36/69 (72.5) kV COPPER CONDUCTOR WITH LEAD SHEATH IEC 60840 STANDARD

APPLICATION :

Preferably used for urban networks. Suitable for use in duct, trays and direct burial in ground.

Advantage :

Perfect radial moisture barrier. Excellent sulfide, oil and chemical resistance.

Max. Conductor Temperature :

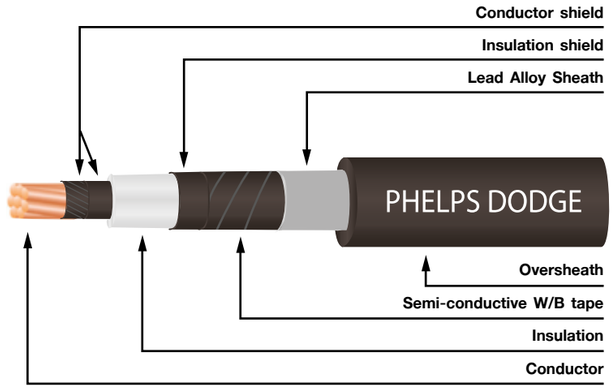
90 °C

AC TEST VOLTAGE :

90 kV (30 minutes)

REFERENCE STANDARD :

IEC 60840



CONSTRUCTION :

Conductor	:	Round compact stranded or Milliken conductor
Conductor shield	:	Semi-conducting tape and/or extruded semi-conducting cross-linked polyethylene
Insulation	:	Cross-linked polyethylene
Insulation shield	:	Semi-conducting cross-linked polyethylene
Longitudinal water blocking layer	:	Semi-conductive water blocking tape
Metallic shield and moisture barrier	:	Lead Alloy Sheath
Oversheath	:	Black PE (ST-7)

Cable Construction

Nominal cross-sectional area mm²	Diameter of conductor (Approx.) mm	Diameter over insulation (Approx.) mm	Nominal thickness of lead sheath mm	Nominal thickness of oversheath mm	Overall diameter (Approx.) mm	Cable weight (Approx.) kg/km	Standard packing m
150	14.2	44.5	2.0	2.6	58	6,870	1,000/R
185	15.8	45.0	2.0	2.7	59	7,270	1,000/R
240	18.2	45.5	2.0	2.7	59	7,790	1,000/R
300	20.3	47.5	2.0	2.7	61	8,590	1,000/R
400	23.0	49.0	2.0	2.8	63	9,550	1,000/R
500	26.0	53.0	2.0	2.9	67	11,020	1,000/R
630	29.9	56.5	2.0	3.0	71	12,830	500/R
800	33.8	60.5	2.1	3.1	75	15,220	500/R
1,000	39.8	66.5	2.2	3.3	82	18,200	500/R
1,200	43.0	70.0	2.3	3.4	86	20,520	500/R
1,000(M)	39.1	67.0	2.2	3.3	82	18,170	500/R
1,200(M)	42.2	70.0	2.3	3.4	86	20,410	500/R
1,400(M)	45.7	73.5	2.4	3.5	90	23,170	500/R
1,600(M)	48.8	77.5	2.5	3.7	95	25,960	500/R
1,800(M)	51.6	80.5	2.6	3.8	98	28,420	400/R
2,000(M)	54.7	83.5	2.6	3.9	101	30,870	400/R
2,500(M)	61.1	90.0	2.8	4.1	109	37,100	300/R

(M) is Milliken conductor

R = Packing in reel

PHELPS DODGE CABLE TYPE HXLP-LS

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Electrical Properties and Current Rating (A)

Nominal cross-sectional area mm²	Maximum DC resistance of conductor at 20°C Ω/km	Minimum insulation resistance at 20°C MΩ-km	Current rating in air* (A) Trefoil ≥0.5xD$_e$	Current rating in air* (A) Flat ≥0.5xD$_e$	Current rating direct burial* (A) Trefoil	Current rating direct burial* (A) Flat	Current rating in PE duct in ground* (A) Trefoil	Current rating in PE duct in ground* (A) Flat
150	0.124	11,850	448	503	334	345	314	323
185	0.0991	10,880	511	577	377	390	355	365
240	0.0754	9,460	602	684	437	452	411	423
300	0.0601	8,850	688	785	492	511	464	479
400	0.0470	7,910	795	912	559	583	529	547
500	0.0366	7,170	916	1,056	633	664	603	625
630	0.0283	6,530	1,056	1,229	716	757	686	715
800	0.0221	5,980	1,199	1,412	797	852	771	808
1,000	0.0176	5,310	1,352	1,614	875	948	858	906
1,200	0.0151	5,010	1,448	1,745	924	1,011	915	971
1,000(M)	0.0176	5,270	1,440	1,677	935	990	903	943
1,200(M)	0.0151	4,980	1,563	1,830	1,001	1,067	973	1,020
1,400(M)	0.0129	4,700	1,692	1,992	1,068	1,147	1,048	1,103
1,600(M)	0.0113	4,640	1,800	2,130	1,124	1,216	1,111	1,174
1,800(M)	0.0101	4,440	1,894	2,256	1,169	1,274	1,163	1,234
2,000(M)	0.0090	4,250	1,991	2,388	1,216	1,335	1,220	1,299
2,500(M)	0.0072	3,890	2,172	2,648	1,296	1,447	1,322	1,421

(M) is Milliken conductor

***CONDITION :**

1. Ambient air temperature 40°C
2. Ground temperature 30°C
3. Thermal resistivity of soil 1.2 K·m/W
4. Depth of laying 1.0 m
5. Axial spacing between phase cable is 2xOD$_{cable}$ or 2xOD$_{duct}$
6. Metallic shield and/or sheath bonded at single point or cross-bonded (no sheath circulating current).