Power & Control Cable — IEC 60502-1

(2-, 3-, 4- and 5-cores) — U_0/U 0.6 / 1 kV

XLPE-Insulation, LSZH-Sheath, Fire Resistant

2XH

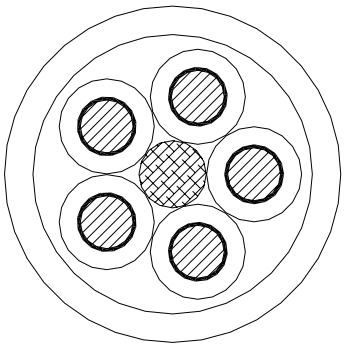
Application

For electricity supply and control in public networks and industrial plants or public buildings, where people are potentially endangered in case of fire and where, for a defined period of time, the continuity of control and energy supply is of vital necessity; suitable for use in zone 1 and zone 2 group II classified areas (IEC 60079-14).

For indoor and outdoor installation in dry and wet locations, on racks, in conduits (Local and / or legal requirements to be noted) Reccomended for direct burial (partly).

Construction

Conductor	plain annealed copper, class 1 or class 2 resp., acc. to IEC 60228,	
	class 1: circular solid (RE)	
	class 2: circular stranded (RM)	
Insulation	cross-linked polyethylene XLPE, over the MICA-tape wrapped conductor	
Colour code [1]	Two-core:	blue, brown
	Three-core:	brown, black, grey
	Four-core:	blue, brown, black, grey
	Five-core:	blue, brown, black, grey, black
Laying up	cores twisted in layers (if necessary with filling element(s))	
Inner Covering	extruded filler of regenerated rubber	
Outer Sheath	extruded zero halogen flame retardant compound LSZH, black	
Cable marking	ELECTRIC CABLE 0.6/1 kV IEC 60502-1 KERPEN, YEAR, LENGTH MARKING, IEC 60331	



Technical Data

Flame retardancy:	IEC 60332-1
Flame propagation:	IEC 60332-3 cat. A
Fire resistance:	IEC 60331-21 (90 min/750 °C)
Smoke density:	IEC 61034-1 and 2
Amount of halogen acid gas:	IEC 60754-1; 0 %
Degree of acidity of gases:	IEC 60754-2
Outer sheath:	
Limiting Oxygen Index (LOI):	min. 30 % (IEC 60332-3 ann. B)
Temperature Index (TI):	min. 250 °C (ASTM-D-2863)

Temperature range:
- 30 °C up to + 90 °C (during operation)
- 5 °C up to + 50 °C (during installation)

max. + 250 °C (under short circuit)

Min. bending radius:
8 x cable-∅

Abbreviations

2X	insulation of XLPE
H	outer sheath of LSZH

Electrical Data at 20 °C

	Character	Unit	Values
Conductor resistance	max.	Ω/km	acc. to IEC 60228
Test voltage U_{rms} core:core		V	3500
Nominal voltage U_o/U		V	600/1000
Highest system voltage U_m	max.	V	1200 (for three phase systems)

[1] other colours on request

For further details see appendix

www.CableCon.co.kr 케이블 콘(주) 0707-434-7701

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XLPE-Insulation, LSZH-Sheath, Fire Resistant

2XH

Geometrical Data

No. of cores and cross-section (nom.) n / mm²	Radial thickness of insulation (nom.) mm	Radial thickness of outer sheath (nom.) mm	Overall Diameter (approx.) mm	Weigth of cable (approx.) kg / km	Part number
2 x 1.5 RE	0.7	1.8	11.8	190	21180010
2 x 1.5 RM	0.7	1.8	12.2	170	21180000
2 x 2.5 RE	0.7	1.8	12.5	220	21180033
2 x 2.5 RM	0.7	1.8	13.0	230	21180020
2 x 4 RE	0.7	1.8	13.5	260	21180037
2 x 4 RM	0.7	1.8	14.2	280	21180041
2 x 6 RE	0.7	1.8	14.5	320	21180045
2 x 6 RM	0.7	1.8	15.2	340	21180049
3 x 1.5 RE	0.7	1.8	12.3	200	21180011
3 x 1.5 RM	0.7	1.8	12.8	220	21180001
3 x 2.5 RE	0.7	1.8	13.2	240	21180034
3 x 2.5 RM	0.7	1.8	13.7	260	21180021
3 x 4 RE	0.7	1.8	14.2	290	21180038
3 x 4 RM	0.7	1.8	15.0	330	21180042
3 x 6 RE	0.7	1.8	15.3	380	21180046
3 x 6 RM	0.7	1.8	16.1	400	21180050
4 x 1.5 RE	0.7	1.8	13.3	230	21180012
4 x 1.5 RM	0.7	1.8	13.8	240	21180002
4 x 2.5 RE	0.7	1.8	14.3	280	21180035
4 x 2.5 RM	0.7	1.8	14.8	290	21180022
4 x 4 RE	0.7	1.8	15.5	350	21180039
4 x 4 RM	0.7	1.8	16.3	380	21180043
4 x 6 RE	0.7	1.8	16.7	450	21180047
4 x 6 RM	0.7	1.8	17.5	470	21180051
5 x 4 RE	0.7	1.8	16.8	410	21180040
5 x 4 RM	0.7	1.8	17.8	420	21180044
5 x 6 RE	0.7	1.8	18.2	520	21180048
5 x 6 RM	0.7	1.8	19.2	550	21180052

RE: circular solid • RM: circular stranded • SM: sector shaped stranded

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(Mulicores) — U_0/U 0.6 / 1 kV

XLPE-Insulation, LSZH-Sheath, Fire Resistant

2XH

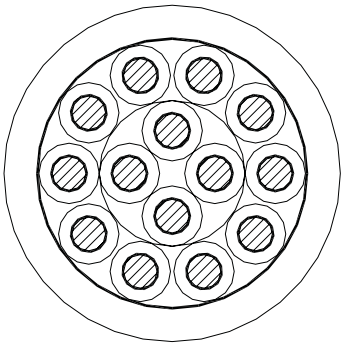
Application

For electricity supply and controll in public networks and industrial plants or public buildings, where people are potentially endangered in case of fire and where, for a defined period of time, the continuity of control and energy supply is of vital necessity; suitable for use in zone 1 and zone 2 group II classified areas (IEC 60079-14).

