

Technical data sheet

TPE Control Cable · shielded

LUTZE MOTIONFLEX® M (C) TPE, Shielded

Flexing Motor Cable for Linear and Twisting Motion Application



Identification

Type MO M (C) TPE (4×AWG18)
Part No. [A4061804](#)

Product version

Datasheet version 00

Use/Application/Properties

- | | |
|-------------|---|
| Application | <ul style="list-style-type: none">• Shielded motor supply cable to connect power to 3-phase motors. VFD's and Servo Drives• Suitable for motion application with repetitive movement, flexing and torsional stress• Thermoset XLPE offering superior overload and short-circuit temperature• Compliant with NFPA 79 for wiring of industrial machinery• TC-ER for use with cable trays without conduit, which can reduce installation costs in industrial environments• WTTC – wind turbine tray cable rating for use in wind power generation• Dry, damp or wet conditions |
| Properties | <ul style="list-style-type: none">• Highly flexible XLPE conductor design• Reduced cable diameter• High insulation resistance• Low-capacitance cable• Cutting oil resistant - mineral and bio/vegetable based oil, specially tested with plant based cutting oil.• Ecolab certified resistance to common cleaning agents and chemicals used in food and beverage washdown procedures• Improved oil resistance due to specifically developed TPE jacket• Crush impact resistant• Gas/vapor-tight sheath per UL 1277• Sunlight resistant• Flame-retardant• Talc free and silicone free |

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Part No. [A4061804](#) • Datasheet version: 00

page 1 of 3



SYSTEMATIC TECHNOLOGY

Technical data sheet

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Construction

Description	LUTZE MOTIONFLEX® M (C) TPE
Number of conductors/cross-section	(4×AWG18)
Number of conductors	4
Cross-section, metric	1 mm ²
Cross-section AWG	AWG 18
Jacket material	TPE
Jacket color	black similar to RAL 9005
Outer Ø	9.7 mm
Outer Ø	0.38 inch
Weight	13.23 kg/100 m
Weight	89 Lbs/Mft
Cu-Index	40 Lbs/Mft

Construction Element 1

Element construction	AWG18/4C
Conductor construction	AWG 18 (41/34)
Conductor	AWG conductor CU-wire bare
Conductor category	fine wire
Conductor marking	black • with white number print • green/yellow
Conductor insulation	XLPE XHHW-2 Wet/Dry
Wrapping	Non-woven material

Overall construction

Overall stranding	conductors layered construction
Overall shield	Braid shield tinned copper wires optical cover approx. 85 %
Jacket characteristics	Oil resistant Silicone-free Flame-retardant

Technical data

Rated voltage U _N	600 V TC-ER 90C 1000 V 90C Flexible Motor Supply 1000 V WTTC 90C Cable, 1000 V 105C AWM
Temperature range moving	-15 °C ... +80 °C
Temperature range fixed	-40 °C ... +105 °C
Minimum bending radius moving	12×D
Minimum bending radius fixed	6×D
Torsion	± 130°/m

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Technical Data Element 1

Element construction	AWG18/4C
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Certifications/Standards

Certifications	UL Flexible Motor Supply Cable TC-ER WTTTC Meets NEC 336,392 Class I and II, Div. 2 and Class I Zone 2 per NEC 501, 502, 505 C(UL) TC and CIC FT4 UL 1277
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UL style	AWM 21270
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Conformity	CE RoHS REACH TSCA
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Oil resistant according to	Oil Res I Oil Res II
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General

Note	CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU
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