

36/69 (72.5) kV COPPER CONDUCTOR WITH COPPER WIRE SHIELD AND LAMINATED ALUMINIUM TAPE IEC 60840 STANDARD

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 :

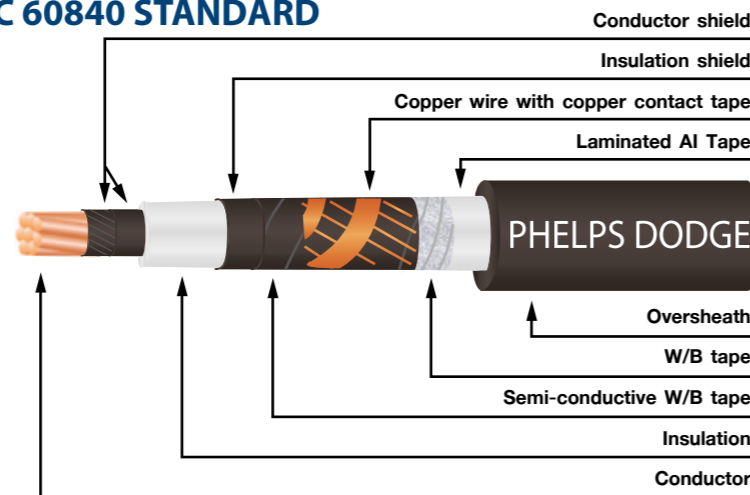
90 °C

AC TEST VOLTAGE :

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

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
150	14.2	44.5	150	0.2	2.6	59	4,875	1,000/R
185	15.8	45.0	185	0.2	2.7	60	5,560	1,000/R
240	18.2	45.5	220	0.2	2.7	61	6,380	1,000/R
300	20.3	47.5	220	0.2	2.8	63	7,070	1,000/R
400	23.0	49.0	220	0.2	2.8	64	7,895	1,000/R
500	25.9	52.5	220	0.2	2.9	68	9,105	1,000/R
630	29.9	56.5	220	0.2	3.0	72	10,670	1,000/R
800	33.8	60.5	220	0.2	3.2	77	12,600	500/R
1,000	39.8	66.5	220	0.2	3.3	83	14,865	500/R
1,200	43.0	70.0	220	0.2	3.4	87	16,665	500/R
1,000(M)	39.1	67.0	220	0.2	3.3	84	14,845	500/R
1,200(M)	42.2	70.0	220	0.2	3.4	87	16,615	500/R
1,400(M)	45.7	73.5	220	0.2	3.5	91	18,670	500/R
1,600(M)	48.8	77.5	220	0.2	3.7	96	20,815	500/R
1,800(M)	51.6	80.5	220	0.2	3.8	99	22,715	500/R
2,000(M)	54.7	83.5	220	0.2	3.9	102	24,895	500/R
2,500(M)	61.1	90.0	220	0.2	4.1	109	29,855	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
150	0.124	11,850	448	505	330	344	314	325
185	0.0991	10,880	510	578	370	388	354	367
240	0.0754	9,460	597	685	426	449	408	425
300	0.0601	8,850	679	783	477	506	460	480
400	0.0470	7,910	780	909	538	575	522	547
500	0.0366	7,200	891	1,048	603	651	592	624
630	0.0283	6,530	1,020	1,217	674	738	671	712
800	0.0221	5,980	1,150	1,392	743	826	752	804
1,000	0.0176	5,310	1,285	1,584	807	913	830	897
1,200	0.0151	5,010	1,368	1,707	846	969	882	959
1,000(M)	0.0176	5,270	1,358	1,642	853	950	871	933
1,200(M)	0.0151	4,980	1,461	1,783	904	1,017	932	1,004
1,400(M)	0.0129	4,700	1,570	1,937	955	1,088	997	1,082
1,600(M)	0.0113	4,640	1,660	2,063	998	1,147	1,055	1,150
1,800(M)	0.0101	4,440	1,737	2,178	1,032	1,197	1,101	1,207
2,000(M)	0.0090	4,250	1,816	2,299	1,066	1,248	1,147	1,265
2,500(M)	0.0072	3,890	1,964	2,534	1,126	1,343	1,236	1,379

(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).