4	10.2	0.780	0.0044	123	285	100/C
35	5	1.2	9.7	11.7	0.554	0.0038	154	400	100/C
50	5	1.4	11.5	13.9	0.386	0.0037	196	555	500/D
70	5	1.4	13.2	16.0	0.272	0.0032	247	765	500/D
95	5	1.6	15.1	18.2	0.206	0.0032	296	1,000	500/D
120	5	1.6	16.7	20.2	0.161	0.0029	350	1,300	500/D
150	5	1.8	18.6	22.5	0.129	0.0029	405	1,600	500/D
185	5	2.0	20.6	24.9	0.106	0.0029	461	1,900	500/D
240	5	2.2	23.5	28.4	0.0801	0.0028	554	2,500	500/D

Class of conductor 5 : Flexible

C : Packing in coil
D : Packing in drum

YAZAKI

60227 IEC 05 IV

TIS 11 Part 3-2553

300/500 V 70°C SOLID CONDUCTOR PVC INSULATED, SINGLE CORE

CABLE STRUCTURE

Conductor : Solid annealed copper,
Size 0.5 mm^2 up to 1 mm^2

Insulation : Polyvinyl chloride (PVC/C)

Core identification
Single core : Any color

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 3-2553, Table 5

APPLICATION

Building wiring for installation on insulator or in raceway, dry location.

Nominal cross sectional area (mm^2)	Class of Conductor	Insulation thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
0.5	1	0.6	1.9	2.3	36.0	0.015	11	8.8	100/C
0.75	1	0.6	2.1	2.5	24.5	0.012	14	12.0	100/C
1	1	0.6	2.2	2.7	18.1	0.011	16	14.0	100/C

Class of conductor 1 : Solid

C : Packing in coil

YAZAKI

60227 IEC 06 IV (f)

TIS 11 Part 3-2553

300/500 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED, SINGLE CORE

CABLE STRUCTURE

Conductor : Flexible annealed copper wire
Size 0.5 mm^2 up to 1 mm^2

Insulation : Polyvinyl chloride (PVC/C)

Core identification
Single-core : Any color

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 3-2553, Table 7

APPLICATION

For indoor fixed installations in dry locations, for electrical panels connection or for electrical apparatus

Nominal cross sectional area (mm^2)	Class of conductor	Insulation thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
0.5	5	0.6	2.1	2.5	39.0	0.013	11	9	100/C
0.75	5	0.6	2.2	2.7	26.0	0.011	14	12	100/C
1	5	0.6	2.4	2.8	19.5	0.010	16	15	100/C

Class of conductor 5 : Flexible

C : Packing in coil

60227 IEC 07 HIV

TIS 11 Part 3-2553

300/500 V 90°C SOLID CONDUCTOR PVC INSULATED, SINGLE CORE

CABLE STRUCTURE

Conductor : Solid annealed copper, Size 0.5 mm^2 up to 2.5 mm^2

Insulation : Polyvinyl chloride (PVC/E)

Core identification

Single core : Any color

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 3-2553, Table 9

APPLICATION

Building wiring for installation on insulator or in raceway, dry location.

Nominal cross sectional area (mm^2)	Class of Conductor	Insulation thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 90°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
0.5	1	0.6	1.9	2.3	36.0	0.015	15	8.6	100/C
0.75	1	0.6	2.1	2.5	24.5	0.013	18	11.0	100/C
1	1	0.6	2.2	2.7	18.1	0.012	22	14.0	100/C
1.5	1	0.7	2.6	3.2	12.1	0.011	28	20.0	100/C
2.5	1	0.8	3.2	3.9	7.41	0.009	38	32.0	100/C

Class of conductor 1 : Solid

C : Packing in coil

60227 IEC 08 HIV (f)

TIS 11 Part 3-2553

300/500 V 90°C FLEXIBLE CONDUCTOR PVC INSULATED, SINGLE CORE

CABLE STRUCTURE

Conductor : Flexible annealed copper wire Size 0.5 mm^2 up to 2.5 mm^2

Insulation : Polyvinyl chloride (PVC/E)

Core identification

Single-core : Any Color

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 3-2553, Table 11

APPLICATION

For indoor fixed installations in dry locations, for electrical panels connection or for electrical apparatus

Nominal cross sectional area (mm^2)	Class of conductor	Insulation thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
0.5	5	0.6	2.1	2.5	39.0	0.013	14	9	100/C
0.75	5	0.6	2.2	2.7	26.0	0.012	18	12	100/C
1	5	0.6	2.4	2.8	19.5	0.010	21	15	100/C
1.5	5	0.7	2.8	3.4	13.3	0.009	27	21	100/C
2.5	5	0.8	3.4	4.1	7.98	0.009	37	33	100/C

Class of conductor 5 : Flexible

C : Packing in coil

Copper Conductor Cables

Building Wires and Cables

TIS 11 Part 4-2553 : Sheathed Cables for Fixed Wiring

B

60227 IEC 10 NYY

TIS 11 Part 4-2553

300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper, Multi-core
Insulation : Polyvinyl chloride (PVC/C)
Core identification
- 2 Cores : Blue and Brown
- 3 Cores : Brown, Black and Grey or Blue, Brown and Green/Yellow
- 4 Cores : Blue, Brown, Black and Grey or Brown, Black, Grey and Green/Yellow
- 5 Cores : Blue, Brown, Black, Grey and Black or Blue, Brown, Black, Grey and Green/Yellow

Inner sheath : Black polyvinyl chloride (PVC)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 4-2553, Table 1

APPLICATION

For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter		Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
						Minimum (mm)	Maximum (mm)					
2	1.5	1	0.7	0.4	1.2	7.6	10.0	12.1	0.011	19	120	100/C
	1.5	2	0.7	0.4	1.2	7.8	10.5	12.1	0.010	19	130	100/C
	2.5	1	0.8	0.4	1.2	8.6	11.5	7.41	0.010	26	160	100/C
	2.5	2	0.8	0.4	1.2	9.0	12.0	7.41	0.009	26	180	100/C
	4	1	0.8	0.4	1.2	9.6	12.5	4.61	0.0085	34	210	100/C
	4	2	0.8	0.4	1.2	10.0	13.0	4.61	0.0077	34	220	100/C
	6	1	0.8	0.4	1.2	10.5	13.5	3.08	0.0070	44	270	100/C
	6	2	0.8	0.4	1.2	11.0	14.0	3.08	0.0065	44	190	100/C
	10	1	1.0	0.6	1.4	13.0	16.5	1.83	0.0070	60	420	500/D
	10	2	1.0	0.6	1.4	13.5	17.5	1.83	0.0065	60	460	500/D
	16	2	1.0	0.6	1.4	15.5	20.0	1.15	0.0052	80	650	500/D
	25	2	1.2	0.8	1.4	18.5	24.0	0.727	0.0050	107	950	500/D
	35	2	1.2	1.0	1.6	21.0	27.5	0.524	0.0044	131	1,300	500/D

Class of conductor 1 : Solid
2 : Strand

C : Packing in coil
D : Packing in drum

YAZAKI

60227 IEC 10 NYY

TIS 11 Part 4-2553

300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper, Multi-core
Insulation : Polyvinyl chloride (PVC/C)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
or Blue, Brown and Green/Yellow
4 Cores : Blue, Brown, Black and Grey
or Brown, Black, Grey and Green/Yellow
5 Cores : Blue, Brown, Black, Grey and Black
or Blue, Brown, Black, Grey and Green/Yellow
Inner sheath : Black polyvinyl chloride (PVC)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line
Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 4-2553, Table 1

APPLICATION

For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
2	1.5 (1)	14.47766	0.33715	0.10592	14.47805
	1.5 (7)	14.47766	0.32216	0.10121	14.47801
	2.5 (1)	8.86608	0.32386	0.10174	8.86666
	2.5 (7)	8.86608	0.31600	0.09928	8.86664
	4 (1)	5.51589	0.30370	0.09541	5.51672
	4 (7)	5.51589	0.29313	0.09209	5.51666
	6 (1)	3.68527	0.28640	0.08997	3.68636
	6 (7)	3.68527	0.27891	0.08762	3.68631
	10 (1)	2.18967	0.28221	0.08866	2.19147
	10 (7)	2.18968	0.27380	0.08602	2.19137
	16 (7)	1.37612	0.25760	0.08093	1.37850
	25 (7)	0.87009	0.25619	0.08048	0.87380
	35 (19)	0.62731	0.24617	0.07734	0.63206

( ) : No of copper wire

YAZAKI

60227 IEC 10 NYY or 60227 IEC 10 NYY-G

TIS 11 Part 4-2553

300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper, Multi-core
Insulation : Polyvinyl chloride (PVC/C)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
or Blue, Brown and Green/Yellow
4 Cores : Blue, Brown, Black and Grey
or Brown, Black, Grey and Green/Yellow
5 Cores : Blue, Brown, Black, Grey and Black
or Blue, Brown, Black, Grey and Green/Yellow
Inner sheath : Black polyvinyl chloride (PVC)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line
Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 4-2553, Table 1

APPLICATION

For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
3	1.5	1	0.7	0.4	1.2	8.0	10.5	12.1	0.011	17	140	100/C
	1.5	2	0.7	0.4	1.2	8.2	11.0	12.1	0.010	17	150	100/C
	2.5	1	0.8	0.4	1.2	9.2	12.0	7.41	0.010	22	190	100/C
	2.5	2	0.8	0.4	1.2	9.4	12.5	7.41	0.009	22	210	100/C
	4	1	0.8	0.4	1.2	10.0	13.0	4.61	0.0085	29	250	100/C
	4	2	0.8	0.4	1.2	10.5	13.5	4.61	0.0077	29	270	100/C
	6	1	0.8	0.4	1.4	11.5	14.5	3.08	0.0070	37	340	100/C
	6	2	0.8	0.4	1.4	12.0	15.5	3.08	0.0065	37	370	100/C
	10	1	1.0	0.6	1.4	14.0	17.5	1.83	0.0070	52	520	500/D
	10	2	1.0	0.6	1.4	14.5	19.0	1.83	0.0065	52	570	500/D
	16	2	1.0	0.8	1.4	16.5	27.5	1.15	0.0052	69	810	500/D
	25	2	1.2	0.8	1.6	20.5	26.0	0.727	0.0050	92	1,200	500/D
	35	2	1.2	1.0	1.6	22.0	29.0	0.524	0.0040	113	1,600	500/D

Class of conductor 1 : Solid
2 : Strand

C : Packing in coil
D : Packing in drum

60227 IEC 10 NYY or
60227 IEC 10 NYY-G

TIS 11 Part 4-2553

300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper, Multi-core
Insulation : Polyvinyl chloride (PVC/C)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey or Blue, Brown and Green/Yellow
4 Cores : Blue, Brown, Black and Grey or Brown, Black, Grey and Green/Yellow
5 Cores : Blue, Brown, Black, Grey and Black or Blue, Brown, Black, Grey and Green/Yellow
Inner sheath : Black polyvinyl chloride (PVC)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70ºC
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 4-2553, Table 1

APPLICATION

For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
3	1.5 (1)	14.47766	0.33715	0.10592	14.47805
	1.5 (7)	14.47766	0.32216	0.10121	14.47801
	2.5 (1)	8.86608	0.32386	0.10174	8.86666
	2.5 (7)	8.86608	0.31600	0.09928	8.86664
	4 (1)	5.51589	0.30370	0.09541	5.51672
	4 (7)	5.51589	0.29313	0.09209	5.51666
	6 (1)	3.68527	0.28640	0.08997	3.68636
	6 (7)	3.68527	0.27891	0.08762	3.68631
	10 (1)	2.18967	0.28221	0.08866	2.19147
	10 (7)	2.18968	0.27380	0.08602	2.19137
	16 (7)	1.37612	0.25760	0.08093	1.37850
	25 (7)	0.87009	0.25619	0.08048	0.87380
	35 (19)	0.62731	0.24617	0.07734	0.63206

(_) : No of copper wire

60227 IEC 10 NYY or
60227 IEC 10 NYY-G

TIS 11 Part 4-2553

300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper, Multi-core
Insulation : Polyvinyl chloride (PVC/C)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey or Blue, Brown and Green/Yellow
4 Cores : Blue, Brown, Black and Grey or Brown, Black, Grey and Green/Yellow
5 Cores : Blue, Brown, Black, Grey and Black or Blue, Brown, Black, Grey and Green/Yellow
Inner sheath : Black polyvinyl chloride (PVC)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70ºC
:Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts
Reference standard :TIS 11 Part 4-2553, Table 1

APPLICATION

For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
4	1.5	1	0.7	0.4	1.2	8.6	11.5	12.1	0.011	17	160	100/C
	1.5	2	0.7	0.4	1.2	9.0	12.0	12.1	0.010	17	180	100/C
	2.5	1	0.8	0.4	1.2	10.0	13.0	7.41	0.010	22	230	100/C
	2.5	2	0.8	0.4	1.2	10.0	13.5	7.41	0.009	22	250	100/C
	4	1	0.8	0.4	1.4	11.5	14.5	4.61	0.0085	29	320	100/C
	4	2	0.8	0.4	1.4	12.0	15.0	4.61	0.0077	29	340	100/C
	6	1	0.8	0.6	1.4	12.5	16.0	3.08	0.0070	37	440	500/D
	6	2	0.8	0.6	1.4	13.0	17.0	3.08	0.0065	37	470	500/D
	10	1	1.0	0.6	1.4	15.5	19.0	1.83	0.0070	52	660	500/D
	10	2	1.0	0.6	1.4	16.0	20.5	1.83	0.0065	52	700	500/D
	16	2	1.0	0.8	1.4	18.0	23.5	1.15	0.0052	69	1,000	500/D
	25	2	1.2	1.0	1.6	22.5	28.5	0.727	0.0050	92	1,600	500/D
	35	2	1.2	1.0	1.6	24.5	32.0	0.524	0.0044	113	2,000	500/D

Class of conductor 1 : Solid
2 : Strand

C : Packing in coil
D : Packing in drum

60227 IEC 10 NYY or 60227 IEC 10 NYY-G

TIS 11 Part 4-2553

300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper, Multi-core
Insulation : Polyvinyl chloride (PVC/C)
Core identification
2 Cores: Blue and Brown
3 Cores: Brown, Black and Grey or Blue, Brown and Green/Yellow
4 Cores: Blue, Brown, Black and Grey or Brown, Black, Grey and Green/Yellow
5 Cores: Blue, Brown, Black, Grey and Black or Blue, Brown, Black, Grey and Green/Yellow
Inner sheath : Black polyvinyl chloride (PVC)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts
Reference standard :TIS 11 Part 4-2553, Table 1

APPLICATION

For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
4	1.5 (1)	14.47766	0.37758	0.11862	14.47814
	1.5 (7)	14.47766	0.36259	0.11391	14.47811
	2.5 (1)	8.86608	0.36428	0.11444	8.86682
	2.5 (7)	8.86608	0.35643	0.11198	8.86679
	4 (1)	5.51589	0.34413	0.10811	5.51695
	4 (7)	5.51589	0.33356	0.10479	5.51689
	6 (1)	3.68526	0.32682	0.10267	3.68669
	6 (7)	3.68526	0.31933	0.10032	3.68662
	10 (1)	2.18966	0.32263	0.10136	2.19201
	10 (7)	2.18966	0.31422	0.09872	2.19189
	16 (7)	1.37609	0.29802	0.09363	1.37927
	25 (7)	0.87004	0.29662	0.09318	0.87502
	35 (19)	0.62724	0.28659	0.09004	0.63367

( ) : No of copper wire

60227 IEC 10 NYY or 60227 IEC 10 NYY-G

TIS 11 Part 4-2553

300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper, Multi-core
Insulation : Polyvinyl chloride (PVC/C)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey or Blue, Brown and Green/Yellow
4 Cores : Blue, Brown, Black and Grey or Brown, Black, Grey and Green/Yellow
5 Cores : Blue, Brown, Black, Grey and Black or Blue, Brown, Black, Grey and Green/Yellow
Inner sheath : Black polyvinyl chloride (PVC)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 4-2553, Table 1

APPLICATION

For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
5	1.5	1	0.7	0.7	1.2	9.4	12.0	12.1	0.011	17	200	100/C
	1.5	2	0.7	0.7	1.2	9.8	12.5	12.1	0.010	17	220	100/C
	2.5	1	0.8	0.8	1.2	11.0	14.0	7.41	0.010	22	280	100/C
	2.5	2	0.8	0.8	1.2	11.0	14.5	7.41	0.009	22	310	100/C
	4	1	0.8	0.8	1.4	12.5	16.0	4.61	0.0085	29	410	100/C
	4	2	0.8	0.8	1.4	13.0	17.0	4.61	0.0077	29	430	100/C
	6	1	0.8	0.8	1.4	13.5	17.5	3.08	0.0070	37	530	500/D
	6	2	0.8	0.8	1.4	14.5	18.5	3.08	0.0065	37	570	500/D
	10	1	1.0	1.0	1.4	17.0	21.0	1.83	0.0070	52	800	500/D
	10	2	1.0	1.0	1.4	17.5	22.0	1.83	0.0065	52	870	500/D
	16	2	1.0	1.0	1.6	20.5	26.0	1.15	0.0052	69	1,300	500/D
	25	2	1.2	1.2	1.6	24.5	31.5	0.727	0.0050	92	1,900	500/D
	35	2	1.2	1.2	1.6	27.0	35.0	0.524	0.0044	113	2,500	500/D

Class of conductor 1 : Solid
2 : Strand

C : Packing in coil
D : Packing in drum

60227 IEC 10 NYY or
60227 IEC 10 NYY-G

TIS 11 Part 4-2553

300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper, Multi-core
Insulation : Polyvinyl chloride (PVC/C)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey or Blue, Brown and Green/Yellow
4 Cores : Blue, Brown, Black and Grey or Brown, Black, Grey and Green/Yellow
5 Cores : Blue, Brown, Black, Grey and Black or Blue, Brown, Black, Grey and Green/Yellow
Inner sheath : Black polyvinyl chloride (PVC)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70ºC
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line
Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 4-2553, Table 1

APPLICATION

For installation exposed, or in raceway, wet or dry location.

Number of core	Nominal cross section area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
5	1.5 (1)	14.47766	0.37758	0.11862	14.47814
	1.5 (7)	14.47766	0.36259	0.11391	14.47811
	2.5 (1)	8.86608	0.36428	0.11444	8.86682
	2.5 (7)	8.86608	0.35643	0.11198	8.86679
	4 (1)	5.51589	0.34413	0.10811	5.51695
	4 (7)	5.51589	0.33356	0.10479	5.51689
	6 (1)	3.68526	0.32682	0.10267	3.68669
	6 (7)	3.68526	0.31933	0.10032	3.68662
	10 (1)	2.18966	0.32263	0.10136	2.19201
	10 (7)	2.18966	0.31422	0.09872	2.19189
	16 (7)	1.37609	0.29802	0.09363	1.37927
	25 (7)	0.87004	0.29662	0.09318	0.87502
	35 (19)	0.62724	0.28659	0.09004	0.63367

( ) : No of copper wire

Copper Conductor Cables

Building Wires and Cables

TIS 11 Part 5-2553 : Flexible Cables (Cords)

B

60227 IEC 52 VKF

TIS 11 Part 5-2553

300/300 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, FLAT TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper wires
Size 0.5 mm^2 and 0.75 mm^2

Insulation : Polyvinyl chloride (PVC/D)

Core identification
2 Cores : Blue and Brown

Sheath : Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/300 Volts
300 Volts between Line-to-Earth
300 Volts between Line-to-Line

Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 5-2553, Table 7

APPLICATION

For household appliances, electrical equipment and electrical illumination

Number of core	Nominal cross sectional area (mm^2)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2	0.5	5	0.5	0.6	3.0 x 4.9	3.7 x 5.9	39.0	0.012	10	28	100/C
	0.75	5	0.5	0.6	3.2 x 5.2	3.8 x 6.3	26.0	0.010	12	35	100/C

Class of conductor 5 : Flexible

C : Packing in coil

60227 IEC 52 VCT

TIS 11 Part 5-2553

300/300 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, ROUND TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper wires
Size 0.5 mm^2 and 0.75 mm^2

Insulation : Polyvinyl chloride (PVC/D)

Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and grey
or Blue, Brown and Green/yellow

Sheath : Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/300 Volts
300 Volts between Line-to-Earth
300 Volts between Line-to-Line

Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 5-2553, Table 7

APPLICATION

For household appliances, electrical equipment and electrical illumination

Number of core	Nominal cross sectional area (mm^2)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2	0.5	5	0.5	0.6	4.6	5.9	39.0	0.012	10	40	100/C
	0.75	5	0.5	0.6	4.9	6.3	26.0	0.010	12	48	100/C
3	0.5	5	0.5	0.6	4.9	6.3	39.0	0.012	8	47	100/C
	0.75	5	0.5	0.6	5.2	6.7	26.0	0.010	10	58	100/C

Class of conductor 5 : Flexible

C : Packing in coil

YAZAKI

60227 IEC 53 VKF

TIS 11 Part 5-2553

300/500 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, FLAT TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper wires
Size 0.75 mm^2 and 1 mm^2

Insulation : Polyvinyl chloride (PVC/D)

Core identification
2 Cores : Blue and Brown

Sheath : Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 5-2553, Table 9

APPLICATION

For household appliances, electrical equipment and electrical illumination

Number of core	Nominal cross sectional area (mm^2)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2	0.75	5	0.6	0.8	3.7 x 6.0	4.5 x 7.2	26.0	0.011	12	43	100/C
	1	5	0.6	0.8	3.9 x 6.2	4.7 x 7.5	19.5	0.010	15	50	100/C

Class of conductor 5 : Flexible

C : Packing in coil

YAZAKI

60227 IEC 53 VCT or 60227 IEC 53 VCT-G

TIS 11 Part 5-2553

300/500 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, ROUND TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper wire
Sizes. 0.75 mm^2 up to 2.5 mm^2

Insulation : Polyvinyl chloride (PVC/D)

Core identification
2 cores: Blue and Brown
3 cores : Brown, Black and Grey
or Blue, Brown and Green/Yellow
4 cores: Brown, Black, Grey and Blue
or Brown, Black, Grey and Green/Yellow
5 cores : Blue, Brown,Black, Grey and Black
or Blue, Brown, Black,Grey and Green/Yellow

Sheath : Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 5-2553, Table 9

APPLICATION

For household appliances, electrical equipment and electrical illumination

Number of core	Nominal cross sectional area (mm^2)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2	0.75	5	0.6	0.8	5.7	7.2	26.0	0.011	12	60	100/C
	1	5	0.6	0.8	5.9	7.5	19.5	0.010	14	70	100/C
	1.5	5	0.7	0.8	6.8	8.6	13.3	0.010	18	93	100/C
	2.5	5	0.8	1.0	8.4	10.6	7.98	0.009	25	140	100/C
3	0.75	5	0.6	0.8	6.0	7.6	26.0	0.011	10	70	100/C
	1	5	0.6	0.8	6.3	8.0	19.5	0.010	12	82	100/C
	1.5	5	0.7	0.9	7.4	9.4	13.3	0.010	16	115	100/C
	2.5	5	0.8	1.1	9.2	11.4	7.98	0.009	21	175	100/C
4	0.75	5	0.6	0.8	6.6	8.3	26.0	0.011	10	84	100/C
	1	5	0.6	0.9	7.1	9.0	19.5	0.010	12	105	100/C
	1.5	5	0.7	1.0	8.4	10.5	13.3	0.010	16	145	100/C
	2.5	5	0.8	1.1	10.1	12.5	7.98	0.009	21	215	100/C
5	0.75	5	0.6	0.9	7.4	9.3	26.0	0.011	10	105	100/C
	1	5	0.6	0.9	7.8	9.8	19.5	0.010	12	125	100/C
	1.5	5	0.7	1.1	9.3	11.6	13.3	0.010	16	175	100/C
	2.5	5	0.8	1.2	11.2	13.9	7.98	0.009	21	265	100/C

Class of conductor 5 : Flexible

C : Packing in coil

60227 IEC 56 HVKF

TIS 11 Part 5-2553

300/300 V 90°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, FLAT TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper wire
: Size 0.5 mm^2 and 0.75 mm^2
Insulation : Polyvinyl chloride (PVC/E)
Core identification
2 Cores : Blue and Brown
Sheath : Black polyvinyl chloride (PVC/ST10)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 300/300 Volts
300 Volts between Line-to-Earth
300 Volts between Line-to-Line
Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 5-2553,Table 11

APPLICATION

For household appliances, electrical equipment and electrical illumination

Number of core	Nominal cross sectional area (mm^2)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 90°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2	0.5	5	0.5	0.6	3.0 x 4.9	3.7 x 5.9	39.0	0.012	13	28	100/C
	0.75	5	0.5	0.6	3.2 x 5.2	3.8 x 6.3	26.0	0.010	16	35	100/C

Class of conductor 5 : Flexible

C : Packing in coil

60227 IEC 56 HVCT

TIS 11 Part 5-2553

300/300 V 90°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, ROUND TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper
: Sizes 0.5 mm^2 and 0.75 mm^2
Insulation : Polyvinyl chloride (PVC/E)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
or Blue, Brown and Green/Yellow
Sheath : Black polyvinyl chloride (PVC/ST10)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 300/300 Volts
300 Volts between Line-to-Earth
300 Volts between Line-to-Line
Testing voltage : 2,000 Volts
Reference standard : TIS 11 Part 5-2553,Table 11

APPLICATION

For household appliances, electrical equipment and electrical illumination

Number of core	Nominal cross sectional area (mm^2)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 90°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2	0.5	5	0.5	0.6	4.6	5.9	39.0	0.012	13	38	100/C
	0.75	5	0.5	0.6	4.9	6.3	26.0	0.010	16	46	100/C
3	0.5	5	0.5	0.6	4.9	6.3	39.0	0.012	11	44	100/C
	0.75	5	0.5	0.6	5.2	6.7	26.0	0.010	13	55	100/C

Class of conductor 5 : Flexible

C : Packing in coil

YAZAKI

60227 IEC 57 HVKF

TIS 11 Part 5-2553

300/500 V 90°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, FLAT TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper wire, Size 0.75 mm^2 and 1 mm^2

Insulation : Polyvinyl chloride (PVC/E)

Core identification

2-Cores : Blue and Brown

Sheath : Black polyvinyl chloride (PVC/ST10)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 5-2553, Table 13

APPLICATION

For household appliances, electrical equipment and electrical illumination

Number of core	Nominal cross sectional area (mm^2)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 90°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2	0.75	5	0.6	0.8	3.7 x 6.0	4.5 x 7.2	39.0	0.011	16	42	100/C
	1	5	0.6	0.8	3.9 x 6.2	4.7 x 7.5	19.5	0.010	19	50	100/C

Class of conductor 5 : Flexible

C : Packing in coil

YAZAKI

60227 IEC 57 HVCT

TIS 11 Part 5-2553

300/500 V 90°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, ROUND TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper wire, Sizes 0.75 mm^2 up to 2.5 mm^2

Insulation : Polyvinyl chloride (PVC/E)

Core identification

2-Cores : Blue and Brown
3 Cores :Brown, Black and Grey or Blue, Brown and Green/Yellow
4-Cores : Brown, Black, Grey and Blue or Brown, Black, Grey and Green/Yellow
5-Cores : Blue, Brown, Black, Grey and Black or Blue, Brown, Black, Grey and Green/Yellow

Sheath : Black polyvinyl chloride (PVC/ST10)

TECHNICAL DATA

Classification : Maximum conductor temperature 90 °C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 5-2553, Table 13

APPLICATION

For household appliances, electrical equipment and electrical illumination

Number of core	Nominal cross sectional area (mm^2)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter Minimum (mm)	Overall diameter Maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 90°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2	0.75	5	0.6	0.8	5.7	7.2	26.0	0.011	16	57	100/C
	1	5	0.6	0.8	5.9	7.5	19.5	0.010	19	66	100/C
	1.5	5	0.7	0.8	6.8	8.6	13.3	0.010	24	89	100/C
	2.5	5	0.8	1.0	8.4	10.6	7.98	0.009	33	135	100/C
3	0.75	5	0.6	0.8	6.0	7.6	26.0	0.011	14	66	100/C
	1	5	0.6	0.8	6.3	8.0	19.5	0.010	16	78	100/C
	1.5	5	0.7	0.9	7.4	9.4	13.3	0.010	21	110	100/C
	2.5	5	0.8	1.1	9.2	11.4	7.98	0.009	28	170	100/C
4	0.75	5	0.6	0.8	6.6	8.3	26.0	0.011	14	80	100/C
	1	5	0.6	0.9	7.1	9.0	19.5	0.010	16	99	100/C
	1.5	5	0.7	1.0	8.4	10.5	13.3	0.010	21	140	100/C
	2.5	5	0.8	1.1	10.1	12.5	7.98	0.009	28	205	100/C
5	0.75	5	0.6	0.9	7.4	9.3	26.0	0.011	14	99	100/C
	1	5	0.6	0.9	7.8	9.8	19.5	0.010	16	120	100/C
	1.5	5	0.7	1.1	9.3	11.6	13.3	0.010	21	170	100/C
	2.5	5	0.8	1.2	11.2	13.9	7.98	0.009	28	250	100/C

Class of conductor 5 : Flexible

C : Packing in coil

Copper Conductor Cables

Building Wires and Cables

TIS 11 Part 101-2553 : Sheathed Cables for General Purchases

B

VAF

TIS 11 Part 101-2553

300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND SHEATHED, FLAT TYPE

CABLE STRUCTURE

Conductor : Solid and stranded annealed copper, Size 1 mm^2 up to 16 mm^2

Insulation : Polyvinyl chloride (PVC/C)

Core identification

2 Cores : Blue and Brown

Sheath : White polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C

: Circuit voltage not exceeding 300/500 Volts

300 Volts between Line-to-Earth

500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 101-2553, Table 1

APPLICATION

Building wiring for surface or above ceiling wiring or direct embeded in plaster.

