

# Medium Voltage Power Cable to IEC 60840



XLPE Insulated with Longitudinal Water Barrier, PE Sheathed Single Core Cable for Fixed Installations:  
For rated voltage  $U_0/U(U_m)$  26/45 (52) kV

## Application

For internal or external installation in open air, in tray, in tough conduit or for direct burial. Generally, for utility power applications, commercial buildings and industrial plant.

## Construction

Conductor	Copper or Aluminium compacted conductor
Conductor screen	Triple Single Head extruded
Insulation	XLPE (cross -linked polyethylene) Dry nitrogen cured
Bonded insulation	XLPE (cross -linked polyethylene) Dry nitrogen cured
Water block	S/C swellable tape
Screen	Solid bare copper wires /counter Helix copper tape
Sheath	PE Black UV resistant or Red

Also available:  
Tree-retardant XLPE insulation  
EPR insulation  
Easy-strip insulation screen  
Aluminium wire armour

Cross Section Conductor & Screen No. x mm <sup>2</sup> /mm <sup>2</sup>	Min. No. wires	Nominal Insulation mm	Nominal Sheath mm	Nominal O/D mm	min Bending Radius mm	Approx Weight kg/km	Max resistance Conductor DC at 20°C Ω/km	Short circuit Rating Conductor (1sec) kA	Current rating (2)				Reactance 50Hz(5) Ω/km	Capacitance μF/km
									In Air 3 A	Ground 4 A				
<b>Copper Conductor</b>														
1x95/16	15	10.5	2.3	42	629	2170	0.193	13.6	337	324			0.140	0.139
1x120/16	18	10.5	2.4	44	654	2470	0.153	17.2	433	367			0.135	0.150
1x150/25	18	10.5	2.4	45	674	2860	0.124	21.5	489	409			0.131	0.158
1x185/25	30	10.5	2.5	47	704	3280	0.0991	26.5	560	461			0.127	0.170
1x240/25	34	10.5	2.5	49	738	3890	0.0754	34.3	659	532			0.121	0.186
1x300/25	34	10.5	2.6	52	776	4560	0.0601	42.9	754	598			0.117	0.201
1x400/35	53	10.5	2.7	55	823	5540	0.0470	57.2	867	673			0.113	0.219
1x500/35	53	10.5	2.8	58	873	6660	0.0366	71.5	997	759			0.109	0.239
1x630/35	53	10.5	3.0	63	948	8340	0.0283	90.1	1140	841			0.105	0.267
<b>Aluminium Conductor</b>														
1x95/16	15	10.5	2.3	42	629	1590	0.320	8.9	292	252			0.140	0.139
1x120/16	15	10.5	2.4	44	654	1730	0.253	11.3	337	285			0.135	0.150
1x150/25	15	10.5	2.4	45	674	1960	0.206	14.1	380	318			0.131	0.158
1x185/25	30	10.5	2.5	47	704	2160	0.164	17.4	436	360			0.127	0.170
1x240/25	30	10.5	2.5	49	738	2420	0.125	22.6	514	416			0.121	0.186
1x300/25	30	10.5	2.6	52	776	2700	0.100	28.2	589	468			0.117	0.201
1x400/35	53	10.5	2.7	55	823	3170	0.0778	37.6	685	541			0.113	0.219
1x500/35	53	10.5	2.8	58	873	3620	0.0605	47.0	795	607			0.109	0.239
1x630/35	53	10.5	3.0	63	948	4400	0.0469	59.2	924	684			0.105	0.267

(1) Conductor short circuit based on an initial conductor temperature of 90°C and a final temperature of 250°C

(2) Current rating based on operation at 90°C conductor, three phase AC, trefoil touching or flat formation with one cable diameter clearance. Bonded screens and earthed both ends.

according to VDE 0276-620

(3) Cable laid in circulating air at 30°C

(4) Buried at 0.7m deep in soil at 20°C with 1 K.m/W thermal resistivity, load factor 0.7

(5) Calculated inductive resistance per core in trefoil, the screens are bonded and earthed at both ends.

#### Temperature Rating Factors

Ambient temp.	20	25	30	35	40	45	50	55	60	65
Correction Factor Air.	1.08	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.71	0.65
Correction factor ground.	1.00	0.96	0.93	0.89	0.85	0.80	0.76			

The information contained within this data sheet is for guidance only.

Cable and gland sizes are nominal and may vary according to different manufacturer's tolerances.

Every possible effort is made to ensure that the information contained in this data sheet is correct.

However, we reserve the right to change the information or specification at any time in the light of technical developments or revisions.

References to or extracts from British Standards, current IEE regulations or other regulatory bodies should be verified with these organisations.