



Building & Infrastructure Cables

DELIVERING ENERGY »

PVC-Insulated Cables

450/750V Single-Core
PVC Insulated, Non-Sheathed Cable
CU/PVC



tel (65) 6367 0107 fax (65) 6365 2963
www.keystone-cable.com



Application :	This cable is used in light fitting, and in switching and control equipment. It can be installed in conduit, in cable trunking and on cable trays
Voltage rating :	450/750V
Construction :	Plain annealed copper, PVC insulated cable
Insulation colour :	Brown, Black, Grey, Blue, Green/Yellow or as per order
Specification :	SS358-3, BS EN 50525-2-31, IEC60227-3
Operating temperature:	70°C

Nominal Area (mm ²)	Conductor		Insulation Thickness (mm)	Approx. Overall Dia. (mm)	Approx. Weight (kg/km)
	No./Dia. of Strand (no./mm)	Approx. Dia. (mm)			
1.5	1/1.38	1.38	0.7	2.9	20
1.5	7/0.53	1.59	0.7	3.1	22
2.5	1/1.78	1.78	0.8	3.4	32
2.5	7/0.67	2.01	0.8	3.7	34
4	7/0.85	2.55	0.8	4.3	50
6	7/1.04	3.12	0.8	4.8	70
10	7/1.35	4.05	1.0	6.0	120
16	7/1.70	5.10	1.0	7.0	180
25	7/2.14	6.42	1.2	9.0	280
35	19/1.53	7.65	1.2	10.0	380
50	19/1.78	8.90	1.4	12.0	500
70	19/2.14	10.70	1.4	13.7	715
95	19/2.52	12.60	1.6	16.0	990
120	37/2.03	14.21	1.6	17.5	1,220
150	37/2.25	15.75	1.8	19.5	1,500
185	37/2.52	17.64	2.0	22.0	1,890
240	61/2.25	20.25	2.2	25.0	2,460
300	61/2.52	22.68	2.4	28.0	3,080
400	61/2.85	25.65	2.6	31.5	3,920
500	61/3.20	28.80	2.8	35.0	4,920
630	127/2.52	32.76	2.8	39.0	6,260

For current rating and voltage drop please refer to Tables 2 & 3 (Page 45)

Current Rating and Voltage Drop



PVC Insulated Cables
Single-Core, Unarmoured

tel (65) 6367 0107 fax (65) 6365 2963
www.keystone-cable.com

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 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. or flat and touching	3 or 4 cable three-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. or 3 cables three-phase a.c.	2 cables, single-phase a.c. or d.c. or 3 cables three-phase a.c.	3 cables, trefoil three phase a.c.
mm ²	A	A	A	A	A	A	A	A	A	A	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	218	300	262	381	349	404	369	456	419	356
185	273	245	341	296	436	400	463	424	521	480	409
240	320	288	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	1071	-
1000	-	-	-	-	1154	1058	1216	1149	1420	1337	-

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 cross-sectional area	2 cables single-phase a.c.						3 or 4 cables three-phase a.c.					
	2 cables d.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 Method 12 (space)	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)	mV/A/m	mV/A/m	mV/A/m	mV/A/m
mm ²	2	3	4	5	6	7	8	9	2	3	4	5
1	44	44	44	44	38	38	38	38	44	44	44	44
1.5	29	29	29	29	25	25	25	25	32	32	32	32
2.5	18	18	18	18	15	15	15	15	22	22	22	22
4	11	11	11	11	9.5	9.5	9.5	9.5	15	15	15	15
6	7.3	7.3	7.3	7.3	6.4	6.4	6.4	6.4	10	10	10	10
10	4.4	4.4	4.4	4.4	3.8	3.8	3.8	3.8	6	6	6	6
16	2.8	2.8	2.8	2.8	2.4	2.4	2.4	2.4	4	4	4	4
25	1.75	1.80	0.33	1.80	1.75	0.20	1.75	1.75	1.55	1.50	1.50	1.55
35	1.25	1.30	0.31	1.30	1.25	0.195	1.25	1.25	1.10	1.10	1.10	1.10
50	0.93	0.95	0.30	1.00	0.93	0.190	0.95	0.93	0.85	0.80	0.80	0.85
70	0.63	0.65	0.29	0.72	0.63	0.185	0.66	0.63	0.61	0.55	0.60	0.55
95	0.46	0.49	0.28	0.56	0.47	0.180	0.50	0.47	0.42	0.42	0.43	0.47
120	0.36	0.39	0.27	0.47	0.37	0.175	0.41	0.37	0.33	0.32	0.32	0.32
150	0.29	0.31	0.27	0.41	0.30	0.175	0.34	0.29	0.27	0.23	0.26	0.30
185	0.23	0.25	0.27	0.37	0.24	0.170	0.29	0.24	0.22	0.23	0.21	0.23
240	0.180	0.195	0.26	0.33	0.185	0.165	0.25	0.185	0.21	0.20	0.22	0.21
300	0.145	0.160	0.26	0.31	0.150	0.165	0.22	0.150	0.27	0.23	0.25	0.29
400	0.105	0.130	0.26	0.29	0.120	0.160	0.20	0.115	0.25	0.20	0.24	0.29
500	0.086	0.110	0.26	0.28	0.098	0.155	0.185	0.093	0.24	0.26	0.23	0.30
630	0.068	0.094	0.25	0.27	0.081	0.155	0.175	0.076	0.24	0.25	0.22	0.28
800	0.053	-	-	-	0.068	0.150	0.165	0.061	0.24	0.25	0.22	0.29
1000	0.042	-	-	-	0.059	0.150	0.160	0.050	0.24	0.24	0.21	0.28