Number of core	Nominal cross sectional area (mm^2)	Class of Conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter		Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
					Lower limit (mm)	Upper limit (mm)					
2	1	1	0.6	0.9	4.0 x 6.2	4.7 x 7.4	18.1	0.0110	13	50	100/C
	1.5	1	0.7	0.9	4.4 x 7.0	5.4 x 8.4	12.1	0.0110	17	70	100/C
	2.5	1	0.8	1.0	5.2 x 8.4	6.2 x 9.8	7.41	0.0100	23	100	100/C
	4	2	0.8	1.1	5.6 x 9.6	7.2 x 11.5	4.61	0.0077	31	150	100/C
	6	2	0.8	1.1	6.4 x 10.5	8.0 x 13.0	3.08	0.0065	40	200	100/C
	10	2	1.0	1.2	7.8 x 13.0	9.6 x 16.0	1.83	0.0065	55	310	100/C
	16	2	1.0	1.3	9.0 x 15.5	11.0 x 18.5	1.15	0.0052	74	450	100/C

Class of conductor 1 : Solid
2 : Strand

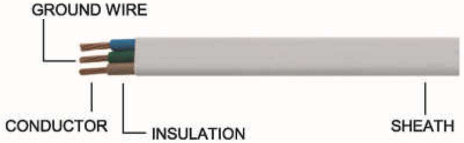
C : Packing in coil

YAZAKI

VAF-G

TIS 11 Part 101-2553

300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND SHEATHED WITH GROUND, FLAT TYPE



CABLE STRUCTURE

Conductor : Solid and stranded annealed copper
Sizes 1.0 mm² up to 16 mm²

Ground wire : Solid and stranded annealed copper
Sizes 1.0 mm² up to 16 mm²

Insulation : Polyvinyl chloride (PVC/C)

Core identification
2 Cores : Blue and Brown
Ground-Cores : Green/Yellow

Sheath : White polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 101-2553, Table 1

APPLICATION

Building wiring for surface or above ceiling wiring or direct embeded in plaster.

Number of core	Nominal cross sectional area (mm²)	Class of Conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter Lower limit (mm)	Overall diameter Upper limit (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2+G	1	1	0.6	0.9	4.0 x 8.4	4.7 x 9.8	18.1	0.0110	13	75	100/C
	1 (G)	1	0.6	0.9			18.1				
	1.5	1	0.7	0.9	4.4 x 9.8	5.4 x 11.5	12.1	0.0110	17	100	100/C
	1.5 (G)	1	0.7	0.9			12.1				
	2.5	1	0.8	1.0	5.2 x 11.5	6.2 x 13.5	7.41	0.0100	23	150	100/C
	2.5 (G)	1	0.8	1.0			7.41				
	4	2	0.8	1.1	5.8 x 13.4	7.4 x 16.5	4.61	0.0077	31	220	100/C
	4 (G)	2	0.8	1.1			4.61				
	6	2	0.8	1.1	6.4 x 15.0	8.0 x 18.0	3.08	0.0065	40	290	100/C
	6 (G)	2	0.8	1.1			3.08				
	10	2	1.0	1.2	7.8 x 19.0	9.6 x 22.5	1.83	0.0065	55	460	100/C
	10 (G)	2	1.0	1.2			1.83				
	16	2	1.0	1.3	9.0 x 22.0	11.0 x 26.5	1.15	0.0052	74	650	500/D
	16 (G)	2	1.0	1.3			1.15				

Class of conductor 1 : Solid
2 : Strand

G : Ground conductor

C : Packing in coil
D : Packing in drum

YAZAKI

NYY

TIS 11 Part 101-2553

450/750 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper
Single-core : Sizes 1 mm² up to 500 mm²
Multi-cores : Sizes 50 mm² up to 300 mm²

Insulation : Polyvinyl chloride (PVC/C)

Core identification
Single-core : Black
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey

Inner sheath : Black polyvinyl chloride (PVC) (Multi-cores only)

Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts

Reference standard : TIS 11 Part 101-2553 Table 3

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating maximum: Free air at 40 °C (A)	Continuous current rating maximum: Under ground at 30 °C (A)	Cable weight approx. (kg/km)	Standard length (m)
1	1	1	1.5	1.8	8.6	18.1	0.0207	19	25	80	100/C
	1	2	1.5	1.8	8.8	18.1	0.0200	19	25	80	100/C
	1.5	1	1.5	1.8	9.0	12.1	0.0184	24	31	85	100/C
	1.5	2	1.5	1.8	9.2	12.1	0.0175	24	31	90	100/C
	2.5	1	1.5	1.8	9.4	7.41	0.0157	32	41	100	100/C
	2.5	2	1.5	1.8	9.8	7.41	0.0146	32	41	110	100/C
	4	1	1.5	1.8	10.0	4.61	0.0135	43	53	120	100/C
	4	2	1.5	1.8	10.5	4.61	0.0124	43	53	130	100/C
	6	2	1.5	1.8	11.0	3.08	0.0107	54	68	160	100/C
	10	2	1.5	1.8	12.0	1.83	0.0088	73	79	210	500/D
	16	2	1.5	1.8	13.0	1.15	0.0074	97	118	280	500/D
	25	2	1.5	1.8	14.5	0.727	0.0061	129	153	390	500/D
	35	2	1.5	1.8	16.0	0.524	0.0053	159	185	490	500/D
	50	2	1.5	1.8	17.0	0.387	0.0046	191	220	620	500/D
	70	2	1.5	1.8	19.0	0.268	0.0039	241	271	850	500/D
	95	2	1.7	1.8	21.5	0.193	0.0038	297	326	1,100	500/D
	120	2	1.7	1.8	23.0	0.153	0.0034	345	372	1,400	500/D
	150	2	1.9	2.0	26.0	0.124	0.0034	397	418	1,700	500/D
	185	2	2.1	2.0	28.0	0.0991	0.0034	456	473	2,100	500/D
	240	2	2.3	2.2	31.5	0.0754	0.0033	541	549	2,700	500/D
	300	2	2.5	2.2	35.0	0.0601	0.0032	628	624	3,400	500/D
	400	2	2.7	2.2	38.5	0.0470	0.0030	733	713	4,300	500/D
	500	2	3.1	2.4	43.0	0.0366	0.0031	848	810	5,400	500/D

Class of conductor 1 : Solid
2 : Strand

C : Packing in coil
D : Packing in drum

NYY

TIS 11 Part 101-2553

450/750 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper
Single-core : Sizes 1 mm² up to 500 mm²
Multi-cores : Sizes 50 mm² up to 300 mm²
Insulation : Polyvinyl chloride (PVC/C)
Core identification
Single-core : Black
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Inner sheath : Black polyvinyl chloride (PVC) (Multi-cores only)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553 Table 3

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	1 (1)	21.6987	0.770	0.24186	21.70000
	1 (7)	21.6987	0.758	0.23808	21.70000
	1.5 (1)	14.4982	0.735	0.23082	14.50000
	1.5 (7)	14.4982	0.720	0.22632	14.50000
	2.5 (1)	8.8703	0.693	0.21775	8.87300
	2.5 (7)	8.8705	0.675	0.21222	8.87300
	4 (1)	5.5201	0.657	0.20650	5.52400
	4 (7)	5.5204	0.639	0.20063	5.52400
	6	3.6900	0.610	0.19176	3.69500
	10	2.1896	0.575	0.18068	2.19700
	16	1.3804	0.546	0.17162	1.39100
	25	0.8610	0.522	0.16403	0.87649
	35	0.6271	0.504	0.15837	0.64679
	50	0.4633	0.490	0.15379	0.48816
	70	0.3210	0.474	0.14896	0.35388
	95	0.2314	0.466	0.14636	0.27380
	120	0.1836	0.458	0.14393	0.23329
	150	0.1491	0.458	0.14380	0.20715
	185	0.1195	0.453	0.14243	0.18592
	240	0.0914	0.450	0.14140	0.16837
	300	0.0734	0.445	0.13994	0.15802
	400	0.0582	0.441	0.13846	0.15018
	500	0.0462	0.411	0.13844	0.14595

( ) : No of copper wire

NYY

TIS 11 Part 101-2553

450/750 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper
Single-core : Sizes 1 mm² up to 500 mm²
Multi-cores : Sizes 50 mm² up to 300 mm²
Insulation : Polyvinyl chloride (PVC/C)
Core identification
Single-core: Black
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Inner sheath : Black polyvinyl chloride (PVC) (Multi-cores only)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553 Table 4

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating maximum		Cable weight approx. (kg/km)	Standard length (m)
									Free air at 40 °C (A)	Under ground at 30 °C (A)		
2	50	2	1.5	1.2	2.2	33.5	0.387	0.0046	160	195	1,800	500/D
	70	2	1.5	1.5	2.2	38.0	0.268	0.0039	200	239	2,400	500/D
	95	2	1.7	1.5	2.2	42.5	0.193	0.0038	245	288	3,200	500/D
	120	2	1.7	1.5	2.4	46.5	0.153	0.0034	285	329	3,900	500/D
	150	2	1.9	1.8	2.6	52.0	0.124	0.0034	325	368	4,800	500/D
	185	2	2.1	1.8	2.8	57.0	0.0991	0.0034	374	417	6,000	500/D
	240	2	2.3	2.0	3.0	64.0	0.0754	0.0033	440	481	7,500	300/D
	300	2	2.5	2.0	3.2	70.5	0.0601	0.0032	505	541	9,500	300/D

Class of conductor 2 : Strand

D : Packing in drum

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
2	50	0.4635	0.250	0.07856	0.47011
	70	0.3214	0.241	0.07570	0.33019
	95	0.2319	0.239	0.07505	0.24374
	120	0.1843	0.235	0.07376	0.19851
	150	0.1499	0.234	0.07364	0.16701
	185	0.1205	0.234	0.07342	0.14111
	240	0.0928	0.232	0.07275	0.11793
	300	0.0752	0.230	0.07228	0.10427

NYY

TIS 11 Part 101-2553

450/750 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper
Single-core : Sizes 1 mm² up to 500 mm²
Multi-cores : Sizes 50 mm² up to 300 mm²

Insulation : Polyvinyl chloride (PVC/C)

Core identification
Single-core : Black
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey

Inner sheath : Black polyvinyl chloride (PVC) (Multi-cores only)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553 Table 4

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal nominal (mm)	Inner sheath thickness nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating maximum Free air at 40 °C (A)	Under ground at 30 °C (A)	Cable weight approx. (kg/km)	Standard length (m)
3	50	2	1.5	1.2	2.2	36.0	0.387	0.0046	136	164	1,800	500/D
	70	2	1.5	1.5	2.2	40.5	0.268	0.0039	174	205	2,400	500/D
	95	2	1.7	1.5	2.2	46.0	0.193	0.0038	213	245	3,200	500/D
	120	2	1.7	1.5	2.4	50.5	0.153	0.0034	247	279	3,900	500/D
	150	2	1.9	1.8	2.6	56.0	0.124	0.0034	284	315	4,800	500/D
	185	2	2.1	1.8	2.8	61.5	0.0991	0.0034	325	355	6,000	300/D
	240	2	2.3	2.0	3.0	69.0	0.0754	0.0033	384	411	7,500	300/D
	300	2	2.5	2.0	3.2	76.0	0.0601	0.0032	438	462	9,500	200/D

Class of conductor 2 : Strand D : Packing in drum

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
3	50	0.4635	0.25000	0.07856	0.47011
	70	0.3214	0.24100	0.07570	0.33019
	95	0.2319	0.23900	0.07505	0.24374
	120	0.1843	0.23500	0.07376	0.19851
	150	0.1499	0.23400	0.07364	0.16701
	185	0.1205	0.23400	0.07342	0.14111
	240	0.0928	0.23200	0.07275	0.11793
	300	0.0752	0.23000	0.07228	0.10427

NYY

TIS 11 Part 101-2553

450/750 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

CABLE STRUCTURE

Conductor : Solid and Stranded annealed copper
Single-core : Sizes 1 mm² up to 500 mm²
Multi-cores : Sizes 50 mm² up to 300 mm²

Insulation : Polyvinyl chloride (PVC/C)

Core identification
Single-core : Black
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey

Inner sheath : Black polyvinyl chloride (PVC) (Multi-cores only)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553 Table 4

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating maximum Free air at 40 °C (A)	Under ground at 30 °C (A)	Cable weight approx. (kg/km)	Standard length (m)
4	50	2	1.5	1.5	2.2	39.5	0.387	0.0046	136	164	2,900	500/D
	70	2	1.5	1.5	2.4	44.5	0.268	0.0039	174	205	3,900	500/D
	95	2	1.7	1.8	2.6	51.5	0.193	0.0038	213	245	5,500	500/D
	120	2	1.7	1.8	2.8	56.0	0.153	0.0034	247	279	6,500	500/D
	150	2	1.9	2.0	3.0	62.0	0.124	0.0034	284	315	8,000	300/D
	185	2	2.1	2.0	3.2	68.0	0.0991	0.0034	325	355	10,000	300/D
	240	2	2.3	2.2	3.4	76.5	0.0754	0.0033	384	411	13,000	200/D
	300	2	2.5	2.2	3.8	85.0	0.0601	0.0032	438	462	16,000	200/D

Class of conductor 2 : Strand D : Packing in drum

Number of core	Nominal cross sectional cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
4	50	0.4634	0.29700	0.09321	0.47268
	70	0.3213	0.28800	0.09035	0.33376
	95	0.2318	0.28600	0.08970	0.24855
	120	0.1842	0.28100	0.08842	0.20432
	150	0.1497	0.28100	0.08828	0.17379
	185	0.1203	0.28000	0.08809	0.14910
	240	0.0924	0.27800	0.08740	0.12722
	300	0.0747	0.27700	0.08694	0.11463

NYY-G

TIS 11 Part 101-2553

450/750 V 70°C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED WITH GROUND

CABLE STRUCTURE

Conductor : Stranded annealed copper
: 2 cores up to 4 cores with ground
: Size 25 mm² up to 300 mm²
Ground Wire : Stranded annealed copper,
: Size 16 mm² up to 150 mm²
Insulation : Polyvinyl chloride (PVC/C)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Ground wire : Green/Yellow
Inner sheath : Black polyvinyl chloride (PVC)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553, Table 5

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating maximum Free air (A)	Continuous current rating maximum Under ground (A)	Cable weight approx. (kg/km)	Standard length (m)
2+G	25 16 (G)	2 2	1.3 1.1	1.2	2.0	28.0	0.727 1.15	0.0054	108	136	1,200	500/D
	35 16 (G)	2 2	1.3 1.1	1.2	2.0	30.0	0.524 1.15	0.0047	132	165	1,500	500/D
	50 25 (G)	2 2	1.5 1.3	1.2	2.2	34.0	0.387 0.727	0.0046	160	195	2,000	500/D
	70 35 (G)	2 2	1.5 1.3	1.5	2.2	38.5	0.268 0.524	0.0039	200	239	2,700	500/D
	95 50 (G)	2 2	1.7 1.5	1.5	2.2	43.5	0.193 0.387	0.0038	245	288	3,600	500/D
	120 70 (G)	2 2	1.7 1.5	1.5	2.4	47.5	0.153 0.268	0.0034	285	329	4,500	500/D
	150 95 (G)	2 2	1.9 1.7	1.8	2.6	53.0	0.124 0.193	0.0034	325	368	5,500	500/D
	185 95 (G)	2 2	2.1 1.7	1.8	2.8	57.5	0.0991 0.193	0.0034	374	417	6,500	500/D
	240 120 (G)	2 2	2.3 1.7	2.0	3.0	64.5	0.0754 0.153	0.0033	440	481	8,500	500/D
	300 150 (G)	2 2	2.5 1.9	2.0	3.2	71.0	0.0601 0.124	0.0032	505	541	10,500	300/D

Class of conductor 2 : Strand G : Ground conductor D : Packing in drum

NYY-G

TIS 11 Part 101-2553

450/750 V 70°C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED WITH GROUND

CABLE STRUCTURE

Conductor : Stranded annealed copper
: 2 cores up to 4 cores with ground
: Size 25 mm² up to 300 mm²
Ground Wire : Stranded annealed copper,
: Size 16 mm² up to 150 mm²
Insulation : Polyvinyl chloride (PVC/C)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Ground wire : Green/Yellow
Inner sheath : Black polyvinyl chloride (PVC)
Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553, Table 5

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating maximum Free air (A)	Continuous current rating maximum Under ground (A)	Cable weight approx. (kg/km)	Standard length (m)
3+G	25 16 (G)	2 2	1.3 1.1	1.2	2.0	30.5	0.727 1.15	0.0054	94	117	1,500	500/D
	35 16 (G)	2 2	1.3 1.1	1.2	2.0	33.0	0.524 1.15	0.0047	115	141	1,900	500/D
	50 25 (G)	2 2	1.5 1.3	1.5	2.2	38.5	0.387 0.727	0.0046	136	164	2,600	500/D
	70 35 (G)	2 2	1.5 1.3	1.5	2.2	42.5	0.268 0.524	0.0039	174	205	3,500	500/D
	95 50 (G)	2 2	1.7 1.5	1.5	2.4	48.5	0.193 0.387	0.0038	213	245	4,700	500/D
	120 70 (G)	2 2	1.7 1.5	1.8	2.6	53.5	0.153 0.268	0.0034	247	279	6,000	500/D
	150 95 (G)	2 2	1.9 1.7	1.8	2.8	59.0	0.124 0.193	0.0034	284	315	7,500	500/D
	185 95 (G)	2 2	2.1 1.7	2.0	3.0	64.5	0.0991 0.193	0.0034	325	355	9,000	500/D
	240 120 (G)	2 2	2.3 1.7	2.0	3.2	72.0	0.0754 0.153	0.0033	384	411	11,500	300/D
	300 150 (G)	2 2	2.5 1.9	2.2	3.4	79.5	0.0601 0.124	0.0032	438	462	14,000	300/D

Class of conductor 2 : Strand G : Ground conductor D : Packing in drum

NYY-G

TIS 11 Part 101-2553

450/750 V 70°C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED WITH GROUND

CABLE STRUCTURE

Conductor : Stranded annealed copper
: 2 cores up to 4 cores with ground
: Size 25 mm² up to 300 mm²

Ground Wire : Stranded annealed copper,
: Size 16 mm² up to 150 mm²

Insulation : Polyvinyl chloride (PVC/C)

Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Ground wire : Green/Yellow

Inner sheath : Black polyvinyl chloride (PVC)

Outer sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553, Table 5

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating maximum: Free air (A)	Continuous current rating maximum: Under ground (A)	Cable weight approx. (kg/km)	Standard length (m)
4+G	25 16 (G)	2 2	1.3 1.1	1.2	2.0	34.0	0.727 1.15	0.0054	94	117	1,900	500/D
	35 16 (G)	2 2	1.3 1.1	1.5	2.2	39.0	0.524 1.15	0.0047	115	141	2,400	500/D
	50 25 (G)	2 2	1.5 1.3	1.5	2.2	43.5	0.387 0.727	0.0046	136	164	3,300	500/D
	70 35 (G)	2 2	1.5 1.3	1.5	2.4	49.0	0.268 0.524	0.0039	174	205	4,500	500/D
	95 50 (G)	2 2	1.7 1.5	1.8	2.6	56.5	0.193 0.387	0.0038	213	245	6,100	500/D
	120 70 (G)	2 2	1.7 1.5	1.8	2.8	61.5	0.153 0.268	0.0034	247	279	7,500	500/D
	150 95 (G)	2 2	1.9 1.7	2.0	3.0	68.0	0.124 0.193	0.0034	284	315	9,500	300/D
	185 95 (G)	2 2	2.1 1.7	2.0	3.2	75.0	0.0991 0.193	0.0034	325	355	11,500	300/D
	240 120 (G)	2 2	2.3 1.7	2.2	3.4	84.5	0.0754 0.153	0.0033	384	411	14,500	300/D
	300 150 (G)	2 2	2.5 1.9	2.2	3.8	93.5	0.0601 0.124	0.0032	438	462	18,000	200/D

Class of conductor 2 : Strand G : Ground conductor D : Packing in drum

VCT

TIS 11 Part 101-2553

450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, ROUND TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper
Single-core : Sizes 4 mm² up to 35 mm²
Multi-cores : Sizes 4 mm² up to 35 mm²

Insulation : Polyvinyl chloride (PVC/D)

Core identification
Single-core : Black
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey

Sheath : Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553, Table 7

APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
1	4	5	0.9	1.4	8.6	4.95	0.0084	41	90	100/C
	6	5	0.9	1.4	9.4	3.30	0.0071	53	120	100/C
	10	5	1.1	1.8	12.0	1.91	0.0068	74	210	100/C
	16	5	1.1	1.8	13.5	1.21	0.0050	99	270	100/C
	25	5	1.3	2.2	16.0	0.780	0.0048	129	410	100/C
	35	5	1.3	2.2	17.5	0.554	0.0041	160	550	500/D
2	4	5	0.9	1.6	14.5	4.95	0.0084	34	230	100/C
	6	5	0.9	1.6	16.0	3.30	0.0071	44	320	100/C
	10	5	1.1	1.8	20.0	1.91	0.0068	63	500	500/D
	16	5	1.1	2.2	23.0	1.21	0.0050	82	700	500/D
	25	5	1.3	2.4	27.5	0.780	0.0048	108	1,000	500/D
	35	5	1.3	2.6	31.0	0.554	0.0041	133	1,400	500/D

Class of conductor 5 : Flexible

C : Packing in coil
D : Packing in drum

VCT

TIS 11 Part 101-2553

450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, ROUND TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper
Single-core : Sizes 4 mm² up to 35 mm²
Multi-cores : Sizes 4 mm² up to 35 mm²
Insulation : Polyvinyl chloride (PVC/D)
Core identification
Single-core : Black
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Sheath : Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553, Table 7

APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	4	5.9200	0.58267	0.18305	5.9228
	6	3.9500	0.54956	0.17265	3.9538
	10	2.2900	0.54230	0.17037	2.2963
	16	1.4500	0.52085	0.16363	1.4592
	25	0.9334	0.51783	0.16268	0.9475
	35	0.6630	0.49968	0.15698	0.6813
2	4	5.9200	0.29835	0.09373	5.9207
	6	3.9500	0.27741	0.08715	3.9510
	10	2.2900	0.29736	0.08474	2.4418
	16	1.4520	0.25745	0.08088	1.4543
	25	0.9369	0.25468	0.08001	0.9403
	35	0.6677	0.24497	0.07696	0.6721

VCT

TIS 11 Part 101-2553

450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, ROUND TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper
Single-core : Sizes 4 mm² up to 35 mm²
Multi-cores : Sizes 4 mm² up to 35 mm²
Insulation : Polyvinyl chloride (PVC/D)
Core identification
Single-core : Black
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Sheath : Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553, Table 7

APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
3	4	5	0.9	1.6	15.5	4.95	0.0084	29	280	100/C
	6	5	0.9	1.8	17.5	3.30	0.0071	38	390	100/C
	10	5	1.1	2.0	21.5	1.91	0.0068	53	650	500/D
	16	5	1.1	2.4	25.0	1.21	0.0050	71	900	500/D
	25	5	1.3	2.6	30.0	0.780	0.0048	94	1,300	500/D
	35	5	1.3	2.8	33.5	0.554	0.0041	116	1,700	500/D
4	4	5	0.9	1.8	17.0	4.95	0.0084	29	350	100/C
	6	5	0.9	2.0	19.5	3.30	0.0071	38	490	100/C
	10	5	1.1	2.2	24.0	1.91	0.0068	53	800	500/D
	16	5	1.1	2.6	28.0	1.21	0.0050	71	1,100	500/D
	25	5	1.3	2.8	33.0	0.780	0.0048	94	1,700	500/D
	35	5	1.3	3.1	37.0	0.554	0.0041	116	2,200	500/D

Class of conductor 5 : Flexible

C : Packing in coil
D : Packing in drum

VCT

TIS 11 Part 101-2553

450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, ROUND TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper
Single-c : Sizes 4 mm² up to 35 mm²
Multi-cor: Sizes 4 mm² up to 35 mm²
Insulation : Polyvinyl chloride (PVC/D)
Core identification
Single-co : Black
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Sheath : Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553, Table 7

APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
3	4	5.9200	0.29835	0.09373	5.9207
	6	3.9500	0.27741	0.08715	3.9510
	10	2.2900	0.26977	0.08475	2.2916
	16	1.4500	0.25745	0.08088	1.4523
	25	0.9335	0.25468	0.08001	0.9369
	35	0.6632	0.24497	0.07696	0.6677
4	4	5.9200	0.34495	0.10837	5.9210
	6	3.9500	0.32410	0.10182	3.9513
	10	2.2900	0.31624	0.09935	2.2922
	16	1.4500	0.30417	0.09556	1.7366
	25	0.9335	0.30171	0.09469	0.9383
	35	0.6631	0.29062	0.09130	0.6694

VCT-G

TIS 11 Part 101-2553

450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED WITH GROUND, ROUND TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper
Multi-cores : Sizes 4 mm² up to 35 mm²
Ground wire : Flexible annealed copper
Multi-cores : Sizes 4 mm² up to 16 mm²
Insulation : Polyvinyl chloride (PVC/D)
Core identification
2 Cores : Blue and Brown
3 Cores : Blue,Brown and Grey
4 Cores : Blue,Brown,Black and Grey
Ground core : Green/Yellow
Sheath : Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553, Table 8

APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2+G	4	5	0.9	1.6	15.5	4.95	0.0084	34	280	100/C
	4 (G)	5	0.9			4.95				
	6	5	0.9	1.8	17.5	3.30	0.0071	44	400	100/C
	6 (G)	5	0.9			3.30				
	10	5	1.1	2.0	21.5	1.91	0.0068	63	650	500/D
	10 (G)	5	1.1			1.91				
	16	5	1.1	2.4	25.0	1.21	0.0050	82	900	500/D
	16 (G)	5	1.1			1.21				
	25	5	1.3	2.6	28.5	0.780	0.0048	108	1,200	500/D
	16 (G)	5	1.1			1.21				
	35	5	1.3	2.8	31.5	0.554	0.0041	133	1,500	500/D
	16 (G)	5	1.1			1.21				

Class of conductor 5 : Flexible

G : Ground conductor

C : Packing in coil
D : Packing in drum

VCT-G

TIS 11 Part 101-2553

450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED WITH GROUND, ROUND TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper
Multi-cores : Sizes 4 mm² up to 35 mm²

Ground wire : Flexible annealed copper
Multi-cores : Sizes 4 mm² up to 16 mm²

Insulation : Polyvinyl chloride (PVC/D)

Core identification
2 Cores : Blue and Brown
3 Cores : Blue,Brown and Grey
4 Cores : Blue,Brown,Black and Grey
Ground core : Green/Yellow

