127/230 (245) kV COPPER CONDUCTOR WITH COPPER WIRE SHIELD AND LEAD SHEATH IEC 62067 STANDARD

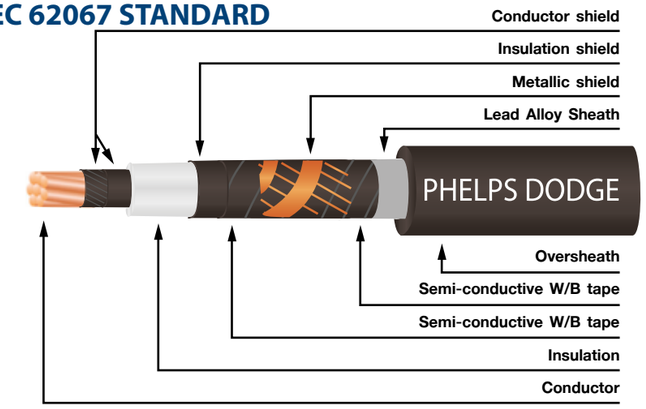
APPLICATION :
Preferably used for urban networks. Suitable for use in duct, trays and direct burial in ground.

Advantage :
Perfect radial moisture barrier. Excellent sulfide, oil and chemical resistance. Increase earth fault current carrying capacity by added copper wire shield.

Max. Conductor Temperature :
90 °C

AC TEST VOLTAGE :
318 kV (30 minutes)

REFERENCE STANDARD :
IEC 62067



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	:	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 area of copper wire shield mm²	Nominal thickness of lead sheath mm	Nominal thickness of oversheath mm	Overall diameter (Approx.) mm	Cable weight (Approx.) kg/km	Standard packing m
400	23.0	87.0	115	2.9	4.3	110	21,685	500/R
500	26.0	86.5	115	2.9	4.2	109	22,430	500/R
630	29.9	86.5	115	2.9	4.2	109	23,555	500/R
800	33.8	87.5	115	2.9	4.2	110	25,220	500/R
1,000	39.8	90.0	110	2.9	4.2	113	27,500	400/R
1,200	43.0	93.5	95	3.0	4.4	117	30,085	400/R
1,000(M)	39.1	90.5	105	2.9	4.2	114	27,670	400/R
1,200(M)	42.2	93.5	95	3.0	4.3	118	30,230	400/R
1,400(M)	45.7	97.0	85	3.1	4.5	122	33,145	300/R
1,600(M)	48.8	100.5	75	3.1	4.6	125	35,185	300/R
1,800(M)	51.6	104.0	55	3.2	4.7	135	39,085	300/R
2,000(M)	54.7	107.0	40	3.2	4.8	144	42,365	300/R
2,500(M)	61.1	114.5	40	3.4	5.0	159	50,495	200/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 1 m	Current rating direct burial* (A) Flat 1 m	Current rating in PE duct in ground* (A) Trefoil 1 m	Current rating in PE duct in ground* (A) Flat 1 m
240	0.0754	13,460	601	666	432	451	419	434
300	0.0601	12,270	685	765	486	509	472	489
400	0.0470	11,010	790	889	550	579	535	557
500	0.0366	9,680	907	1,032	620	658	608	634
630	0.0283	8,670	1,045	1,201	698	748	690	724
800	0.0221	8,000	1,184	1,376	776	840	775	817
1,000	0.0176	7,330	1,331	1,564	852	933	861	914
1,200	0.0151	7,100	1,426	1,685	903	995	919	980
1,000(M)	0.0176	7,280	1,405	1,623	900	972	902	951
1,200(M)	0.0151	7,070	1,520	1,763	964	1,047	972	1,028
1,400(M)	0.0129	6,690	1,644	1,919	1,028	1,124	1,043	1,108
1,600(M)	0.0113	6,380	1,752	2,058	1,083	1,192	1,107	1,180
1,800(M)	0.0101	6,270	1,846	2,174	1,132	1,251	1,162	1,242
2,000(M)	0.0090	6,010	1,944	2,302	1,181	1,312	1,220	1,307
2,500(M)	0.0072	5,540	2,118	2,547	1,257	1,419	1,320	1,427

(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).