64/115 (123) 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 :

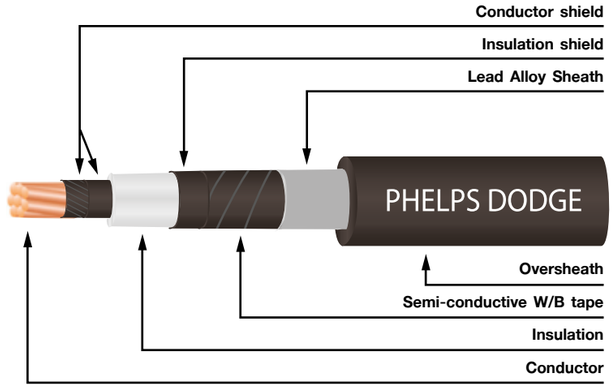
90 °C

AC TEST VOLTAGE :

160 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
240	18.2	48.5	2.0	2.8	62	8,280	1,000/R
300	20.3	49.5	2.0	2.8	63	8,930	1,000/R
400	23.0	52.5	2.0	2.9	66	10,050	1,000/R
500	26.0	56.0	2.0	3.0	70	11,540	1,000/R
630	29.9	61.0	2.1	3.2	76	13,820	500/R
800	33.8	64.5	2.2	3.3	80	16,260	500/R
1,000	39.8	71.5	2.4	3.5	88	19,810	500/R
1,200	43.0	75.0	2.4	3.6	91	21,910	500/R
1,000(M)	39.1	72.0	2.4	3.5	88	19,790	500/R
1,200(M)	42.2	75.0	2.4	3.6	92	21,800	500/R
1,400(M)	45.7	78.5	2.5	3.7	96	24,620	500/R
1,600(M)	48.8	82.0	2.6	3.8	99	27,220	400/R
1,800(M)	51.6	85.5	2.7	4.0	104	30,000	400/R
2,000(M)	54.7	88.5	2.8	4.0	107	32,810	300/R
2,500(M)	61.1	95.0	2.9	4.3	114	38,840	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
240	0.0754	10,310	601	679	435	451	410	423
300	0.0601	9,390	686	780	490	509	463	478
400	0.047	8,690	792	904	557	581	528	546
500	0.0366	7,910	913	1,046	631	661	601	624
630	0.0283	7,430	1,053	1,214	714	754	686	715
800	0.0221	6,830	1,196	1,394	795	848	771	808
1,000	0.0176	6,270	1,347	1,588	873	944	859	907
1,200	0.0151	5,920	1,443	1,716	923	1,007	914	969
1,000(M)	0.0176	6,220	1,429	1,649	929	985	902	943
1,200(M)	0.0151	5,890	1,551	1,799	995	1,061	971	1,018
1,400(M)	0.0129	5,560	1,678	1,957	1,062	1,141	1,045	1,100
1,600(M)	0.0113	5,300	1,787	2,100	1,117	1,209	1,108	1,172
1,800(M)	0.0101	5,240	1,878	2,215	1,162	1,267	1,161	1,233
2,000(M)	0.009	5,010	1,973	2,346	1,206	1,326	1,214	1,295
2,500(M)	0.0072	4,600	2,153	2,599	1,288	1,438	1,319	1,418

(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).