Sheath : Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts

Reference standard : TIS 11 Part 101-2553, Table 8

APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

Number of core	Nominal cross sectional area (mm²)	Class of Conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
3+G	4 4 (G)	5 5	0.9 0.9	1.8	17.0	4.95 4.95	0.0084	29	360	100/C
	6 6 (G)	5 5	0.9 0.9	2.0	19.5	3.30 3.30	0.0071	38	500	100/C
	10 10 (G)	5 5	1.1 1.1	2.2	24.0	1.91 1.91	0.0068	53	800	500/D
	16 16 (G)	5 5	1.1 1.1	2.6	28.0	1.21 1.21	0.0050	71	1,200	500/D
	25 16 (G)	5 5	1.3 1.1	2.8	33.0	0.780 1.21	0.0048	94	1,600	500/D
	35 16 (G)	5 5	1.3 1.1	3.1	37.0	0.554 1.21	0.0041	116	2,100	500/D

Class of conductor 5 : Flexible

G : Ground conductor

C : Packing in coil
D : Packing in drum

VCT-G

TIS 11 Part 101-2553

450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED WITH GROUND, ROUND TYPE

CABLE STRUCTURE

Conductor : Flexible annealed copper
Multi-cores : Sizes 4 mm² up to 35 mm²

Ground wire : Flexible annealed copper
Multi-cores : Sizes 4 mm² up to 16 mm²

Insulation : Polyvinyl chloride (PVC/D)

Core identification
2 Cores : Blue and Brown
3 Cores : Blue,Brown and Grey
4 Cores : Blue,Brown,Black and Grey
Ground core : Green/Yellow

Sheath : Black polyvinyl chloride (PVC/ST5)

TECHNICAL DATA

Classification: Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts

Reference standard : TIS 11 Part 101-2553, Table 8

APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

Number of core	Nominal cross sectional area (mm²)	Class of conductor	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter maximum (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
4+G	4 4 (G)	5 5	0.9 0.9	1.8	18.5	4.95 4.95	0.0084	29	440	100/C
	6 6 (G)	5 5	0.9 0.9	2.0	21.5	3.30 3.30	0.0071	38	600	500/D
	10 10 (G)	5 5	1.1 1.1	2.2	26.5	1.91 1.91	0.0068	53	1,000	500/D
	16 16 (G)	5 5	1.1 1.1	2.6	30.5	1.21 1.21	0.0050	71	1,400	500/D
	25 16 (G)	5 5	1.3 1.1	2.8	36.5	0.780 1.21	0.0048	94	2,000	500/D
	35 16 (G)	5 5	1.3 1.1	3.1	41.5	0.554 1.21	0.0041	116	2,600	500/D

Class of conductor 5 : Flexible

G : Ground conductor

C : Packing in coil
D : Packing in drum

Copper Conductor Cables

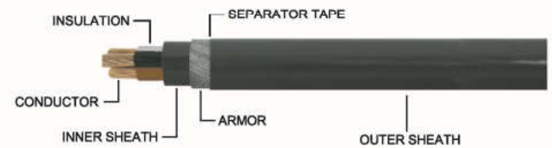
Low Voltage Power Cables

B

500V-NYY-SWA

THAI-YAZAKI STANDARD

300/500 V 70°C PVC INSULATED AND DOUBLE SHEATHED, WITH GALVANIZED STEEL WIRES ARMORED POWER CABLE



CABLE STRUCTURE

Conductor : Solid and stranded annealed copper, Sizes 1.5 mm^2 up to 35 mm^2

Insulation : Polyvinyl chloride (PVC/C)

Core identification

2 Cores : Blue and Brown

3 Cores : Brown, Black and Grey

4 Cores : Blue, Brown, Black and Grey

Other colors are available on customer request

Armor : Galvanized Steel Wires

Inner Sheath : Black polyvinyl chloride (PVC)

Outer Sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification :Maximum conductor temperature 70°C
:Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 4-2553

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

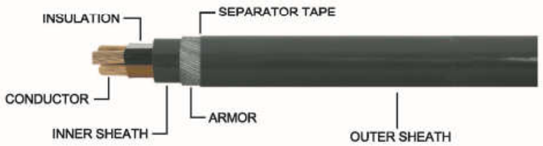
Number of core	Nominal cross sectional area (mm²)	Number and diameter of wire (No./mm)	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Diameter of steel wire armor nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in underground maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2	1.5	1/1.38	0.7	0.4	0.8	1.8	12.5	12.1	0.011	29	300	500/D
	1.5	7/0.53	0.7	0.4	0.8	1.8	13.0	12.1	0.010	29	310	500/D
	2.5	1/1.78	0.8	0.4	0.8	1.8	14.0	7.41	0.010	38	320	500/D
	2.5	7/0.67	0.8	0.4	0.8	1.8	14.5	7.41	0.009	38	340	500/D
	4	1/2.25	0.8	0.4	0.8	1.8	15.0	4.61	0.0085	50	370	500/D
	4	7/0.85	0.8	0.4	0.8	1.8	15.5	4.61	0.0077	50	400	500/D
	6	7/1.04	0.8	0.4	0.8	1.8	17.5	3.08	0.0065	63	600	500/D
	10	7/1.35	1.0	0.6	1.25	1.8	21.0	1.83	0.0065	84	950	500/D
	16	7/1.70	1.0	0.6	1.6	1.8	24.0	1.15	0.0052	109	1,300	500/D
	25	7/2.14	1.2	0.8	1.6	1.8	28.0	0.727	0.0050	141	2,000	500/D
	35	19/1.53	1.2	1.0	2.0	1.9	31.0	0.524	0.0044	169	2,400	500/D

D : Packing in drum

500V-NYY-SWA

THAI-YAZAKI STANDARD

300/500 V 70°C PVC INSULATED AND DOUBLE SHEATHED, WITH GALVANIZED STEEL WIRES ARMORED POWER CABLE



CABLE STRUCTURE

Conductor : Solid and stranded annealed copper, Sizes 1.5 mm^2 up to 35 mm^2

Insulation : Polyvinyl chloride (PVC/C)

Core identification

2 Cores : Blue and Brown

3 Cores : Brown, Black and Grey

4 Cores : Blue, Brown, Black and Grey

Other colors are available on customer request

Armor : Galvanized Steel Wires

Inner Sheath : Black polyvinyl chloride (PVC)

Outer Sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C

: Circuit voltage not exceeding 300/500 Volts

300 Volts between Line-to-Earth

500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 4-2553

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Number and diameter of wire (No./mm)	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Diameter of steel wire armor nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in underground maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
3	1.5	1/1.38	0.7	0.4	0.8	1.8	13.0	12.1	0.011	25	330	500/D
	1.5	7/0.53	0.7	0.4	0.8	1.8	13.5	12.1	0.010	25	340	500/D
	2.5	1/1.78	0.8	0.4	0.8	1.8	14.5	7.41	0.010	33	350	500/D
	2.5	7/0.67	0.8	0.4	0.8	1.8	15.0	7.41	0.009	33	380	500/D
	4	1/2.25	0.8	0.4	0.8	1.8	15.5	4.61	0.0085	43	420	500/D
	4	7/0.85	0.8	0.4	0.8	1.8	16.0	4.61	0.0077	43	450	500/D
	6	7/1.04	0.8	0.4	1.25	1.8	18.5	3.08	0.0065	54	700	500/D
	10	7/1.35	1.0	0.6	1.25	1.8	22.0	1.83	0.0065	71	1,200	500/D
	16	7/1.70	1.0	0.8	1.6	1.8	25.0	1.15	0.0052	93	1,600	500/D
	25	7/2.14	1.2	0.8	2.0	1.9	30.0	0.727	0.0050	120	2,300	500/D
	35	19/1.53	1.2	1.0	2.0	2.0	33.0	0.524	0.0044	144	2,800	500/D

D : Packing in drum

500V-NYY-SWA

THAI-YAZAKI STANDARD

300/500 V 70°C PVC INSULATED AND DOUBLE SHEATHED, WITH GALVANIZED STEEL WIRES ARMORED POWER CABLE

CABLE STRUCTURE

Conductor : Solid and stranded annealed copper, Sizes 1.5 mm^2 up to 35 mm^2

Insulation : Polyvinyl chloride (PVC/C)

Core identification

2 Cores : Blue and Brown

3 Cores : Brown, Black and Grey

4 Cores : Blue, Brown, Black and Grey

Other colors are available on customer request

Armor : Galvanized Steel Wires

Inner Sheath : Black polyvinyl chloride (PVC)

Outer Sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C

: Circuit voltage not exceeding 300/500 Volts

300 Volts between Line-to-Earth

500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 4-2553

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Number and diameter of wire (No./mm)	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Diameter of steel wire armor nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in underground maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
4	1.5	1/1.38	0.7	0.4	0.8	1.8	13.5	12.1	0.011	25	360	500/D
	1.5	7/0.53	0.7	0.4	0.8	1.8	14.0	12.1	0.010	25	380	500/D
	2.5	1/1.78	0.8	0.4	0.8	1.8	15.5	7.41	0.010	33	400	500/D
	2.5	7/0.67	0.8	0.4	0.8	1.8	16.0	7.41	0.009	33	420	500/D
	4	1/2.25	0.8	0.4	1.25	1.8	17.5	4.61	0.0085	43	480	500/D
	4	7/0.85	0.8	0.4	1.25	1.8	18.5	4.61	0.0077	43	650	500/D
	6	7/1.04	0.8	0.6	1.25	1.8	20.0	3.08	0.0065	54	800	500/D
	10	7/1.35	1.0	0.6	1.6	1.8	24.0	1.83	0.0065	71	1,400	500/D
	16	7/1.70	1.0	0.8	1.6	1.8	27.0	1.15	0.0052	93	1,800	500/D
	25	7/2.14	1.2	1.0	2.0	2.0	33.0	0.727	0.0050	120	2,800	500/D
	35	19/1.53	1.2	1.0	2.0	2.1	36.0	0.524	0.0044	144	3,500	500/D

D : Packing in drum

NYY-SWA

THAI-YAZAKI STANDARD

450/750 V 70°C PVC INSULATED AND DOUBLE SHEATHED, WITH GALVANIZED STEEL WIRES ARMORED POWER CABLE

CABLE STRUCTURE

Conductor : Solid and stranded annealed copper, Sizes 50 mm^2 up to 300 mm^2
Insulation : Polyvinyl chloride (PVC/C)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request
Armor : Galvanized Steel Wires
Inner Sheath : Black polyvinyl chloride (PVC)
Outer Sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
:Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	Number and diameter of wire (No./mm)	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Diameter of steel wire armor nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in underground maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2	50	19/1.78	1.5	1.2	2.0	2.1	36.0	0.387	0.0046	199	3,000	500/D
	70	19/2.14	1.5	1.5	2.0	2.2	41.0	0.268	0.0039	244	4,000	500/D
	95	19/2.52	1.7	1.5	2.5	2.4	47.0	0.193	0.0038	292	5,000	500/D
	120	37/2.03	1.7	1.5	2.5	2.6	51.0	0.153	0.0034	334	6,000	500/D
	150	37/2.25	1.9	1.8	2.5	2.7	56.0	0.124	0.0034	373	7,000	500/D
	185	37/2.52	2.1	1.8	2.5	2.9	61.0	0.099	0.0034	420	8,500	300/D
	240	61/2.25	2.3	2.0	2.5	3.1	68.0	0.075	0.0033	483	10,500	300/D
	300	61/2.52	2.5	2.0	3.15	3.4	76.0	0.0601	0.0032	538	13,500	200/D

D : Packing in drum

NYY-SWA

THAI-YAZAKI STANDARD

450/750 V 70°C PVC INSULATED AND DOUBLE SHEATHED, WITH GALVANIZED STEEL WIRES ARMORED POWER CABLE

CABLE STRUCTURE

Conductor : Solid and stranded annealed copper, Sizes 50 mm^2 up to 300 mm^2
Insulation : Polyvinyl chloride (PVC/C)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request
Armor : Galvanized Steel Wires
Inner Sheath : Black polyvinyl chloride (PVC)
Outer Sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
:Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts
Reference standard : TIS 11 Part 101-2553

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	Number and diameter of wire (No./mm)	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Diameter of steel wire armor nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in underground maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
3	50	19/1.78	1.5	1.5	2.0	2.2	39.0	0.387	0.0046	168	3,600	500/D
	70	19/2.14	1.5	1.5	2.0	2.3	43.0	0.268	0.0039	209	4,600	500/D
	95	19/2.52	1.7	1.5	2.5	2.5	50.0	0.193	0.0038	248	6,500	500/D
	120	37/2.03	1.7	1.8	2.5	2.7	55.0	0.153	0.0034	283	7,500	300/D
	150	37/2.25	1.9	1.8	2.5	2.8	59.0	0.124	0.0034	310	9,000	300/D
	185	37/2.52	2.1	2.0	2.5	3.0	65.0	0.0991	0.0034	357	10,500	300/D
	240	61/2.25	2.3	2.0	2.5	3.3	73.0	0.0754	0.0033	427	13,000	200/D
	300	61/2.52	2.5	2.2	3.15	3.5	81.0	0.0601	0.0032	453	17,000	200/D

D : Packing in drum

YAZAKI

NYY-SWA

THAI-YAZAKI STANDARD

450/750 V 70°C PVC INSULATED AND DOUBLE SHEATHED , WITH GALVANIZED STEEL WIRES ARMORED POWER CABLE

CABLE STRUCTURE

Conductor : Solid and stranded annealed copper, Sizes 50 mm^2 up to 300 mm^2

Insulation : Polyvinyl chloride (PVC/C)

Core identification

- 2 Cores : Blue and Brown
- 3 Cores : Brown, Black and Grey
- 4 Cores : Blue, Brown, Black and Grey

Other colors are available on customer request

Armor : Galvanized Steel Wires

Inner Sheath : Black polyvinyl chloride (PVC)

Outer Sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
:Circuit voltage not exceeding 450/750 Volts
450 Volts between Line-to-Earth
750 Volts between Line-to-Line

Testing voltage : 2,500 Volts

Reference standard : TIS 11 Part 101-2553

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Number and diameter of wire (No./mm)	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Diameter of steel wire armor nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Continuous current rating in underground maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
4	50	19/1.78	1.5	1.5	2.0	2.3	43.0	0.387	0.0046	168	4,300	500/D
	70	19/2.14	1.5	1.5	2.0	2.5	49.0	0.268	0.0039	209	6,000	500/D
	95	19/2.52	1.7	1.8	2.5	2.7	55.0	0.193	0.0038	248	8,000	300/D
	120	37/2.03	1.7	1.8	2.5	2.9	60.0	0.153	0.0034	283	9,000	300/D
	150	37/2.25	1.9	2.0	2.5	3.	65.0	0.124	0.0034	310	11,000	300/D
	185	37/2.52	2.1	2.0	2.5	3.2	72.0	0.0991	0.0034	357	13,000	200/D
	240	61/2.25	2.3	2.2	3.15	3.5	81.0	0.0754	0.0033	427	17,500	150/D
	300	61/2.52	2.5	2.2	3.15	3.8	89.0	0.0601	0.0032	453	21,000	150/D

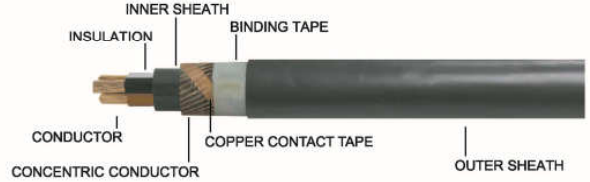
D : Packing in drum

YAZAKI

500V-NYCY

THAI-YAZAKI STANDARD

300/500 V 70°C PVC INSULATED AND DOUBLE SHEATHED, WITH CONCENTRIC CONDUCTORS POWER CABLE



CABLE STRUCTURE

Phase Conductor : Concentric stranded annealed copper wires, Sizes 1.5 mm^2 up to 35 mm^2

Concentric shield : Annealed copper wires with helix of copper tape fully covers

Insulation : Polyvinyl chloride (PVC/C)

Core identification

- 3 Cores : Brown, Black and Grey

Other colors are available on customer request

Inner Sheath : Polyvinyl chloride (PVC)

Outer Sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts
300 Volts between Line-to-Earth
500 Volts between Line-to-Line

Testing voltage : 2,000 Volts

Reference standard : TIS 11 Part 4-2553

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

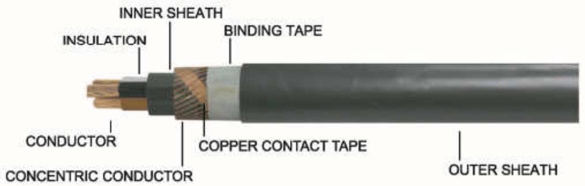
Nominal cross sectional area (mm²)		Number and diameter of wire (No./mm)		Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Outer thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
Phase	Concentric shield	Phase	Concentric shield									
3x1.5	1.5	1/1.38	8/0.50	0.7	0.4	1.2	11.5	12.1	0.011	25	180	500/D
3x1.5	1.5	7/0.53	8/0.50	0.7	0.4	1.2	12.0	12.1	0.010	25	190	500/D
3x2.5	2.5	1/1.78	13/0.50	0.8	0.4	1.2	13.0	7.41	0.010	33	250	500/D
3x2.5	2.5	7/0.67	13/0.50	0.8	0.4	1.2	14.0	7.41	0.009	33	260	500/D
3x4	4	1/2.25	14/0.60	0.8	0.4	1.2	14.5	4.61	0.0085	43	320	500/D
3x4	4	7/0.85	14/0.60	0.8	0.4	1.2	15.0	4.61	0.0077	43	340	500/D
3x6	6	7/1.04	21/0.60	0.8	0.4	1.4	19.5	3.08	0.0065	54	460	500/D
3x10	10	7/1.35	20/0.80	1.0	0.6	1.4	20.0	1.83	0.0065	71	700	500/D
3x16	16	7/1.70	19/1.04	1.0	0.8	1.4	24.0	1.15	0.0052	93	1,000	500/D
3x25	16	7/2.14	19/1.04	1.2	0.8	1.6	28.0	0.727	0.0050	120	1,500	500/D
3x35	16	19/1.53	19/1.04	1.2	1.0	1.6	31.0	0.524	0.0044	144	1,800	500/D

D : Packing in drum

NYCY

THAI-YAZAKI STANDARD

450/750 V 70°C PVC INSULATED AND DOUBLE SHEATHED, WITH CONCENTRIC CONDUCTORS POWER CABLE



CABLE STRUCTURE

Phase Conductor : Concentric stranded annealed copper wires, Sizes 50 mm^2 up to 300 mm^2

Concentric shield : Annealed copper wires with helix of copper tape fully covers

Insulation : Polyvinyl chloride (PVC/C)

Core identification

3 Cores : Brown, Black and Grey

Other colors are available on customer request

Inner Sheath : Polyvinyl chloride (PVC)

Outer Sheath : Black polyvinyl chloride (PVC/ST4)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C

: Circuit voltage not exceeding 450/750 Volts

450 Volts between Line-to-Earth

750 Volts between Line-to-Line

Testing voltage : 2,500 Volts

Reference standard : TIS 11 Part 101-2553

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Nominal cross sectional area (mm^2)		Number and diameter of wire (No./mm)		Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Outer thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
Phase	Concentric shield	Phase	Concentric shield									
3x50	25	19/1.78	25/1.13	1.5	1.5	2.2	38.0	0.387	0.0046	142	2,600	500/D
3x50	35	19/1.78	23/1.38	1.5	1.5	2.2	39.0	0.387	0.0046	142	2,700	500/D
3x70	35	19/2.14	23/1.38	1.5	1.5	2.2	43.0	0.268	0.0039	178	3,500	500/D
3x70	50	19/2.14	27/1.53	1.5	1.5	2.2	43	0.268	0.0039	178	3,600	500/D
3x95	50	19/2.52	27/1.53	1.7	1.5	2.4	48	0.193	0.0038	219	4,700	500/D
3x95	70	19/2.52	31/1.70	1.7	1.5	2.4	49	0.193	0.0038	219	5,000	500/D
3x120	70	37/2.03	31/1.70	1.7	1.8	2.6	53	0.153	0.0034	254	6,000	500/D
3x120	95	37/2.03	36/1.83	1.7	1.8	2.6	54	0.153	0.0034	254	6,000	500/D
3x150	70	37/2.25	31/1.70	1.9	1.8	2.8	58	0.124	0.0034	290	7,000	300/D
3x150	95	37/2.25	36/1.83	1.9	1.8	2.8	58	0.1240	0.0034	290	7,500	300/D
3x150	120	37/2.25	37/2.03	1.9	1.8	2.8	59	0.1240	0.0034	290	7,500	300/D
3x185	95	37/2.52	36/1.83	2.1	2.0	3.0	64	0.0991	0.0034	332	9,000	300/D
3x185	120	37/2.52	37/2.03	2.1	2.0	3.0	65	0.0991	0.0034	332	9,000	300/D
3x240	120	61/2.25	37/2.03	2.3	2.0	3.2	72	0.0601	0.0033	389	11,500	200/D
3x300	150	61/2.52	41/2.14	2.5	2.2	3.4	79	0.0601	0.0032	445	14,000	200/D

D : Packing in drum

FD-0.6/1KV-CV

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric Stranded and compacted round annealed copper

Single-core : Sizes 1.5 mm² up to 1,000 mm²

Multi-cores : Sizes 1.5 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification

Single-core : Natural (Translucent)

2 Cores : Blue and Brown

3 Cores : Brown, Black and Grey

4 Cores : Blue, Brown, Black and Grey

Other colors are available on customer request

Sheath ; Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C

: Circuit voltage not exceeding 1,200 Volts

Rated voltage (U_0/U) 0.6/1 kV

600 Volts between Line-to-Earth

1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1

IEC 60332-3 Cat.C

APPLICATION

Use for installation in open tray, conduit, underground duct trench or direct burial in ground, at wet or dry location.

Number of core	Nominal cross sectional area (mm²)	Number of wires minimum (No./mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
1	1.5	7/0.53	0.7	1.4	6.3	12.1	2,500	31	50	500/D
	2.5	7/0.67	0.7	1.4	6.8	7.41	2,100	42	65	500/D
	4	7/0.85	0.7	1.4	7.3	4.61	1,700	55	80	500/D
	6	7/1.04	0.7	1.4	7.9	3.08	1,450	69	110	500/D
	10	6	0.7	1.4	8.4	1.83	1,250	93	150	500/D
	16	6	0.7	1.4	9.4	1.15	1,000	123	210	500/D
	25	6	0.9	1.4	11.0	0.727	1,050	164	310	500/D
	35	6	0.9	1.4	12.0	0.524	900	202	400	500/D
	50	6	1.0	1.4	13.5	0.387	850	245	550	500/D
	70	12	1.1	1.4	15.0	0.268	800	309	750	500/D
	95	15	1.1	1.5	17.5	0.193	650	383	1,000	500/D
	120	18	1.2	1.5	19.0	0.153	650	446	1,300	500/D
	150	18	1.4	1.6	21	0.124	700	510	1,500	500/D
	185	30	1.6	1.6	23	0.0991	700	591	1,900	500/D
	240	34	1.7	1.7	26	0.0754	650	705	2,500	500/D
	300	34	1.8	1.8	29	0.0601	600	814	3,100	500/D
	400	53	2.0	1.9	32	0.0470	600	950	3,900	500/D
	500	53	2.2	2.0	36	0.0366	600	1,111	5,000	500/D
	630	53	2.4	2.2	40	0.0283	550	1,293	6,500	500/D
	800	53	2.6	2.3	45	0.0221	550	1,486	8,500	300/D
	1,000	53	2.8	2.4	51	0.0176	500	1,701	10,500	300/D

D : Packing in drum

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FD-0.6/1KV-CV

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric Stranded and compacted round annealed copper
Single-core : Sizes 1.5 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 1.5 mm^2 up to 400 mm^2

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standard : IEC 60502-1,IEC 60228,IEC 60332-1
IEC 60332-3 Cat.C

APPLICATION

Use for installation in open tray, conduit, underground duct trench or direct burial in ground, at wet or dry location.

Number of core	Nominal cross sectional area (mm^2)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	1.5	15.4287	0.5005	0.1572	15.4295
	2.5	9.4485	0.4665	0.1466	9.4496
	4	5.8782	0.4339	0.1363	5.8798
	6	3.9273	0.4103	0.1289	3.9295
	10	2.3335	0.3916	0.1230	2.3367
	16	1.4665	0.3670	0.1153	1.4710
	25	0.9272	0.3540	0.1112	0.9338
	35	0.6684	0.3410	0.1070	0.6769
	50	0.4938	0.3300	0.1037	0.5046
	70	0.3423	0.3200	0.1005	0.3567
	95	0.2469	0.3120	0.0982	0.2657
	120	0.1961	0.3070	0.0965	0.2185
	150	0.1594	0.3070	0.0965	0.1863
	185	0.1279	0.3050	0.0958	0.1598
	240	0.0983	0.3000	0.0943	0.1362
	300	0.0793	0.2970	0.0934	0.1225
	400	0.0633	0.2950	0.0927	0.1122
	500	0.0510	0.2920	0.0914	0.1050
	630	0.0415	0.2900	0.0911	0.1001
	800	0.0348	0.2870	0.0903	0.0967
	1,000	0.0303	0.2830	0.0889	0.0939

Laying Type : Touching

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FD-0.6/1KV-CV

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric Stranded and compacted round annealed copper
Single-core : Sizes 1.5 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 1.5 mm^2 up to 400 mm^2

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standard : IEC 60502-1,IEC 60228,IEC 60332-1
IEC 60332-3 Cat.C

APPLICATION

Use for installation in open tray, conduit, underground duct trench or direct burial in ground, at wet or dry location.

Number of core	Nominal cross sectional area (mm^2)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	1.5	15.4287	0.6391	0.2008	15.4300
	2.5	9.4485	0.6051	0.1901	9.4500
	4	5.9782	0.5726	0.1799	5.8810
	6	3.9273	0.5489	0.1724	3.9311
	10	2.3335	0.5302	0.1666	2.3394
	16	1.4664	0.5056	0.1589	1.4750
	25	0.9271	0.4930	0.1547	0.9399
	35	0.6683	0.4790	0.1506	0.6851
	50	0.4937	0.4690	0.1473	0.5152
	70	0.3420	0.4590	0.1441	0.3711
	95	0.2465	0.4510	0.1417	0.2844
	120	0.1957	0.4460	0.1400	0.2406
	150	0.1588	0.4460	0.1400	0.2117
	185	0.1272	0.4440	0.1394	0.1887
	240	0.0973	0.4390	0.1379	0.1688
	300	0.0781	0.4360	0.1369	0.1576
	400	0.0618	0.3430	0.1362	0.1496
	500	0.0490	0.4310	0.1353	0.1439
	630	0.0390	0.4290	0.1347	0.1402
	800	0.0318	0.4260	0.1338	0.1375
	1,000	0.0268	0.4210	0.1324	0.1351

Laying type : Spacing

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CABLE STRUCTURE

Conductor : Concentric Stranded and compacted round annealed copper
Single-core : Sizes 1.5 mm² up to 1,000 mm²
Multi-cores : Sizes 1.5 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standard: IEC 60502-1,IEC 60228,IEC 60332-1
IEC 60332-3 Cat.C

APPLICATION

Use for installation in open tray, conduit, underground duct trench or direct burial in ground, at wet or dry location.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	1.5	15.4287	0.4542	0.1427	15.4294
	2.5	9.4485	0.4203	0.1320	9.4494
	4	5.8782	0.3877	0.1218	5.8795
	6	3.9273	0.3640	0.1144	3.9280
	10	2.3335	0.3453	0.1085	2.3360
	16	1.4665	0.3208	0.1008	1.4699
	25	0.9272	0.3080	0.0967	0.9322
	35	0.6684	0.2950	0.0925	0.6748
	50	0.4938	0.2840	0.0892	0.5018
	70	0.3423	0.2740	0.0860	0.3529
	95	0.2469	0.2660	0.0836	0.2607
	120	0.1961	0.2610	0.0820	0.2125
	150	0.1594	0.2610	0.0819	0.1792
	185	0.1279	0.2590	0.0813	0.1516
	240	0.0983	0.2540	0.0798	0.1266
	300	0.0793	0.2510	0.0788	0.1118
	400	0.0633	0.2490	0.0781	0.1006
	500	0.0501	0.2460	0.0772	0.0925
	630	0.0415	0.2440	0.0766	0.0871
	800	0.0348	0.2410	0.0757	0.0834
	1,000	0.0303	0.2370	0.0743	0.0803

Laying Type : Trefoil

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FD-0.6/1KV-CV

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric Stranded and compacted round annealed copper
Single-core : Sizes 1.5 mm² up to 1,000 mm²
Multi-cores : Sizes 1.5 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standard : IEC 60502-1,IEC 60228,IEC 60332-1
IEC 60332-3 Cat.C

APPLICATION

Use for installation in open tray, conduit, underground duct trench or direct burial in ground, at wet or dry location.

