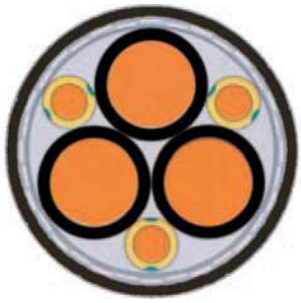
TOPFLEX® 1000 VFD XLPE insulation, EMC-preferred type, flexible motor power supply cable w/ 3 symmetrical ground conductors, oil-resistant, NFPA 79 Ch. 4



Technical data

- XLPE-insulated, VFD motor power supply cable acc. to UL Std. 1277 and 2277
- **Temperature range**
  UL/CSA TC -40°C to +90°C
  flexing +5°C to +50°C
  static -40°C to +105°C
- **Nominal voltage**
  UL/CSA TC 600 V
  UL WTTC/Flexible Motor Supply/CSA 1000 V
- **Test voltage** 4000 V
- **Minimum bending radius**
  flexing 10x cable Ø
- **Coupling resistance**
  max. 250 Ohm/km

Cable structure

- Finely standed (Cl. K), bare copper acc. to AWG standards
- Special XLPE conductor insulation
- Black conductors with continuous white numbering
- GN-YE conductor (divided into 3)
- Conductors stranded in concentric layers
- 3 power + 3 ground conductor design
- 1. Special aluminum foil shield
  2. Braided, tinned copper shield, approx. 85% coverage
- Special TPE outer jacket
- Black (RAL 9005) jacket
- With length marking in feet

Properties

- Self-extinguishing and flame retardant acc. to CSA FT4
- Due to the optimal shielding, interference-free operation is obtained
- The materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers
- UV-resistant
- Direct burial rated
- Resistant to cleaning and disinfecting agents acc. to ECOLAB®

Tests

- **UL**
  TC-ER (1277), WTTC (2277), 44, AWM 21270 (250-500 kcmil), NFPA 79, Oil Res I/II, 90°C Dry/Wet, Class I Div. 2 per NEC Art. 501
- **CSA**
  C22.2 No. 230 & 239 - c(UL) CIC-TC FT4 (8 - 4/0 AWG)
  C22.2 No. 210 - AWM I/II A/B FT4

Note

- VFD = Variable Frequency Drive

Application

Flexible, extremely oil-resistant, thermoset-insulated power supply cable for average mechanical stress in fixed installation and sometimes for free movement in dry, moist wet rooms and outside. XLPE insulation makes this compliant with the requirements outlined in the current edition of NFPA 79 Chapter 4. Suitable for use in the automotive industry, food processing industry, transfer streets, packaging industry, machine tools, handling equipment. Other industrial uses include pumps, fans, transport belts and in air conditioning systems, etc. Safe for use in explosion proof areas.

EMC = Electromagnetic compatibility

The shield must be connected at both ends and ensure large-area contact over the entire cable circumference for compliance with the functional interference requirements of EN 55011.

CE = The product conforms to EC Low-Voltage Directive 2006/95/EC.

Part no.	No. power conductor x AWG No.	No. ground conductor x AWG No.	No. conductor x cross section mm²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
59398	3x AWG 8 +	3x AWG 14	(3x 8,37 + 3x 2,08)	20,0	361,8	714,0
59399	3x AWG 6 +	3x AWG 12	(3x 13,3 + 3x 3,31)	23,0	536,2	982,0
59400	3x AWG 4 +	3x AWG 12	(3x 21,2 + 3x 3,31)	25,0	790,9	1302,0
59401	3x AWG 2 +	3x AWG 10	(3x 33,6 + 3x 5,26)	29,0	1203,5	1808,0
59402	3x AWG 1 +	3x AWG 8	(3x 42,4 + 3x 8,37)	33,0	1552,1	2426,0
59403	3x AWG 1/0 +	3x AWG 8	(3x 53,3 + 3x 8,37)	36,0	1906,3	2850,0
59404	3x AWG 2/0 +	3x AWG 8	(3x 67,4 + 3x 8,37)	38,0	2334,5	3304,0
59405	3x AWG 3/0 +	3x AWG 6	(3x 84,7 + 3x 13,3)	41,0	2943,3	4025,0
59406	3x AWG 4/0 +	3x AWG 6	(3x 107 + 3x 13,3)	46,0	3582,8	4896,0
59407	3x AWG 250 kcmil +	3x AWG 6	(3x 127 + 3x 13,3)	51,0	4097,0	5685,0
59408	3x AWG 300 kcmil +	3x AWG 4	(3x 152 + 3x 21,2)	53,0	5074,6	6830,0
59409	3x AWG 350 kcmil +	3x AWG 4	(3x 175 + 3x 21,2)	56,0	5747,3	7545,0
59410	3x AWG 400 kcmil +	3x AWG 2	(3x 203 + 3x 33,6)	61,0	6808,0	8914,0
59411	3x AWG 500 kcmil +	3x AWG 2	(3x 256 + 3x 33,6)	66,0	8217,9	10536,0

Dimensions and specifications may be changed without prior notice.