# 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 125ºC allowing for higher ampacity levels. Larger diameter cables carry a new flexible design. They satisfy Transport Canada's cold bend at -40ºC and cold impact at -35ºC (CSA C 22.2 No. 0.3).

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

## FEATURES

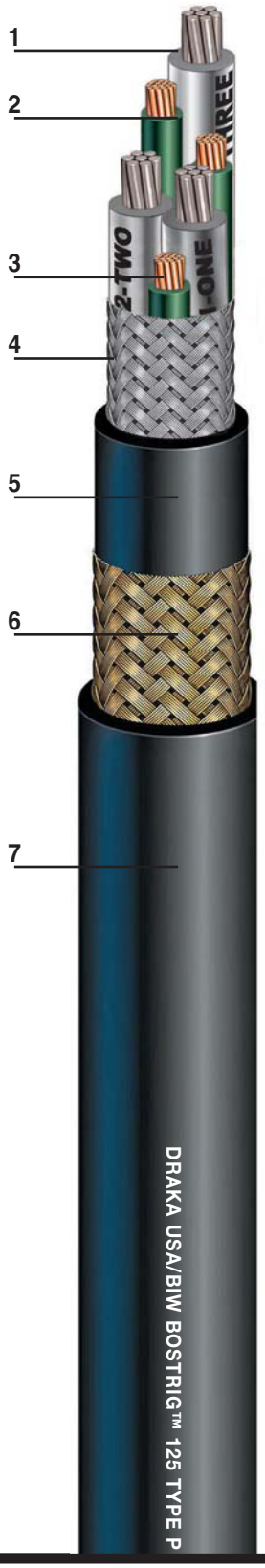
- **SUPERIOR RESISTANCE TO OIL, ABRASION, MOISTURE, SUNLIGHT, CRUSH AND IMPACT**
- **SUPER-FLEXIBLE**
- **INSULATED FULL-SIZED GROUNDS**
- **MEETS IEEE STANDARDS FOR 2000V**

## 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, compling 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, compling 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.

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# BOSTRIG™ 125 TYPE P-VFD POWER CABLE

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

Draka

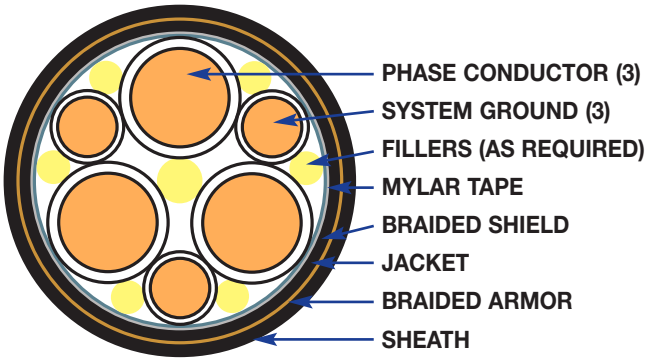
## unarmored

| Type Designation | Draka Number | Conductor Size AWG/MCM • mm² | Ground Size AWG/MCM • mm² | 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 KCMIL • 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 • mm² | Ground Size AWG/MCM • mm² | 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 KCMIL • 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.

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**CustRef MOG-VFD2**