Number of core	Nominal cross sectional area (mm²)	Number of wires minimum (No./mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
2	1.5	7/0.53	0.7	1.8	11.0	12.1	2,500	27	130	500/D
	2.5	7/0.67	0.7	1.8	12.0	7.41	2,100	35	160	500/D
	4	7/0.85	0.7	1.8	13.0	4.61	1,700	46	200	500/D
	6	7/1.04	0.7	1.8	14.0	3.08	1,450	59	260	500/D
	10	6	0.7	1.8	15.0	1.83	1,250	79	340	500/D
	16	6	0.7	1.8	17.0	1.15	1,000	106	480	500/D
	25	6	0.9	1.8	21	0.727	1,050	141	700	500/D
	35	6	0.9	1.8	23	0.524	900	173	900	500/D
	50	6	1.0	1.8	26	0.387	850	213	1,200	500/D
	70	12	1.1	1.8	29	0.268	800	268	1,600	500/D
	95	15	1.1	2.0	33	0.193	650	329	2,200	500/D
	120	18	1.2	2.1	37	0.153	650	381	2,800	500/D
	150	18	1.4	2.2	41	0.124	700	436	3,400	500/D
	185	30	1.6	2.3	45	0.0991	700	503	4,200	500/D
	240	34	1.7	2.5	51	0.0754	650	593	5,500	500/D
	300	34	1.8	2.7	56	0.0601	600	676	7,000	300/D
	400	53	2.0	2.9	63	0.0470	600	777	8,500	300/D

D : Packing in drum

YAZAKI

FD-0.6/1KV-CV

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric Stranded and compacted round annealed copper
Single-core : Sizes 1.5 mm² up to 1,000 mm²
Multi-cores : Sizes 1.5 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standard : IEC 60502-1,IEC 60228,IEC 60332-1
IEC 60332-3 Cat.C

APPLICATION

Use for installation in open tray, conduit, underground duct trench or direct burial in ground, at wet or dry location.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
2	1.5	15.3997	0.3270	0.1028	15.4000
	2.5	9.4495	0.3000	0.0941	9.4500
	4	5.8803	0.2790	0.0876	5.8810
	6	3.9301	0.2660	0.0837	3.9310
	10	2.3296	0.2570	0.0806	2.3310
	16	1.4700	0.2440	0.0767	1.4720
	25	0.9272	0.2440	0.0768	0.9304
	35	0.6232	0.2380	0.0748	0.6277
	50	0.4939	0.2340	0.0736	0.4994
	70	0.3424	0.2310	0.0726	0.3500
	95	0.2456	0.2250	0.0725	0.2561
	120	0.1963	0.2240	0.0706	0.2086
	150	0.1599	0.2250	0.0702	0.1747
	185	0.1283	0.2270	0.0712	0.1468
	240	0.0987	0.2240	0.0704	0.1212
	300	0.0799	0.2220	0.0698	0.1061
	400	0.0640	0.2220	0.0696	0.0946

YAZAKI

FD-0.6/1KV-CV

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric Stranded and compacted round annealed copper
Single-core : Sizes 1.5 mm² up to 1,000 mm²
Multi-cores : Sizes 1.5 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
2 Cores : Blue and Brown
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Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
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Testing voltage : 3,500 Volts

Reference standard : IEC 60502-1,IEC 60228,IEC 60332-1
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APPLICATION

Use for installation in open tray, conduit, underground duct trench or direct burial in ground, at wet or dry location.

Number of core	Nominal cross sectional area (mm²)	Number of wires minimum (No./mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
3	1.5	7/0.53	0.7	1.8	11.5	12.1	2,500	22	150	500/D
	2.5	7/0.67	0.7	1.8	12.5	7.41	2,100	29	190	500/D
	4	7/0.85	0.7	1.8	13.5	4.61	1,700	39	250	500/D
	6	7/1.04	0.7	1.8	15.0	3.08	1,450	49	320	500/D
	10	6	0.7	1.8	16.0	1.83	1,250	66	450	500/D
	16	6	0.7	1.8	18.0	1.15	1,000	88	650	500/D
	25	6	0.9	1.8	22	0.727	1,050	118	950	500/D
	35	6	0.9	1.8	24	0.524	900	145	1,300	500/D
	50	6	1.0	1.8	27	0.387	850	176	1,600	500/D
	70	12	1.1	1.9	31	0.268	800	222	2,300	500/D
	95	15	1.1	2.0	36	0.193	650	272	3,100	500/D
	120	18	1.2	2.1	39	0.153	650	320	3,900	500/D
	150	18	1.4	2.3	44	0.124	700	366	4,800	500/D
	185	30	1.6	2.4	49	0.0991	700	422	6,000	500/D
	240	34	1.7	2.6	55	0.0754	650	498	8,000	300/D
	300	34	1.8	2.8	61	0.0601	600	567	9,500	300/D
	400	53	2.0	3.1	68	0.0470	600	652	12,500	200/D

D : Packing in drum

FD-0.6/1KV-CV

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric Stranded and compacted round annealed copper
Single-core : Sizes 1.5 mm² up to 1,000 mm²
Multi-cores : Sizes 1.5 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standard : IEC 60502-1,IEC 60228,IEC 60332-1
IEC 60332-3 Cat.C

APPLICATION

Use for installation in open tray, conduit, underground duct trench or direct burial in ground, at wet or dry location.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
3	1.5	15.4000	0.3273	0.1028	15.4000
	2.5	9.4500	0.2996	0.0941	9.4500
	4	5.8800	0.2787	0.0876	5.8810
	6	3.9300	0.2663	0.0837	3.9310
	10	2.3300	0.2567	0.0806	2.3310
	16	1.4700	0.2440	0.0767	1.4720
	25	0.9272	0.2445	0.0768	0.9304
	35	0.6685	0.2381	0.0748	0.6727
	50	0.4939	0.2342	0.0736	0.4994
	70	0.3424	0.2308	0.0725	0.3500
	95	0.2471	0.2248	0.0706	0.2561
	120	0.1964	0.2235	0.0702	0.2086
	150	0.1597	0.2251	0.0707	0.1747
	185	0.1283	0.2267	0.0712	0.1468
	240	0.0987	0.2240	0.0704	0.1212
	300	0.0799	0.2222	0.0698	0.1061
	400	0.0640	0.2216	0.0696	0.0946

FD-0.6/1KV-CV

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric Stranded and compacted round annealed copper
Single-core : Sizes 1.5 mm² up to 1,000 mm²
Multi-cores : Sizes 1.5 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standard : IEC 60502-1,IEC 60228,IEC 60332-1
IEC 60332-3 Cat.C

APPLICATION

Use for installation in open tray, conduit, underground duct trench or direct burial in ground, at wet or dry location.

Number of core	Nominal cross sectional area (mm²)	Number of wires minimum (No./mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
4	1.5	7/0.53	0.7	1.8	12.0	12.1	2,500	22	180	500/D
	2.5	7/0.67	0.7	1.8	13.5	7.41	2,100	29	230	500/D
	4	7/0.85	0.7	1.8	14.5	4.61	1,700	39	300	500/D
	6	7/1.04	0.7	1.8	16.0	3.08	1,450	49	400	500/D
	10	6	0.7	1.8	17.5	1.83	1,250	66	550	500/D
	16	6	0.7	1.8	20	1.15	1,000	88	800	500/D
	25	6	0.9	1.8	24	0.727	1,050	118	1,200	500/D
	35	6	0.9	1.8	27	0.524	900	145	1,600	500/D
	50	6	1.0	1.9	30	0.387	850	176	2,100	500/D
	70	12	1.1	2.0	35	0.268	800	222	3,000	500/D
	95	15	1.1	2.1	39	0.193	650	272	4,000	500/D
	120	18	1.2	2.3	44	0.153	650	320	5,000	500/D
	150	18	1.4	2.4	49	0.124	700	366	6,500	500/D
	185	30	1.6	2.6	54	0.0991	700	422	8,000	300/D
	240	34	1.7	2.8	61	0.0754	650	498	10,000	300/D
	300	34	1.8	3.0	68	0.0601	600	567	12,500	200/D
	400	53	2.0	3.3	76	0.0470	600	652	16,000	200/D

D : Packing in drum

YAZAKI

FD-0.6/1KV-CV

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric Stranded and compacted round annealed copper
Single-core : Sizes 1.5 mm² up to 1,000 mm²
Multi-cores : Sizes 1.5 mm² up to 400 mm²

Insulation Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1 IEC 60332-3 Cat.C

APPLICATION

Use for installation in open tray, conduit, underground duct trench or direct burial in ground, at wet or dry location.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
4	1.5	15.3996	0.3740	0.1175	15.4000
	2.5	9.4504	0.3460	0.1088	9.4510
	4	5.8801	0.3250	0.1022	5.8810
	6	3.9298	0.3130	0.0983	3.9310
	10	2.3301	0.3040	0.0953	2.3320
	16	1.4702	0.2910	0.0913	1.4730
	25	0.9272	0.2910	0.0915	0.9317
	35	0.6684	0.2850	0.0895	0.6744
	50	0.4939	0.2810	0.0882	0.5017
	70	0.3423	0.2770	0.0872	0.3532
	95	0.2470	0.2710	0.0853	0.2613
	120	0.1962	0.2700	0.0849	0.2138
	150	0.1595	0.2720	0.0854	0.1809
	185	0.1280	0.2730	0.0859	0.1542
	240	0.0983	0.2710	0.0850	0.1300
	300	0.0794	0.2690	0.0845	0.1159
	400	0.0634	0.2680	0.0843	0.1055

YAZAKI

FD-0.6/1KV-CV-SWA

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHLENE INSULATED PVC SHEATHED, WITH GALVANIZED STEEL WIRES ARMORED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric stranded and compact stranded annealed copper
Sizes 1.5 mm² up to 400 mm²

Insulation : Cross-Linked polyethylene (XLPE)
Color : Natural (Translucent)

Core identification : Compound color or color tape
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Armor : Galvanized Steel Wires

Inner Sheath : Black polyvinyl chloride (PVC)

Outer Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1 IEC 60332-3 Cat.C

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Number of wires minimum (No./mm)	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Inner sheath diameter approx. (mm)	Diameter of steel wire armor nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Cable weight approx. (kg/km)	Standard length (m)
2	1.5	7/0.53	0.7	1.2	9.7	0.80	1.8	15.0	12.1	380	500/D
	2.5	7/0.67	0.7	1.2	10.5	0.80	1.8	16.5	7.41	420	500/D
	4	7/0.85	0.7	1.2	11.5	1.25	1.8	18.0	4.61	600	500/D
	6	7/1.04	0.7	1.2	12.5	1.25	1.8	19.5	3.08	700	500/D
	10	6	0.7	1.2	14.0	1.25	1.8	20	1.83	800	500/D
	16	6	0.7	1.2	16.0	1.25	1.8	23	1.15	1,200	500/D
	25	6	0.9	1.2	19.0	1.60	1.8	26	0.727	1,500	500/D
	35	6	0.9	1.2	22	2.00	1.8	30	0.524	2,000	500/D
	50	6	1.0	1.2	24	2.00	1.9	33	0.387	2,400	500/D
	70	12	1.1	1.2	28	2.00	2.0	36	0.268	3,100	500/D
	95	15	1.1	1.2	32	2.00	2.1	40	0.193	3,800	500/D
	120	18	1.2	1.2	35	2.00	2.3	44	0.153	4,600	500/D
	150	18	1.4	1.3	39	2.00	2.4	48	0.124	6,000	500/D
	185	30	1.6	1.3	43	2.50	2.6	54	0.991	7,000	500/D
	240	34	1.7	1.4	49	2.50	2.7	60	0.0754	8,500	500/D
	300	34	1.8	1.5	54	2.50	2.9	66	0.0601	10,000	300/D
	400	53	2.0	1.7	61	2.50	3.2	73	0.0470	12,500	300/D

D : Packing in drum

YAZAKI

FD-0.6/1KV-CV-SWA

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHLENE INSULATED PVC SHEATHED, WITH GALVANIZED STEEL WIRES ARMORED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric stranded and compact stranded annealed copper
Sizes 1.5 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)
Color : Natural (Translucent)

Core identification : Compound color or color tape
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Armor : Galvanized Steel Wires

Inner Sheath : Black polyvinyl chloride (PVC)

Outer Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standa : IEC 60502-1,IEC 60228,IEC 60332-1
: IEC 60332-3 Cat.C

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
2	1.5	15.3997	0.3273	0.1028	15.4000
	2.5	9.4495	0.2996	0.0941	9.4500
	4	5.8803	0.2787	0.0876	5.8810
	6	3.9301	0.2663	0.0837	3.9310
	10	2.3296	0.2567	0.0806	2.3310
	16	1.4700	0.2440	0.0767	1.4720
	25	0.9272	0.2445	0.0768	0.9304
	35	0.6685	0.2381	0.0748	0.6727
	50	0.4939	0.2342	0.0736	0.4994
	70	0.3424	0.2308	0.0725	0.3500
	95	0.2462	0.2248	0.0706	0.2561
	120	0.1964	0.2235	0.0702	0.2086
	150	0.1567	0.2251	0.0707	0.1747
	185	0.1283	0.2267	0.0712	0.1768
	240	0.0987	0.2240	0.0704	0.1212
	300	0.0799	0.2222	0.0698	0.1061
	400	0.0640	0.2216	0.6960	0.0946

YAZAKI

FD-0.6/1KV-CV-SWA

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHLENE INSULATED PVC SHEATHED, WITH GALVANIZED STEEL WIRES ARMORED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor : Concentric stranded and compact stranded annealed copper
Sizes 1.5 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)
Color : Natural (Translucent)

Core identification Compound color or color tape
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Armor : Galvanized Steel Wires

Inner Sheath : Black polyvinyl chloride (PVC)

Outer Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts

Reference standard : IEC 60502-1,IEC 60228,IEC 60332-1
IEC 60332-3 Cat.C

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Number of wires minimum (No./mm)	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Inner sheath diameter approx. (mm)	Diameter of steel wire armor nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Cable weight approx. (kg/km)	Standard length (m)
3	1.5	7/0.53	0.7	1.2	10.0	0.80	1.8	16.0	12.1	400	500/D
	2.5	7/0.67	0.7	1.2	11.0	1.25	1.8	18.0	7.41	550	500/D
	4	7/0.85	0.7	1.2	12.0	1.25	1.8	19.0	4.61	650	500/D
	6	7/1.04	0.7	1.2	13.5	1.25	1.8	20	3.08	800	500/D
	10	6	0.7	1.2	14.5	1.25	1.8	21	1.83	950	500/D
	16	6	0.7	1.2	17.0	1.60	1.8	24	1.15	1,300	500/D
	25	6	0.9	1.2	21.0	1.60	1.8	28	0.727	1,800	500/D
	35	6	0.9	1.2	23	2.00	1.8	31	0.524	2,400	500/D
	50	6	1.0	1.2	26	2.00	2.0	34	0.387	3,000	500/D
	70	12	1.1	1.2	30	2.00	2.1	39	0.268	3,800	500/D
	95	15	1.1	1.2	34	2.00	2.2	43	0.193	4,800	500/D
	120	18	1.2	1.2	38	2.00	2.3	47	0.153	6,000	500/D
	150	18	1.4	1.3	42	2.50	2.5	52	0.124	7,500	500/D
	185	30	1.6	1.4	47	2.50	2.7	58	0.0991	9,000	500/D
	240	34	1.7	1.5	53	2.50	2.9	64	0.0754	11,000	300/D
	300	34	1.8	1.6	58	[illegible]	3.0	70	0.0601	13,500	300/D
	400	53	2.0	1.8	65		3.4	80	0.0470	17,500	300/D

D : Packing in drum

YAZAKI

FD-0.6/1KV-CV-SWA

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED, WITH GALVANIZED STEEL WIRES ARMORED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor Concentric stranded and compact stranded annealed copper
Sizes 1.5 mm^2 up to 400 mm^2

Insulation Cross-Linked polyethylene (XLPE)
Color : Natural (Translucent)

Core identification Compound color or color tape
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Armor : Galvanized Steel Wires
Inner Sheath : Black polyvinyl chloride (PVC)
Outer Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts
Reference standard : IEC 60502-1,IEC 60228,IEC 60332-1
IEC 60332-3 Cat.C

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
3	1.5	15.3997	0.3273	0.1028	15.4000
	2.5	9.4495	0.2996	0.0941	9.4500
	4	5.8803	0.2787	0.0876	5.8810
	6	3.9301	0.2663	0.0837	3.9310
	10	2.3296	0.2567	0.0806	2.3310
	16	1.4700	0.2440	0.0767	1.4720
	25	0.9272	0.2445	0.0768	0.9304
	35	0.6685	0.2381	0.0748	0.6727
	50	0.4939	0.2342	0.0736	0.4994
	70	0.3424	0.2308	0.0725	0.3500
	95	0.2462	0.2248	0.0706	0.2561
	120	0.1964	0.2235	0.0702	0.2086
	150	0.1567	0.2251	0.0707	0.1747
	185	0.1283	0.2267	0.0712	0.1468
	240	0.0987	0.2240	0.0704	0.1212
	300	0.0799	0.2222	0.0698	0.1061
	400	0.0640	0.2216	0.0696	0.0946

YAZAKI

FD-0.6/1KV-CV-SWA

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED, WITH GALVANIZED STEEL WIRES ARMORED FLAME RETARDANT POWER CABLE

CABLE STRUCTURE

Conductor Concentric stranded and compact stranded annealed copper
Sizes 1.5 mm^2 up to 400 mm^2

Insulation Cross-Linked polyethylene (XLPE)
Color : Natural (Translucent)

Core identification Compound color or color tape
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
Other colors are available on customer request

Armor : Galvanized Steel Wires
Inner Sheath : Black polyvinyl chloride (PVC)
Outer Sheath : Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts
Rated voltage (U_0/U) 0.6/1 kV
600 Volts between Line-to-Earth
1,000 Volts between Line-to-Line

Testing voltage : 3,500 Volts
Reference standard : IEC 60502-1,IEC 60228,IEC 60332-1
IEC 60332-3 Cat.C

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

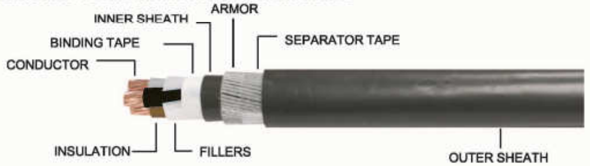
Number of core	Nominal cross sectional area (mm²)	Number of wires minimum (No./mm)	Insulation thickness nominal (mm)	Inner sheath thickness nominal (mm)	Inner sheath diameter approx. (mm)	Diameter of steel wire armor nominal (mm)	Outer sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Cable weight approx. (kg/km)	Standard length (m)
4	1.5	7/0.53	0.7	1.2	11.0	1.25	1.8	17.5	12.1	550	500/D
	2.5	7/0.67	0.7	1.2	12.0	1.25	1.8	19.0	7.41	650	500/D
	4	7/0.85	0.7	1.2	13.5	1.25	1.8	20	4.61	750	500/D
	6	7/1.04	0.7	1.2	15.0	1.25	1.8	21	3.08	900	500/D
	10	6	0.7	1.2	16.0	1.25	1.8	23	1.83	1,100	500/D
	16	6	0.7	1.2	18.5	1.60	1.8	26	1.15	1,600	500/D
	25	6	0.9	1.2	23	2.00	1.8	31	0.727	2,300	500/D
	35	6	0.9	1.2	25	2.00	1.9	34	0.524	2,900	500/D
	50	6	1.0	1.2	29	2.00	2.1	38	0.387	3,600	500/D
	70	12	1.1	1.2	33	2.00	2.2	42	0.268	4,700	500/D
	95	15	1.1	1.2	38	2.00	2.3	48	0.193	6,000	500/D
	120	18	1.2	1.3	42	2.50	2.5	53	0.153	7,500	500/D
	150	18	1.4	1.4	46	2.50	2.7	58	0.124	9,000	500/D
	185	30	1.6	1.5	52	2.50	2.8	64	0.0991	11,000	300/D
	240	34	1.7	1.6	59	2.50	3.1	71	0.0754	14,000	300/D
	300	34	1.8	1.7	65	3.15	3.3	79	0.0601	17,000	200/D
	400	53	2.0	1.9	73	3.15	3.6	87	0.0470	22,000	200/D

D : Packing in drum

FD-0.6/1KV-CV-SWA

IEC 60502-1

0.6/1 kV 90°C CROSS-LINKED POLYETHLENE INSULATED PVC SHEATHED, WITH GALVANIZED STEEL WIRES ARMORED FLAME RETARDANT POWER CABLE



CABLE STRUCTURE	
Conductor	Concentric stranded and compact stranded annealed copper Sizes 1.5 mm² up to 400 mm²
Insulation	Cross-Linked polyethylene (XLPE) Color : Natural (Translucent)
Core identification	Compound color or color tape 2 Cores : Blue and Brown 3 Cores : Brown, Black and Grey 4 Cores : Blue, Brown, Black and Grey Other colors are available on customer request
Armor	: Galvanized Steel Wires
Inner Sheath	: Black polyvinyl chloride (PVC)
Outer Sheath	: Black flame retardant polyvinyl chloride (PVC/ST2)

TECHNICAL DATA	
Classification	: Maximum conductor temperature 90°C : Circuit voltage not exceeding 1,200 Volts Rated voltage (U_0/U) 0.6/1 kV 600 Volts between Line-to-Earth 1,000 Volts between Line-to-Line
Testing voltage	: 3,500 Volts
Reference standard	: IEC 60502-1,IEC 60228,IEC 60332-1 IEC 60332-3 Cat.C

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
4	1.5	15.3996	0.3740	0.1175	15.4000
	2.5	9.4504	0.3460	0.1088	9.4510
	4	5.8801	0.3250	0.1022	5.8810
	6	3.9298	0.3130	0.0983	3.9310
	10	2.3301	0.3040	0.0953	2.3320
	16	1.4702	0.2910	0.0913	1.4730
	25	0.9272	0.2910	0.0915	0.9317
	35	0.6684	0.2850	0.0895	0.6744
	50	0.4939	0.2810	0.0882	0.5017
	70	0.3423	0.2770	0.0872	0.3532
	95	0.2470	0.2710	0.0853	0.2613
	120	0.1962	0.2700	0.0849	0.2138
	150	0.1595	0.2720	0.0854	0.1809
	185	0.1280	0.2730	0.0859	0.1542
	240	0.0983	0.2710	0.0850	0.1300
	300	0.0794	0.2690	0.0845	0.1159
	400	0.0634	0.2680	0.0843	0.1055

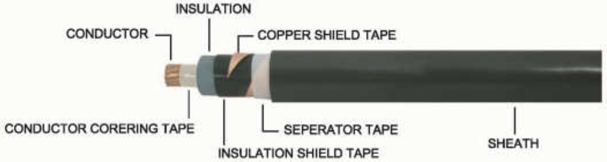
Copper Conductor Cables

Medium Voltage Power Cables

1.8/3KV-CV

IEC 60502-1

1.8/3(3.6)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper.
Single-core : Sizes 10 mm^2 up to 400 mm^2
Multi-cores : Sizes 10 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 3,600 Volts
Rated voltage (U_0/U) 1.8/3 kV
1,800 Volts between Line-to-Earth
3,000 Volts between Line-to-Line

Testing voltage : 6,500 Volts

Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
1	10	6	2.0	1.4	12.0	1.83	2,900	100	220	500/D
	16	6	2.0	1.4	13.0	1.15	2,450	132	290	500/D
	25	6	2.0	1.4	14.5	0.727	2,050	173	390	500/D
	35	6	2.0	1.4	15.5	0.524	1,800	211	490	500/D
	50	6	2.0	1.4	16.5	0.387	1,550	255	600	500/D
	70	12	2.0	1.5	18.5	0.268	1,350	321	850	500/D
	95	15	2.0	1.5	21	0.193	1,150	395	1,100	500/D
	120	18	2.0	1.6	22	0.153	1,050	457	1,400	500/D
	150	18	2.0	1.6	24	0.124	950	522	1,600	500/D
	185	30	2.0	1.7	26	0.0991	850	602	2,000	500/D
	240	34	2.0	1.8	28	0.0754	750	716	2,600	500/D
	300	34	2.0	1.8	30	0.0601	700	826	3,200	500/D
	400	53	2.0	2.0	33	0.0470	600	962	4,000	300/D

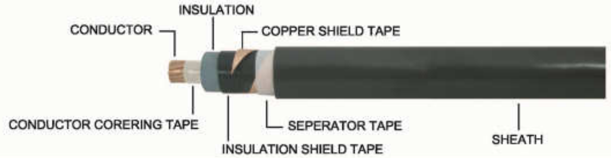
* Remark : Special protection can be produced

D : Packing in drum

1.8/3KV-CV

IEC 60502-1

1.8/3(3.6)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper.
Single-core : Sizes 10 mm^2 up to 400 mm^2
Multi-cores : Sizes 10 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 3,600 Volts
Rated voltage (U_0/U) 1.8/3 kV
1,800 Volts between Line-to-Earth
3,000 Volts between Line-to-Line

Testing voltage : 6,500 Volts

Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

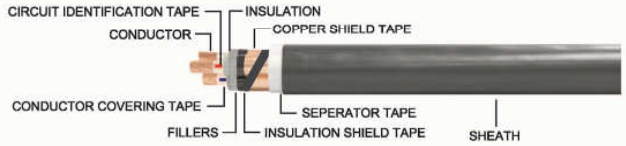
For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	10	2.3300	0.609	0.19126	2.33800
	16	1.4700	0.577	0.18126	1.48100
	25	0.9271	0.549	0.17252	0.94302
	35	0.6683	0.531	0.16691	0.68883
	50	0.4937	0.513	0.16127	0.51937
	70	0.3420	0.500	0.15691	0.37628
	95	0.2465	0.484	0.15218	0.28969
	120	0.1956	0.476	0.14962	0.24626
	150	0.1588	0.468	0.14713	0.21649
	185	0.1272	0.462	0.14509	0.19296
	240	0.0973	0.454	0.14258	0.17259
	300	0.0780	0.453	0.14218	0.16218
	400	0.0617	0.442	0.13893	0.15203

1.8/3KV-CV

IEC 60502-1

1.8/3(3.6)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper.
Single-core : Sizes 10 mm^2 up to 400 mm^2
Multi-cores : Sizes 10 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 3,600 Volts
Rated voltage (U_o/U) 1.8/3 kV
1,800 Volts between Line-to-Earth
3,000 Volts between Line-to-Line

Testing voltage : 6,500 Volts

Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location,
or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
3	10	6	2.0	1.8	23	1.83	2,900	72	650	500/D
	16	6	2.0	1.8	25	1.15	2,450	95	850	500/D
	25	6	2.0	1.8	28	0.727	2,050	125	1,200	300/D
	35	6	2.0	1.9	30	0.524	1,800	152	1,500	300/D
	50	6	2.0	2.0	33	0.387	1,550	184	1,900	300/D
	70	12	2.0	2.1	37	0.268	1,350	230	2,600	300/D
	95	15	2.0	2.2	41	0.193	1,150	284	3,500	200/D
	120	18	2.0	2.3	44	0.153	1,050	329	4,300	300/D
	150	18	2.0	2.4	48	0.124	950	373	5,000	300/D
	185	30	2.0	2.5	52	0.0991	850	432	6,500	300/D
	240	34	2.0	2.7	57	0.0754	750	515	8,000	300/D
	300	34	2.0	2.9	62	0.0601	700	586	10,000	300/D
	400	53	2.0	3.1	69	0.0470	600	670	12,500	200/D

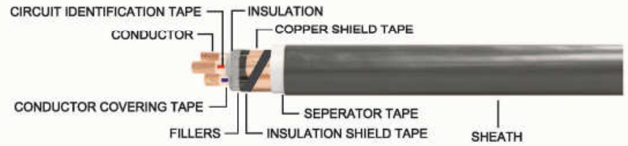
* Remark : Special protection can be produced

D : Packing in drum

1.8/3KV-CV

IEC 60502-1

1.8/3(3.6)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper.
Single-core : Sizes 10 mm^2 up to 400 mm^2
Multi-cores : Sizes 10 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 3,600 Volts
Rated voltage (U_o/U) 1.8/3 kV
1,800 Volts between Line-to-Earth
3,000 Volts between Line-to-Line

Testing voltage : 6,500 Volts

Reference standard : IEC 60502-1, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location,
or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
3	10	2.3300	0.3400	0.10692	2.33200
	16	1.4700	0.3160	0.09938	1.47300
	25	0.9272	0.2960	0.0930	0.93186
	35	0.6684	0.2840	0.0892	0.67433
	50	0.4938	0.2710	0.0852	0.50110
	70	0.3423	0.2510	0.0817	0.35191
	95	0.2469	0.2500	0.0787	0.25913
	120	0.1962	0.2440	0.0767	0.21067
	150	0.1595	0.2400	0.0752	0.17636
	185	0.1282	0.2350	0.0737	0.14790
	240	0.0986	0.2290	0.0721	0.12214
	300	0.0798	0.2250	0.0708	0.10688
	400	0.0640	0.2220	0.0696	0.09458

3.6/6KV-CV

IEC 60502-2

3.6/6(7.2)kV 90° C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE

CABLE STRUCTURE

Conductor : Compact round stranded annealed copper
Single-core : Sizes 10 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 10 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 7,200 Volts
Rated voltage (U_0/U) 3.6/6 kV
3,600 Volts between Line-to-Earth
6,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 12,500 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
	**10	6	2.5	1.4	14.0	1.83	2,850	101	260	500/D
	**16	6	2.5	1.5	15.5	1.15	2,500	133	350	500/D
	25	6	2.5	1.5	17.5	0.727	2,150	175	480	500/D
	35	6	2.5	1.5	18.5	0.524	1,900	213	600	500/D
	50	6	2.5	1.6	20	0.387	1,700	256	750	500/D
	70	12	2.5	1.6	21	0.268	1,500	321	950	500/D
	95	15	2.5	1.7	24	0.193	1,300	393	1,200	500/D
	120	18	2.5	1.7	25	0.153	1,200	455	1,500	500/D
1	150	18	2.5	1.8	27	0.124	1,100	518	1,800	500/D
	185	30	2.5	1.8	28	0.0991	1,000	598	2,200	500/D
	240	34	2.6	1.9	31	0.0754	900	710	2,800	500/D
	300	34	2.8	2.0	34	0.0601	900	817	3,400	500/D
	400	53	3.0	2.1	37	0.0470	850	950	4,300	500/D
	500	53	3.2	2.2	42	0.0366	800	1,110	5,500	500/D
	630	53	3.2	2.4	46	0.0283	700	1,289	7,000	500/D
	800	53	3.2	2.5	50	0.0221	600	1,481	8,500	300/D
	1,000	53	3.2	2.6	55	0.0176	550	1,634	11,000	300/D

* Remark : Special protection can be produced
** Remark : Insulation shield shall be applied semi-conduction tape.

