

Contact Us:

E-mail: info@qingzhou-cable.com

Phone/Whatsapp/WeChat: [+86 18625503172](tel:+8618625503172)

www.qingzhou-cable.com

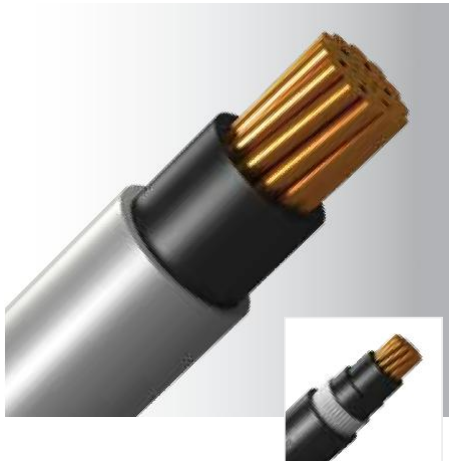
PVC-Insulated Cables

600/1000V Single-Core

PVC Insulated, Unarmoured & Armoured, PVC Sheathed Cable

Description: CU/PVC/PVC or CU/PVC/PVC/AWA/PVC-AT

Model Code: PP or PPAP-AT



Application : This cable is primarily used for main power supply such as in switchgears and power stations. It can be installed in cable trenches, cable ducts and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required

Voltage rating : 600/1000V

Construction : Plain annealed copper, PVC insulated, unarmoured or aluminum wires armoured, Anti-termite PVC sheathed cable

Insulation colour : Black or Red

Sheath colour : Grey, Black (other colour upon request)

Specification : IEC60502-1

Operating Temperature: 70°C

Conductor			Insulation	Unarmoured Cable			Armoured Cable		
Nominal Area	No./Diam. of Strand	Max. Diam. of Conductor	Thickness	Part No.	Approx. Overall Diam.	Approx. Weight	Part No.	Approx. Overall Diam.	Approx. Weight
(mm ²)	(no./mm)	(mm)	(mm)		(mm)	(kg/km)		(mm)	(kg/km)
1.5	7/0.53	1.59	0.8	07015031	6.3	55	-	-	-
2.5	7/0.67	2.01	0.8	08015031	6.6	65	-	-	-
4	7/0.85	2.55	1.0	09015031	7.8	95	-	-	-
6	7/1.04	3.12	1.0	10015031	8.3	125	-	-	-
10	7/1.35	4.05	1.0	11015031	9.2	170	-	-	-
16	7/1.70	5.10	1.0	12015031	10.4	240	-	-	-
25	7/2.14	6.42	1.2	13015031	11.9	350	-	-	-
35	19/1.53	7.65	1.2	14015031	13.0	460	-	-	-
50	19/1.78	8.90	1.4	15015031	14.9	580	15015132	20.4	849
70	19/2.14	10.70	1.4	16015031	16.7	820	16015132	21.9	1087
95	19/2.52	12.60	1.6	17015031	19.1	1100	17015132	24.1	1402
120	37/2.03	14.21	1.6	18015031	20.9	1360	18015132	26.0	1721
150	37/2.25	15.75	1.8	19015031	22.8	1660	19015132	27.8	2047
185	37/2.52	17.64	2.0	20015031	25.3	2060	20015132	30.0	2476
240	61/2.25	20.25	2.2	21015031	28.8	2680	21015132	33.3	3143
300	61/2.52	22.68	2.4	22015031	32.3	3340	22015132	37.1	3936
400	61/2.85	25.65	2.6	23015031	35.0	4250	23015132	41.3	4935
500	61/3.20	28.80	2.8	24015031	40.1	5300	24015132	46.8	6138
630	127/2.52	32.76	2.8	25015031	44.2	6700	25015132	51.2	7660
800	127/2.85	37.05	2.8	26015031	48.5	8400	26015132	57.2	9726



Contact Us:

[E-mail:info@qingzhou-cable.com](mailto:info@qingzhou-cable.com)

[Phone/Whatsapp/WeChat:+86 18625503172](tel:+8618625503172)

www.qingzhou-cable.com

1000	127/3.20	41.60	3.0	27015031	54.3	10600	27015132	62.5	11995
------	----------	-------	-----	-----------------	------	-------	-----------------	------	-------

Current rating and voltage drop

For Unarmoured Cable, please refer to Tables 2 & 3 (Page 45)

For Armoured Cable, please refer to Tables 4 & 5 (Page 46)

Single-Core, Unarmoured

Single-Core Cables with PVC Insulation, Unarmoured, with or without Sheath 450/750V or 600/1000V
Table 2 : Current-Carrying Capacities (Amp) [CU/PVC or CU/PVC/PVC Cables]

