


Draka

BOSTRIG™ 125 TYPE P-VFD POWER CABLE

 shielded three conductor / unarmored or armored and sheathed
 1/0 AWG to 777 MCM / 2000V

APPLICATIONS

Bostrig-125™ Type P shielded three conductor VFD Marine and Offshore Cable is designed specifically for use with variable frequency AC motor drives. This cable is ETL listed per IEEE 45 (1998), IEEE 1580 (2001) and UL 1309/CSA 245.

Bostrig cables have excellent resistance to oil, abrasion, moisture and sunlight and ester-based mud (Type P-MR). They are suitable for use in Class I, Division I and Zone I applications (armored & sheathed) and meet the crush and impact resistance requirements (C&IR) of UL 2225 and complies with UL 1277 Type TC exposed runs requirements.

The standard insulation has a continuous operating temperature of 125°C allowing for higher ampacity levels. Larger diameter cables carry a new flexible design. They satisfy Transport Canada's cold bend at -40°C and cold impact at -35°C (CSA C 22.2 No. 0.3).

This product can be manufactured in an unarmored or armored and sheathed version.

FEATURES

- **SUPERIOR RESISTANCE TO OIL, ABRASION, MOISTURE, SUNLIGHT, CRUSH AND IMPACT**
- **SUPER-FLEXIBLE**
- **INSULATED FULL-SIZED GROUNDS**
- **MEETS IEEE STANDARDS FOR 2000V**

CONSTRUCTION

1. CONDUCTOR

Soft annealed tinned copper per ASTM B 33. A polyester tape separator is used over the conductor.

2. INSULATION

Bostrig-125 Type P chemically cross-linked polyolefin (XLPO), meeting IEEE 1580 (2001). Insulation is printed with phase markings as required.

3. GROUND CONDUCTORS

All Bostrig 125 Type P-VFD Cables listed in this specification sheet are built using system grounds equal to the aggregate cross-section of a phase conductor and can be in contact with or isolated from the overall shield. A system ground is **REQUIRED** for supplying power from the switchboard to the inverter and then to the motor. If the VFD cable is only being used between the motor and the inverter, a cable with a lesser ground can be ordered.

4. SHIELD

Braided tinned copper for 95% coverage.

5. JACKET

Flame-retardant Arctic Neoprene, complying with Type N Neoprene as required in IEEE 1580 (2001).

6. ARMOR (OPTIONAL)

Braided bronze in accordance with IEEE 1580 (2001).

7. SHEATH (OPTIONAL)

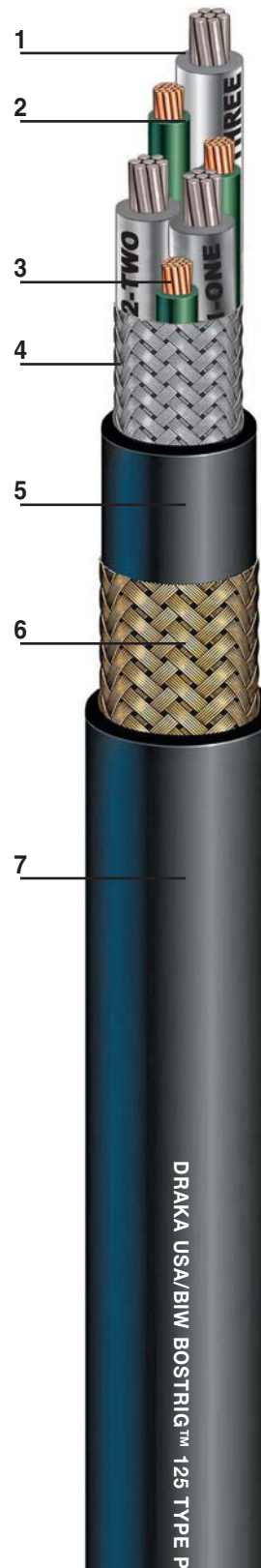
Flame-retardant Arctic Neoprene applied over the armor, complying with Type N Neoprene as required in IEEE 1580 (2001).

RATINGS

Meets all test requirements of IEEE 1580 (2001) and the flame test in IEC 60332-3, Category A.

Listed by ETL per IEEE 1580 (2001), UL 1309/CSA 245 and IEEE 45 (1998) for 2000V. Type approved by DNV, ABS, Lloyds and Transport Canada.

Bostrig 125 Type P cables comply to UL 1277 Type TC exposed runs requirements and with the Crush and Impact requirements of UL 2225.



