

## Data sheet

6XV1870-3QN45

### Product type designation

Product description

### IE TP Cord RJ45/RJ45, 4x2

Patch cable, preferred length, preassembled with two RJ45 connectors (10/100/1000/10000MB)

Industrial Ethernet TP Cord RJ45/RJ45, CAT 6A, TP cable 4x2, pre-assembled with 2 RJ45 connectors, Length 45 m



|                                                         |                                                               |
|---------------------------------------------------------|---------------------------------------------------------------|
| Suitability for use                                     | Easy connection of data terminals to the IE FC cabling system |
| Cable designation                                       | LI 02YSCH 4x2x0,15 PIMF GN FRNC                               |
| Wire length                                             | 45 m                                                          |
| <b>Electrical data</b>                                  |                                                               |
| Damping ratio per length                                |                                                               |
| • at 10 MHz / maximum                                   | 0.086 dB/m                                                    |
| • at 100 MHz / maximum                                  | 0.28 dB/m                                                     |
| • at 300 MHz / maximum                                  | 0.501 dB/m                                                    |
| • at 600 MHz / maximum                                  | 0.735 dB/m                                                    |
| Impedance                                               |                                                               |
| • at 1 MHz ... 100 MHz                                  | 100 Ω                                                         |
| • at 10 MHz ... 600 MHz                                 | 100 Ω                                                         |
| Relative symmetrical tolerance                          |                                                               |
| • of the characteristic impedance at 1 MHz ... 100 MHz  | 15 %                                                          |
| • of the characteristic impedance at 10 MHz ... 600 MHz | 10 %                                                          |

|                                                                                 |          |
|---------------------------------------------------------------------------------|----------|
| Transfer impedance per length / at 10 MHz                                       | 10 mΩ/m  |
| Loop resistance per length / maximum                                            | 290 mΩ/m |
| Operating voltage <ul style="list-style-type: none"> <li>• RMS value</li> </ul> | 80 V     |
| NVP value in percent                                                            | 80 %     |

#### Mechanical data

|                                                                                                                                                                |                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Number of electrical cores                                                                                                                                     | 8                                                                                      |
| Design of the shield                                                                                                                                           | Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires |
| Core diameter <ul style="list-style-type: none"> <li>• of AWG26 core</li> </ul>                                                                                | 0.5 mm                                                                                 |
| Outer diameter <ul style="list-style-type: none"> <li>• of inner conductor</li> <li>• of the wire insulation</li> <li>• of cable sheath</li> </ul>             | 0.5 mm<br>1 mm<br>6.2 mm                                                               |
| Symmetrical tolerance of the outer diameter / of cable sheath                                                                                                  | 0.3 mm                                                                                 |
| Material <ul style="list-style-type: none"> <li>• of the wire insulation</li> <li>• of cable sheath</li> </ul>                                                 | PE<br>FRNC                                                                             |
| Color <ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>                                           | white/blue, white/orange, white/green, white/brown<br>green                            |
| Bending radius <ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul> | 31 mm<br>43.5 mm                                                                       |
| Weight per length                                                                                                                                              | 50 kg/km                                                                               |

#### Permitted ambient conditions

|                                                                                                                                                                                               |                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> <li>• Note</li> </ul> | -25 ... +80 °C<br>-25 ... +80 °C<br>-25 ... +80 °C<br>-25 ... +80 °C<br>In fixed installation -40 °C to 80 °C |
| Burning behavior                                                                                                                                                                              | flame resistant according to IEC 60332-1                                                                      |
| Chemical resistance <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> </ul>                                                                                   | oil resistant according to IEC 60811-2-1 (4 h / 70°C)<br>Conditional resistance                               |
| Protection class IP                                                                                                                                                                           | IP20                                                                                                          |

#### Product properties, functions, components / general

|                 |  |
|-----------------|--|
| Product feature |  |
|-----------------|--|

- halogen-free
- silicon-free

Yes

Yes

#### Standards, specifications, approvals

|                                                 |       |
|-------------------------------------------------|-------|
| UL/ETL listing / 300 V Rating                   | No    |
| UL/ETL style / 600 V Rating                     | Yes   |
| Certificate of suitability                      |       |
| • UL approval                                   | Yes   |
| Standard for structured cabling                 | Cat6A |
| Marine classification association               |       |
| • American Bureau of Shipping Europe Ltd. (ABS) | No    |
| • Bureau Veritas (BV)                           | No    |
| • Det Norske Veritas (DNV)                      | No    |
| • Germanische Lloyd (GL)                        | No    |
| • Lloyds Register of Shipping (LRS)             | No    |
| • Nippon Kaiji Kyokai (NK)                      | No    |
| • Polski Rejestr Statkow (PRS)                  | No    |

#### Further Information / Internet Links

|                                                   |                                                                                                     |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Internet-Link                                     |                                                                                                     |
| • to website: Selector SIMATIC NET SELECTION TOOL | <a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>                               |
| • to website: Industrial communication            | <a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>                 |
| • to website: Industry Mall                       | <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>                   |
| • to website: Information and Download Center     | <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a> |
| • to website: Image database                      | <a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>             |
| • to website: CAX Download Manager                | <a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>                                 |
| • to website: Industry Online Support             | <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>             |

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