BS EN 50525-2-31 (BS 6004)

IEC 60502 (BS 6346)

SS 358

Conductor Operating Temperature : 70°C

Ambient Temperature : 30°C

Conductor cross-sectional area	Reference Method 4 (enclosed in conduit in thermally insulating wall etc.)		Reference Method 3 (enclosed in conduit on a wall or in trunking etc.)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray horizontal or vertical)		Reference Method 12 (free air)		
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three phase a.c.	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, three-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cable three-phase a.c. flat and touching or trefoil	Horizontal flat spaced	Vertical flat spaced	Trefoil
									single-phase a.c. or d.c. or three-phase a.c.	single-phase a.c. or d.c. or three phase a.c.	3 cables, trefoil three phase a.c.
1 mm ²	2 A	3 A	4 A	5 A	6 A	7 A	8 A	9 A	10 A	11 A	12 A
BS 6004											
1	11	10,5	13,5	12	15,5	14	-	-	-	-	-
1,5	14,5	13,5	17,5	15,5	20	18	-	-	-	-	-
2,5	19,5	18	24	21	27	25	-	-	-	-	-
4	26	24	32	28	37	33	-	-	-	-	-
6	34	31	41	36	47	43	-	-	-	-	-
10	46	42	57	50	65	59	-	-	-	-	-
16	61	56	76	68	87	79	-	-	-	-	-
25	80	73	101	89	114	104	126	112	146	130	110
35	99	89	125	110	141	129	156	141	181	162	137
BS 6346											
50	119	108	151	134	182	167	191	172	219	197	167
70	151	136	192	171	234	214	246	223	281	254	216
95	182	164	232	207	284	261	300	273	341	311	264
120	210	188	269	239	330	303	349	318	396	362	308
150	240	216	300	262	381	349	404	369	456	419	356
185	273	245	341	296	436	400	463	424	521	480	409
240	320	286	400	346	515	472	549	504	615	569	485
300	367	328	458	394	594	545	635	584	709	659	561
400	-	-	546	467	694	634	732	679	852	795	656
500	-	-	626	533	792	723	835	778	982	920	749
630	-	-	720	611	904	826	953	892	1138	1070	855
800	-	-	-	-	1030	943	1086	1020	1265	1188	971
1000	-	-	-	-	1154	1058	1216	1149	1420	1337	1079

Note : For rating factors of ambient temperature other than 30°C please refer to Table 25

Table 3 : Voltage Drop (Per Amp, Per Meter) [CU/PVC or CU/PVC/PVC Cables]

BS EN 50525-2-31 (BS 6004)

IEC 60502-1 (BS 6346)