D : Packing in drum

3.6/6KV-CV

IEC 60502-2

3.6/6(7.2)kV 90° C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE

CABLE STRUCTURE

Conductor : Compact round stranded annealed copper
Single-core : Sizes 10 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 10 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 7,200 Volts
Rated voltage (U_0/U) 3.6/6 kV
3,600 Volts between Line-to-Earth
6,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 12,500 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

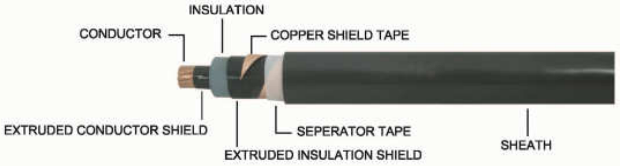
Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
	10	2.3335	0.4981	0.1565	2.3387
	16	1.4664	0.4683	0.1471	1.4738
	25	0.9271	0.4465	0.1403	0.9377
	35	0.6683	0.4263	0.1339	0.6816
	50	0.4937	0.4081	0.1282	0.5101
	70	0.3421	0.3882	0.1220	0.3632
	95	0.2467	0.3730	0.1171	0.2730
	120	0.1959	0.3610	0.1134	0.2263
1	150	0.1591	0.3530	0.1110	0.1940
	185	0.1276	0.3440	0.1079	0.1672
	240	0.0979	0.3350	0.1053	0.1437
	300	0.0788	0.3300	0.1037	0.1303
	400	0.0628	0.3250	0.1022	0.1200
	500	0.0503	0.3210	0.1010	0.1128
	630	0.0408	0.3150	0.0988	0.1069
	800	0.0340	0.3080	0.0967	0.1026
	1,000	0.0295	0.3000	0.0943	0.0989

Laying Type : Touching

3.6/6KV-CV

IEC 60502-2

3.6/6(7.2)kV 90° C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper
Single-core : Sizes 10 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 10 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 7,200 Volts
Rated voltage (U_0/U) 3.6/6 kV
3,600 Volts between Line-to-Earth
6,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 12,500 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

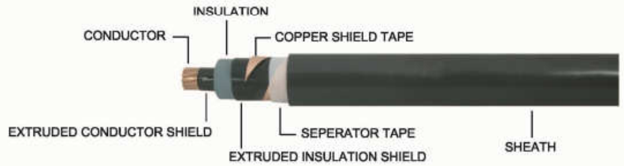
Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	10	2.3335	0.6367	0.2000	2.3420
	16	1.4664	0.6069	0.1907	1.4788
	25	0.9271	0.5851	0.1838	0.9451
	35	0.6683	0.5649	0.1775	0.6951
	50	0.4937	0.5467	0.1718	0.5227
	70	0.3420	0.5269	0.1655	0.3800
	95	0.2465	0.5110	0.1606	0.2942
	120	0.1956	0.5000	0.1569	0.2508
	150	0.1587	0.4920	0.1545	0.2215
	185	0.1272	0.4820	0.1515	0.1978
	240	0.0972	0.4740	0.1488	0.1778
	300	0.0780	0.4690	0.1473	0.1666
	400	0.0616	0.4640	0.1458	0.1583
	500	0.0489	0.4600	0.1445	0.1526
	630	0.0389	0.4530	0.1424	0.1476
	800	0.0316	0.4470	0.1403	0.1438
	1,000	0.0266	0.4390	0.1378	0.1404

Laying Type : Spacing

3.6/6KV-CV

IEC 60502-2

3.6/6(7.2)kV 90° C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper
Single-core : Sizes 10 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 10 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 7,200 Volts
Rated voltage (U_0/U) 3.6/6 kV
3,600 Volts between Line-to-Earth
6,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 12,500 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

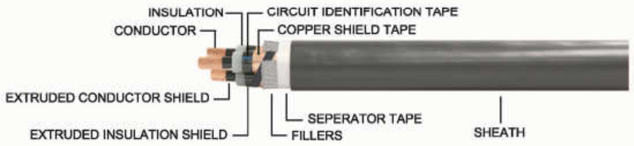
Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	10	2.3335	0.4519	0.1420	2.3378
	16	1.4664	0.4221	0.1326	1.4724
	25	0.9271	0.4003	0.1258	0.9356
	35	0.6683	0.3801	0.1194	0.6789
	50	0.4937	0.3619	0.1137	0.5066
	70	0.3421	0.3420	0.1074	0.3586
	95	0.2467	0.3260	0.1025	0.2671
	120	0.1959	0.3150	0.0989	0.2194
	150	0.1591	0.3070	0.0964	0.1860
	185	0.1276	0.2970	0.0934	0.1582
	240	0.0979	0.2890	0.0907	0.1335
	300	0.0788	0.2840	0.0892	0.1191
	400	0.0628	0.2790	0.0877	0.1079
	500	0.0503	0.2750	0.0864	0.1000
	630	0.0408	0.2680	0.0843	0.0937
	800	0.0340	0.2620	0.0822	0.0890
	1,000	0.0295	0.2540	0.0798	0.0850

Laying Type : Trefoil

3.6/6KV-CV

IEC 60502-2

3.6/6(7.2)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper
Single-core : Sizes 10 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 10 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 7,200 Volts
Rated voltage (U_0/U) 3.6/6 kV
3,600 Volts between Line-to-Earth
6,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 12,500 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
3	**10	6	2.5	2.0	28.0	1.83	2,850	80	850	500/D
	**16	6	2.5	2.0	30.0	1.15	2,500	105	1,100	500/D
	25	6	2.5	2.1	35.0	0.727	2,150	140	1,600	500/D
	35	6	2.5	2.2	38.0	0.524	1,900	170	1,900	500/D
	50	6	2.5	2.3	40	0.387	1,700	204	2,400	500/D
	70	12	2.5	2.4	44	0.268	1,500	255	3,100	500/D
	95	15	2.5	2.5	48	0.193	1,300	312	4,000	500/D
	120	18	2.5	2.6	52	0.153	1,200	361	4,900	500/D
	150	18	2.5	2.8	55	0.124	1,100	411	6,000	500/D
	185	30	2.5	2.9	59	0.0991	1,000	474	7,000	500/D
	240	34	2.6	3.1	65	0.0754	900	564	9,000	500/D
	300	34	2.8	3.3	71	0.0601	900	650	11,000	300/D
	400	53	3.0	3.5	79	0.0470	850	757	13,500	300/D

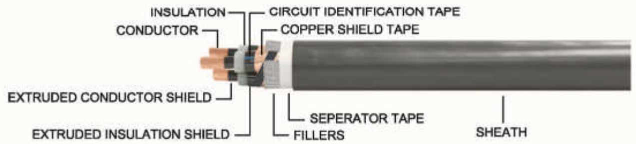
* Remark : Special protection can be produced
** Remark : Insulation shield shall be applied semi-conduction tape.

D : Packing in drum

3.6/6KV-CV

IEC 60502-2

3.6/6(7.2)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper
Single-core : Sizes 10 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 10 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 7,200 Volts
Rated voltage (U_0/U) 3.6/6 kV
3,600 Volts between Line-to-Earth
6,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 12,500 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
3	10	2.3335	0.3953	0.1242	2.3368
	16	1.4664	0.3658	0.1149	1.4709
	25	0.9271	0.3511	0.1103	0.9337
	35	0.6684	0.3342	0.1050	0.6766
	50	0.4938	0.3174	0.0997	0.5037
	70	0.3422	0.3011	0.0946	0.3550
	95	0.2468	0.2873	0.0903	0.2628
	120	0.1960	0.2783	0.0874	0.2146
	150	0.1593	0.2711	0.0852	0.1806
	185	0.1279	0.2639	0.0829	0.1524
	240	0.0982	0.2572	0.0808	0.1272
	300	0.0793	0.2537	0.0797	0.1124
	400	0.0633	0.2506	0.0787	0.1010

YAZAKI

6/10 KV-CV

IEC 60502-2

6/10(12)KV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE

CABLE STRUCTURE

Conductor : Compact round stranded annealed copper,
Single-core : Sizes 16 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 16 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 12,000 volts
Rated voltage (U_0/U) 6/10 kV
6,000 Volts between Line-to-Earth
10,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 21,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous currunt rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
	16	6	3.4	1.5	18.5	1.15	3,100	134	440	500/D
	25	6	3.4	1.6	20	0.727	2,700	176	550	500/D
	35	6	3.4	1.6	21	0.524	2,450	214	700	500/D
	50	6	3.4	1.7	22	0.387	2,200	258	850	500/D
	70	12	3.4	1.7	24	0.268	1,900	322	1,100	500/D
	95	15	3.4	1.8	26	0.193	1,700	394	1,300	500/D
	120	18	3.4	1.8	27	0.153	1,550	456	1,600	500/D
	150	18	3.4	1.9	29	0.124	1,450	518	1,900	500/D
1	185	30	3.4	1.9	31	0.0991	1,300	598	2,300	500/D
	240	34	3.4	2.0	33	0.0754	1,150	710	2,900	500/D
	300	34	3.4	2.1	36	0.0601	1,050	816	3,500	500/D
	400	53	3.4	2.2	39	0.0470	950	949	4,400	500/D
	500	53	3.4	2.3	42	0.0366	850	1,109	5,500	500/D
	630	53	3.4	2.4	46	0.0283	750	1,290	7,000	500/D
	800	53	3.4	2.5	50	0.0221	650	1,482	8,500	500/D
	1,000	53	3.4	2.6	56	0.0176	600	1,631	11,000	500/D

* REMARK : Special protection can be produced

D : Packing in drum

YAZAKI

6/10 KV-CV

IEC 60502-2

6/10(12)KV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE

CABLE STRUCTURE

Conductor : Compact round stranded annealed copper,
Single-core : Sizes 16 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 16 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 12,000 volts
Rated voltage (U_0/U) 6/10 kV
6,000 Volts between Line-to-Earth
10,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 21,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

*Remark

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
	16	1.4703	0.64100	0.20138	1.48400
	25	0.9271	0.61100	0.19195	0.94673
	35	0.6683	0.58900	0.18504	0.69343
	50	0.4936	0.56900	0.17876	0.52498
	70	0.3419	0.54800	0.17216	0.38282
	95	0.2466	0.53000	0.16650	0.29751
1	120	0.1957	0.51700	0.16242	0.25432
	150	0.1586	0.50900	0.15991	0.22521
	185	0.1271	0.49800	0.15645	0.20158
	240	0.0971	0.48700	0.15300	0.18123
	300	0.0778	0.47900	0.15048	0.16939
	400	0.0612	0.47100	0.14797	0.16013
	500	0.0487	0.46400	0.14577	0.15370
	630	0.0387	0.45600	0.14326	0.14840
	800	0.0316	0.44900	0.14106	0.14456
	1,000	0.0271	0.44000	0.13823	0.14087

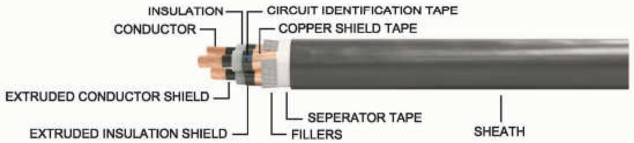
Laying Type : Touching

YAZAKI

6/10KV-CV

IEC 60502-2

6/10(12)KV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper,
Single-core : Sizes 16 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 16 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 12,000 volts
Rated voltage (U_0/U) 6/10 kV
6,000 Volts between Line-to-Earth
10,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 21,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous currunt rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
3	16	6	3.4	2.2	37	1.15	3,100	109	1,500	500/D
	25	6	3.4	2.2	40	0.727	2,700	143	1,900	500/D
	35	6	3.4	2.3	42	0.524	2,450	174	2,200	500/D
	50	6	3.4	2.4	45	0.387	2,200	208	2,700	500/D
	70	12	3.4	2.6	49	0.268	1,900	259	3,500	500/D
	95	15	3.4	2.7	53	0.193	1,700	317	4,400	500/D
	120	18	3.4	2.8	57	0.153	1,550	366	5,500	500/D
	150	18	3.4	2.9	60	0.124	1,450	416	6,000	500/D
	185	30	3.4	3.0	64	0.0991	1,300	481	7,500	500/D
	240	34	3.4	3.2	70	0.0754	1,150	569	9,500	300/D
	300	34	3.4	3.3	75	0.0601	1,050	683	11,500	300/D
	400	53	3.4	3.6	81	0.0470	950	789	14,000	300/D

* REMARK : Special protection can be produced

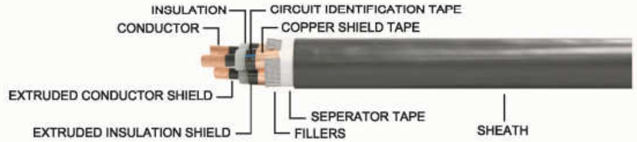
D : Packing in drum

YAZAKI

6/10KV-CV

IEC 60502-2

6/10(12)KV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper,
Single-core : Sizes 16 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 16 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 12,000 volts
Rated voltage (U_0/U) 6/10 kV
6,000 Volts between Line-to-Earth
10,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 21,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

*Remark

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
3	16	1.47037	0.410	0.12881	1.47600
	25	0.92709	0.381	0.11969	0.93478
	35	0.66827	0.362	0.11373	0.67788
	50	0.49367	0.343	0.10776	0.50529
	70	0.34212	0.324	0.10179	0.35694
	95	0.24674	0.308	0.09676	0.26503
	120	0.19585	0.298	0.09362	0.21708
	150	0.15927	0.289	0.09079	0.18333
	185	0.12768	0.281	0.08828	0.15523
	240	0.09808	0.271	0.08514	0.12988
	300	0.07906	0.264	0.08294	0.11458
	400	0.06307	0.257	0.08074	0.10245

YAZAKI

8.7/15KV-CV

IEC 60502-2

8.7/15(17.5)kV 90° C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE

CABLE STRUCTURE

Conductor Compact round stranded annealed copper,
Single-core : Sizes 25 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 25 mm^2 up to 400 mm^2

Insulation Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 17,500 Volts
Rated voltage (U_0/U) 8.7/15 kV
8,700 Volts between Line-to-Earth
15,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 30,500 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous currunt rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
	25	6	4.5	1.6	22	0.727	3,300	177	650	500/D
	35	6	4.5	1.7	23	0.524	3,000	215	750	500/D
	50	6	4.5	1.7	25	0.387	2,700	258	900	500/D
	70	12	4.5	1.8	26	0.268	2,400	322	1,200	500/D
	95	15	4.5	1.8	28	0.193	2,100	394	1,400	500/D
	120	18	4.5	1.9	30	0.153	1,950	455	1,700	500/D
1	150	18	4.5	1.9	31	0.124	1,800	517	2,000	500/D
	185	30	4.5	2.0	33	0.0991	1,650	596	2,400	500/D
	240	34	4.5	2.1	36	0.0754	1,500	706	3,000	500/D
	300	34	4.5	2.1	38	0.0601	1,350	813	3,700	500/D
	400	53	4.5	2.2	41	0.0470	1,200	944	4,500	500/D
	500	53	4.5	2.3	45	0.0366	1,100	1,103	5,500	500/D
	630	53	4.5	2.4	48	0.0283	950	1,283	7,000	500/D
	800	53	4.5	2.6	53	0.0221	850	1,470	8,500	500/D
	1,000	53	4.5	2.7	58	0.0176	750	1,679	11,500	300/D

* REMARK : Special protection can be produced

D : Packing in drum

YAZAKI

8.7/15KV-CV

IEC 60502-2

8.7/15(17.5)kV 90° C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE

CABLE STRUCTURE

Conductor Compact round stranded annealed copper,
Single-core : Sizes 25 mm2 up to 1,000 mm2
Multi-cores : Sizes 25 mm^2 up to 400 mm^2

Insulation Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 17,500 Volts
Rated voltage (U_0/U) 8.7/15 kV
8,700 Volts between Line-to-Earth
15,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 30,500 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
	25	6	4.5	2.4	45	0.727	3,300	146	2,200	500/D
	35	6	4.5	2.5	48	0.524	3,000	176	2,600	500/D
	50	6	4.5	2.6	51	0.387	2,700	211	3,100	500/D
	70	12	4.5	2.7	54	0.268	2,400	263	3,900	500/D
	95	15	4.5	2.8	58	0.193	2,100	321	4,800	500/D
3	120	18	4.5	2.9	62	0.153	1,950	370	5,500	500/D
	150	18	4.5	3.1	66	0.124	1,800	420	6,500	500/D
	185	30	4.5	3.2	69	0.0991	1,650	484	8,000	500/D
	240	34	4.5	3.4	75	0.0754	1,500	573	10,000	300/D
	300	34	4.5	3.5	80	0.0601	1,350	659	12,000	300/D
	400	53	4.5	3.7	86	0.0470	1,200	764	15,000	300/D

* REMARK : Special protection can be produced

D : Packing in drum

YAZAKI

12/20KV-CV

IEC 60502-2

12/20(24)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE

CABLE STRUCTURE

Conductor : Compacted round stranded annealed copper,
Single-core : Sizes 35 mm² up to 1,000 mm²
Multi-cores : Sizes 35 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red, and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 24,000 Volts
Rated voltage (U_0/U) 12/20 kV
12,000 Volts between Line-to-Earth
20,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 42,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
1	35	6	5.5	1.8	26	0.524	3,460	214	850	500/D
	50	6	5.5	1.8	27	0.387	3,130	258	1,000	500/D
	70	12	5.5	1.8	28	0.268	2,790	321	1,300	500/D
	95	15	5.5	1.9	30	0.193	2,500	393	1,600	500/D
	120	18	5.5	2.0	32	0.153	2,290	453	1,900	500/D
	150	18	5.5	2.0	34	0.124	2,130	516	2,200	500/D
	185	30	5.5	2.1	35	0.099	1,970	593	2,600	500/D
	240	34	5.5	2.1	38	0.075	1,770	703	3,200	500/D
	300	34	5.5	2.2	40	0.0601	1,620	808	3,800	500/D
	400	53	5.5	2.3	43	0.0470	1,480	938	4,700	500/D
	500	53	5.5	2.4	47	0.0366	1,320	1,091	6,000	500/D
	630	53	5.5	2.5	51	0.0283	1,190	1,269	7,500	500/D
	800	53	5.5	2.6	55	0.0221	1,070	1,456	9,000	500/D
	1,000	53	5.5	2.8	60	0.0176	940	1,660	11,500	300/D

* REMARK : Special protection can be produced

D : Packing in drum

YAZAKI

12/20KV-CV

IEC 60502-2

12/20(24)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE

CABLE STRUCTURE

Conductor : Compacted round stranded annealed copper,
Single-core : Sizes 35 mm² up to 1,000 mm²
Multi-cores : Sizes 35 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red, and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 24,000 Volts
Rated voltage (U_0/U) 12/20 kV
12,000 Volts between Line-to-Earth
20,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 42,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

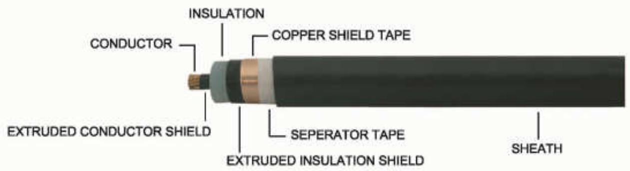
Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	35	0.6683	0.4917	0.1545	0.6859
	50	0.4937	0.4679	0.1470	0.5151
	70	0.3421	0.4441	0.1395	0.3694
	95	0.2466	0.4242	0.1333	0.2803
	120	0.1957	0.4110	0.1291	0.2345
	150	0.1589	0.3993	0.1255	0.2025
	185	0.1274	0.3880	0.1220	0.1764
	240	0.0976	0.3740	0.1175	0.1527
	300	0.0785	0.3640	0.1144	0.1387
	400	0.0624	0.3540	0.1113	0.1276
	500	0.0499	0.3460	0.1086	0.1195
	630	0.0403	0.3360	0.1056	0.1130
	800	0.0334	0.3280	0.1030	0.1083
	1,000	0.0288	0.3190	0.1001	0.1042

Laying Type : Touching

YAZAKI

12/20KV-CV
IEC 60502-2

12/20(24)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compacted round stranded annealed copper,
Single-core : Sizes 35 mm² up to 1,000 mm²
Multi-cores : Sizes 35 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red, and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 24,000 Volts
Rated voltage (U_0/U) 12/20 kV
12,000 Volts between Line-to-Earth
20,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 42,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

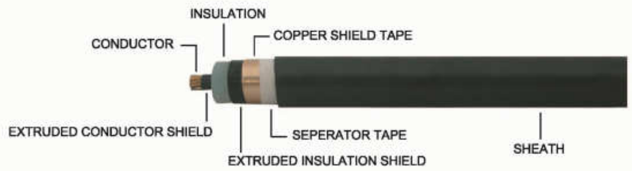
Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	35	0.6683	0.6303	0.1980	0.6970
	50	0.4936	0.6066	0.1906	0.5291
	70	0.3420	0.5827	0.1831	0.3879
	95	0.2465	0.5629	0.1768	0.3033
	120	0.1956	0.5496	0.1727	0.2609
	150	0.1587	0.5380	0.1690	0.2318
	185	0.1271	0.5270	0.1656	0.2087
	240	0.0971	0.5130	0.1611	0.1881
	300	0.0779	0.5030	0.1580	0.1761
	400	0.0616	0.4930	0.1548	0.1666
	500	0.0487	0.4840	0.1522	0.1598
	630	0.0387	0.4750	0.1491	0.1541
	800	0.0315	0.4660	0.1465	0.1499
	1,000	0.0264	0.4570	0.1437	0.1461

Laying Type : Spacing

YAZAKI

12/20KV-CV
IEC 60502-2

12/20(24)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compacted round stranded annealed copper,
Single-core : Sizes 35 mm² up to 1,000 mm²
Multi-cores : Sizes 35 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red, and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 24,000 Volts
Rated voltage (U_0/U) 12/20 kV
12,000 Volts between Line-to-Earth
20,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 42,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

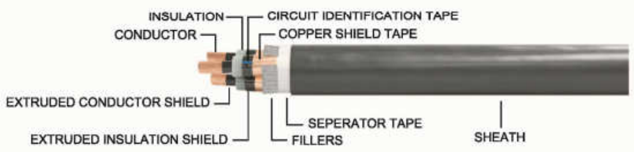
Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	35	0.6684	0.2950	0.0925	0.6748
	50	0.4938	0.2840	0.0892	0.5018
	70	0.3423	0.2740	0.0860	0.3529
	95	0.2469	0.2660	0.0836	0.2607
	120	0.1961	0.2610	0.0820	0.2125
	150	0.1594	0.2610	0.0819	0.1792
	185	0.1279	0.2590	0.0813	0.1516
	240	0.0983	0.2540	0.0798	0.1266
	300	0.0793	0.2510	0.0788	0.1118
	400	0.0633	0.2490	0.0781	0.1006
	500	0.0501	0.2460	0.0772	0.0925
	630	0.0415	0.2440	0.0766	0.0871
	800	0.0348	0.2410	0.0757	0.0834
	1,000	0.0303	0.2370	0.0743	0.0803

Laying Type : Trefoil

12/20KV-CV

IEC 60502-2

12/20(24)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compacted round stranded annealed copper,
Single-core : Sizes 35 mm² up to 1,000 mm²
Multi-cores : Sizes 35 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red, and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 24,000 Volts
Rated voltage (U_0/U) 12/20 kV
12,000 Volts between Line-to-Earth
20,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 42,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm²)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous currunt rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
3	35	6	5.5	2.7	53	0.524	3,460	178	3,000	500/D
	50	6	5.5	2.8	55	0.387	3,130	213	3,500	500/D
	70	12	5.5	2.9	59	0.268	2,790	265	4,300	500/D
	95	15	5.5	3.0	63	0.193	2,500	324	5,000	500/D
	120	18	5.5	3.1	67	0.153	2,290	373	6,000	500/D
	150	18	5.5	3.2	70	0.124	2,130	422	7,000	300/D
	185	30	5.5	3.3	74	0.0991	1,970	485	8,500	300/D
	240	34	5.5	3.5	80	0.0754	1,770	571	10,500	300/D
	300	34	5.5	3.7	85	0.0601	1,620	652	12,500	300/D
	400	53	5.5	3.9	91	0.0470	1,480	751	15,500	200/D

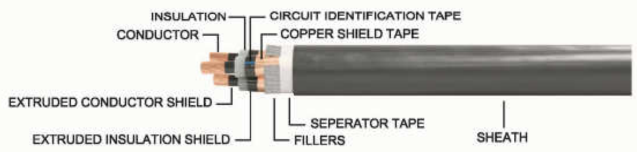
* REMARK : Special protection can be produced

D : Packing in drum

12/20KV-CV

IEC 60502-2

12/20(24)kV 90°C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compacted round stranded annealed copper,
Single-core : Sizes 35 mm² up to 1,000 mm²
Multi-cores : Sizes 35 mm² up to 400 mm²

Insulation : Cross-linked Polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red, and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 24,000 Volts
Rated voltage (U_0/U) 12/20 kV
12,000 Volts between Line-to-Earth
20,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 42,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

