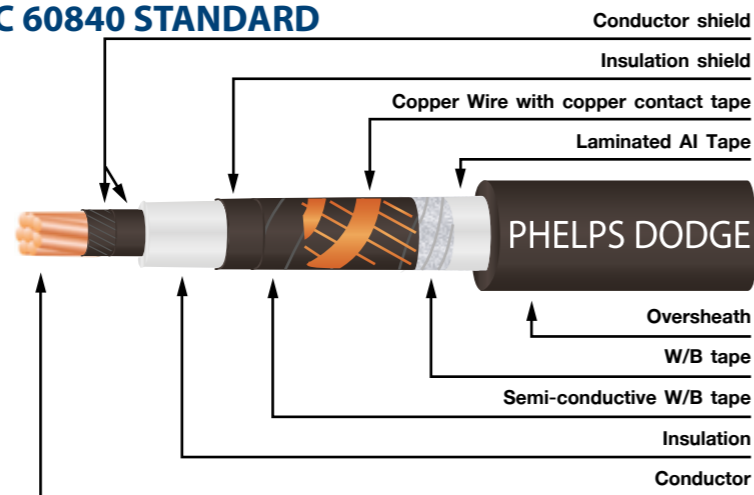


87/150 (170) kV COPPER CONDUCTOR WITH COPPER WIRE SHIELD AND LAMINATED ALUMINIUM TAPE

IEC 60840 STANDARD



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 : Semi-conductive water blocking tape blocking layer
- Metallic shield : Annealed uncoated copper wire with copper contact tape
- Longitudinal water : Water blocking tape blocking layer
- Radial water barrier : Laminated aluminium tape
- Oversheath : Black PE (ST-7)

APPLICATION :

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

Advantage :

Light weight, small overall diameter and easy to bend.

Max. Conductor Temperature :

90 °C

AC TEST VOLTAGE :

218 kV (30 minutes)

REFERENCE STANDARD :

IEC 60840

Cable Construction

Nominal cross-sectional area mm ²	Diameter of conductor (Approx.) mm	Diameter over insulation (Approx.) mm	Nominal area of copper wire shield mm ²	Nominal thickness of Al tape mm	Nominal thickness of oversheath mm	Overall diameter (Approx.) mm	Cable weight (Approx.) kg/km	Standard packing m
240	18.2	62.0	220	0.2	3.3	78	8,055	1,000/R
300	20.3	62.0	220	0.2	3.3	78	8,590	1,000/R
400	23.0	62.5	220	0.2	3.3	79	9,345	1,000/R
500	25.9	64.0	220	0.2	3.3	80	10,390	1,000/R
630	29.9	67.0	220	0.2	3.4	83	11,910	500/R
800	33.8	71.0	220	0.2	3.5	88	13,900	500/R
1,000	39.8	77.0	220	0.2	3.7	94	16,305	500/R
1,200	43.0	80.0	220	0.2	3.8	98	18,170	500/R
1,000(M)	39.1	78.5	220	0.2	3.7	96	16,420	500/R
1,200(M)	42.2	82.5	220	0.2	3.8	101	18,410	500/R
1,400(M)	45.7	86.0	220	0.2	3.9	104	20,545	500/R
1,600(M)	48.8	89.0	220	0.2	4.0	108	22,600	500/R
1,800(M)	51.6	93.0	220	0.2	4.2	112	24,755	500/R
2,000(M)	54.7	96.0	220	0.2	4.3	115	27,005	400/R
2,500(M)	61.1	102.5	220	0.2	4.5	122	32,120	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 ²	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 _c	Flat ≥0.5xD _c	Trefoil 1 m	Flat 1 m	Trefoil 1 m	Flat 1 m
240	0.0754	13,460	591	659	423	446	412	429
300	0.0601	12,270	673	757	474	503	463	484
400	0.0470	11,010	774	879	535	571	525	551
500	0.0366	9,700	885	1,017	600	647	594	626
630	0.0283	8,670	1,014	1,183	672	734	672	713
800	0.0221	8,000	1,145	1,352	742	821	753	805
1,000	0.0176	7,160	1,280	1,538	806	908	831	897
1,200	0.0151	6,770	1,364	1,656	847	964	883	958
1,000(M)	0.0176	7,280	1,345	1,589	848	944	871	933
1,200(M)	0.0151	7,070	1,447	1,721	900	1,011	934	1,007
1,400(M)	0.0129	6,690	1,555	1,870	951	1,081	998	1,082
1,600(M)	0.0113	6,380	1,647	1,999	993	1,139	1,054	1,149
1,800(M)	0.0101	6,270	1,724	2,104	1,029	1,190	1,101	1,206
2,000(M)	0.0090	6,010	1,803	2,221	1,063	1,241	1,147	1,264
2,500(M)	0.0072	5,540	1,952	2,448	1,124	1,336	1,236	1,377

(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).