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

LSZH Fire Resistant Cables

600/1000V Single-Core

Mica Tape Fire Barrier, LSZH Insulated, Non-Sheathed Fire Resistant Cable

CU/MICA/LSZH



tel (65) 6367 0107 fax (65) 6365 2963
www.keystone-cable.com



Application :	This cable is used in fire extinguishing systems, sprinklers, control panels, and exit lights in high-rise buildings, hotels, hospitals, subways, and public facilities
Voltage rating :	600/1000V
Construction :	Plain annealed copper, mica tape fire barrier, XLEVA compound insulated cable
Insulation colour:	Orange or as per order
Specification :	IEC60502-1, BS EN 50525-3-41, BS6387, SS299-1, IEC60331, IEC60332-1, IEC60332-3, IEC60754, IEC61034
Operating Temperature:	90°C (or 125°C upon request)

Nominal Area (mm ²)	Conductor No./Dia. Of Strand (no./mm)	Insulation Thickness (mm)	Approx. Overall Dia. (mm)		Approx. Weight (kg/km)
			Approx. Overall Dia. (mm)	Approx. Weight (kg/km)	
1.5	7/0.53	0.8	4.1	38	
2.5	7/0.67	0.8	4.5	49	
4	7/0.85	1.0	5.5	70	
6	7/1.04	1.0	6.0	96	
10	7/1.35	1.0	7.0	141	
16	7/1.70	1.0	8.0	200	
25	7/2.14	1.2	9.5	304	
35	19/1.53	1.2	10.6	402	
50	19/1.78	1.4	12.3	537	
70	19/2.14	1.4	13.9	742	
95	19/2.52	1.6	15.9	990	
120	37/2.03	1.6	17.2	1250	
150	37/2.25	1.8	18.9	1520	
185	37/2.52	2.0	21.2	1900	
240	61/2.25	2.2	25.8	2550	
300	61/2.52	2.4	28.8	3150	
400	61/2.85	2.6	32.2	4000	
500	61/3.20	2.8	35.7	5000	
630	127/2.52	2.8	39.7	6360	

For current rating and voltage drop please refer to Tables 12 & 13 (Page 50)

Current Rating and Voltage Drop

XLPE (or LSZH) Insulated Cables
Single-Core, Unarmoured

tel (65) 6367 0107 fax (65) 6365 2963
www.keystone-cable.com

Single-Core Cables with XLPE (or LSZH) Insulation, with or without PVC (or LSZH) Outersheath 450/750V or 600/1000V

Table 12 : Current-Carrying Capacities (Amp)

[CU/LSZH, CU/XLPE/PVC, CU/XLPE/LSZH, CU/MICA/LSZH or CU/MICA/XLPE/LSZH Cables]