SS 358

Conductor Operating Temperature : 70°C

Ambient Temperature : 30°C

Conductor cross-sectional area	2 cables d.c.	2 cables single-phase a.c.				3 or 4 cables three-phase a.c.																
		Reference Methods 3 & 4 (enclosed in conduit etc, in or on a wall)		Reference Methods 1 & 11 (clipped direct or on trays, touching)		Reference Methods 3 & 4 (enclosed in conduit etc, in or on a wall)		Reference Methods 1, 11 & 12 (in trefoil)		Reference Methods 1 & 11 (flat touching)		Reference Method 12 (flat spaced)										
		1	2	3	4	5	6	7	8	9												
mm ²	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m									
1	44	44	44	44	44	38	38	38	38	38	38	38	38									
1,5	29	29	29	29	29	25	25	25	25	25	25	25	25									
2,5	18	18	18	18	18	15	15	15	15	15	15	15	15									
4	11	11	11	11	11	9,5	9,5	9,5	9,5	9,5	9,5	9,5	9,5									
6	7,3	7,3	7,3	7,3	7,3	6,4	6,4	6,4	6,4	6,4	6,4	6,4	6,4									
10	4,4	4,4	4,4	4,4	4,4	3,8	3,8	3,8	3,8	3,8	3,8	3,8	3,8									
16	2,8	2,8	2,8	2,8	2,8	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4									
25	1,75	1,80	0,33	1,80	1,75	0,20	1,75	1,75	0,29	1,80	1,50	0,29	1,55	1,50	0,175	1,50	1,50	0,25	1,55	1,50	0,32	1,5
35	1,25	1,30	0,31	1,30	1,25	0,195	1,25	1,25	0,28	1,30	1,10	0,27	1,10	1,10	0,170	1,10	1,10	0,24	1,10	1,10	0,32	1,1
50	0,93	0,95	0,30	1,00	0,93	0,190	0,95	0,93	0,28	0,97	0,81	0,26	0,85	0,80	0,165	0,82	0,80	0,24	0,84	0,80	0,32	0,8
70	0,63	0,65	0,29	0,72	0,63	0,185	0,66	0,63	0,27	0,69	0,56	0,25	0,61	0,55	0,160	0,57	0,55	0,24	0,60	0,55	0,31	0,6
95	0,46	0,49	0,28	0,56	0,47	0,180	0,50	0,47	0,27	0,54	0,42	0,24	0,48	0,41	0,155	0,43	0,41	0,23	0,47	0,40	0,31	0,5
120	0,36	0,39	0,27	0,47	0,37	0,175	0,41	0,37	0,26	0,45	0,33	0,23	0,41	0,32	0,150	0,36	0,32	0,23	0,40	0,32	0,30	0,4
150	0,29	0,31	0,27	0,41	0,30	0,175	0,34	0,29	0,26	0,39	0,27	0,23	0,36	0,26	0,150	0,30	0,26	0,23	0,34	0,26	0,30	0,4
185	0,23	0,25	0,27	0,37	0,24	0,170	0,29	0,24	0,26	0,35	0,22	0,23	0,32	0,21	0,145	0,26	0,21	0,22	0,31	0,21	0,30	0,3
240	0,180	0,195	0,26	0,33	0,185	0,165	0,25	0,185	0,25	0,31	0,17	0,23	0,29	0,160	0,145	0,22	0,160	0,22	0,27	0,160	0,29	0,3
300	0,145	0,160	0,26	0,31	0,150	0,165	0,22	0,150	0,25	0,29	0,14	0,23	0,27	0,130	0,140	0,190	0,130	0,22	0,25	0,130	0,29	0,3
400	0,105	0,130	0,26	0,29	0,120	0,160	0,20	0,115	0,25	0,27	0,12	0,22	0,25	0,105	0,140	0,175	0,105	0,21	0,24	0,100	0,29	0,3
500	0,086	0,110	0,26	0,28	0,098	0,155	0,185	0,093	0,24	0,26	0,10	0,22	0,25	0,086	0,135	0,160	0,086	0,21	0,23	0,081	0,29	0,3
630	0,068	0,094	0,25	0,27	0,081	0,155	0,175	0,076	0,24	0,25	0,08	0,22	0,24	0,072	0,135	0,150	0,072	0,21	0,22	0,066	0,28	0,2
800	0,053	-	-	-	0,068	0,150	0,165	0,061	0,24	0,25	-	-	-	0,060	0,130	0,145	0,060	0,21	0,22	0,053	0,28	0,2
1000	0,042	-	-	-	0,059	0,150	0,160	0,050	0,24	0,24	-	-	-	0,052	0,130	0,140	0,052	0,20	0,21	0,044	0,28	0,2

Note : r = conductor resistance at operating temperature, x = reactance, z = impedance

Single-Core, Armoured

Single-Core Cables with PVC Insulation, Armoured, PVC Outersheath 600/1000V
Table 4 : Current-Carrying Capacities (Amp) [CU/PVC/PVC/AWA/PVC Cables]

Conductor Operating Temperature : 70°C
 Ambient Temperature : 30°C
 Ground Temperature : 15°C

IEC 60502-1 (BS 6346)

Depth of Laying : 0.5m

Soil Thermal Resistivity : 1.2 k•m/W

Conductor cross-sectional area	Reference Method 1 (clipped direct)		Reference Method 11 (on perforated cable tray)		Reference Method 12 (free air)					Direct in ground		In single way ducts	
	2 cables single-phase a.c. or d.c.	3 or 4 cables 3-phase a.c.	2 cables single-phase a.c. flat & touching	3 or 4 cables 3-phase a.c. flat & touching	3 or 4 cables 3-phase a.c.			2 cables d.c. spaced		2 cables flat touching	3 cables trefoil touching	2 cables duct touching	3 cables trefoil touching
					Horizontal flat spaced	Vertical flat spaced	3 cables trefoils	Horizontal	Vertical				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
mm ²	A	A	A	A	A	A	A	A	A	A	A	A	A
50	193	179	205	189	230	212	181	229	216	238	203	216	199
70	245	225	259	238	286	263	231	294	279	292	248	262	241
95	296	269	313	285	338	313	280	357	340	349	297	308	282
120	342	309	360	327	385	357	324	415	396	396	337	341	311
*150	393	352	413	373	436	405	373	479	458	443	376	375	342
185	447	399	469	422	490	456	425	548	525	497	423	414	375
240	525	465	550	492	566	528	501	648	622	571	485	463	419
300	594	515	624	547	616	578	567	748	719	640	542	509	459
400	687	575	723	618	674	632	657	885	851	708	600	545	489
500	763	622	805	673	721	676	731	1035	997	780	660	585	523
630	843	669	891	728	771	723	809	1218	1174	856	721	632	563
800	919	710	976	777	824	772	886	1441	1390	895	756	662	587
1000	975	737	1041	808	872	816	946	1685	1627	939	797	703	621

