

Type P Drilmar® 125-XE VFD Power Cable, 3 Conductors



Crosslinked Polyolefin Insulated, Drilling Rig and Marine Cable, 2000 V

A Viakable Company

Features

Engineered for easiest installation. Extra flexible stranding meets IEEE, UL, and CSA requirements.

Maximum conductor operating temperature: 100 °C as Type P per IEEE, and 110°C as Type X110 per UL and CSA. Meets ampacity ratings per ABS, DNV, LRS, and TCMS.

DRILMAR® XLPO Insulation:

- Superior oil and chemical resistance.
- Sunlight resistant.
- Rated at 125 °C.
- Passes Cold Bend at -55 °C.

Heavy Duty CPE Jacket:

- Arctic Type XE design.
- Abrasion and sunlight resistant.
- Rated at 90 °C.

Completed cable offers superior flame resistance meeting:

- 70,000 Btu Flame Tests IEEE 1202/FT4, IEEE 383, UL 1685, ICEA T-30-820, and IEC 332 Category A.
- 210,000 Btu Flame Test ICEA T-29-520.

Arctic Type design meets Cold Bend and Impact Tests at -40 °C, exceeding the Transport Canada Marine Safety requirements.

Application

For use in variable frequency AC motor driver (VFD) applications. Flexible conductors for easy handling and installation, with an overall composite shield formed by a copper wire braid and an aluminum foil shield providing a 100% coverage, to contain the VFD EMI emissions, and with grounding conductors distributed symmetrical to reduce induced voltage imbalances and carry common mode noise back to the drive.

Standards

IEEE 1580

Recommended Practice for Marine Cable for Use on Shipboard and Fixed and Floating Platforms.

UL 1309

Marine Shipboard Cable.

CSA C22.2 No. 245

Marine Shipboard Cable.

IEEE 45

Recommended Practice for Electrical Installations on Shipboard Cable.

Approvals

- UL and CSA, as Type P.
- UL and CSA, as Type X110.
- ABS, American Bureau of Shipping.
- DNV, Det Norske Veritas
- LRS, Lloyd's Register of Shipping.
- United States Coast Guard.
- TCMS, Transport Canada Marine Safety.

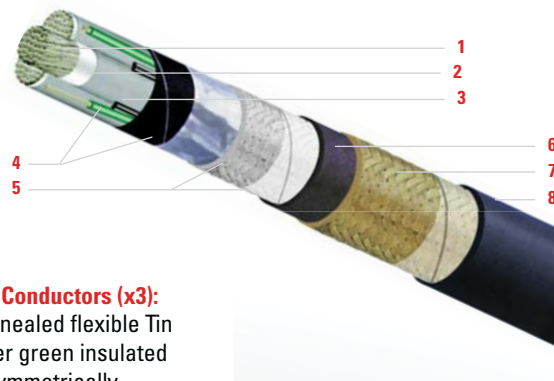
Engineering Information

1. Conductor: Soft annealed flexible Tin Coated Copper per IEEE, UL, and CSA.

Sizes: 4 AWG up to 535.3 kcmil.

2. Separator Tape: Polyester tape as required.

3. Insulation: Flame retardant and sunlight resistant Crosslinked Polyolefin (XLPO) per IEEE. Also meets and exceeds the requirements of UL and CSA for Type X110. DRILMAR® 125-XE is a 125 °C XLPO. Rated 2 kV for power cables.



4. Grounding Conductors (x3):

Three soft Annealed flexible Tin Coated Copper green insulated conductors symmetrically distributed. Rated 2000 volts for grounding conductors.

Identification: Power cables black or dark gray with numbers or colors on request. All Grounding conductors are Green.

Assembly: Power and grounding conductors cabled round with moisture and flame retardant fillers, as required and binder tape.

5. Shield: Overall tinned copper braid plus aluminum foil/polyester tape providing 100% coverage. A binder tape is used over the shield as required.

6. CPE Jacket: Flame retardant and sunlight resistant Arctic Type Chlorinated Polyethylene (CPE) per IEEE, UL and CSA.

7. Armor (optional): Standard-Bronze. A binder tape is used over the armor as required.

Optional - Aluminum or Tinned Copper Braid per IEEE, UL and CSA.

8. Overall Jacket (optional): Flame retardant and sunlight resistant Arctic Type Chlorinated Polyethylene (CPE) per IEEE, UL, and CSA.

Note: Overall Jacket is optional for Bronze armor only, Tinned Copper armor and Aluminum armor require the use of outer jacket.

