

**64/115 (123) kV COPPER CONDUCTOR WITH CORRUGATED ALUMINIUM SHEATH IEC 60840 STANDARD**

**APPLICATION :**

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

**Advantages :**

Perfect radial moisture barrier and excellent earth fault current carrying capacity.

**Max. Conductor Temperature :**

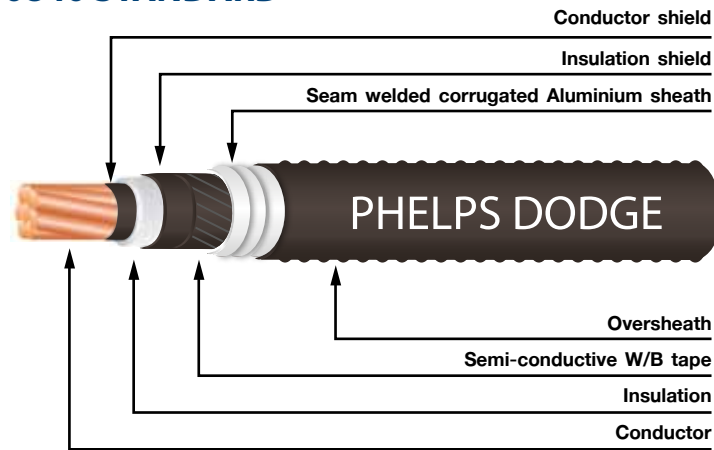
90 °C

**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 radial water barrier : Seam welded corrugated Aluminium sheath
- Oversheath : Black PE (ST-7)

**Cable Construction**

Nominal cross-sectional area mm <sup>2</sup>	Diameter of conductor (Approx.) mm	Diameter over insulation (Approx.) mm	Nominal thickness of Al sheath mm	Nominal thickness of overshath mm	Overall diameter (Approx.) mm	Cable weight (Approx.) kg/km	Standard packing m
240	18.2	48.5	1.5	3.1	75	5,970	1,000/R
300	20.3	49.5	1.5	3.1	76	6,570	1,000/R
400	23.0	52.5	1.6	3.2	79	7,640	1,000/R
500	26.0	56.0	1.6	3.3	83	8,960	1,000/R
630	29.9	61.0	1.8	3.5	89	10,910	1,000/R
800	33.8	64.5	1.9	3.6	94	12,990	500/R
1,000	39.8	71.5	2.0	3.8	102	15,700	500/R
1,200	43.0	75.0	2.1	3.9	105	17,690	500/R
1,000(M)	39.1	72.0	2.1	3.8	102	15,770	500/R
1,200(M)	42.2	75.0	2.1	3.9	106	17,610	500/R
1,400(M)	45.7	78.5	2.2	4.0	110	19,870	500/R
1,600(M)	48.8	82.0	2.2	4.1	113	21,960	500/R
1,800(M)	51.6	85.5	2.3	4.3	118	24,260	500/R
2,000(M)	54.7	88.5	2.5	4.4	121	26,740	400/R
2,500(M)	61.1	95.0	2.5	4.6	128	31,930	400/R

(M) is Milliken conductor

R = Packing in reel

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**Electrical Properties and Current Rating (A)**

Nominal cross-sectional area mm <sup>2</sup>	Maximum DC resistance of conductor at 20°C Ω/km	Minimum insulation resistance at 20°C MΩ-km	Current rating in air* (A)		Current rating direct burial* (A)		Current rating in PE duct in ground* (A)	
			Trefoil ≥0.5xD <sub>c</sub>	Flat ≥0.5xD <sub>c</sub>	Trefoil 1 m	Flat 1 m	Trefoil 1 m	Flat 1 m
240	0.0754	10,310	608	680	434	453	419	433
300	0.0601	9,390	693	781	487	511	472	489
400	0.0470	8,690	796	904	550	581	536	558
500	0.0366	7,910	912	1,043	619	660	609	637
630	0.0283	7,430	1,042	1,205	691	747	690	727
800	0.0221	6,830	1,172	1,377	759	834	771	819
1,000	0.0176	6,270	1,305	1,559	821	919	851	913
1,200	0.0151	5,920	1,386	1,677	858	973	900	973
1,000(M)	0.0176	6,220	1,364	1,612	857	953	886	947
1,200(M)	0.0151	5,890	1,465	1,750	906	1,018	947	1,019
1,400(M)	0.0129	5,560	1,567	1,898	951	1,084	1,010	1,095
1,600(M)	0.0113	5,300	1,654	2,025	989	1,141	1,063	1,160
1,800(M)	0.0101	5,240	1,721	2,127	1,016	1,186	1,107	1,216
2,000(M)	0.0090	5,010	1,788	2,239	1,040	1,231	1,149	1,272
2,500(M)	0.0072	4,600	1,923	2,460	1,090	1,318	1,232	1,382

(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<sub>cable</sub> or 2xOD<sub>duct</sub>
6. Metallic shield and/or sheath bonded at single point or cross-bonded (no sheath circulating current).