

Drive Technology

TOPFLEX®-EMV-UV-3 PLUS 2XSLCYK-J TOPFLEX®-EMV-UV-2XSLCYK-J for power supply connections to frequency converters



## TOPFLEX®-EMV-UV-3 PLUS 2XSLCYK-J



HELUKABEL TOPFLEX-EMV-3PLUS 2XSLCYK-J 3x50+3G10 QMM / 24516 VFD XLPE 90°C 001219833

C€

## **Technical Data**

- · Special motor power supply cable for frequency converters adapted to DIN VDE 0250
- · Temperature range:

flexing: -5 °C up to +90 °C

fixed installation: -40 °C up to +90 °C

- · Maximum conductor operating temperature: +90 °C
- Nominal voltage U₀/U 600/1000 V
- · Operating voltage, max.

AC and 3-phase: 700/1200 V DC operation: 900/1800 V

- · Test voltage 4000 V
- · Insulation resistance

min. 200 MOhm x km

#### **Structure**

- · Bare copper, fine wire conductor to DIN VDE 0295 cl.5, BS 6360 cl.5, IEC 60228 cl.5
- · Core insulation of cross-linked polyethylene (XLPE)
- · Core colour: black, brown, grey, green-yellow (green-yellow divided into 3)
- · 3+3 core design
- · Cores stranded in concentric layers

## **Properties**

- self-extinguishing and flame retardant according to DIN VDE 0482-332-1-2, DIN EN 60332-1-2/IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- Meets EMC requirements according to EN 55011 and DIN VDE 0875 part 11
- · Low mutual capacitance
- · Low coupling resistance for high electromagnetic compatibility
- Due to the optimal screening an interference-free operation of frequency converters is obtained
- The minimum cross-section of 0,75mm<sup>2</sup> meets the requirements of DIN EN 60204 part 1

## **Application**

Supply and connecting cable for medium mechanical stresses in fixed installations and forced movements in dry, moist and wet environments in outdoor applications, underground installation is allowed for sizes 3x16+3G2,5 mm² and larger. The maximum conductor operating temperature of +90 °C permits a higher current carrying capacity than PE-insulated power distribution cables.

• **Coupling resistance** depending on the cross section

max. 250 Ohm/km

• Minimum bending radius fixed installation for outer ø: up to 12mm: 5x cable ø >12 up to 20 mm: 7,5x cable ø >20 mm: 10x cable ø free movement for outer ø:

free movement for outer ø: up to 12mm: 10x cable ø >12 up to 20 mm: 15x cable ø >20 mm: 20x cable ø

· Radiation resistance

up to 80x10<sup>6</sup> cJ/kg (up to 80 Mrad)

- · 1. screening with special aluminum foil
- · 2. screening with copper braiding, tinned copper, coverage approx. 85%
- · Special PVC outer sheath
- · Sheath colour black (RAL 9005)
- · With meter marking
- · UV resistant
- In outdoor applications, underground installation is allowed for sizes 3x16+3G2,5 mm² and larger
- With its low individual core mutual capacitance because of special XLPE core insulation and low screen capacitance, this screened motor supply cable minimizes the loss of power transmission compared to PE-sheathed connecting cables
- The materials used in manufacturing are cadmium free, contain no silicone, and are free from substances harmful to the wetting properties of lacquers

Used in the automobile industry, food industry, environmental engineering, packaging industry, toolmaking machinery and handling equipment. With for SIMOVERT drivers, they are particularly suitable for use in industrial pumps, ventilators, conveyor belts and air-conditioning installations or similar applications. Suitable for hazardous area installation.



## TOPFLEX®-EMV-UV-2XSLCYK-J



HELUKABEL TOPFLEX-EMV-UV-2XSLCYK-J 4G50 QMM / 24497 VFD XLPE 90°C 0,6/1 kV 001091633

C€

## **Technical Data**

- · Special motor power supply cable for frequency converters adapted to DIN VDE 0250
- · Temperature range:

flexing: -5 °C up to +90 °C

fixed installation: -40  $^{\circ}$ C up to +90  $^{\circ}$ C

- Maximum conductor operating temperature: +90 °C
- · Nominal voltage U₀/U 600/1000 V
- · Operating voltage, max.

AC and 3-phase: 700/1200 V DC operation: 900/1800 V

- · Test voltage 4000 V
- · Insulation resistance min. 200 MOhm x km

#### **Structure**

- · Bare copper, fine wire conductor to DIN VDE 0295 cl.5, BS 6360 cl.5, IEC 60228 cl.5
- · Core insulation of cross-linked polyethylene (XLPE)
- · Core colours: black, brown, grey, green-yellow
- · Cores stranded in concentric layers
- · 1. screening with special aluminum foil

## **Properties**

- self-extinguishing and flame retardant according to DIN VDE 0482-332-1-2, DIN EN 60332-1-2/IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- Meets EMC requirements according to EN 55011 and DIN VDE 0875 part 11
- · Low mutual capacitance
- Low coupling resistance for high electromagnetic compatibility
- · Due to the optimal screening an interference-free operation of frequency converters is obtained

