

## BS 7889

XLPE Insulated, PVC Sheathed Single Core Cable. BS 7889. 600/1000 V



Prysmian BS 7889 is an unarmoured industrial single core wiring cable with cross linked polyethylene insulation and PVC sheath.

### KEY APPLICATIONS

Suitable for installation in areas with reduced risk of mechanical damage; on tray, in free air or clipped direct. Suitable also for conduit and wiring installations when mechanical protection is required.

### FEATURES AND BENEFITS

- Manufactured under ISO 9001 Quality management systems

### ADDITIONAL TECHNICAL SUPPORT

- [FAQ's](http://uk.prysmian.com/technical-area/faqs) - uk.prysmian.com/technical-area/faqs
- [Technical email](mailto:tech.info@prysmian.com) - tech.info@prysmian.com
- [Live Chat](http://uk.prysmian.com/technical-area) - uk.prysmian.com/technical-area
- Technical hotline: 02380 295222

### STANDARDS



**BS 7889**  
**BS EN 60332-1-2**

Construction Standard  
Flame Propagation - Single Cable

### CONSTRUCTION

|                          |                          |
|--------------------------|--------------------------|
| Conductor material       | Copper                   |
| Conductor surface        | Bare                     |
| Core insulation material | XLPE                     |
| Material outer sheath    | Polyvinyl chloride (PVC) |
| Cable shape              | Round                    |

## APPLICATIONS PROPERTIES

|                                    |                                    |
|------------------------------------|------------------------------------|
| Nominal voltage U <sub>0</sub> [V] | 600                                |
| Nominal voltage U [V]              | 1,000                              |
| Flame retardant                    | In accordance with BS EN 60332-1-2 |
| Max. conductor temperature [°C]    | 90                                 |
| Min. Operation temperature [°C]    | -15                                |
| UV resistant                       | Yes                                |
| Outdoor installation               | Yes                                |
| Min. Installation temperature [°C] | 0                                  |
| Max. Installation temperature [°C] | 80                                 |
| Bending radius (rule)              | 6D                                 |

## COLOURS

Insulation: Brown or Blue

Sheath: Black

## CURRENT RATINGS

Refer to table 4E1 of BS 7671 Requirements for Electrical Installations. IET Wiring Regulations

Note: Where a conductor operates at a temperature exceeding 70°C it shall be ascertained that the equipment connected to the conductor is suitable for the conductor operating temperature.

## TECHNICAL DATA

| Nominal cross section conductor [mm <sup>2</sup> ] | Conductor category | Nominal thickness insulation [mm] | Nominal outer diameter [mm] | Cable weight [kg/km] | Conductor resistance at 20° C [Ohm/km] | Embodied Carbon [CO <sub>2</sub> e kg/km] |
|--|--------------------|-----------------------------------|-----------------------------|----------------------|--|---|
| 10   | Class 2 = stranded | 0.7                               | 8.4                         | 150                  | 1.83                                   | 476                                       |
| 16   | Class 2 = stranded | 0.7                               | 9                           | 200                  | 1.15                                   | 645                                       |
| 25   | Class 2 = stranded | 0.9                               | 10.6                        | 295                  | 0.727                                  | 851                                       |
| 35   | Class 2 = stranded | 0.9                               | 11.6                        | 390                  | 0.524                                  | 1,078                                     |
| 50   | Class 2 = stranded | 1                                 | 13.2                        | 520                  | 0.387                                  | 1,432                                     |
| 50   | Class 2 = stranded | 1                                 | 13.2                        | 520                  | 0.387                                  | 1,432                                     |
| 70   | Class 2 = stranded | 1.1                               | 14.9                        | 720                  | 0.268                                  | 1,895                                     |
| 95   | Class 2 = stranded | 1.1                               | 16.7                        | 1,000                | 0.193                                  | 2,595                                     |
| 120  | Class 2 = stranded | 1.2                               | 18.9                        | 1,250                | 0.153                                  | 3,426                                     |
| 120  | Class 2 = stranded | 1.2                               | 18.9                        | 1,250                | 0.153                                  | 3,426                                     |
| 150  | Class 2 = stranded | 1.4                               | 21                          | 1,550                | 0.124                                  | 4,114                                     |
| 150  | Class 2 = stranded | 1.4                               | 21                          | 1,550                | 0.124                                  | 4,114                                     |
| 185  | Class 2 = stranded | 1.6                               | 23                          | 1,900                | 0.0991                                 | 4,997                                     |
| 185  | Class 2 = stranded | 1.6                               | 23                          | 1,900                | 0.0991                                 | 4,997                                     |
| 240  | Class 2 = stranded | 1.7                               | 26                          | 2,500                | 0.0754                                 | 6,413                                     |
| 240  | Class 2 = stranded | 1.7                               | 26                          | 2,500                | 0.0754                                 | 6,413                                     |
| 300  | Class 2 = stranded | 1.8                               | 29                          | 3,100                | 0.0601                                 | 7,839                                     |
| 300  | Class 2 = stranded | 1.8                               | 29                          | 3,100                | 0.0601                                 | 7,839                                     |
| 400  | Class 2 = stranded | 2                                 | 33                          | 3,100                | 0.047                                  | 9,955                                     |
| 400  | Class 2 = stranded | 2                                 | 33                          | 3,100                | 0.047                                  | 9,955                                     |
| 500  | Class 2 = stranded | 2.2                               | 37                          | 5,000                | 0.0366                                 | 12,683                                    |
| 500  | Class 2 = stranded | 2.2                               | 37                          | 5,000                | 0.0366                                 | 12,683                                    |
| 630  | Class 2 = stranded | 2.4                               | 41                          | 6,400                | 0.0283                                 | 16,124                                    |
| 630  | Class 2 = stranded | 2.4                               | 41                          | 6,400                | 0.0283                                 | 16,124                                    |
| 800  | Class 2 = stranded | 2.6                               | 46                          | 8,300                | 0.0221                                 | 20,998                                    |

## TECHNICAL DATA

| Nominal cross section conductor [mm <sup>2</sup> ] | Conductor category | Nominal thickness insulation [mm] | Nominal outer diameter [mm] | Cable weight [kg/km] | Conductor resistance at 20° C [Ohm/km] | Embodied Carbon [CO <sub>2</sub> e kg/km] |
|--|--------------------|-----------------------------------|-----------------------------|----------------------|--|---|
| 1,000  | Class 2 = stranded | 2.8                               | 51                          | 10,300               | 0.0176                                 | 26,827                                    |
| 1,000  | Class 2 = stranded | 2.8                               | 51                          | 10,300               | 0.0176                                 | 26,827                                    |

\*The embodied carbon figure is taken from a single product in the range, for more information on how we calculate our embodied carbon figure visit here: <https://uk.prysmiangroup.com/embodied-carbon>