Technical Data

Type P VFD Power Cable, 3 Conductors, 2000 V

DTVPCP

Conductor		3x Grounding	Unarmored					Armored				
Size AWG / kcmil	Strands	Size AWG	Nominal OD		Part Number	Net Weight		Nominal OD		Bronze		
			in	mm		lb/kft	kg/km	in	mm	Part Number	lb/kft	kg/km
14	41	18	0.73	18.42	DTVPCPE4-3	341	508	0.81	20.60	DTVPCPEB4-3	461	686
12	65	16	0.78	19.76	DTVPCPE6-3	418	622	0.86	21.95	DTVPCPEB6-3	545	811
10	105	14	0.89	22.58	DTVPCPE10-3	565	840	0.98	24.77	DTVPCPEB10-3	708	1054
8	37	12	0.96	24.26	DTVPCPE16-3	645	959	1.04	26.44	DTVPCPEB16-3	797	1186
6	63	12	1.02	25.98	DTVPCPE26-3	835	1243	1.11	28.17	DTVPCPEB26-3	996	1483
4	105	10	1.15	29.11	DTVPCPE41-3	1150	1711	1.23	31.29	DTVPCPEB41-3	1326	1973
2	154	10	1.22	30.94	DTVPCPE66-3	1406	2092	1.30	33.12	DTVPCPEB66-3	1590	2366
1	224	10	1.39	35.36	DTVPCPE83-3	1802	2682	1.48	37.54	DTVPCPEB83-3	2006	2985
1/0	275	8	1.48	37.49	DTVPCPE106-3	2075	3087	1.56	39.67	DTVPCPEB106-3	2287	3403
2/0	325	8	1.60	40.56	DTVPCPE133-3	2431	3617	1.68	42.75	DTVPCPEB133-3	2655	3951
3/0	456	8	1.85	46.89	DTVPCPE168-3	3226	4800	1.93	49.07	DTVPCPEB168-3	3477	5175
4/0	551	6	1.93	49.07	DTVPCPE212-3	3809	5669	2.02	51.26	DTVPCPEB212-3	4068	6054
262.6	646	6	2.13	54.00	DTVPCPE262-3	4432	6595	2.21	56.18	DTVPCPEB262-3	4705	7002
313.1	779	6	2.27	57.56	DTVPCPE313-3	5120	7620	2.35	59.74	DTVPCPEB313-3	5403	8040
373.7	931	6	2.41	61.29	DTVPCPE373-3	5897	8776	2.50	63.47	DTVPCPEB373-3	6188	9209
444.4	1110	4	2.56	65.00	DTVPCPE444-3	6900	10268	2.65	67.18	DTVPCPEB444-3	7198	10712
535.3	1332	4	2.88	73.15	DTVPCPE535-3	8334	12402	2.97	75.34	DTVPCPEB535-3	8653	12878

Conductor		3x Grounding	Armored and Sheathed							
Size AWG / kcmil	Strands	Size AWG	Nominal OD		Aluminum			Bronze		
			in	mm	Part Number	lb/kft	kg/km	Part Number	lb/kft	kg/km
14	41	18	0.98	24.87	DTVPCPEAS4-3	530	788	DTVPCPEBS4-3	614	914
12	65	16	1.03	26.21	DTVPCPEAS6-3	618	920	DTVPCPEBS6-3	709	1055
10	105	14	1.14	29.03	DTVPCPEAS10-3	791	1177	DTVPCPEBS10-3	894	1330
8	37	12	1.21	30.71	DTVPCPEAS16-3	886	1318	DTVPCPEBS16-3	1027	1528
6	63	12	1.28	32.44	DTVPCPEAS26-3	1092	1625	DTVPCPEBS26-3	1210	1800
4	105	10	1.40	35.56	DTVPCPEAS41-3	1434	2134	DTVPCPEBS41-3	1566	2330
2	154	10	1.47	37.39	DTVPCPEAS66-3	1706	2539	DTVPCPEBS66-3	1846	2747
1	224	10	1.65	41.81	DTVPCPEAS83-3	2141	3186	DTVPCPEBS83-3	2300	3423
1/0	275	8	1.79	45.52	DTVPCPEAS105-3	2531	3766	DTVPCPEBS105-3	2699	4017
2/0	325	8	1.91	48.59	DTVPCPEAS133-3	2921	4347	DTVPCPEBS133-3	3103	4618
3/0	456	8	2.16	54.91	DTVPCPEAS167-3	3791	5641	DTVPCPEBS167-3	4001	5954
4/0	551	6	2.25	57.10	DTVPCPEAS211-3	4399	6547	DTVPCPEBS211-3	4619	6874
262.6	646	6	2.44	62.03	DTVPCPEAS262-3	5077	7555	DTVPCPEBS262-3	5318	7914
313.1	779	6	2.58	65.58	DTVPCPEAS313-3	5805	8638	DTVPCPEBS313-3	6062	9021
373.7	931	6	2.73	69.32	DTVPCPEAS373-3	6623	9856	DTVPCPEBS373-3	6897	10264
444.4	1110	4	2.94	74.65	DTVPCPEAS444-3	7834	11658	DTVPCPEBS444-3	8124	12091

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product.
Ampacities: Refer to beginning of section.