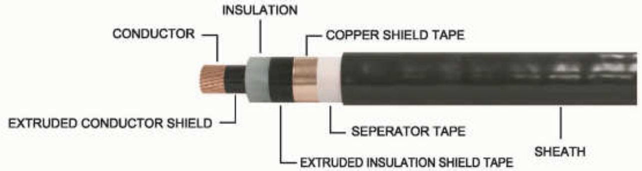
Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
3	35	0.6685	0.2381	0.0748	0.6727
	50	0.4939	0.2342	0.0736	0.4994
	70	0.3424	0.2308	0.0725	0.3500
	95	0.2471	0.2248	0.0706	0.2561
	120	0.1964	0.2235	0.0702	0.2086
	150	0.1597	0.2251	0.0707	0.1747
	185	0.1283	0.2267	0.0712	0.1468
	240	0.0987	0.2240	0.0704	0.1212
	300	0.0799	0.2222	0.0698	0.1061
	400	0.0640	0.2216	0.0696	0.0946

YAZAKI

18/30KV-CV

IEC 60502-2

18/30(36)kV 90° C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper,
Single-core : Sizes 35 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 35 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red, and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 36,000 Volts
Rated voltage (U_0/U) 18/30 kV
18,000 Volts between Line-to-Earth
30,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 63,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous currunt rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
1	35	6	8.9	2.0	33	0.524	4,680	214	1,200	500/D
	50	6	8.0	2.0	32	0.387	4,010	257	1,300	500/D
	70	12	8.0	2.0	34	0.268	3,620	320	1,500	500/D
	95	15	8.0	2.1	36	0.193	3,260	390	1,900	500/D
	120	18	8.0	2.1	37	0.153	3,020	450	2,200	500/D
	150	18	8.0	2.2	39	0.124	2,820	511	2,500	500/D
	185	30	8.0	2.2	41	0.0991	2,620	587	2,900	500/D
	240	34	8.0	2.3	43	0.0754	2,370	695	3,500	500/D
	300	34	8.0	2.4	46	0.0601	2,190	797	4,200	500/D
	400	53	8.0	2.5	48	0.0470	2,000	925	5,000	500/D
	500	53	8.0	2.6	52	0.0366	1,800	1,078	6,500	500/D
	630	53	8.0	2.7	56	0.0283	1,630	1,252	7,500	500/D
	800	53	8.0	2.8	60	0.0221	1,480	1,437	9,500	300/D
	1,000	53	8.0	3.0	66	0.0176	1,300	1,638	12,000	300/D

* Remark : Special protection can be produced

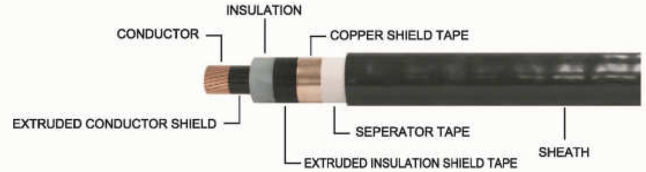
D : Packing in drum

YAZAKI

18/30KV-CV

IEC 60502-2

18/30(36)kV 90° C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper,
Single-core : Sizes 35 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 35 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red, and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 36,000 Volts
Rated voltage (U_0/U) 18/30 kV
18,000 Volts between Line-to-Earth
30,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 63,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

*Remark

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

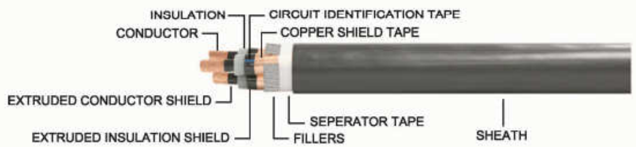
Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	35	0.66831	0.681	0.21386	0.70169
	50	0.49361	0.644	0.20229	0.53345
	70	0.34200	0.618	0.19419	0.39329
	95	0.24650	0.596	0.18726	0.30956
	120	0.19550	0.580	0.18223	0.26726
	150	0.15870	0.568	0.17853	0.23887
	185	0.12711	0.555	0.17428	0.21571
	240	0.09711	0.540	0.16955	0.19539
	300	0.07784	0.528	0.16596	0.18331
	400	0.06150	0.517	0.16234	0.17360
	500	0.04868	0.506	0.15909	0.16637
	630	0.03865	0.495	0.15557	0.16030
	800	0.03140	0.485	0.15249	0.15569
	1,000	0.02633	0.474	0.14892	0.15123

YAZAKI

18/30KV-CV

IEC 60502-2

18/30(36)kV 90° C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper,
Single-core : Sizes 35 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 35 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red, and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 36,000 Volts
Rated voltage (U_0/U) 18/30 kV
18,000 Volts between Line-to-Earth
30,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 63,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

***Remark**

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	Number of wires minimum (No.)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 20°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
3	35	6	8.9	3.1	68	0.524	4,680	183	4,300	500/D
	50	6	8.0	3.2	67	0.387	4,010	218	4,500	500/D
	70	12	8.0	3.3	71	0.268	3,620	270	5,500	300/D
	95	15	8.0	3.4	75	0.193	3,260	328	6,500	300/D
	120	18	8.0	3.5	79	0.153	3,020	377	7,500	300/D
	150	18	8.0	3.6	82	0.124	2,820	428	8,500	300/D
	185	30	8.0	3.7	86	0.0991	2,620	491	10,000	300/D
	240	34	8.0	3.9	91	0.0754	2,370	579	12,000	300/D
	300	34	8.0	4.0	97	0.0601	2,190	664	14,000	300/D
	400	53	8.0	4.3	103	0.0470	2,000	767	17,000	200/D

* Remark : Special protection can be produced

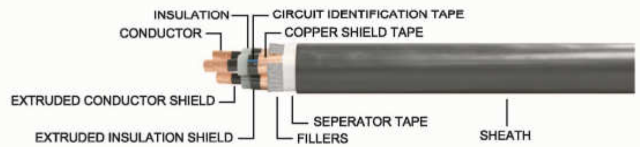
D : Packing in drum

YAZAKI

18/30KV-CV

IEC 60502-2

18/30(36)kV 90° C CROSS-LINKED POLYETHYLENE INSULATED AND PVC SHEATHED POWER CABLE



CABLE STRUCTURE

Conductor : Compact round stranded annealed copper,
Single-core : Sizes 35 mm^2 up to 1,000 mm^2
Multi-cores : Sizes 35 mm^2 up to 400 mm^2

Insulation : Cross-Linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)
3 Cores : White, Red, and Blue

Shield : Copper tape

Sheath : Black polyvinyl chloride (PVC/ST2)

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 36,000 Volts
Rated voltage (U_0/U) 18/30 kV
18,000 Volts between Line-to-Earth
30,000 Volts between Line-to-Line

Insulation shield layer : Semi-conducting covering remove at splices or terminals

Testing voltage : 63,000 Volts

Reference standard : IEC 60502-2, IEC 60228, IEC 60332-1

*Remark

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of core	Nominal cross sectional area (mm^2)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
3	35	0.66830	0.464	0.14591	0.68404
	50	0.49370	0.427	0.13414	0.51160
	70	0.34200	0.403	0.12655	0.36466
	95	0.24661	0.381	0.11979	0.27416
	120	0.19570	0.367	0.11518	0.22708
	150	0.15890	0.355	0.11150	0.19412
	185	0.12740	0.343	0.10766	0.16680
	240	0.09745	0.328	0.10315	0.14190
	300	0.07850	0.317	0.09972	0.12691
	400	0.06240	0.307	0.09631	0.11476

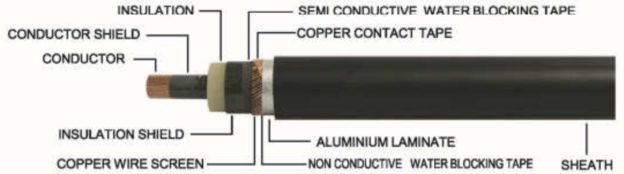
Copper Conductor Cables

High Voltage Power Cables

69KV-CE

TIS 2202-2547 (IEC 60840)

69 kV 90° C CROSS - LINKED POLYETHYLENE INSULATED WITH COPPER WIRE SCREEN AND POLYETHYLENE JACKETED POWER CABLE



CABLE STRUCTURE

Conductor : Compact concentric stranded uncoated annealed Copper conductor
Single-core : Sizes 400 mm² up to 800 mm²

Insulation : Cross-linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)

Sheath : Polyethylene (PE)

TECHNICAL DATA

Classification : Maximum conductor temperature 90 °C

Testing voltage : 90,000 Volts

Reference standard :TIS 2202, TIS 2427 (IEC 60840, IEC 60228)

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of cores	Nominal Cross sectional area (mm²)	Number of wires minimum (No.)	Conductor diameter approx. (mm)	Conductor shield thickness nominal (mm)	Insulation thickness nominal (mm)	Insulation shield thickness nominal (mm)	Copper wire area nominal (mm²)	Jacket thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Current Rating in ground maximum (A)	Weight of cable approx. (kg/km)	Standard length (m)
1	400/95	53	23.5	1.5	11.0	1.5	95	3.1	66	0.0470	690	7,000	500/D
	500/95	53	26.7	1.5	11.0	1.5	95	3.2	69	0.0366	785	8,000	300/D
	630/120	53	30.3	1.5	11.0	1.5	120	3.4	74	0.0283	895	10,000	300/D
	800/120	53	34.1	1.5	11.0	1.5	120	3.5	78	0.0221	1,010	11,500	300/D

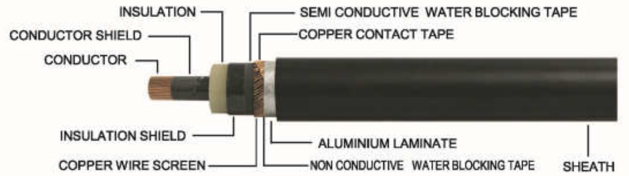
D: Packing in drum.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	400	0.0614	0.5800	0.1822	0.1923
	500	0.0485	0.5634	0.1770	0.1835
	630	0.0385	0.5521	0.1734	0.1777
	800	0.0312	0.5415	0.1701	0.1730

115KV-CE

TIS 2202-2547 (IEC 60840)

115 kV 90° C CROSS - LINKED POLYETHYLENE INSULATED WITH COPPER WIRE SCREEN AND POLYETHYLENE JACKETED POWER CABLE



CABLE STRUCTURE

Conductor : Compact concentric stranded uncoated annealed Copper conductor
Single-core : Sizes 400 mm² up to 800 mm²

Insulation : Cross-linked polyethylene (XLPE)

Core identification
Single-core : Natural (Translucent)

Sheath : Polyethylene (PE)

TECHNICAL DATA

Classification : Maximum conductor temperature 90 °C

Testing voltage : 160,000 Volts

Reference standard : TIS 2202, TIS 2427 (IEC 60840, IEC 60228)

APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

Number of cores	Nominal Cross sectional area (mm²)	Number of wires minimum (No.)	Conductor diameter approx. (mm)	Conductor shield thickness nominal (mm)	Insulation thickness nominal (mm)	Insulation shield thickness nominal (mm)	Copper wire area nominal (mm²)	Jacket thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Current Rating in ground maximum (A)	Weight of cable approx. (kg/km)	Standard length (m)
1	400/95	53	23.5	1.5	16.0	1.5	95	3.5	76	0.0470	690	8,000	300/D
	500/95	53	26.7	1.5	16.0	1.5	95	3.6	80	0.0366	785	9,000	300/D
	630/120	53	30.3	1.5	16.0	1.5	120	3.7	84	0.0283	895	11,000	300/D
	800/120	53	34.1	1.5	16.0	1.5	120	3.9	88	0.0221	1,010	13,000	300/D

D: Packing in drum.

Number of core	Nominal cross sectional area (mm²)	A.C. Resistance R (Ω/km)	Inductance L (mH/km)	Reactance XL (Ω/km)	Impedance Z (Ω/km)
1	400	0.0614	0.6145	0.1931	0.2026
	500	0.0485	0.5974	0.1877	0.1938
	630	0.0384	0.5807	0.1824	0.1864
	800	0.0311	0.5666	0.1780	0.1807

Copper Conductor Cables

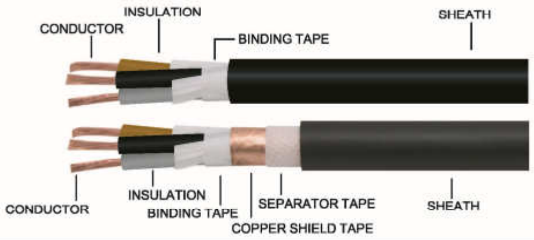
Control Cable

B

CVV or CVV-S

THAI-YAZAKI STANDARD

600 V 70° C PVC INSULATED AND SHEATHED CONTROL CABLE
600 V 70° C PVC INSULATED AND SHEATHED WITH SHIELD CONTROL CABLE



CABLE STRUCTURE

Conductor : Flexibe stranded annealed copper wires
: 2 up to 48 cores
Sizes : 0.5 mm^2 up to 6 mm^2
Insulation Polyvinyl chloride (PVC)
Core identification
2 Cores : Blue and Brown
3 Cores : Brown, Black and Grey
4 Cores : Blue, Brown, Black and Grey
More than 4 cores :
Black with marking numbers, colored white, printed continuously throughout the whole length of insulated wires for the purpose of core identification
Shield : Copper tape
Sheath : Black polyvinyl chloride (PVC)

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 600 Volts

Testing Voltage : 2,000 Volts
Reference standard : THAI-YAZAKI STANDARD
***Remark**

APPLICATION

For supervisory electrical equipment, station control circuits, outdoor, suitable installation in the dry or wet cable trenches

Number of core	Nominal cross sectional area (mm^2)	Number and diameter of wire (mm)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Cable weight approx. (kg/km)	Standard Length (m)
2	0.50	16/0.20	0.95	0.6	0.9	7.5	39.0	0.0130	49	300/D
	0.75	24/0.20	1.15	0.6	1.2	8.5	26.0	0.0114	65	300/D
	1.0	32/0.20	1.30	0.6	1.2	8.7	19.5	0.0104	75	300/D
	1.5	30/0.25	1.60	0.6	1.2	9.3	13.3	0.0089	90	300/D
	2.5	50/0.25	2.10	0.7	1.2	10.5	7.98	0.0081	130	300/D
	4.0	56/0.30	2.60	0.8	1.2	12.0	4.95	0.0076	170	300/D
	6.0	84/0.30	3.40	0.8	1.4	14.0	3.30	0.0061	250	300/D
3	0.50	16/0.20	0.95	0.6	1.2	8.5	39.0	0.0130	65	300/D
	0.75	24/0.20	1.15	0.6	1.2	8.9	26.0	0.0114	80	300/D
	1.0	32/0.20	1.30	0.6	1.2	9.1	19.5	0.0104	90	300/D
	1.5	30/0.25	1.60	0.6	1.2	9.8	13.3	0.0089	110	300/D
	2.5	50/0.25	2.10	0.7	1.2	11.0	7.98	0.0081	160	300/D
	4.0	56/0.30	2.60	0.8	1.2	13.0	4.95	0.0076	230	300/D
	6.0	84/0.30	3.40	0.8	1.4	15.0	3.30	0.0061	330	300/D

D : Packing in drum

CVV or CVV-S

THAI-YAZAKI STANDARD

Number of core	Nominal cross sectional area (mm^2)	Number and diameter of wire (mm)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Cable weight approx. (kg/km)	Standard Length (m)
4	0.50	16/0.20	0.95	0.6	1.2	9.1	39.0	0.0130	80	300/D
	0.75	24/0.20	1.15	0.6	1.2	9.6	26.0	0.0114	95	300/D
	1.0	32/0.20	1.30	0.6	1.2	9.8	19.5	0.0104	110	300/D
	1.5	30/0.25	1.60	0.6	1.2	10.5	13.3	0.0089	140	300/D
	2.5	50/0.25	2.10	0.7	1.2	12.0	7.98	0.0081	200	300/D
	4.0	56/0.30	2.60	0.8	1.4	14.5	4.95	0.0076	300	300/D
	6.0	84/0.30	3.40	0.8	1.4	16.5	3.30	0.0061	410	300/D
5	0.50	16/0.20	0.95	0.6	1.2	9.8	39.0	0.0130	90	300/D
	0.75	24/0.20	1.15	0.6	1.2	10.0	26.0	0.0114	110	300/D
	1.0	32/0.20	1.30	0.6	1.2	10.5	19.5	0.0104	130	300/D
	1.5	30/0.25	1.60	0.6	1.2	11.5	13.3	0.0089	160	300/D
	2.5	50/0.25	2.10	0.7	1.4	13.5	7.98	0.0081	250	300/D
	4.0	56/0.30	2.60	0.8	1.4	15.5	4.95	0.0076	350	300/D
	6.0	84/0.30	3.40	0.8	1.4	18.0	3.30	0.0061	500	300/D
6	0.50	16/0.20	0.95	0.6	1.2	10.5	39.0	0.0130	110	300/D
	0.75	24/0.20	1.15	0.6	1.2	11.0	26.0	0.0114	130	300/D
	1.0	32/0.20	1.30	0.6	1.2	11.5	19.5	0.0104	150	300/D
	1.5	30/0.25	1.60	0.6	1.2	12.0	13.3	0.0089	190	300/D
	2.5	50/0.25	2.10	0.7	1.4	14.5	7.98	0.0081	290	300/D
	4.0	56/0.30	2.60	0.8	1.4	17.0	4.95	0.0076	420	300/D
	6.0	84/0.30	3.40	0.8	1.4	19.5	3.30	0.0061	600	300/D
7	0.50	16/0.20	0.95	0.6	1.2	10.5	39.0	0.0130	110	300/D
	0.75	24/0.20	1.15	0.6	1.2	11.0	26.0	0.0114	140	300/D
	1.0	32/0.20	1.30	0.6	1.2	11.5	19.5	0.0104	160	300/D
	1.5	30/0.25	1.60	0.6	1.2	12.0	13.3	0.0089	210	300/D
	2.5	50/0.25	2.10	0.7	1.4	14.5	7.98	0.0081	320	300/D
	4.0	56/0.30	2.60	0.8	1.4	17.0	4.95	0.0076	460	300/D
	6.0	84/0.30	3.40	0.8	1.4	19.5	3.30	0.0061	650	300/D
8	0.50	16/0.20	0.95	0.6	1.2	11.0	39.0	0.0130	130	300/D
	0.75	24/0.20	1.15	0.6	1.2	11.5	26.0	0.0114	160	300/D
	1.0	32/0.20	1.30	0.6	1.2	12.0	19.5	0.0104	180	300/D
	1.5	30/0.25	1.60	0.6	1.4	13.5	13.3	0.0089	240	300/D
	2.5	50/0.25	2.10	0.7	1.4	16.0	7.98	0.0081	360	300/D
	4.0	56/0.30	2.60	0.8	1.4	18.5	4.95	0.0076	550	300/D
	6.0	84/0.30	3.40	0.8	1.4	21.0	3.30	0.0061	750	300/D
9	0.50	16/0.20	0.95	0.6	1.2	12.0	39.0	0.0130	150	300/D
	0.75	24/0.20	1.15	0.6	1.2	12.5	26.0	0.0114	180	300/D
	1.0	32/0.20	1.30	0.6	1.4	13.5	19.5	0.0104	220	300/D
	1.5	30/0.25	1.60	0.6	1.4	14.5	13.3	0.0089	270	300/D
	2.5	50/0.25	2.10	0.7	1.4	17.0	7.98	0.0081	410	300/D
	4.0	56/0.30	2.60	0.8	1.4	20.0	4.95	0.0076	600	300/D
	6.0	84/0.30	3.40	0.8	1.4	23.0	3.30	0.0061	850	300/D

D : Packing in drum

CVV or CVV-S

THAI-YAZAKI STANDARD

Number of core	Nominal cross sectional area (mm^2)	Number and diameter of wire (mm)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Cable weight approx. (kg/km)	Standard Length (m)
10	0.50	16/0.20	0.95	0.6	1.2	12.5	39.0	0.0130	150	300/D
	0.75	24/0.20	1.15	0.6	1.4	14.0	26.0	0.0114	210	300/D
	1.0	32/0.20	1.30	0.6	1.4	14.5	19.5	0.0104	240	300/D
	1.5	30/0.25	1.60	0.6	1.4	15.5	13.3	0.0089	310	300/D
	2.5	50/0.25	2.10	0.7	1.4	18.0	7.98	0.0081	460	300/D
	4.0	56.03	2.60	0.8	1.4	21.0	4.95	0.0076	650	300/D
	6.0	84/0.30	3.40	0.8	1.8	25.0	3.30	0.0061	1,000	300/D
11	0.50	16/0.20	0.95	0.6	1.2	12.5	39.0	0.0130	170	300/D
	0.75	24/0.20	1.15	0.6	1.4	14.0	26.0	0.0114	210	300/D
	1.0	32/0.20	1.30	0.6	1.4	14.5	19.5	0.0104	250	300/D
	1.5	30/0.25	1.60	0.6	1.4	15.5	13.3	0.0089	320	300/D
	2.5	50/0.25	2.10	0.7	1.4	18.0	7.98	0.0081	480	300/D
	4.0	56/0.30	2.60	0.8	1.4	21.0	4.95	0.0076	700	300/D
	6.0	84/0.30	3.40	0.8	1.8	25.0	3.30	0.0061	1,100	300/D
12	0.50	16/0.20	0.95	0.6	1.2	13.0	39.0	0.0130	180	300/D
	0.75	24/0.20	1.15	0.6	1.4	14.5	26.0	0.0114	220	300/D
	1.0	32/0.20	1.30	0.6	1.4	15.0	19.5	0.0104	280	300/D
	1.5	30/0.25	1.60	0.6	1.4	16.0	13.3	0.0089	350	300/D
	2.5	50/0.25	2.10	0.7	1.4	19.0	7.98	0.0081	550	300/D
	4.0	56/0.30	2.60	0.8	1.4	22.0	4.95	0.0076	750	300/D
	6.0	84/0.30	3.40	0.8	1.8	26.0	3.30	0.0061	1,200	300/D
13	0.50	16/0.20	0.95	0.6	1.4	14.0	39.0	0.0130	200	300/D
	0.75	24/0.20	1.15	0.6	1.4	15.0	26.0	0.0114	250	300/D
	1.0	32/0.20	1.30	0.6	1.4	15.5	19.5	0.0104	290	300/D
	1.5	30/0.25	1.60	0.6	1.4	17.0	13.3	0.0089	370	300/D
	2.5	50/0.25	2.10	0.7	1.4	20.0	7.98	0.0081	550	300/D
	4.0	56/0.30	2.60	0.8	1.4	23.0	4.95	0.0076	850	300/D
	6.0	84/0.30	3.40	0.8	1.8	28.0	3.30	0.0061	1,200	300/D
14	0.50	16/0.20	0.95	0.6	1.4	14.0	39.0	0.0130	210	300/D
	0.75	24/0.20	1.15	0.6	1.4	15.0	26.0	0.0114	250	300/D
	1.0	32/0.20	1.30	0.6	1.4	15.5	19.5	0.0104	300	300/D
	1.5	30/0.25	1.60	0.6	1.4	17.0	13.3	0.0089	390	300/D
	2.5	50/0.25	2.10	0.7	1.4	20.0	7.98	0.0081	600	300/D
	4.0	56/0.30	2.60	0.8	1.4	23.0	4.95	0.0076	850	300/D
	6.0	84/0.30	3.40	0.8	1.8	28.0	3.30	0.0061	1,300	300/D
15	0.50	16/0.20	0.95	0.6	1.4	14.5	39.0	0.0130	220	300/D
	0.75	24/0.20	1.15	0.6	1.4	15.5	26.0	0.0114	270	300/D
	1.0	32/0.20	13.30	0.6	1.4	16.0	19.5	0.0104	320	300/D
	1.5	30/0.25	1.60	0.6	1.4	17.5	13.3	0.0089	420	300/D
	2.5	50/0.25	2.10	0.7	1.4	21.0	7.98	0.0081	650	300/D
	4.0	56/0.30	2.60	0.8	1.8	25.0	4.95	0.0076	950	300/D
	6.0	84/0.30	3.40	0.8	1.8	29.0	3.30	0.0061	1,400	300/D

D : Packing in drum

CVV or CVV-S

THAI-YAZAKI STANDARD

Number of core	Nominal cross sectional area (mm^2)	Number and diameter of wire (mm)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Cable weight approx. (kg/km)	Standard Length (m)
16	0.50	16/0.20	0.95	0.6	1.4	15.0	39.0	0.0130	230	300/D
	0.75	24/0.20	1.15	0.6	1.4	15.5	26.0	0.0114	280	300/D
	1.0	32/0.20	1.30	0.6	1.4	16.0	19.5	0.0104	340	300/D
	1.5	30/0.25	1.60	0.6	1.4	17.5	13.3	0.0089	430	300/D
	2.5	50/0.25	2.10	0.7	1.4	21.0	7.98	0.0081	650	300/D
	4.0	56/0.30	2.60	0.8	1.8	25.0	4.95	0.0076	1,000	300/D
	6.0	84/0.30	3.40	0.8	1.8	29.0	3.30	0.0061	1,400	300/D
17	0.50	16/0.20	0.95	0.6	1.4	15.5	39.0	0.0130	240	300/D
	0.75	24/0.20	1.15	0.6	1.4	16.5	26.0	0.0114	310	300/D
	1.0	32/0.20	1.30	0.6	1.4	17.0	19.5	0.0104	370	300/D
	1.5	30/0.25	1.60	0.6	1.4	18.5	13.3	0.0089	470	300/D
	2.5	50/0.25	2.10	0.7	1.4	22.0	7.98	0.0081	700	300/D
	4.0	56/0.30	2.60	0.8	1.8	27.0	4.95	0.0076	1,100	300/D
	6.0	84/0.30	3.40	0.8	1.8	31.0	3.30	0.0061	1,600	300/D
18	0.50	16/0.20	0.95	0.6	1.4	15.5	39.0	0.0130	250	300/D
	0.75	24/0.20	1.15	0.6	1.4	16.5	26.0	0.0114	310	300/D
	1.0	32/0.20	1.30	0.6	1.4	17.0	19.5	0.0104	370	300/D
	1.5	30/0.25	1.60	0.6	1.4	18.5	13.3	0.0089	470	300/D
	2.5	50/0.25	2.10	0.7	1.4	22.0	7.98	0.0081	700	300/D
	4.0	56/0.30	2.60	0.8	1.8	27.0	4.95	0.0076	1,100	300/D
	6.0	84/0.30	3.40	0.8	1.8	31.0	3.30	0.0061	1,600	300/D
19	0.50	16/0.20	0.95	0.6	1.4	15.5	39.0	0.0130	260	300/D
	0.75	24/0.20	1.15	0.6	1.4	16.5	26.0	0.0114	320	300/D
	1.0	32/0.20	1.30	0.6	1.4	17.0	19.5	0.0104	380	300/D
	1.5	30/0.25	1.60	0.6	1.4	18.5	13.3	0.0089	490	300/D
	2.5	50/0.25	2.10	0.7	1.4	22.0	7.98	0.0081	750	300/D
	4.0	56/0.30	2.60	0.8	1.8	27.0	4.95	0.0076	1,100	300/D
	6.0	84/0.30	3.40	0.8	1.8	31.0	3.30	0.0061	1,600	300/D
20	0.50	16/0.20	0.95	0.6	1.4	16.0	39.0	0.0130	270	300/D
	0.75	24/0.20	1.15	0.6	1.4	17.0	26.0	0.0114	330	300/D
	1.0	32/0.20	1.30	0.6	1.4	17.5	19.5	0.0104	400	300/D
	1.5	30/0.25	1.60	0.6	1.4	19.0	13.3	0.0089	500	300/D
	2.5	50/0.25	2.10	0.7	1.4	23.0	7.98	0.0081	800	300/D
	4.0	56/0.30	2.60	0.8	1.8	28.0	4.95	0.0076	1,200	300/D
	6.0	84/0.30	3.40	0.8	1.8	32.0	3.30	0.0061	1,700	300/D
21	0.50	16/0.20	0.95	0.6	1.4	16.5	39.0	0.0130	280	300/D
	0.75	24/0.20	1.15	0.6	1.4	17.5	26.0	0.0114	350	300/D
	1.0	32/0.20	1.30	0.6	1.4	18.0	19.5	0.0104	420	300/D
	1.5	30/0.25	1.60	0.6	1.4	19.5	13.3	0.0089	550	300/D
	2.5	50/0.25	2.10	0.7	1.4	23.0	7.98	0.0081	800	300/D
	4.0	56/0.30	2.60	0.8	1.8	28.0	4.95	0.0076	1,300	300/D
	6.0	84/0.30	3.40	0.8	1.8	32.0	3.30	0.0061	1,800	300/D

