

## FMM917 动力电缆 Motor cables



- TPE外护套
- 带屏蔽
- 抗UV
- 耐油
- 抗水解和微生物
- 不含PVC和卤素
- TPE outer jacket
- Shielded
- UV-resistance
- Oil-resistant
- Resistant to hydrolysis and microbes
- PVC and halogen-free

## 移动参数 Dynamic Information

|  |                               |                                                                                      |                |
|--|-------------------------------|--------------------------------------------------------------------------------------|----------------|
|  | 最小弯曲半径<br>Min. bending radius | 拖链内移动 Moving in cable carriers                                                       | 7.5 x d        |
|  |                               | 非拖链内移动 Flexible moving                                                               | 6 x d          |
|  |                               | 固定铺设 Fixed installation                                                              | 4 x d          |
|  | 使用温度范围<br>Temperature         | 拖链内移动 Moving in cable carriers                                                       | -35°C至to +90°C |
|  |                               | 非拖链内移动 Flexible moving                                                               | -50°C至to +90°C |
|  |                               | 固定铺设 Fixed installation                                                              | -55°C至to +90°C |
|  | 最大速度<br>v max.                | 架空 Unsupported                                                                       | 10 m/s         |
|  |                               | 滑行 Gliding                                                                           | 6 m/s          |
|  | 最大加速度<br>a max.               | 80 m/s <sup>2</sup>                                                                  |                |
|  | 行程距离<br>Travel distance       | 架空应用和行程距离小于400米的滑行应用<br>Unsupported travels and up to 400 m for gliding applications |                |

## 电缆结构 Cable structure

|  |                                |                                                                                                                                                                                                                        |  |
|--|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | 导体<br>Conductor                | 截面积Cross-sectional < 10 mm <sup>2</sup> : 高抗弯强度的精细裸铜多股线 (符合 EN 60228 标准)<br>Stranded conductor in especially bending-resistant version consisting of bare copper wires (according to DIN EN 60228).                    |  |
|  |                                | 截面积Cross-sectional ≥ 10 mm <sup>2</sup> : 细铜丝先编织成束然后绞在一起 (符合 EN 60228 标准)<br>Conductor cable consisting of pre-leads (according to DIN EN 60228).                                                                      |  |
|  | 绝缘材料<br>Conductor insulation   | 高机械性能、低电容的XLPE混合物<br>Mechanically high-quality, especially low-capacitance XLPE mixture.                                                                                                                               |  |
|  | 芯线结构<br>Conductor construction | 芯线以短节距绕高抗拉中心线绞合在一起<br>Cores wound with a short pitch length around a high tensile strength centre element.                                                                                                             |  |
|  | 芯线识别<br>Color code             | 一根为黄绿线, 其余均为黑色芯线带白色数字 Black cores with white numbers, one green-yellow core.<br>芯线Core1: U/L1/C/L+<br>芯线Core2: V/L2<br>芯线Core3: W/L3/D/L-<br>芯线Core4: 4/N                                                              |  |
|  | 内护套<br>Inner jacket            | TPE混合物适用于拖链<br>TPE mixture adapted to suit the requirements in cable carriers.                                                                                                                                         |  |
|  | 总屏蔽<br>Overall shield          | 抗弯曲的镀锡铜丝编织。覆盖线性约70%, 光学约90%。<br>Bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70 %, optical approx. 90 %                                                                             |  |
|  | 外护套<br>Outer jacket            | 低粘性的TPE基混合物, 特别耐磨损且具有高度的灵活性, 适用于拖链<br>Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in cable carriers.<br>颜色: 黑色 Color: Black RAL 9005 |  |

# FLEXMOV® Motor cables

## FLEXMOV® 动力电缆

### 电气参数 Electrical Information

|                                                                                   |                         |                                                       |
|-----------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------|
|  | 额定电压<br>Nominal voltage | U <sub>0</sub> /U: 600/1000 V (符合following VDE0298-3) |
|  | 测试电压<br>Test voltage    | 4000 V (符合following EN50395)                          |

### 特性和认证 Properties and approvals

|                                                                                     |                              |                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | 抗紫外线<br>UV-resistance        | 高 High                                                                                                                                                                          |
|    | 耐水解<br>Hydrolysis-resistance | 高 High                                                                                                                                                                          |
|    | 耐低温<br>Cold-resistant        | -55°C                                                                                                                                                                           |
|    | 耐油性<br>Oil resistance        | 耐油 (符合 IEC60811-404 标准, 经SGS检测), 耐生物油 (符合VDMA24568 标准, 经SGS检测)<br>Oil-resistant (following IEC60811-404, tested by SGS), bio-oil-resistant (following VDMA24568, tested by SGS) |
|   | 无卤素<br>Halogen-free          | 符合Following DIN EN 60754                                                                                                                                                        |
|  | REACH                        | 符合 Accordding to the regulation (EC) No. 1907/2006 (REACH)                                                                                                                      |
|  | EAC                          | 经认证Certificate No. KG 417/043.CN.02.00249                                                                                                                                       |
|  | 无铅<br>Lead-free              | 符合Following 2015/863/EU (RoHS-II 经SGS检测 Tested by SGS)                                                                                                                          |
|  | 无尘室<br>Cleanroom             | 符合Following ISO 14644-1                                                                                                                                                         |
|  | CE                           | 符合Following 2014/35/EU                                                                                                                                                          |
|  | UL                           | 符合Following UL22188, 1000V, 80°C                                                                                                                                                |

### 质保使用寿命 Guaranteed service life

| 往返行程<br>Double strokes                 | 500万次<br>5 million times           | 750万次<br>7.5 million times         | 1000万次<br>10 million times         |
|----------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| 适用温度范围<br>Temperature,<br>from/to [°C] | 最小弯曲半径<br>R min.<br>[系数factor x d] | 最小弯曲半径<br>R min.<br>[系数factor x d] | 最小弯曲半径<br>R min.<br>[系数factor x d] |
| -35/-25                                | 10                                 | 11                                 | 12                                 |
| -25/+80                                | 7.5                                | 8.5                                | 9.5                                |
| +80/+90                                | 10                                 | 11                                 | 12                                 |

## FMM917 动力电缆 Motor cables

| 产品编码<br>Part No. | 芯数及截面积<br>Number of cores and<br>conductor nominal cross-section<br>[mm] | 外径<br>Outer diameter<br>[mm] | 铜含量<br>Copper index<br>[kg/km] | 重量<br>Weight<br>[kg/km] |
|------------------|--------------------------------------------------------------------------|------------------------------|--------------------------------|-------------------------|
| FMM917.15.04     | (4G1.5)C                                                                 | 10                           | 89                             | 140                     |
| FMM917.25.04     | (4G2.5)C                                                                 | 11.5                         | 133                            | 198                     |
| FMM917.40.04     | (4G4.0)C                                                                 | 13                           | 203                            | 280                     |
| FMM917.60.04     | (4G6.0)C                                                                 | 16                           | 288                            | 409                     |
| FMM917.100.04    | (4G10)C                                                                  | 18.5                         | 468                            | 613                     |
| FMM917.160.04    | (4G16)C                                                                  | 23                           | 738                            | 943                     |
| FMM917.250.04    | (4G25)C                                                                  | 27                           | 1153                           | 1432                    |

注Note: 外径是指参考值 The outer diameters are reference values.

G: 带黄-绿接地线 With green-yellow earth core

x: 不带接地线 Without earth core