For indoor and outdoor installation in dry and wet locations, on racks, in conduits (Local and/or legal requirements to be noted).

Construction

Conductor	plain annealed copper, class 1 or class 2 resp., acc. to IEC 60228, class 1: circular solid (RE) class 2: circular stranded (RM)
Insulation	cross-linked polyethylene XLPE, over the MICA-tape wrapped conductor
Colour code	black, continuously numbered
Laying up	cores twisted in layers (if necessary with filling element(s))
Wrapping	at least 1 layer of plastic tape
Outer Sheath	extruded zero halogen flame retardant compound LSZH, black
Cable marking	ELECTRIC CABLE 0.6/1 kV IEC 60502-1 KERPEN, YEAR, LENGTH MARKING, IEC 60331



Technical Data

Flame retardancy:	IEC 60332-1
Flame propagation:	IEC 60332-3 cat. A
Fire resistance:	IEC 60331-21 (90 min/750 °C)
Smoke density:	
Amount of halogen acid gas:	IEC 61034-1 and 2
Degree of acidity of gases:	IEC 60754-1; 0 % IEC 60754-2
Outer sheath:	
Limiting Oxygen Index (LOI):	min. 30 %
Temperature Index (TI):	(IEC 60332-3 ann. B) min. 250 °C (ASTM-D-2863)

Temperature range:
- 30 °C up to + 90 °C (during operation)
- 5 °C up to + 50 °C (during installation)

max. +250° C (under short circuit)

Min. bending radius:
8 x cable-∅

Abbreviations

2X	insulation of XLPE
H	outer sheath of LSZH

Electrical Data at 20 °C

	Character	Unit	Values
Conductor resistance	max.	Ω/km	acc. to IEC 60228
Test voltage U_{rms} core:core		V	3500
Nominal voltage U_o/U		V	600/1000
Highest system voltage U_m	max.	V	1200 (for three phase systems)

For further details see appendix

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(Mulicores) — U_0/U 0.6 / 1 kV

XLPE-Insulation, LSZH-Sheath, Fire Resistant

2XH

Geometrical Data

No. of cores and cross-section (nom.) n / mm²	Radial thickness of insulation (nom.) mm	Radial thickness of outer sheath (nom.) mm	Overall Diameter (approx.) mm	Weigth of cable (approx.) kg / km	Part number
5 x 1.5 RE	0.7	1.8	14.1	270	21180053
7 x 1.5 RE	0.7	1.8	15.1	280	21180014
10 x 1.5 RE	0.7	1.8	18.9	400	21180015
12 x 1.5 RE	0.7	1.8	19.5	430	21180016
19 x 1.5 RE	0.7	1.8	22.9	570	21180054
27 x 1.5 RE	0.7	1.8	27.1	750	21180055
37 x 1.5 RE	0.7	1.8	30.4	950	21180056
48 x 1.5 RE	0.7	1.8	34.7	1170	21180057
5 x 1.5 RM	0.7	1.8	14.7	280	21180058
7 x 1.5 RM	0.7	1.8	15.8	300	21180004
10 x 1.5 RM	0.7	1.8	19.8	410	21180005
12 x 1.5 RM	0.7	1.8	20.4	450	21180006
19 x 1.5 RM	0.7	1.8	24.0	600	21180059
27 x 1.5 RM	0.7	1.8	28.5	790	21180060
37 x 1.5 RM	0.7	1.8	31.9	1000	21180061
48 x 1.5 RM	0.7	1.8	36.5	1240	21180062
5 x 2.5 RE	0.7	1.8	15.1	330	21180063
7 x 2.5 RE	0.7	1.8	16.4	390	21180064
10 x 2.5 RE	0.7	1.8	20.5	490	21180065
12 x 2.5 RE	0.7	1.8	21.2	550	21180066
19 x 2.5 RE	0.7	1.8	24.8	760	21180067
27 x 2.5 RE	0.7	1.8	29.5	1010	21180068
37 x 2.5 RE	0.7	1.8	33.1	1300	21180069
48 x 2.5 RE	0.7	1.9	37.8	1640	21180070
5 x 2.5 RM	0.7	1.8	15.8	340	21180071
7 x 2.5 RM	0.7	1.8	17.0	380	21180024
10 x 2.5 RM	0.7	1.8	21.4	510	21180025
12 x 2.5 RM	0.7	1.8	22.1	600	21180026
19 x 2.5 RM	0.7	1.8	26.1	800	21180072
27 x 2.5 RM	0.7	1.8	31.1	1070	21180073
37 x 2.5 RM	0.7	1.8	34.9	1380	21180074
48 x 2.5 RM	0.7	1.9	40.1	1740	21180075

RE: circular solid • RM: circular stranded • SM: sector shaped stranded