#### Coupling resistance

depending on the cross section max. 250 Ohm/km

#### · Minimum bending radius

fixed installation for outer ø: up to 12mm: 5x cable ø >12 up to 20 mm: 7,5x cable ø >20 mm: 10x cable ø

free movement for outer ø: up to 12mm: 10x cable ø >12 up to 20 mm: 15x cable ø

>20 mm: 20x cable ø
• Radiation resistance

up to 80x10<sup>6</sup> cJ/kg (up to 80 Mrad)

- · 2. screening with copper braiding, tinned copper, coverage approx. 85%
- · Special PVC outer sheath
- · Sheath colour black (RAL 9005)
- · With meter marking
- · UV resistant
- · In outdoor applications, underground installation is allowed for sizes 4G16 mm² and larger
- With its low individual core mutual capacitance because of special XLPE core insulation and low screen capacitance, this screened motor supply cable minimizes the loss of power transmission compared to PE-sheathed connecting cables
- The materials used in manufacturing are cadmium free, contain no silicone, and are free from substances harmful to the wetting properties of lacquers

## **Application**

The TOPFLEX®-EMV-UV-2XSLCYK-J motor power supply cable for frequency converters assures electromagnetic compatibillity in plants, buildings, and facilities with equipment where electromagnetic interference might cause adverse effects on their surroundings.

The maximum conductor operating temperature of +90 °C permits a higher current carrying capacity than PE-insulated power distribution cables. It is suitable as a supply and connecting cable for medium mechanical stresses in fixed

installations and forced movements in dry, moist and wet environments. In outdoor applications, underground installation is allowed for sizes 4G16 mm² and larger.

. Used in the automotive and food industries, environmental technology, packaging industry, machine tools, and handling equipment. With SIMOVERT drives, they are particularly suitable for use with industrial pumps, ventilators, conveyor belts, and air-conditioning installations or similar applications. Suitable for hazardous area installation.



# TOPFLEX®-EMV-UV-3 PLUS 2XSLCYK-J

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Coupling re at 1 MHz Ohm/km	sistance at 30 MHz Ohm/km	Power ratings with 3 loaded cores in Amperes	Cop. weight kg / km	Weight app. kg / km
24508	3 x 1,5 + 3 G 0,25	9,2			23	86,0	140,0
24509	3 x 2,5 + 3 G 0,5	10,8	18	210	32	144,0	220,0
24510	3 x 4 + 3 G 0,75	12,3	11	210	42	224,0	323,0
24511	3 x 6 + 3 G 1,0	14,0	6	150	54	298,0	420,0
24512	3 x 10 + 3 G 1,5	17,6	7	180	75	491,0	615,0
24513	3 x 16 + 3 G 2,5	20,4	9	190	100	723,0	819,0
24514	3 x 25 + 3 G 4,0	23,2	4	95	127	1138,0	1325,0
24515	3 x 35 + 3 G 6,0	26,1	3	85	158	1535,0	1718,0
24516	3 x 50 + 3 G 10,0	30,8	2	40	192	2208,0	2399,0
24517	3 x 70 + 3 G 10,0	34,2	2	45	246	2871,0	3056,0
24518	3 x 95 + 3 G 16,0	37,8	1	50	298	3953,0	4162,0
24519	3 x 120 + 3 G 16,0	42,6			346	4836,0	5075,0
24520	3 x 150 + 3 G 25,0	47,5			399	5412,0	6128,0
24521	3 x 185 + 3 G 35,0	53,4			456	6969,0	7189,0
24587	3 x 240 + 3 G 42,5	58,7			538	8540,0	9540,0
Dimensions and specifications may be changed without prior notice. (RD01)							

## TOPFLEX®-EMV-UV-2XSLCYK-J

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm		acitance Core/Screen app. nF/km	Coupling res at 1 MHz Ohm/km	sistance at 30 MHz Ohm/km	Power ratings with 3 loaded cores in Amperes	Cop. weight kg / km	Weight app. kg / km
24489	4 G 1,5	10,1	70	110			23	95,0	230,0
24490	4 G 2,5	11,2	80	130	18	210	32	150,0	300,0
24491	4 G 4	12,8	90	150	11	210	42	235,0	485,0
24492	4 G 6	14,9	90	150	6	150	54	320,0	630,0
24493	4 G 10	17,7	120	200	7	180	75	533,0	860,0
24494	4 G 16	20,9	140	230	9	190	100	789,0	1290,0
24495	4 G 25	25,3	120	210	4	95	127	1236,0	1860,0
24496	4 G 35	28,0	150	260	3	85	158	1662,0	2610,0
24497	4 G 50	32,3	190	320	2	40	192	2345,0	2950,0
24498	4 G 70	37,6	190	320	2	45	246	3196,0	3950,0
24499	4 G 95	41,6	250	410	1	50	298	4316,0	5300,0
24500	4 G 120	44,8					346	5435,0	6600,0
24506	4 G 150	52,3					399	6394,0	7040,0
24507	4 G 185	58,7					456	7639,0	8380,0

Dimensions and specifications may be changed without prior notice. (RD01)

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