Conductor Operating Temperature : 90°C
Ambient Temperature : 30°C

BS EN 50525-3-41 (BS 7211)
IEC60502-1

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, 3-phase a.c.	2 cables, single-phase a.c.	3 or 4 cables, 3-phase a.c.	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, 3-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. or flat and touching	3 or 4 cables, 3-phase a.c. flat and touching or trefoil	Horizontal flat spaced	Vertical flat spaced	Trefoil
1 mm ²	2	3	4	5	6	7	8	9	10	11	12
1.5	A	A	A	A	A	A	A	A	A	A	A
2.5	18	17	22	19	25	23	-	-	-	-	-
4	24	23	30	26	34	31	-	-	-	-	-
6	33	30	40	35	46	41	-	-	-	-	-
10	43	39	51	45	59	54	-	-	-	-	-
16	58	53	71	63	81	74	-	-	-	-	-
25	76	70	95	85	109	99	-	-	-	-	-
35	100	91	126	111	143	130	158	140	183	163	138
50	125	111	156	138	176	161	195	176	226	203	171
70	149	135	189	168	228	209	239	215	274	246	209
95	189	170	240	214	293	268	308	279	351	318	270
120	228	205	290	259	355	326	375	341	426	389	330
150	263	235	336	299	413	379	436	398	495	453	385
185	300	270	375	328	476	436	505	461	570	524	445
240	341	306	426	370	545	500	579	530	651	600	511
300	400	358	500	433	644	590	686	630	769	711	606
400	459	410	573	493	743	681	794	730	886	824	701
500	-	-	684	584	868	793	915	849	1065	994	820
630	-	-	783	666	990	904	1044	973	1228	1150	936
800	-	-	900	764	1130	1033	1179	1358	1275	1580	1485
1000	-	-	-	-	1288	-	-	1520	1436	1775	1671
					1443	1323					1349

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

Table 13 : Voltage Drop (Per Amp Per Meter)

[CU/LSZH, CU/XLPE/PVC, CU/XLPE/LSZH, CU/MICA/LSZH or CU/MICA/XLPE/LSZH Cables]

Conductor Operating Temperature : 90°C
Ambient Temperature : 30°C

BS EN 50525-3-41 (BS 7211)
IEC60502-1

Size of Conductor	2 cables d.c.	2 cables, single-phase a.c.			Reference Methods 3 and 4 (enclosed in conduit etc, in or on a wall)			Reference Methods 1 and 11 (clipped direct or on trays touching)			Reference Methods 3 and 4 (enclosed in conduit etc, in or on a wall)			Reference Methods 1, 11 and 12 (in trefoil)			Reference Methods 1 and 11 (flat and touching)		
		3 mV/A/m	4 mV/A/m	5 mV/A/m	6 mV/A/m	7 mV/A/m													
1 mm ²	2 mV/A/m	31	31	27	27	27													
1.5	31	1.85	1.85	0.31	1.90	1.85	0.190	1.85	1.60	0.27	1.65	1.600	0.165	1.600	1.600	0.190	1.600		
2.5	19	1.35	1.35	0.29	1.35	1.35	0.180	1.35	1.15	0.25	1.15	1.150	0.155	1.150	1.150	0.180	1.150		
4	12	1.2	1.2	10	10	10													
6	7.8	7.9	6.8	6.8	6.8	6.8													
10	4.7	4.7	4.7	4.7	4.7	4.7													
16	2.9	2.9	2.9	2.9	2.9	2.9													
	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	
25	1.85	1.85	0.31	1.90	1.85	0.190	1.85	1.60	0.27	1.65	1.600	0.165	1.600	1.600	0.190	1.600			
35	1.35	1.35	0.29	1.35	1.35	0.180	1.35	1.15	0.25	1.15	1.150	0.155	1.150	1.150	0.180	1.150			
50	0.99	1.00	0.29	1.05	0.99	0.180	1.00	0.87	0.25	0.90	0.860	0.155	0.870	0.860	0.180	0.870			
70	0.68	0.70	0.28	0.75	0.68	0.175	0.71	0.60	0.24	0.65	0.590	0.150	0.610	0.590	0.175	0.620			
95	0.49	0.51	0.27	0.58	0.49	0.170	0.52	0.44	0.23	0.50	0.430	0.145	0.450	0.430	0.170	0.460			
120	0.39	0.41	0.26	0.48	0.39	0.165	0.43	0.35	0.23	0.42	0.340	0.140	0.370	0.340	0.165	0.380			
150	0.32	0.33	0.26	0.43	0.32	0.165	0.36	0.29	0.23	0.37	0.280	0.140	0.310	0.280	0.165	0.320			
185	0.25	0.27	0.26	0.37	0.26	0.165	0.30	0.23	0.23	0.32	0.220	0.140	0.260	0.220	0.165	0.280			
240	0.19	0.21	0.26	0.33	0.20	0.160	0.25	0.185	0.22	0.29	0.170	0.140	0.220	0.170	0.165	0.240			
300	0.155	0.175	0.25	0.31	0.16	0.160	0.22	0.150	0.22	0.27	0.140	0.140	0.195	0.135	0.160	0.210			
400	0.12	0.140	0.25	0.29	0.13	0.155	0.20	0.125	0.22	0.25	0.110	0.135	0.175	0.110	0.160	0.195			
500	0.093	0.120	0.25	0.28	0.105	0.155	0.185	0.10	0.22	0.24	0.090	0.135	0.160	0.088	0.160	0.180			
630	0.072	0.100	0.25	0.27	0.086	0.155	0.175	0.088	0.21	0.23	0.074	0.135	0.150	0.071	0.160	0.170			
800	0.056	-	-	-	0.072	0.150	0.170	-	-	-	0.062	0.130	0.145	0.059	0.155	0.165			
1000	0.045	-	-	-	0.063	0.150	0.165	-	-	-	0.055	0.130	0.140	0.050	0.155	0.165			

