



SIMATIC NET,  
PROFIBUS ECOFAST HYBRID CABLE GP,  
TRAILING CABLE WITH 2 X CU 0.64 MM AND 4XCU 1.5  
SQMM, NOT PREASSEMBLED,  
PREFERRED LENGTH, 20 M

Acceptability for application

Hybrid cable for connection of ECOFAST stations, UL approval

Cable designation

02Y (ST)C 1x2x0.65/2.56 -150 LI LIY-Z Y 4x1x1.5 VI

Cable length

20 m

### Electrical data

Damping ratio per length

|                         |             |
|-------------------------|-------------|
| • at 9.6 kHz / maximum  | 0.0030 dB/m |
| • at 38.4 kHz / maximum | 0.0040 dB/m |
| • at 4 MHz / maximum    | 0.025 dB/m  |
| • at 16 MHz / maximum   | 0.049 dB/m  |

Impedance

|                                        |              |
|----------------------------------------|--------------|
| • Nominal value                        | 150 $\Omega$ |
| • at 9.6 kHz                           | 270 $\Omega$ |
| • at 38.4 kHz                          | 185 $\Omega$ |
| • for frequency range 3 MHz ... 20 MHz | 150 $\Omega$ |

Relative symmetrical tolerance

|                                              |      |
|----------------------------------------------|------|
| • of the surge impedance at 9.6 kHz          | 10 % |
| • of the surge impedance at 38.4 kHz         | 10 % |
| • of the surge impedance at 3 MHz ... 20 MHz | 10 % |

Loop resistance per length / maximum

138  $\Omega$ /km

Shield resistance per length / maximum

15  $\Omega$ /km

Capacity per length / at 1 kHz

30 pF/m

|                                                            |                                                                                                                                             |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Operating voltage / RMS value                              | 600 V                                                                                                                                       |
| Conductor cross section / of the power wires               | 1.5 mm <sup>2</sup>                                                                                                                         |
| Continuous current / of the power wires                    | 12 A                                                                                                                                        |
| <b>Mechanical data</b>                                     |                                                                                                                                             |
| Design of shield                                           | Overlapped aluminum-clad foil, sheathed in a braided screen of tinned copper wires                                                          |
| Number of electrical wires                                 | 6                                                                                                                                           |
| Design of the electrical connection / FastConnect          | No                                                                                                                                          |
| Outer diameter                                             |                                                                                                                                             |
| • of the wire insulation                                   | 2.56 mm                                                                                                                                     |
| • of the cable sheath                                      | 11 mm                                                                                                                                       |
| Symmetrical tolerance of outer diameter / of cable sheath  | 0.3 mm                                                                                                                                      |
| Material                                                   |                                                                                                                                             |
| • of the wire insulation                                   | PE                                                                                                                                          |
| • of the cable sheath                                      | PVC                                                                                                                                         |
| Color                                                      |                                                                                                                                             |
| • of the insulation of data wires                          | red / green                                                                                                                                 |
| • of the power wire insulation                             | Black                                                                                                                                       |
| • of the cable sheath                                      | Violet                                                                                                                                      |
| Bending radius                                             |                                                                                                                                             |
| • with multiple bends / minimum permissible                | 110 mm                                                                                                                                      |
| Number of bending cycles                                   | 1000000                                                                                                                                     |
| • Note                                                     | 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> |
| Traction stress / maximum                                  | 300 N                                                                                                                                       |
| Weight per length                                          | 154 kg/km                                                                                                                                   |
| <b>Permitted ambient conditions</b>                        |                                                                                                                                             |
| Ambient temperature                                        |                                                                                                                                             |
| • during operating                                         | -30 ... +80 °C                                                                                                                              |
| • during storage                                           | -30 ... +80 °C                                                                                                                              |
| • during transport                                         | -30 ... +80 °C                                                                                                                              |
| • during installation                                      | -30 ... +80 °C                                                                                                                              |
| Protection class IP                                        | IP65                                                                                                                                        |
| Chemical resistance                                        |                                                                                                                                             |
| • to mineral oil                                           | Conditional resistance                                                                                                                      |
| • to grease                                                | Conditional resistance                                                                                                                      |
| Radiological resistance / to UV radiation                  | resistant                                                                                                                                   |
| <b>Product properties, functions, components / general</b> |                                                                                                                                             |
| Product feature                                            |                                                                                                                                             |
| • halogen-free                                             | Yes                                                                                                                                         |

|                                      |                                 |
|--------------------------------------|---------------------------------|
| • silicon-free                       | Yes                             |
| Standards, specifications, approvals |                                 |
| UL/ETL listing / with 300 V rating   | No                              |
| UL/ETL style / with 600 V rating     | Yes: CM / CL3 / SunRes / OilRes |
| Verification of suitability          |                                 |
| • RoHS conformity                    | Yes                             |
| letzte Änderung:                     | Jul 14, 2014                    |