Note : For rating factors of ambient temperature other than 30°C please refer Table 25
 For rating factors for group temperature other than 15°C please refer to Table 30
 For group rating factors please refer to Table 27

Table 5 : Voltage Drop (Per Amp Per Meter) [CU/PVC/PVC/AWA/PVC Cables]

Conductor Operating Temperature : 70°C
 Ambient Temperature : 30°C
 Ground Temperature : 15°C

IEC 60502-1 (BS6346)

Depth of Laying : 0.5m

Soil Thermal Resistivity : 1.2 k•m/W

Conductor cross-sectional area	2 cables d.c.	2 cables single-phase a.c.						3 or 4 cables three-phase a.c.									Direct in ground		In single way ducts			
		Reference Methods 1 & 11 (Touching)			Reference Method 12 (space*)			Reference Methods 1, 11 & 12 (in trefoil touching)			Reference Methods 1 & 11 (flat touching)			Reference Method 12 (flat spaced*)			2 cables flat touching	3 cables trefoil touching	2 cables flat touching	3 cables trefoil touching		
		mV/A/m			mV/A/m			mV/A/m			mV/A/m			mV/A/m			mV/A/m	mV/A/m	mV/A/m	mV/A/m		
1	2	3			4			5			6			7			8	9	10	11		
mm ²	mV/A/m	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
50	0.93	0.93	0.22	0.95	0.92	0.30	0.97	0.80	0.190	0.82	0.79	0.26	0.84	0.79	0.34	0.86	0.97	0.82	1.00	0.88		
70	0.63	0.64	0.21	0.68	0.66	0.29	0.72	0.56	0.180	0.58	0.57	0.25	0.62	0.59	0.32	0.68	0.67	0.58	0.76	0.66		
95	0.46	0.48	0.20	0.52	0.51	0.28	0.58	0.42	0.175	0.45	0.44	0.25	0.50	0.47	0.31	0.57	0.50	0.44	0.61	0.53		
120	0.36	0.39	0.195	0.43	0.42	0.28	0.50	0.33	0.17	0.37	0.36	0.24	0.43	0.40	0.30	0.50	0.42	0.36	0.54	0.47		
150	0.29	0.31	0.19	0.37	0.34	0.27	0.44	0.27	0.165	0.32	0.30	0.24	0.38	0.34	0.30	0.45	0.36	0.31	0.48	0.42		
185	0.23	0.26	0.19	0.32	0.29	0.27	0.39	0.22	0.160	0.27	0.25	0.23	0.34	0.29	0.29	0.41	0.31	0.27	0.44	0.38		
240	0.180	0.20	0.180	0.27	0.23	0.26	0.35	0.175	0.160	0.23	0.20	0.23	0.30	0.24	0.28	0.37	0.26	0.23	0.40	0.34		
300	0.145	0.160	0.180	0.24	0.190	0.26	0.32	0.140	0.155	0.21	0.165	0.22	0.28	0.20	0.28	0.34	0.23	0.20	0.37	0.32		
400	0.105	0.140	0.175	0.22	0.180	0.24	0.30	0.120	0.150	0.195	0.160	0.21	0.26	0.21	0.25	0.32	0.22	0.19	0.34	0.30		
500	0.086	0.120	0.170	0.21	0.165	0.23	0.29	0.105	0.145	0.180	0.145	0.20	0.25	0.190	0.24	0.30	0.20	0.18	0.32	0.28		
630	0.068	0.105	0.165	0.195	0.150	0.22	0.27	0.091	0.145	0.170	0.135	0.195	0.23	0.175	0.22	0.28	0.19	0.16	0.30	0.26		
800	0.053	0.095	0.160	0.185	0.145	0.21	0.25	0.082	0.140	0.160	0.125	0.180	0.22	0.170	0.195	0.26	-	-	-	-		
1000	0.042	0.091	0.155	0.180	0.140	0.190	0.24	0.079	0.135	0.155	0.125	0.165	0.21	0.165	0.170	0.24	-	-	-	-		

Note : r = conductor resistance at operating temperature
 x = reactance
 z = impedance