

TOPFLEX® 600 VFD XLPE insulation, EMC-preferred type, flexible motor power supply cable, oil-resistant, NFPA 79 Ch. 4



Technical data

- XLPE-insulated motor 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 TC 600 V
UL WTTTC/Flexible Motor Supply 1000 V
- **Test voltage** 4000 V
- **Minimum bending radius**
flexing 10x cable Ø
permanently flexing 7,5x cable Ø
- **Coupling resistance**
max. 250 Ohm/km

Cable structure

- Tinned copper conductor, fine wire with AWG dimensions
- Core insulation of special XLPE
- Black cores with continuous white numbering
- GN-YE conductor in the outer layer
- Cores stranded in layers with optimal lay-length
- Fleece
- 1. Screening with special aluminium foil
2. Screening with braid of tinned copper wires, optimal coverage approx. 85%
- Separator
- Outer sheath of special PVC
- Sheath colour black (RAL 9005) or orange (RAL 2003)
- Length marking in feet

Properties

- Self-extinguishing and flame retardant acc. to CSA FT4
- 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

Tests

- **UL:**
TC-ER (1277), WTTTC (2277), ITC-ER & PLTC-ER (18-12 AWG), 44 (14-2 AWG), NFPA 79, Class I Div. 2 per NEC Art. 501, NEC Art. 336 & 392, Oil Res I/II, 90°C Dry/Wet, -40°C Cold Bend

CSA:

C22.2 No. 230 & 239 - c(UL) CIC-TC FT4
C22.2 No. 210 - AWM I/II A/B FT4

Note

- VFD = Variable Frequency Drive

Application

Flexible, extremely oil-resistant, thermoset-insulated motor supply cable for modern servomotors; the double-screening with special aluminium foil (100% coverage) and tinned copper braid (approx. 85% coverage) provides effective protection against electrical disturbances and the resultant failures. XLPE insulation makes this compliant with the requirements outlined in the current edition of NFPA 79 Chapter 4. The special PVC sheath is extremely resistant to oil, coolants and solvents making it the perfect solution for industrial applications. Open, unprotected installation in cable trays and from cable trays to the machine, as well as in pipes and direct burial are approved.

EMC = Electromagnetic compatibility

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

CE = The product is conformed with the EC Low-Voltage Directive 2006/95/EC.

Sheath colour black

Part no.	No. cores x AWG-No.	Cross-section mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
63139	4 x 18	0,824	11,8	60,0	201,0
63140	4 x 16	1,31	12,5	81,5	238,0
63137	4 x 14	2,08	14,7	113,2	327,0
63141	4 x 12	3,31	15,7	163,3	409,0
63142	4 x 10	5,26	17,7	254,7	536,0
63143	4 x 8	8,37	23,0	389,9	856,0
63144	4 x 6	13,3	24,7	600,7	1131,0
63145	4 x 4	21,2	27,7	913,3	1518,0
63146	4 x 2	33,6	31,8	1383,1	2106,0

Sheath colour orange

Part no.	No. cores x AWG-No.	Cross-section mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
63147	4 x 18	0,824	11,8	60,0	201,0
63148	4 x 16	1,31	12,5	81,5	238,0
63149	4 x 14	2,08	14,7	113,2	327,0
63150	4 x 12	3,31	15,7	163,3	409,0
63151	4 x 10	5,26	17,7	254,7	536,0
63152	4 x 8	8,37	23,0	389,9	856,0
63153	4 x 6	13,3	24,7	600,7	1131,0
63154	4 x 4	21,2	27,7	913,3	1518,0
63155	4 x 2	33,6	31,8	1383,1	2106,0

Dimensions and specifications may be changed without prior notice. (RN07)



Suitable accessories can be found in Chapter X.

- Cable Gland - HELUTOP® HT-MS-EP4