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

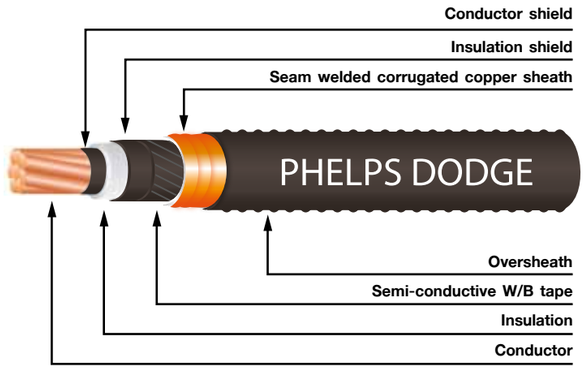
APPLICATION :
Preferably used for urban networks. Suitable for use in duct, trays and direct burial in ground.

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 mm²	Diameter of conductor (Approx.) mm	Diameter over insulation (Approx.) mm	Nominal thickness of Cu sheath mm	Nominal thickness of oversheath mm	Overall diameter (Approx.) mm	Cable weight (Approx.) kg/km	Standard packing m
240	18.2	48.5	1.0	3.0	74	6,910	1,000/R
300	20.3	49.5	1.0	3.1	75	7,550	1,000/R
400	23.0	52.5	1.0	3.2	78	8,600	1,000/R
500	26.0	56.0	1.0	3.3	82	9,980	1,000/R
630	29.9	61.0	1.0	3.4	88	11,850	500/R
800	33.8	64.5	1.0	3.5	92	13,910	500/R
1,000	39.8	71.5	1.0	3.7	100	16,630	500/R
1,200	43.0	75.0	1.0	3.8	103	18,580	500/R
1,000(M)	39.1	72.0	1.0	3.7	100	16,630	500/R
1,200(M)	42.2	75.0	1.0	3.8	103	18,510	500/R
1,400(M)	45.7	78.5	1.0	4.0	107	20,750	500/R
1,600(M)	48.8	82.0	1.0	4.1	111	22,870	500/R
1,800(M)	51.6	85.5	1.0	4.2	115	25,080	500/R
2,000(M)	54.7	88.5	1.0	4.3	118	27,400	400/R
2,500(M)	61.1	95.0	1.0	4.5	125	32,640	300/R

(M) is Milliken conductor

R = Packing in reel

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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	605	679	433	452	417	432
300	0.0601	9,390	690	778	486	510	470	488
400	0.0470	8,690	793	901	549	580	535	557
500	0.0366	7,910	908	1,040	617	658	607	635
630	0.0283	7,430	1,039	1,203	691	746	688	725
800	0.0221	6,830	1,171	1,374	762	834	770	817
1,000	0.0176	6,270	1,307	1,558	827	922	851	911
1,200	0.0151	5,920	1,391	1,678	867	978	903	973
1,000(M)	0.0176	6,220	1,371	1,613	868	957	889	946
1,200(M)	0.0151	5,890	1,475	1,752	919	1,024	951	1,019
1,400(M)	0.0129	5,560	1,583	1,901	970	1,094	1,017	1,096
1,600(M)	0.0113	5,300	1,673	2,031	1,010	1,152	1,071	1,162
1,800(M)	0.0101	5,240	1,746	2,136	1,042	1,200	1,117	1,219
2,000(M)	0.0090	5,010	1,822	2,252	1,073	1,249	1,163	1,277
2,500(M)	0.0072	4,600	1,962	2,477	1,127	1,339	1,248	1,388

(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).