BOSTRIG™ 125 TYPE P-VFD POWER CABLE

shielded three conductor / unarmored or armored and sheathed
1/0 AWG to 777 MCM / 2000V



unarmored

Type Designation	Draka Number	Conductor Size AWG/MCM • mm ²	Ground Size AWG/MCM • mm ²	Sheath Thickness in • mm	Cable Diameter (nominal) in • mm	Inductance mH/kft • mH/km	Capacitance pF/ft • pF/m	Calculated Ampacity [†] (measured @ °C) 95 • 100 • 110	Cable Weight (approximate) Lbs/mft • Kg/km
TP(OBS)N-1/0	036028	1/0 • 56.3	5 AWG • 18.6	n/a	1.53 • 38.9	0.09 • 0.3	190 • 623	156 • 164 • 176	2280 • 3393
TP(OBS)N-2/0	036029	2/0 • 66.5	4 AWG • 21.5	n/a	1.63 • 41.4	0.09 • 0.3	212 • 695	175 • 188 • 201	2640 • 3928
TP(OBS)N-4/0	036030	4/0 • 112.6	1 AWG • 56.3	n/a	2.09 • 53.1	0.09 • 0.3	259 • 850	241 • 252 • 270	4480 • 6666
TP(OBS)N-262	036031	262 • 133.0	1 AWG • 56.3	n/a	2.23 • 56.6	0.09 • 0.3	247 • 810	267 • 294 • 315	5050 • 7514
TP(OBS)N-313	036032	313 • 158.6	110 AWG • 18.6	n/a	2.36 • 60.0	0.08 • 0.2	270 • 886	298 • 321 • 344	5860 • 8720
TP(OBS)N-373	036033	373 • 189.3	210 AWG • 66.5	n/a	2.56 • 65.0	0.08 • 0.2	292 • 958	333 • 361 • 387	6950 • 10342
TP(OBS)N-444	036034	444 • 225.1	310 AWG • 92.1	n/a	2.87 • 72.9	0.08 • 0.2	318 • 1043	371 • 411 • 440	8660 • 12886
TP(OBS)N-535	036035	535 • 271.2	310 AWG • 92.1	n/a	3.03 • 77.0	0.09 • 0.3	291 • 954	417 • 443 • 475	9700 • 14437
TP(OBS)N-646	036036	646 • 327.5	410 AWG • 112.6	n/a	3.18 • 80.8	0.09 • 0.3	314 • 1030	469 • 516 • 553	11400 • 16963
TP(OBS)N-777	036037	777 • 393.8	262 KCML • 133.0	n/a	3.52 • 89.4	0.09 • 0.3	345 • 1132	528 • 562 • 602	13520 • 20118

armored and sheathed

Type Designation	Draka Number	Conductor Size AWG/MCM • mm ²	Ground Size AWG/MCM • mm ²	Sheath Thickness in • mm	Cable Diameter (nominal) in • mm	Inductance mH/kft • mH/km	Capacitance pF/ft • pF/m	Calculated Ampacity [†] (measured @ °C) 95 • 100 • 110	Cable Weight (approximate) Lbs/mft • Kg/km
TP(OBS)NBS-1/0	036038	1/0 • 56.3	5 AWG • 18.6	.11 • 2.8	1.82 • 46.2	0.09 • 0.3	190 • 623	156 • 164 • 176	3020 • 4494
TP(OBS)NBS-2/0	036039	2/0 • 66.5	4 AWG • 21.5	.11 • 2.8	1.92 • 48.8	0.09 • 0.3	212 • 695	175 • 188 • 201	3420 • 5089
TP(OBS)NBS-4/0	036040	4/0 • 112.6	1 AWG • 56.3	.11 • 2.8	2.38 • 60.4	0.09 • 0.3	259 • 850	241 • 252 • 270	5510 • 8199
TP(OBS)NBS-262	036041	262 • 133.0	1 AWG • 56.3	.11 • 2.8	2.52 • 64.0	0.09 • 0.3	247 • 810	267 • 294 • 315	6130 • 9121
TP(OBS)NBS-313	036042	313 • 158.6	110 AWG • 18.6	.11 • 2.8	2.65 • 67.3	0.08 • 0.2	270 • 886	298 • 321 • 344	7010 • 10431
TP(OBS)NBS-373	036043	373 • 189.3	210 AWG • 66.5	.14 • 3.6	2.90 • 73.7	0.08 • 0.2	292 • 958	333 • 361 • 387	8360 • 12440
TP(OBS)NBS-444	036044	444 • 225.1	310 AWG • 92.1	.14 • 3.6	3.21 • 81.5	0.08 • 0.2	318 • 1043	371 • 411 • 440	10230 • 15222
TP(OBS)NBS-535	036045	535 • 271.2	310 AWG • 92.1	.14 • 3.6	3.37 • 85.6	0.09 • 0.3	291 • 954	417 • 443 • 475	11350 • 16889
TP(OBS)NBS-646	036046	646 • 327.5	410 AWG • 112.6	.14 • 3.6	3.52 • 89.4	0.09 • 0.3	314 • 1030	469 • 516 • 553	13130 • 19537
TP(OBS)NBS-777	036047	777 • 393.8	262 KCML • 133.0	.14 • 3.6	3.86 • 98.0	0.09 • 0.3	345 • 1132	528 • 562 • 602	15420 • 22944

This information is provided for reference only, please consult the factory or your representative to confirm all engineering information.

This information is not meant to replace the information in the appropriate and applicable standard or code.

[†]Ampacity based on 45°C ambient temperature: 95°C values based on ABS MODU Rules Table 6 - 100°C values based on IEEE-45 Table 25 - 110°C values based on IEEE-45 Table 25 corrected for conductor temperature. Ampacity de-rating factor for cables installed in conduit: 4 AWG and smaller multiply by 0.72; 2 AWG thru 3/0AWG multiply by 0.66; 4/0 AWG thru 1000 MCM multiply by 0.64.

