

## Data sheet

6XV1860-3PN45

### Product type designation

Product description

### PROFIBUS ECOFAST Hybrid Cable GP

ECOFAST Hybrid cable (data and energy wires), preferred length, assembled with ECOFAST connector and socket  
PROFIBUS ECOFAST Hybrid Cable GP, 2x Cu 0.64 mm, 4x Cu 1.5 mm<sup>2</sup>, Cable pre-assembled with ECOFAST connector and socket, trailable, Length 45 m



|                     |                                                              |
|---------------------|--------------------------------------------------------------|
| Suitability for use | Hybrid cable for connection of ECOFAST stations, UL approval |
| Cable designation   | 02Y (ST)C 1x2x0.65/2.56 -150 LI LY-Z Y 4x1x1.5 VI            |
| Wire length         | 45 m                                                         |

### Electrical data

|                                              |            |
|----------------------------------------------|------------|
| Damping ratio per length                     |            |
| • at 9.6 kHz / maximum                       | 0.003 dB/m |
| • at 38.4 kHz / maximum                      | 0.004 dB/m |
| • at 4 MHz / maximum                         | 0.025 dB/m |
| • at 16 MHz / maximum                        | 0.049 dB/m |
| Impedance                                    |            |
| • Rated value                                | 150 Ω      |
| • at 9.6 kHz                                 | 270 Ω      |
| • at 38.4 kHz                                | 185 Ω      |
| • at 3 MHz ... 20 MHz                        | 150 Ω      |
| Relative symmetrical tolerance               |            |
| • of the characteristic impedance at 9.6 kHz | 10 %       |

|                                                       |                     |
|-------------------------------------------------------|---------------------|
| • of the characteristic impedance at 38.4 kHz         | 10 %                |
| • of the characteristic impedance at 3 MHz ... 20 MHz | 10 %                |
| Loop resistance per length / maximum                  | 138 Ω/km            |
| Shield resistance per length / maximum                | 15 Ω/km             |
| Insulation resistance coefficient                     | 20 GΩ·m             |
| Operating voltage / maximum                           | 80 V                |
| Capacity per length / at 1 kHz                        | 30 pF/m             |
| Operating voltage / RMS value                         | 600 V               |
| Conductor cross section / of the power wire           | 1.5 mm <sup>2</sup> |
| Continuous current / of the power wires               | 12 A                |

#### Mechanical data

|                                                               |                                                                                                                                                      |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Design of the shield                                          | Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires                                                               |
| Number of electrical cores                                    | 6                                                                                                                                                    |
| Type of electrical connection / FastConnect                   | No                                                                                                                                                   |
| Outer diameter                                                |                                                                                                                                                      |
| • of inner conductor                                          | 0.67 mm                                                                                                                                              |
| • of the wire insulation                                      | 2.56 mm                                                                                                                                              |
| • of cable sheath                                             | 11 mm                                                                                                                                                |
| Symmetrical tolerance of the outer diameter / of cable sheath | 0.3 mm                                                                                                                                               |
| Material                                                      |                                                                                                                                                      |
| • of the wire insulation                                      | polyethylene (PE)                                                                                                                                    |
| • of cable sheath                                             | PVC                                                                                                                                                  |
| Color                                                         |                                                                                                                                                      |
| • of the insulation of data wires                             | red / green                                                                                                                                          |
| • of the power wire insulation                                | Black                                                                                                                                                |
| • of cable sheath                                             | Violet                                                                                                                                               |
| Bending radius                                                |                                                                                                                                                      |
| • with multiple bends / minimum permissible                   | 110 mm                                                                                                                                               |
| Number of bending cycles                                      | 1000000; For use in cable carriers, for 1 million bending cycles with a bending radius of 166 mm (15x D) and an acceleration of 4.0 m/s <sup>2</sup> |
| Tensile load / maximum                                        | 300 N                                                                                                                                                |
| Weight per length                                             | 154 kg/km                                                                                                                                            |

#### Ambient conditions

|                       |                |
|-----------------------|----------------|
| Ambient temperature   |                |
| • during operation    | -30 ... +80 °C |
| • during storage      | -30 ... +80 °C |
| • during transport    | -30 ... +80 °C |
| • during installation | -30 ... +80 °C |

|                                                                                                             |                                                                                                                |
|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| • Note                                                                                                      | Electrical properties measured at 20 Cel, verification according to DIN 47250 part 4 respectively DIN VDE 0490 |
| Burning behavior                                                                                            | flame-retardant according to IEC 60332-3-24 (Category C)                                                       |
| Chemical resistance <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> </ul> | Conditional resistance<br>Conditional resistance                                                               |
| Radiological resistance / to UV radiation                                                                   | resistant                                                                                                      |
| Protection class IP                                                                                         | IP65                                                                                                           |

#### Product features, product functions, product components / general

|                                                                                                          |            |
|----------------------------------------------------------------------------------------------------------|------------|
| Product feature <ul style="list-style-type: none"> <li>• halogen-free</li> <li>• silicon-free</li> </ul> | Yes<br>Yes |
|----------------------------------------------------------------------------------------------------------|------------|

#### Standards, specifications, approvals

|                                                                                                |                                 |
|------------------------------------------------------------------------------------------------|---------------------------------|
| UL/ETL listing / 300 V Rating                                                                  | No                              |
| UL/ETL style / 600 V Rating                                                                    | Yes; CM / CL3 / SunRes / OilRes |
| Certificate of suitability <ul style="list-style-type: none"> <li>• RoHS conformity</li> </ul> | Yes                             |

#### Further information / Internet-Links

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Internet-Link <ul style="list-style-type: none"> <li>• to website: Selector SIMATIC NET SELECTION TOOL</li> <li>• to website: Industrial communication</li> <li>• to website: Industry Mall</li> <li>• to website: Information and Download Center</li> <li>• to website: Image database</li> <li>• to website: CAx Download Manager</li> <li>• to website: Industry Online Support</li> </ul> | <a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a><br><br><a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a><br><a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a><br><a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a><br><a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a><br><a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a><br><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a> |
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