D : Packing in drum

CVV or CVV-S

THAI-YAZAKI STANDARD

Number of core	Nominal cross sectional area (mm^2)	Number and diameter of wire (mm)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Cable weight approx. (kg/km)	Standard Length (m)
22	0.50	16/0.20	0.95	0.6	1.4	17.0	39.0	0.0130	300	300/D
	0.75	24/0.20	1.15	0.6	1.4	18.0	26.0	0.0114	370	300/D
	1.0	32/0.20	1.30	0.6	1.4	18.5	19.5	0.0104	450	300/D
	1.5	30/0.25	1.60	0.6	1.4	20.0	13.3	0.0089	550	300/D
	2.5	50/0.25	2.10	0.7	1.8	25.0	7.98	0.0081	900	300/D
	4.0	56/0.30	2.60	0.8	1.8	30.0	4.95	0.0076	1,300	300/D
	6.0	84/0.30	3.40	0.8	1.8	34.0	3.30	0.0061	1,900	300/D
23	0.50	16/0.20	0.95	0.6	1.4	17.0	39.0	0.0130	310	300/D
	0.75	24/0.20	1.15	0.6	1.4	18.0	26.0	0.0114	380	300/D
	1.0	32/0.20	1.30	0.6	1.4	18.5	19.5	0.0104	460	300/D
	1.5	30/0.25	1.60	0.6	1.4	20.0	13.3	0.0089	600	300/D
	2.5	50/0.25	2.10	0.7	1.8	25.0	7.98	0.0081	950	300/D
	4.0	56/0.30	2.60	0.8	1.8	30.0	4.95	0.0076	1,400	300/D
	6.0	84/0.30	3.40	0.8	1.8	34.0	3.30	0.0061	2,000	300/D
24	0.50	16/0.20	0.95	0.6	1.4	18.0	39.0	0.0130	320	300/D
	0.75	24/0.20	1.15	0.6	1.4	19.0	26.0	0.0114	400	300/D
	1.0	32/0.20	1.30	0.6	1.4	19.5	19.5	0.0104	500	300/D
	1.5	30/0.25	1.60	0.6	1.4	21.0	13.3	0.0089	600	300/D
	2.5	50/0.25	2.10	0.7	1.8	26.0	7.98	0.0081	1,000	300/D
	4.0	56/0.30	2.60	0.8	1.8	31.0	4.95	0.0076	1,400	300/D
	6.0	84/0.30	3.40	0.8	2.2	37.0	3.30	0.0061	2,100	300/D
25	0.50	16/0.20	0.95	0.6	1.4	18.0	39.0	0.0130	330	300/D
	0.75	24/0.20	1.15	0.6	1.4	19.0	26.0	0.0114	410	300/D
	1.0	32/0.20	1.30	0.6	1.4	19.5	19.5	0.0104	490	300/D
	1.5	30/0.25	1.60	0.6	1.4	21.0	13.3	0.0089	650	300/D
	2.5	50/0.25	2.10	0.7	1.8	26.0	7.98	0.0081	1,000	300/D
	4.0	56/0.30	2.60	0.8	1.8	31.0	4.95	0.0076	1,500	300/D
	6.0	84/0.30	3.40	0.8	2.2	37.0	3.30	0.0061	2,200	300/D
26	0.50	16/0.20	0.95	0.6	1.4	18.0	39.0	0.0130	340	300/D
	0.75	24/0.20	1.15	0.6	1.4	19.0	26.0	0.0114	420	300/D
	1.0	32/0.20	1.30	0.6	1.4	19.5	19.5	0.0104	500	300/D
	1.5	30/0.25	1.60	0.6	1.4	21.0	13.3	0.0089	650	300/D
	2.5	50/0.25	2.10	0.7	1.8	26.0	7.98	0.0081	1,000	300/D
	4.0	56/0.30	2.60	0.8	1.8	31.0	4.95	0.0076	1,500	300/D
	6.0	84/0.30	3.40	0.8	2.2	37.0	3.30	0.0061	2,300	300/D
27	0.50	16/0.20	0.95	0.6	1.4	18.5	39.0	0.0130	340	300/D
	0.75	24/0.20	1.15	0.6	1.4	19.5	26.0	0.0114	430	300/D
	1.0	32/0.20	1.30	0.6	1.4	20.0	19.5	0.0104	500	300/D
	1.5	30/0.25	1.60	0.6	1.4	22.0	13.3	0.0089	650	300/D
	2.5	50/0.25	2.10	0.7	1.8	27.0	7.98	0.0081	1,100	300/D
	4.0	56/0.30	2.60	0.8	1.8	32.0	4.95	0.0076	1,600	300/D
	6.0	84/0.30	3.40	0.8	2.2	38.0	3.30	0.0061	2,400	300/D

D : Packing in drum

CVV or CVV-S

THAI-YAZAKI STANDARD

Number of core	Nominal cross sectional area (mm^2)	Number and diameter of wire (mm)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Cable weight approx. (kg/km)	Standard Length (m)
28	0.50	16/0.20	0.95	0.6	1.4	19.0	39.0	0.0130	370	300/D
	0.75	24/0.20	1.15	0.6	1.4	20.0	26.0	0.0114	460	300/D
	1.0	32/0.20	1.30	0.6	1.4	21.0	19.5	0.0104	550	300/D
	1.5	30/0.25	1.60	0.6	1.4	23.0	13.3	0.0089	700	300/D
	2.5	50/0.25	2.10	0.7	1.8	28.0	7.98	0.0081	1,100	300/D
	4.0	56/0.30	2.60	0.8	1.8	33.0	4.95	0.0076	1,700	300/D
	6.0	84/0.30	3.40	0.8	2.2	39.0	3.30	0.0061	2,500	300/D
29	0.50	16/0.20	0.95	0.6	1.4	19.0	39.0	0.0130	370	300/D
	0.75	24/0.20	1.15	0.6	1.4	20.0	26.0	0.0114	460	300/D
	1.0	32/0.20	1.30	0.6	1.4	21.0	19.5	0.0104	550	300/D
	1.5	30/0.25	1.60	0.6	1.4	23.0	13.3	0.0089	700	300/D
	2.5	50/0.25	2.10	0.7	1.8	28.0	7.98	0.0081	1,100	300/D
	4.0	56/0.30	2.60	0.8	1.8	33.0	4.95	0.0076	1,700	300/D
	6.0	84/0.30	3.40	0.8	2.2	39.0	3.30	0.0061	2,500	300/D
30	0.50	16/0.20	0.95	0.6	1.4	19.0	39.0	0.0130	370	300/D
	0.75	24/0.20	1.15	0.6	1.4	20.0	26.0	0.0114	470	300/D
	1.0	32/0.20	1.30	0.6	1.4	21.0	19.5	0.0104	550	300/D
	1.5	30/0.25	1.60	0.6	1.4	23.0	13.3	0.0089	750	300/D
	2.5	50/0.25	2.10	0.7	1.8	28.0	7.98	0.0081	1,200	300/D
	4.0	56/0.30	2.60	0.8	1.8	33.0	4.95	0.0076	1,700	300/D
	6.0	84/0.30	3.40	0.8	2.2	39.0	3.30	0.0061	2,600	300/D
31	0.50	16/0.20	0.95	0.6	1.4	19.5	39.0	0.0130	400	300/D
	0.75	24/0.20	1.15	0.6	1.4	21.0	26.0	0.0114	500	300/D
	1.0	32/0.20	1.30	0.6	1.4	22.0	19.5	0.0104	600	300/D
	1.5	30/0.25	1.60	0.6	1.8	24.0	13.3	0.0089	850	300/D
	2.5	50/0.25	2.10	0.7	1.8	29.0	7.98	0.0081	1,300	300/D
	4.0	56/0.30	2.60	0.8	1.8	34.0	4.95	0.0076	1,800	300/D
	6.0	84/0.30	3.40	0.8	2.2	41.0	3.30	0.0061	2,700	300/D
32	0.50	16/0.20	0.95	0.6	1.4	19.5	39.0	0.0130	400	300/D
	0.75	24/0.20	1.15	0.6	1.4	21.0	26.0	0.0114	500	300/D
	1.0	32/0.20	1.30	0.6	1.4	22.0	19.5	0.0104	600	300/D
	1.5	30/0.25	1.60	0.6	1.8	24.0	13.3	0.0089	850	300/D
	2.5	50/0.25	2.10	0.7	1.8	29.0	7.98	0.0081	1,300	300/D
	4.0	56/0.30	2.60	0.8	1.8	34.0	4.95	0.0076	1,900	300/D
	6.0	84/0.30	3.40	0.8	2.2	41.0	3.30	0.0061	2,800	300/D
33	0.50	16/0.20	0.95	0.6	1.4	19.5	39.0	0.0130	400	300/D
	0.75	24/0.20	1.15	0.6	1.4	21.0	26.0	0.0114	500	300/D
	1.0	32/0.20	1.30	0.6	1.4	22.0	19.5	0.0104	600	300/D
	1.5	30/0.25	1.60	0.6	1.8	24.0	13.3	0.0089	850	300/D
	2.5	50/0.25	2.10	0.7	1.8	29.0	7.98	0.0081	1,300	300/D
	4.0	56/0.30	2.60	0.8	1.8	34.0	4.95	0.0076	1,900	300/D
	6.0	84/0.30	3.40	0.8	2.2	41.0	3.30	0.0061	2,800	300/D

D : Packing in drum

YAZAKI

CVV or CVV-S

THAI-YAZAKI STANDARD

Number of core	Nominal cross sectional area (mm^2)	Number and diameter of wire (mm)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Cable weight approx. (kg/km)	Standard Length (m)
34	0.50	16/0.20	0.95	0.6	1.4	20.0	39.0	0.0130	430	300/D
	0.75	24/0.20	1.15	0.6	1.4	21.0	26.0	0.0114	550	300/D
	1.0	32/0.20	1.30	0.6	1.4	22.0	19.5	0.0104	650	300/D
	1.5	30/0.25	1.60	0.6	1.8	25.0	13.3	0.0089	900	300/D
	2.5	50/0.25	2.10	0.7	1.8	30.0	7.98	0.0081	1,400	300/D
	4.0	56/0.30	2.60	0.8	2.2	37.0	4.95	0.0076	2,100	300/D
	6.0	84/0.30	3.40	0.8	2.2	42.0	3.30	0.0061	3,000	300/D
35	0.50	16/0.20	0.95	0.6	1.4	20.0	39.0	0.0130	430	300/D
	0.75	24/0.20	1.15	0.6	1.4	21.0	26.0	0.0114	550	300/D
	1.0	32/0.20	1.30	0.6	1.4	22.0	19.5	0.0104	650	300/D
	1.5	30/0.25	1.60	0.6	1.8	25.0	13.3	0.0089	900	300/D
	2.5	50/0.25	2.10	0.7	1.8	30.3	7.98	0.0081	1,400	300/D
	4.0	56/0.30	2.60	0.8	2.2	37.0	4.95	0.0076	2,100	300/D
	6.0	84/0.30	3.40	0.8	2.2	42.0	3.30	0.0061	3,000	300/D
36	0.50	16/0.20	0.95	0.6	1.4	20.0	39.0	0.0130	440	300/D
	0.75	24/0.20	1.15	0.6	1.4	21.0	26.0	0.0114	550	300/D
	1.0	32/0.20	1.30	0.6	1.4	22.0	19.5	0.0104	650	300/D
	1.5	30/0.25	1.60	0.6	1.8	25.0	13.3	0.0089	900	300/D
	2.5	50/0.25	2.10	0.7	1.8	30.0	7.98	0.0081	1,400	300/D
	4.0	56/0.30	2.60	0.8	2.2	37.0	4.95	0.0076	2,100	300/D
	6.0	84/0.30	3.40	0.8	2.2	42.0	3.30	0.0061	3,100	300/D
37	0.50	16/0.20	0.95	0.6	1.4	20.0	39.0	0.0130	450	300/D
	0.75	24/0.20	1.15	0.6	1.4	21.0	26.0	0.0114	550	300/D
	1.0	32/0.20	1.30	0.6	1.4	22.0	19.5	0.0104	700	300/D
	1.5	30/0.25	1.60	0.6	1.8	25.0	13.3	0.0089	950	300/D
	2.5	50/0.25	2.10	0.7	1.8	30.0	7.98	0.0081	1,400	300/D
	4.0	56/0.30	2.60	0.8	2.2	37.0	4.95	0.0076	2,200	300/D
	6.0	84/0.30	3.40	0.8	2.2	42.0	3.30	0.0061	3,100	300/D
38	0.50	16/0.20	0.95	0.6	1.4	21.0	39.0	0.0130	460	300/D
	0.75	247/0.20	1.15	0.6	1.4	22.0	26.0	0.0114	600	300/D
	1.0	32/0.20	1.30	0.6	1.4	23.0	19.5	0.0104	700	300/D
	1.5	30/0.25	1.60	0.6	1.8	26.0	13.3	0.0089	950	300/D
	2.5	50/0.25	2.10	0.7	1.8	31.0	7.98	0.0081	1,500	300/D
	4.0	56/0.30	2.60	0.8	2.2	38.0	4.95	0.0076	2,200	300/D
	6.0	84/0.30	3.40	0.8	2.2	44.0	3.30	0.0061	3,300	300/D
39	0.50	16/0.20	0.95	0.6	1.4	21.0	39.0	0.0130	470	300/D
	0.75	24/0.20	1.15	0.6	1.4	22.0	26.0	0.0114	600	300/D
	1.0	32/0.20	1.30	0.6	1.4	23.0	19.5	0.0104	700	300/D
	1.5	30/0.25	1.60	0.6	1.8	26.0	13.3	0.0089	1,000	300/D
	2.5	50/0.25	2.10	0.7	1.8	31.0	7.98	0.0081	1,500	300/D
	4.0	56/0.30	2.60	0.8	2.2	38.0	4.95	0.0076	2,300	300/D
	6.0	84/0.30	3.40	0.8	2.2	44.0	3.30	0.0061	3,300	300/D

D : Packing in drum

YAZAKI

CVV or CVV-S

THAI-YAZAKI STANDARD

Number of core	Nominal cross sectional area (mm^2)	Number and diameter of wire (mm)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Cable weight approx. (kg/km)	Standard Length (m)
40	0.50	16/0.20	0.95	0.6	1.4	21.0	39.0	0.0130	480	300/D
	0.75	24/0.20	1.15	0.6	1.4	22.0	26.0	0.0114	600	300/D
	1.0	32/0.20	1.30	0.6	1.4	23.0	19.5	0.0104	750	300/D
	1.5	30/0.25	1.60	0.6	1.8	26.0	13.3	0.0089	1,000	300/D
	2.5	50/0.25	2.10	0.7	1.8	31.0	7.98	0.0081	1,500	300/D
	4.0	56/0.30	2.60	0.8	2.2	38.0	4.95	0.0076	2,300	300/D
	6.0	84/0.30	3.40	0.8	2.2	44.0	3.30	0.0061	3,400	300/D
41	0.50	16/0.20	0.95	0.6	1.4	22.0	39.0	0.0130	500	300/D
	0.75	24/0.20	1.15	0.6	1.4	23.0	26.0	0.0114	650	300/D
	1.0	32/0.20	1.30	0.6	1.8	25.0	19.5	0.0104	800	300/D
	1.5	30/0.25	1.60	0.6	1.8	27.0	13.3	0.0089	1,000	300/D
	2.5	50/0.25	2.10	0.7	1.8	33.0	7.98	0.0081	1,600	300/D
	4.0	56/0.30	2.60	0.8	2.2	40.0	4.95	0.0076	2,400	300/D
	6.0	84/0.30	3.40	0.8	2.2	46.0	3.30	0.0061	3,500	300/D
42	0.50	16/0.20	0.95	0.6	1.4	22.0	39.0	0.0130	500	300/D
	0.75	24/0.20	1.15	0.6	1.4	23.0	26.0	0.0114	650	300/D
	1.0	32/0.20	1.30	0.6	1.8	25.0	19.5	0.0104	800	300/D
	1.5	30/0.25	1.60	0.6	1.8	27.0	13.3	0.0089	1,100	300/D
	2.5	50/0.25	2.10	0.7	1.8	33.0	7.98	0.0081	1,600	300/D
	4.0	56/0.30	2.60	0.8	2.2	40.0	4.95	0.0076	2,500	300/D
	6.0	84/0.30	3.40	0.8	2.2	46.0	3.30	0.0061	3,600	300/D
43	0.50	16/0.20	0.95	0.6	1.4	22.0	39.0	0.0130	500	300/D
	0.75	24/0.20	1.15	0.6	1.4	23.0	26.0	0.0114	650	300/D
	1.0	32/0.20	1.30	0.6	1.8	25.0	19.5	0.0104	850	300/D
	1.5	30/0.25	1.60	0.6	1.8	27.0	13.3	0.0089	1,100	300/D
	2.5	50/0.25	2.10	0.7	1.8	33.0	7.98	0.0081	1,600	300/D
	4.0	56/0.30	2.60	0.8	2.2	40.0	4.95	0.0076	2,500	300/D
	6.0	84/0.30	3.40	0.8	2.2	46.0	3.30	0.0061	3,600	300/D
44	0.50	16/0.20	0.95	0.6	1.4	22.0	39.0	0.0130	550	300/D
	0.75	24/0.20	1.15	0.6	1.4	24.0	26.0	0.0114	650	300/D
	1.0	32/0.20	1.30	0.6	1.8	26.0	19.5	0.0104	850	300/D
	1.5	30/0.25	1.60	0.6	1.8	28.0	13.3	0.0089	1,100	300/D
	2.5	50/0.25	2.10	0.7	1.8	34.0	7.98	0.0081	1,700	300/D
	4.0	56/0.30	2.60	0.8	2.2	41.0	4.95	0.0076	2,600	300/D
	6.0	84/0.30	3.40	0.8	2.6	48.0	3.30	0.0061	3,800	300/D
45	0.50	16/0.20	0.95	0.6	1.4	22.0	39.0	0.0130	550	300/D
	0.75	24/0.20	1.15	0.6	1.4	24.0	26.0	0.0114	700	300/D
	1.0	32/0.20	1.30	0.6	1.8	26.0	19.5	0.0104	850	300/D
	1.5	30/0.25	1.60	0.6	1.8	28.0	13.3	0.0089	1,100	300/D
	2.5	50/0.25	2.10	0.7	1.8	34.0	7.98	0.0081	1,700	300/D
	4.0	56/0.30	2.60	0.8	2.2	41.0	4.95	0.0076	2,600	300/D
	6.0	84/0.30	3.40	0.8	2.6	48.0	3.30	0.0061	3,900	300/D

D : Packing in drum

CVV or CVV-S

THAI-YAZAKI STANDARD

Number of core	Nominal cross sectional area (mm^2)	Number and diameter of wire (mm)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Cable weight approx. (kg/km)	Standard Length (m)
46	0.50	16/0.20	0.95	0.6	1.4	22.0	39.0	0.0130	550	300/D
	0.75	24/0.20	1.15	0.6	1.4	24.0	26.0	0.0114	700	300/D
	1.0	32/0.20	1.30	0.6	1.8	26.0	19.5	0.0104	900	300/D
	1.5	30/0.25	1.60	0.6	1.8	28.0	13.3	0.0089	1,100	300/D
	2.5	50/0.25	2.10	0.7	1.8	34.0	7.98	0.0081	1,800	300/D
	4.0	56/0.30	2.60	0.8	2.2	41.0	4.95	0.0076	2,700	300/D
	6.0	84/0.30	3.40	0.8	2.6	48.0	3.30	0.0061	4,000	300/D
47	0.50	16/0.20	0.95	0.6	1.4	22.0	39.0	0.0130	550	300/D
	0.75	24/0.20	1.15	0.6	1.4	24.0	26.0	0.0114	700	300/D
	1.0	32/0.20	1.30	0.6	1.8	26.0	19.5	0.0104	900	300/D
	1.5	30/0.25	1.60	0.6	1.8	28.0	13.3	0.0089	1,200	300/D
	2.5	50/0.25	2.10	0.7	1.8	34.0	7.98	0.0081	1,800	300/D
	4.0	56/0.30	2.60	0.8	2.2	41.0	4.95	0.0076	2,700	300/D
	6.0	84/0.30	3.40	0.8	2.6	48.0	3.30	0.0061	4,000	300/D
48	0.50	16/0.20	0.95	0.6	1.4	23.0	39.0	0.0130	550	300/D
	0.75	24/0.20	1.15	0.6	1.8	25.0	26.0	0.0114	750	300/D
	1.0	32/0.20	1.30	0.6	1.8	26.0	19.5	0.0104	900	300/D
	1.5	30/0.25	1.60	0.6	1.8	29.0	13.3	0.0089	1,200	300/D
	2.5	50/0.25	2.10	0.7	1.8	34.0	7.98	0.0081	1,800	300/D
	4.0	56/0.30	2.60	0.8	2.2	42.0	4.95	0.0076	2,800	300/D
	6.0	84/0.30	3.40	0.8	2.6	49.0	3.30	0.0061	4,100	300/D

D : Packing in drum

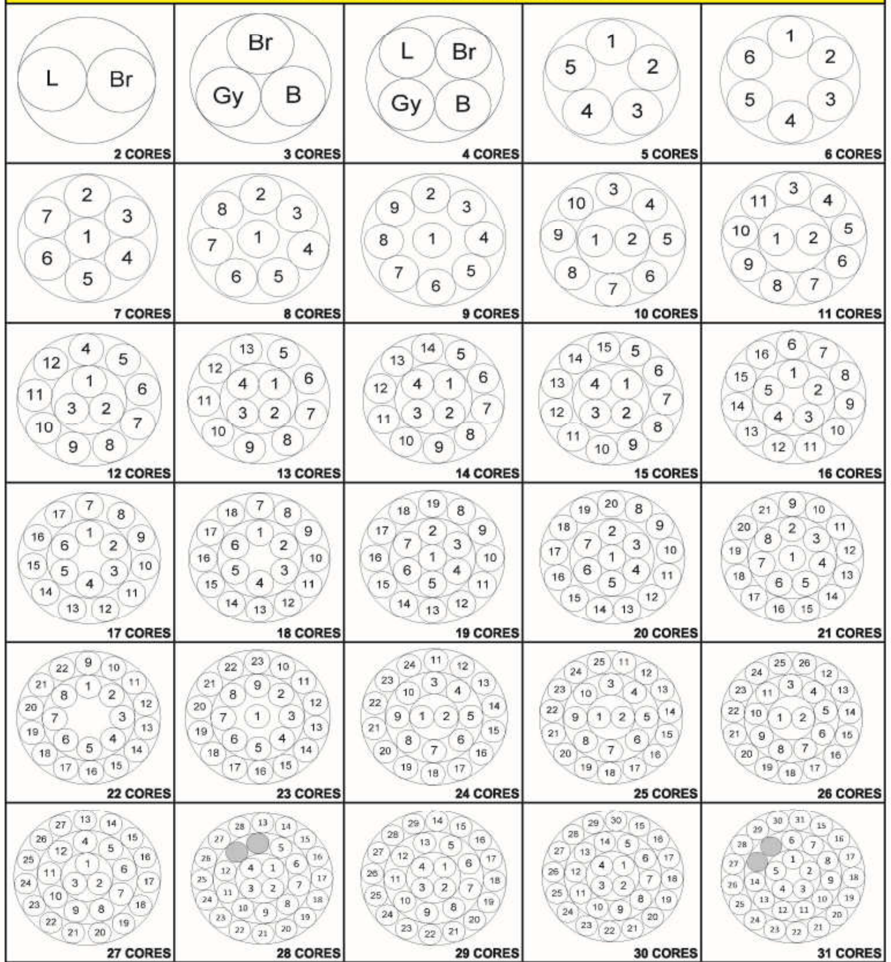
This table show only flexible stranded condutor. If you want to have solid or concentric conductor type, please contact with our sales department for CVV-S : The overall diameter of cable and cable weight shall be change a little bit more.

*Remark : Special protection can be produced.

CVV or CVV-S

THAI-YAZAKI STANDARD

ARRANGEMENT OF CORES FOR CVV or CVV-S



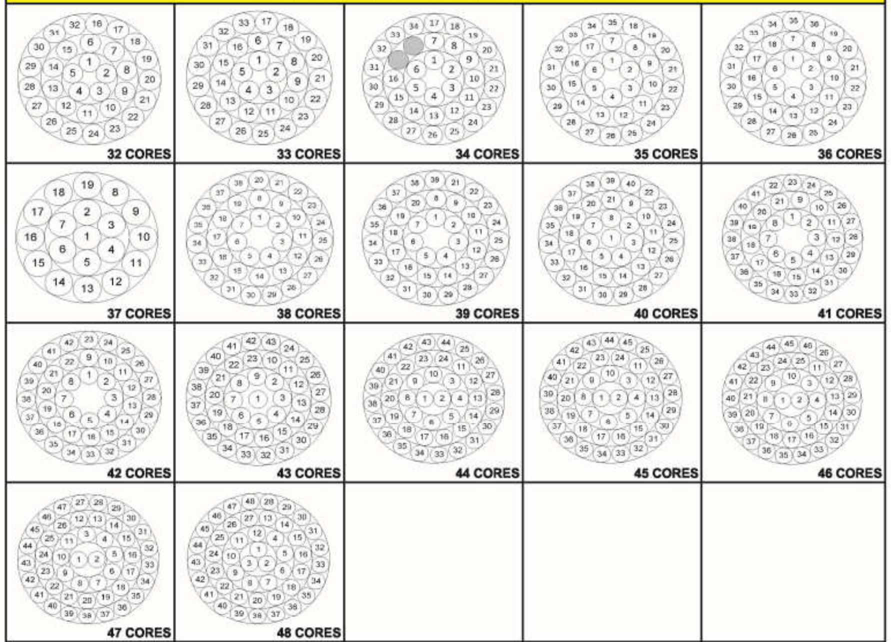
NOTE : Fillers are necessary to fill the cable a substantially circular cross section.
(If the stranded cores be circle enough, fillers shall not be necessary)

YAZAKI

CVV or CVV-S

THAI-YAZAKI STANDARD

ARRANGEMENT OF CORES FOR CVV or CVV-S



NOTE : Fillers are necessary to fill the cable a substantially circular cross section.
(If the stranded cores be circle enough, fillers shall not be necessary)

YAZAKI

Copper Conductor Cables

Automobile Wire and Cables

T-AV	60°C LOW VOLTAGE FLEXIBLE CONDUCTOR FOR AUTOMOBILE (TIS 118-2522)	B113
J-AV	60°C LOW VOLTAGE FLEXIBLE CONDUCTOR FOR AUTOMOBILE (JIS C 3406)	B114

B

YAZAKI

T-AV

TIS 118-2522

60°C LOW VOLTAGE FLEXIBLE CONDUCTOR FOR AUTOMOBILE

CABLE STRUCTURE

Conductor : Flexible annealed copper
: Sizes. 0.5 mm² up to 95 mm²

Insulation : Polyvinyl chloride (PVC)
Color : Any color

TECHNICAL DATA

Classification : Maximum conductor temperature 60°C
: Low voltage circuit

Testing voltage : 1,000 Volts

Reference standard : TIS 118-2522

Remark: Nowadays the wires are produced according to two kinds of Standard. But such the Ministerial Regulations shall come into force upon their publication in Government Gazette, the production must be in the way of THAI INDUSTRIAL STANDARD.