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



PSB Singapore

CERTIFICATE OF CONFORMITY

No. CLSAN 080537 0071 Rev. 00

Initial No. CLS1A 14 06 80537 011

Certificate Holder:

Keystone Cable (S) Pte Ltd
57 Senoko Drive
Woodlands East Industrial Estate
SINGAPORE 758236
SINGAPORE

UEN - 198104507R

Certification Mark:**Product:**

PVC Insulated Non-sheath cables

Brand Name:

KEYSTONE

Model(s):

PVC

Product Details:

Refer to following page(s)

Standard(s):

SS 358-3:1996/A1:1998

Country of Origin:

Singapore

Test Report(s):

Refer to following page(s)

Valid until:

2025-06-17

Products listed under Class 1A must have TÜV SÜD PSB PLS mark as shown above affixed/printed on them. Failure to comply with this requirement may result in revocation of this certificate.

Page 1 of 2

Issued on: 2020-06-30

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PSB Singapore

CERTIFICATE OF CONFORMITY

No. CLSAN 080537 0071 Rev. 00

Initial No. CLS1A 14 06 80537 011

Product Details:

Voltage : 450/750V
Conductor : Plain annealed copper wires
Insulation : PVC
Sizes : 1C x 1.5mm² to 1C x 630mm²

Test Report(s):

S09EEC01798/RON/THP, S09EEC01798/A/RON/THP, SM/K/32/02/02/01/B
SM/K/32/02/01/02/A, SM/K/32/02/00/02/A, SM/K/32/02/99/02/A

Page 2 of 2

Issued on: 2020-06-30

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CERTIFICATE OF CONFORMITY

No. CLS1A 18 01 80537 038

Initial No. CLS1A 15 02 80537 016

Certificate Holder: Keystone Cable (S) Pte Ltd
 27 Senoko Way
 SINGAPORE 758060
 SINGAPORE

Certification Mark:



Product: Fire Resistant Cables

Brand Name: KEYSTONE

Model(s): CU/MT/LSZH

Product Details: Voltage: 600/1000V
 Conductor: Plain annealed copper
 Fire resistant layer: Mica tape
 Insulation: LSZH
 Category: C
 Sizes: 1C x 1.5mm² to 1C x 4.0mm²

Standard(s): SS 299-1:1998/A1:2008

Country of Origin: Singapore

Test Report(s): See CoC Appendix (1 pg)

Issued on: 2018-01-12

Valid until: 2023-02-23

Products listed under Class 1A must have TÜV SÜD PSB PLS mark as shown above affixed/printed on them. Failure to comply with this requirement may result in revocation of this certificate.

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Vice-President (Certification Department)
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PRODUCT LISTING SCHEME APPENDIX

TO CERTIFICATE OF CONFORMITY NUMBER: CLS1A 18 01 80537 038

Date of Issue : 2018-01-12

Issued To : **Keystone Cable (S) Pte Ltd**
27 Senoko Way
SINGAPORE 758060
SINGAPORE

Test Reports : 55S021738/A/CMH/WHC
55S021738/B/CMH/WHC
S09EEC01798/E/RON/THP
S09EEC01798/RON/THP



Vice President (Certification Department)
TÜV SÜD PSB