APPLICATION

For automobile

Number of core	Nominal cross sectional area (mm²)	Number and diameter of wire (No./mm)	Conductor diameter approx. (mm)	Insulation thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
1	0.5	16/0.20	0.95	0.6	2.2	37.1	11	9	100/C
	0.5	7/0.30	0.95	0.6	2.2	37.1	11	9	100/C
	0.75	24/0.20	1.15	0.6	2.4	24.7	14	11	100/C
	0.85	12/0.30	1.20	0.6	2.4	22.0	15	12	100/C
	1.0	32/0.20	1.30	0.6	2.6	18.5	16	14	100/C
	1.25	40/0.20	1.50	0.6	2.7	14.8	19	17	100/C
	1.25	18/0.30	1.50	0.6	2.7	14.7	19	17	100/C
	1.5	30/0.25	1.60	0.6	2.8	12.7	20	19	100/C
	2	28/0.30	1.90	0.6	3.1	9.42	25	24	100/C
	2.5	50/0.25	2.10	0.7	3.5	7.60	28	30	100/C
	3	44/0.30	2.30	0.7	3.7	6.00	32	37	100/C
	4	56/0.30	2.60	0.8	4.2	4.71	38	47	100/C
	5	70/0.30	3.0	0.8	4.6	3.77	44	57	100/C
	6	84/0.30	3.2	0.9	5.0	3.14	49	69	100/C
	8	63/0.40	3.7	0.9	5.5	2.31	59	88	100/C
	10	84/0.40	4.2	1.1	6.4	1.82	69	114	100/C
	16	126/0.40	5.8	1.1	8.0	1.16	95	173	100/C
	25	196/0.60	7.0	1.4	9.8	0.770	123	261	100/C
	35	280/0.40	8.5	1.4	11.3	0.524	158	366	100/C
	50	399/0.40	10.9	1.6	14.1	0.357	207	537	500/D
	70	361/0.50	12.6	2.0	16.6	0.268	250	727	500/D
	95	475/0.50	14.1	2.0	18.1	0.193	305	971	500/D

C : Packing in coil
D : Packing in drum

YAZAKI

J-AV

JIS C 3406

60°C LOW VOLTAGE FLEXIBLE CONDUCTOR FOR AUTOMOBILE

CABLE STRUCTURE

Conductor : Flexible annealed copper
: Sizes. 0.5 mm² up to 60 mm²

Insulation : Polyvinyl chloride (PVC)
Color : Any color

TECHNICAL DATA

Classification : Maximum conductor temperature 60°C
: Low voltage circuit

Testing voltage : 5,000 Volts

Reference standard : JIS C 3406

APPLICATION

For automobile

Number of core	Nominal cross sectional area (mm²)	Number and diameter of wire (No./mm)	Conductor diameter approx. (mm)	Conductor diameter approx. (mm)	Insulation thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
1	0.5	20/0.18	0.95	1.0	0.6	2.1	36.7	12	8.5	100/C
	0.5	7/0.32	1.00	1.0	0.6	2.1	32.7	12	9	100/C
	0.75	30/0.18	1.15	1.20	0.6	2.3	24.4	14	12	100/C
	0.85	11/0.32	1.25	1.20	0.6	2.4	20.8	15	13	100/C
	1.25	50/0.18	1.50	1.50	0.6	2.7	14.7	19	17	100/C
	1.25	16/0.32	1.50	1.50	0.6	2.7	14.3	19	17	100/C
	2	26/0.32	1.90	1.90	0.6	3.1	8.81	26	26	100/C
	3	41/0.32	2.40	2.30	0.7	3.8	5.59	34	40	100/C
	5	65/0.32	3.00	3.0	0.8	4.5	3.52	45	60	100/C
	8	50/0.45	3.70	3.7	0.9	5.4	2.32	59	90	100/C
	15	84/0.45	5.10	5.8	1.1	7.2	1.38	82	160	100/C
	20	247/0.32	6.30	7.0	1.1	8.2	0.887	109	230	100/C
	30	361/0.32	7.60	8.5	1.4	10.5	0.520	156	380	500/D
	40	494/0.32	8.90	10.9	1.4	11.5	0.428	175	450	500/D
	50	608/0.32	9.80	12.6	1.6	13.0	0.337	206	570	500/D
	60	741/0.32	10.00	14.1	1.6	13.5	0.287	227	670	500/D

C : Packing in coil
D : Packing in drum

Copper Conductor Cables

Bare Conductor

B

FHC

TIS 64-2517

HARD DRAWN COPPER STRANDED CONDUCTOR

CONDUCTOR

CABLE STRUCTURE

Conductor: Hard drawn copper wires, concentric stranded conductor
Sizes 10 mm^2 up to 500 mm^2
Stranding direction the outermost layer Z

TECHNICAL DATA

Reference standard: TIS 64-2517

APPLICATION

For grounding wire

Nominal Cross Sectional area (mm²)	Number and diameter of wires (No./mm)	Conductor diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Breaking strength (kgf)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
10	7/1.35	4.05	1.80548	438	90	9	100/C
16	7/1.70	5.10	1.13857	694	125	140	100/C
25	7/2.14	6.42	0.71851	1,076	160	230	100/C
35	7/2.52	7.56	0.51815	1,459	200	320	100/C
50	7/3.02	9.06	0.35896	2,095	250	450	100/C
50	19/1.78	8.90	0.38252	2,021	250	430	100/C
70	19/2.14	10.70	0.26466	2,921	310	600	500/D
95	19/2.52	12.60	0.19183	3,961	380	850	500/D
120	19/2.85	14.25	0.14922	5,067	440	1,100	500/D
150	37/2.25	15.75	0.12384	6,289	510	1,300	500/D
185	37/2.52	17.64	0.09813	7,713	585	1,700	500/D
240	61/2.25	20.25	0.07528	10,369	700	2,200	500/D
300	61/2.52	22.68	0.06002	12,717	800	2,800	500/D
400	61/2.85	25.65	0.04692	16,266	900	3,600	500/D
500	61/3.20	28.80	0.03703	20,506	1,110	4,500	500/D

C : Packing in coil
D : Packing in drum

Aluminium Conductor Cables

Building Wires and Cables

C

THWA

TIS 293-2541

750 V 70°C ALUMINIUM CONDUCTOR PVC INSULATED, SINGLE CORE

CABLE STRUCTURE

Conductor : Solid and stranded hard drawn aluminium wires
Size 10 mm^2 up to 500 mm^2

Insulation : Polyvinyl chloride (PVC)
Color : Black

TECHNICAL DATA

Classification : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 750 Volts

Testing voltage : 2,500 Volts
Reference standard : TIS 293-2541, Table 1

APPLICATION

For aerial cable (Service & Main)

Nominal cross sectional area (mm^2)	Number and diameter of wires (No./mm)	Insulation thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Breaking strength of conductor minimum (N)	continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
10	1/3.49	1.1	6.0	3.08	0.0078	1,562	52	50	500/C
10	7/1.32	1.1	6.5	3.08	0.0070	1,769	52	55	500/C
16	1/4.43	1.1	7.0	1.91	0.0064	2,445	70	70	500/C
16	7/1.68	1.1	7.6	1.91	0.0058	2,781	70	80	500/C
25	7/2.12	1.3	9.3	1.20	0.0055	4,241	95	120	300/C
35	7/2.49	1.3	10.5	0.868	0.0048	5,703	117	160	200/C
50	7/2.90	1.5	12.0	0.641	0.0047	7,423	143	210	200/C
50	19/1.76	1.5	12.5	0.641	0.0047	8,114	143	210	200/C
70	19/2.12	1.5	14.0	0.443	0.0040	11,487	185	280	100/C
95	19/2.49	1.7	16.5	0.320	0.0038	15,470	226	390	100/C
120	19/2.80	1.7	18.0	0.253	0.0035	18,810	264	470	500/D
120	37/2.01	1.7	18.0	0.253	0.0034	20,114	264	470	500/D
150	37/2.23	1.9	20.0	0.206	0.0035	24,704	302	600	500/D
185	37/2.50	2.1	22.0	0.164	0.0034	30,187	352	700	500/D
240	61/2.23	2.3	25.0	0.125	0.0033	38,568	421	900	500/D
300	61/2.49	2.5	28.0	0.100	0.0032	46,901	487	1,100	500/D
400	61/2.82	2.7	32.0	0.0778	0.0031	57,948	574	1,400	500/D
500	61/3.20	3.1	36.0	0.0605	0.0031	73,194	675	1,900	500/D

C : Packing in coil
D : Packing in drum

YAZAKI

THWA-C

TIS 293-2541

750 V 70°C COMPACTED ALUMINIUM CONDUCTOR PVC INSULATED, SINGLE CORE

CABLE STRUCTURE	
Conductor	: Compact stranded hard drawn aluminium wires Sizes 10 mm^2 up to 500 mm^2
Insulation	: Polyvinyl chloride (PVC) Color : Black

TECHNICAL DATA	
Classification	: Maximum conductor temperature 70°C : Circuit voltage not exceeding 750 Volts
Testing voltage	: 2,500 Volts
Reference standard	: TIS 293-2541, Table 2

APPLICATION

For aerial cable (Service & Main)

Nominal cross sectional area (mm^2)	Actual cross sectional area (mm^2)	Minimum number of wires (No.)	Compact conductor diameter approx. (mm)	Insulation thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20° C maximum (Ω/km)	Insulation resistance at 70°C minimum (MΩ-km)	Breaking strength of conductor minimum (N)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
10	9.64	6	3.72	1.1	6.3	3.08	0.0084	1,768	52	50	500/C
16	15.55	6	4.69	1.1	7.2	1.91	0.0068	2,734	69	75	500/C
25	24.75	6	5.90	1.3	8.8	1.20	0.0064	4,120	93	110	300/C
35	34.21	6	6.95	1.3	9.9	0.868	0.0056	5,591	115	150	300/C
50	46.32	6	8.01	1.5	11.5	0.641	0.0059	7,313	141	200	200/C
70	67.03	12	9.73	1.5	13.5	0.443	0.0050	10,420	178	270	100/C
95	92.79	15	11.40	1.7	15.5	0.320	0.0047	14,098	220	370	100/C
120	117.37	15	12.95	1.7	17.0	0.253	0.0042	18,518	258	450	100/C
150	144.15	15	14.27	1.9	18.5	0.206	0.0042	22,457	294	550	500/D
185	181.06	30	15.98	2.1	21.0	0.164	0.0042	28,974	342	700	500/D
240	237.55	30	18.47	2.3	24.0	0.125	0.0040	37,506	410	900	500/D
300	296.94	30	20.68	2.5	26.0	0.100	0.0038	45,642	475	1,100	500/D
400	381.67	53	23.39	2.7	30.0	0.0778	0.0036	56,992	560	1,400	500/D
500	490.81	53	26.67	3.1	34.0	0.0605	0.0037	72,195	659	1,800	500/D

C : Packing in coil
D : Packing in drum

YAZAKI

Aluminium Conductor Cables

High Voltage Power Cables

C

YAZAKI

24 KV-OC

ICEA S-66-524
ICEA S-93-639

24 kV CROSS-LINKED POLYETHYLENE PARTIAL INSULATED ALL ALUMINIUM CABLE

CABLE STRUCTURE

Conductor : Compacted round stranded hard drawn aluminium wires
Single-core : Sizes 35 mm² up to 185 mm²
Insulation : Cross-linked polyethylene (XLPE)
Core identification
Color : Black

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 24,000 Volts

Testing voltage : 11,000 Volts
Reference standard : ICEA S-66-524, ICEA S-93-639

APPLICATION

Aerial distribution cable (installed with pin insulator)

Number of core	Nominal cross sectional area (mm²)	Minimum number of wires (No.)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 15.6° C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Breaking strength (N)	Cable weight approx. (kg/km)	Standard length (m)
	35	6	7.05	1.8	12.0	0.868	900	140	5,591	170	1,000/D
	50	6	8.11	2.2	14.0	0.641	880	170	7,313	220	1,000/D
	70	12	9.73	2.1	15.0	0.443	800	215	10,420	290	1,000/D
1	95	15	11.43	2.5	18.0	0.320	750	270	14,098	400	1,000/D
	120	15	13.05	2.6	19.5	0.253	700	310	18,518	490	1,000/D
	150	15	14.37	2.6	21.0	0.206	650	355	22,457	550	1,000/D
	185	30	16.08	2.55	23.0	0.164	600	410	28,974	700	1,000/D

D : Packing in drum

YAZAKI

33KV-OC

ICEA S-66-524
ICEA S-93-639

33 kV CROSS-LINKED POLYETHYLENE PARTIAL INSULATED ALL ALUMINIUM CABLE

CABLE STRUCTURE

Conductor : Compacted round stranded hard drawn aluminium wires
Single-core : Size 35 mm² up to 185 mm²
Insulation : Cross-linked polyethylene (XLPE)
Core identification
Color : Black

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 33,000 Volts

Testing voltage : 17,000 Volts
Reference standard : ICEA S-66-524, ICEA S-93-639

APPLICATION

Aerial distribution cable (installed with pin insulator)

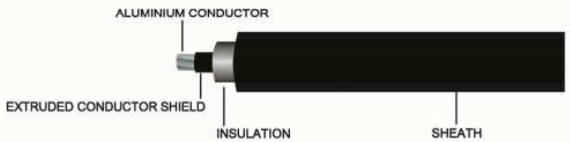
Number of core	Nominal cross sectional area (mm²)	Minimum number of wires (No.)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 15.6°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Breaking strength (N)	Cable weight approx. (kg/km)	Standard length (m)
	35	6	7.05	3.0	14.5	0.868	1,350	145	5,591	220	1000/D
	50	6	8.11	3.2	16.5	0.641	1,300	175	7,313	280	1000/D
	70	12	9.73	3.2	18.0	0.443	1,200	220	10,420	350	1000/D
1	95	15	11.43	3.5	20.0	0.320	1,100	270	14,098	460	1000/D
	120	15	13.05	3.6	22.0	0.253	1,000	315	18,518	550	1000/D
	150	15	14.37	3.6	23.0	0.206	950	360	22,457	650	1000/D
	185	30	16.08	3.9	26.0	0.164	900	415	28,974	800	1000/D

D : Packing in drum

15KV-CC

ICEA S-66-524
ICEA S-93-639

15 kV ALL ALUMINIUM CONDUCTOR SPACED AERIAL CABLE



CABLE STRUCTURE

Conductor : Compacted round stranded hard drawn aluminium wires
Single Core : Size 35 mm^2 up to 240 mm^2

Insulation : Cross-linked polyethylene (XLPE)
Color : Natural

Sheath : Cross-linked polyethylene (XLPE)
Color : Black

TECHNICAL DATA

Classification : Maximum conductor temperature 90 °C
: Circuit voltage not exceeding 15,000 Volts

Testing voltage : 27,000 Volts
Reference standard : ICEA S-66-524, ICEA S-93-639

APPLICATION

Aerial distribution cable (installed with pin insulator or spacer)

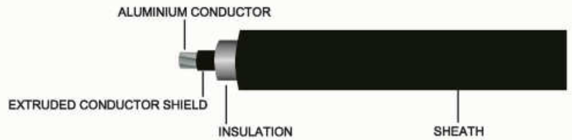
Number of core	Nominal cross sectional area (mm²)	Number of stranded (No.)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 15.6°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Breaking strength (N)	Cable weight approx. (kg/km)	Standard length (m)
1	35	6	7.05	1.91	1.91	16.5	0.868	1,750	164	5,591	260	500/D
	50	6	8.11	1.91	1.91	18.0	0.641	1,550	198	7,313	320	500/D
	70	12	9.73	1.91	1.91	19.5	0.443	1,400	250	10,420	390	500/D
	95	15	11.43	1.91	1.91	21.0	0.320	1,250	306	14,098	490	500/D
	120	15	13.05	1.91	1.91	23.0	0.253	1,150	355	18,518	600	500/D
	150	15	14.37	1.91	1.91	24.0	0.206	1,050	405	22,457	650	500/D
	185	30	16.08	1.91	1.91	26.0	0.164	980	468	28,974	800	500/D
	240	30	18.57	1.91	1.91	28.0	0.125	850	560	37,506	1,000	500/D

D : Packing in drum

25 KV-CC

ICEA S-66-524
ICEA S-93-639

25 kV ALL ALUMINIUM CONDUCTOR SPACED AERIAL CABLE



CABLE STRUCTURE

Conductor : Compacted round stranded hard drawn aluminium wires
Single Core : Size 35 mm^2 up to 240 mm^2

Insulation : Cross-linked polyethylene (XLPE)
Color : Natural

Sheath : Cross-linked polyethylene (XLPE)
Color : Black

TECHNICAL DATA

Classification : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 25,000 Volts

Testing voltage : 38,000 Volts
Reference standard : ICEA S-66-524, ICEA S-93-639

APPLICATION

Aerial distribution cable (installed with pin insulator or spacer)

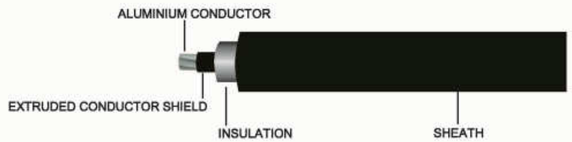
Number of core	Nominal cross sectional area (mm²)	Number of stranded (No.)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Overall diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 15.6°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Breaking Strength (N)	Cable weight approx. (kg/km)	Standard length (m)
1	35	6	7.05	3.175	3.175	22	0.868	2,500	165	5,591	400	500/D
	50	6	8.11	3.175	3.175	23	0.641	2,250	199	7,313	460	500/D
	70	12	9.73	3.175	3.175	25	0.443	2,050	250	10,420	550	500/D
	95	15	11.43	3.175	3.175	26	0.320	1,850	305	14,098	650	500/D
	120	15	13.05	3.175	3.175	28	0.253	1,700	353	18,518	750	500/D
	150	15	14.37	3.175	3.175	29	0.206	1,600	402	22,457	850	500/D
	185	30	16.08	3.175	3.175	31	0.164	1,450	464	28,974	1,000	500/D
	240	30	18.57	3.175	3.175	33	0.125	1,300	553	37,506	1,200	500/D

D : Packing in drum

35 KV-CC

ICEA S-66-524
ICEA S-93-639

35 kV ALL ALUMINIUM CONDUCTOR SPACED AERIAL CABLE



CABLE STRUCTURE

Conductor : Compacted round stranded hard drawn aluminium wires
Single Core : Size 50 mm^2 up to 240 mm^2

Insulation : Cross-linked polyethylene (XLPE)
Color : Natural

Sheath : Cross-linked polyethylene (XLPE)
Color : Black

TECHNICAL DATA

Classification : Maximum conductor temperature 90 °C
: Circuit voltage not exceeding 35,000 Volts

Testing voltage : 49,000 Volts
Reference standard : ICEA S-66-524, ICEA S-93-639

APPLICATION

Aerial distribution cable (installed with pin insulator or spacer)

Number of core	Nominal cross sectional area (mm²)	Number of stranded (No.)	Diameter of conductor approx. (mm)	Insulation thickness nominal (mm)	Sheath thickness nominal (mm)	Approx. Overall diameter (mm)	Conductor resistance at 20°C maximum (Ω/km)	Insulation resistance at 15.6°C minimum (MΩ-km)	Continuous current rating in free air maximum (A)	Breaking Strength (N)	Cable weight approx. (kg/km)	Standard length (m)
1	50	6	8.11	4.445	3.175	26	0.641	2,500	200	7,313	550	500/D
	70	12	9.73	4.445	3.175	27	0.443	2,300	251	10,420	650	500/D
	95	15	11.43	4.445	3.175	29	0.320	2,100	306	14,098	750	500/D
	120	15	13.05	4.445	3.175	31	0.253	1,950	355	18,518	900	500/D
	150	15	14.37	4.445	3.175	32	0.206	1,800	403	22,457	1,000	500/D
	185	30	16.08	4.445	3.175	34	0.164	1,690	464	28,974	1,100	500/D
	240	30	18.57	4.445	3.175	36	0.125	1,500	552	37,506	1,400	500/D

D : Packing in drum

Aluminium Conductor Cables

Bare Conductor

AAC	ALL ALUMINIUM STRANDED CONDUCTOR (TIS 85-2548)	C11
ACSR	ALUMINIUM CONDUCTOR STEEL REINFORCED (TIS 85-2548)	C12

YAZAKI

AAC

TIS 85-2548

ALL ALUMINIUM STRANDED CONDUCTOR

CABLE STRUCTURE

Conductor : Concentric stranded hard drawn aluminium wires sizes 16 mm^2 up to 1,000 mm^2

Standing Direction : The outermost layer Z

TECHNICAL DATA

Reference standard : TIS 85-2548

APPLICATION

For overhead transmission and distribution line

Nominal cross sectional area (mm²)	Number and approx diameter of wire (No./mm)	Overall conductor diameter approx. (mm)	Conductor resistance at 20°C maximum (Ω/km)	Breaking strength (kgf)	Continuous current rating in free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
16	7/1.70	5.10	1.802	290	110	44	3000/D
25	7/2.14	6.42	1.138	440	145	70	3000/D
35	7/2.52	7.56	0.820	585	180	95	3000/D
50	7/3.02	9.06	0.571	805	225	140	2500/D
50	19/1.83	9.15	0.5757	890	225	140	2500/D
70	19/2.15	10.75	0.4171	1,205	270	190	2500/D
95	19/2.52	12.60	0.3036	1,585	340	260	2500/D
120	19/2.85	14.25	0.2374	1,980	390	330	2000/D
150	37/2.25	15.75	0.1960	2,570	455	400	2000/D
185	37/2.52	17.64	0.1563	3,085	550	500	2000/D
240	61/2.25	20.25	0.1192	4,015	625	650	1500/D
300	91/2.52	22.68	0.0950	4,820	710	850	1500/D
400	61/2.85	25.65	0.0743	6,025	855	1,100	1000/D
500	61/3.25	29.25	0.0571	7,695	990	1,400	1000/D
625	91/2.96	32.56	0.0463	9,694	1,140	1,700	500/D
800	91/3.35	36.85	0.0361	12,055	1,340	2,200	500/D
1000	91/3.74	41.14	0.0290	14,845	1,540	2,800	500/D

D : Packing in drum

YAZAKI

ACSR

TIS 85-2548

ALUMINIUM CONDUCTOR STEEL REINFORCED

CABLE STRUCTURE

Conductor : Hard drawn aluminium wire Sizes 16 mm^2 up to 680 mm^2

Steel Core : Galvanized steel (Zinc coated),solid and concentric stranded, sizes 2.5 mm^2 up to 85 mm^2

Stranding Direction : The outermost layer Z

TECHNICAL DATA

Reference standard : TIS 85-2548

APPLICATION

For overhead transmission and distribution line

Nominal cross sectional area (mm²)	ALUMINIUM Number and approx. diameter of wire (No./mm)	ALUMINIUM Cross sectional area (mm²)	STEEL WIRE Number and approx. diameter of wire (No./mm)	STEEL WIRE Cross sectional area (mm²)	Overall conductor diameter approx. (mm)	Conductor resistance at 20° C maximum (Ω/km)	Breaking strength (kgf)	Continuous current rating free air maximum (A)	Cable weight approx. (kg/km)	Standard length (m)
16/2.5	6/1.80	15.3	1/1.80	2.54	5.40	1.880	592	90	60	4,000/D
25/4	6/2.25	23.9	1/2.25	3.98	6.75	1.203	916	125	95	4,000/D
35/6	6/2.70	34.4	1/2.70	5.73	8.10	0.8353	1,265	145	140	3,000/D
50/8	6/3.20	48.3	1/3.20	8.04	9.60	0.5947	1,716	170	200	3,000/D
50/30	12/2.33	51.2	7/2.33	29.85	11.50	0.5644	4,380	170	380	3,000/D
70/12	26/1.85	69.9	7/1.44	11.40	11.50	0.4131	2,676	290	280	3,000/D
95/15	26/2.15	94.4	7/1.67	15.33	13.50	0.3058	3,565	350	380	3,000/D
95/55	12/3.20	96.5	7/3.20	56.30	16.00	0.2993	7,965	350	700	3,000/D
120/20	26/2.44	121.6	7/1.90	19.85	15.50	0.2375	4,555	410	490	2,000/D
120/70	12/3.60	122.1	7/3.60	71.25	18.00	0.2365	10,034	410	900	2,000/D
125/30	30/2.33	127.9	7/2.33	29.85	16.00	0.2259	5,759	425	600	2,000/D
150/25	26/2.70	148.9	7/2.10	24.25	17.00	0.1939	5,513	470	600	2,000/D

D : Packing in drum

ACSR

TIS 85-2548

ALUMINIUM CONDUCTOR STEEL REINFORCED

CABLE STRUCTURE

Conductor : Hard drawn aluminium wire
Sizes 16 mm^2 up to 680 mm^2

Steel Core : Galvanized steel (Zinc coated),solid and concentric stranded, sizes 2.5 mm^2 up to 85 mm^2

Stranding Direction : The outermost layer Z

TECHNICAL DATA

Reference standard : TIS 85-2548

APPLICATION

For overhead transmission and distribution line

Nominal cross sectional area	ALUMINIUM		STEEL WIRE		Overall conductor diameter approx.	Conductor resistance at 20° C maximum	Breaking strength	Continuous current rating free air maximum	Cable weight approx.	Standard length
	Number and approx. diameter of wire	Cross sectional area	Number and approx. diameter of wire	Cross sectional area						
(mm^2)	(No./mm)	(mm^2)	(No./mm)	(mm^2)	(mm)	(Ω/km)	(kgf)	(A)	(kg/km)	(m)
170/40	30/2.70	171.8	7/2.70	40.08	18.50	0.1683	7,675	520	800	2,000/D
185/30	26/3.00	183.8	7/2.33	29.85	18.50	0.1571	6,618	535	750	2,000/D
210/35	26/3.20	209.1	7/2.49	34.09	20.00	0.1381	7,489	590	850	1,500/D
210/50	30/3.00	212.1	7/3.00	49.48	21.00	0.1363	9,390	610	1,000	1,500/D
230/10	24/3.50	230.9	7/2.33	29.85	21.00	0.1250	7,313	630	900	1,500/D
240/40	26/3.45	243.1	7/2.68	39.49	21.00	0.1188	8,640	645	1,000	1,500/D
265/35	24/3.74	263.7	7/2.49	34.10	22.00	0.1095	8,307	680	1,000	1,000/D
300/50	26/3.86	304.3	7/3.00	49.50	24.00	0.0949	10,702	740	1,200	1,000/D
305/40	54/2.68	304.6	7/2.68	39.50	24.00	0.0949	9,942	740	1,200	1,000/D
380/50	54/3.00	381.7	7/3.00	49.50	27.00	0.0758	12,312	840	1,500	1,000/D
435/55	54/3.20	434.3	7/3.20	56.30	28.00	0.0666	13,673	900	1,700	1,000/D
490/65	54/3.40	490.3	7/3.40	63.60	30.00	0.0590	15,343	960	1,900	1,000/D
550/70	54/3.60	549.7	7/3.60	71.30	32.00	0.0526	17,096	1,020	2,100	500/D
680/85	54/4.00	678.6	19/2.40	86.00	36.00	0.0426	12,040	1,150	2,600	500/D

D : Packing in drum

Electrical Insulation Tape

D

YAZAKI

VTA

TIS 386-2531

LEAD FREE PVC PLASTIC ELECTRICAL INSULATION TAPE

SCOPE :

This specification covers Lead Free PVC plastic electrical Insulation tape to be used in electrical service at temperature 0 ~ 80° C.

The tape shall be used for insulation of jointed splices of cables and wires. The tape must have good insulation properties, heat, weather, flame resistance, and lead free materials for environment, suitable for tropical country.

STANDARD :

The Lead Free PVC plastic electrical insulation tape shall be manufactured and tested in accordance with TIS 386-2531

Dimension

1) Thickness (mm) 0.125 ± 0.025, 0.18 ± 0.025
2) Width (mm) 19 ± 1.0
3) Length (m) 10 + 1.0 / - 0

PROPERTY AND REQUIREMENTS		PACKING
1) Electrolytic corrosion after 24h		The Lead Free PVC plastic electrical insulation tape
at 27 ± 2° Cand 93 ± 2% relative humidity	(Ω) ≥ 10^{11}	shall be packing in paper core Cellophane and
2) Penetration at elevated temperature	(°C) ≥ 50	shrinkage wrapped.
3) Flammability	non-ignitable or	
	self-extinguishing	1) Dimension of each roll
4) Thermal endurance	no-crack	: Diameter (cm) 5.8
5) Tensile strength	(N/10 mm width/mm thick.) ≥ 150	Width (cm) 1.9
6) Adhesion to steel	(N/10 mm width/mm thick.) ≥ 1.8	2) Weight of each roll (approx.)
7) Adhesion to backing	(N/10 mm width/mm thick.) ≥ 1.8	: Net (kg) 0.036
8) Shear adhesion after immersion in water	(N) ≥ 18.0	Gross(kg) 0.037
9) Electric strength		3) Number of roll in each package (Rolls) 10
- after 24 hour at 27 ± 2° C		4) Number of package in one case (Package)10
and 65 ± 5% relative humidity	(kV/mm) ≥ 40	5) Dimension of each case : WxLxH (cm) 12.5x30x19.5
- after 24 hour at 27 ± 2° C		6) Gross weight of each case (appo (kg) 4
and 93 ± 2% relative humidity	(kV/mm) ≥ 35	