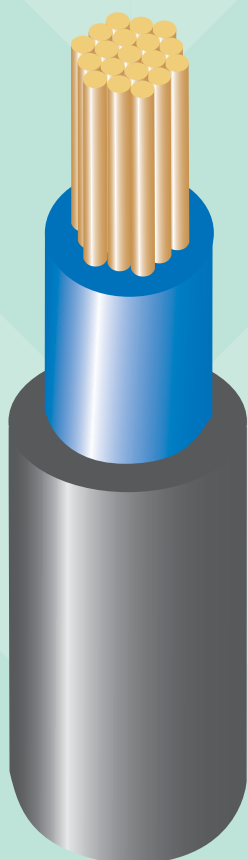


# Standard Power Cables

## Low Voltage (600/1000 V)

# XLPE Insulated, PVC Sheathed, Single Core Unarmoured Cables to BS7889



### Description

- > Single core CSA mm<sup>2</sup>. P.Cu. XLPE ins (BLUE or BROWN), PVC sheath overall. 600/1000V to BS7889

### Conductors

- > Plain annealed copper stranded circular conductor complying with BS EN 60228 Class 2

### Insulation

- > XLPE insulation complying with BS7655 requirements for type GP8

### Core Identification

- > Core coloured (BLUE or BROWN)

### Outer Sheath

- > PVC sheath complying with BS7655 requirements for Type 9

### Sheath Colour

- > Normally BLACK but other colours available upon request

### Flame Propagation

- > All these cables meet the requirements of BS EN 60332-1-2

### Installation

- > All cables should be installed in accordance with the appropriate regulations, including IEE, or any other national legislation

### Temperature Limits

- > All cables are suitable for operation in the range -15°C to +90°C, but should not be installed at temperatures below 0°C

### Health and Safety

- > Please refer to the Prysmian Cables and Systems Ltd leaflet 'Statement to Cable User's on the Health & Safety at Work Act 1974 and the Control of Substances Hazardous to Health Regulation (COSHH)



Temperature Range  
-15 to +90°C



Bending Radius  
Circular conductor  $r = 6D$



Mechanical Impact  
Medium



Fire Performance  
BS EN 60332-1-2



Flexibility  
Rigid

# XLPE Insulated, PVC Sheathed, Single Core Unarmoured Cables to BS7889

## Cable Details

Nominal cross sectional area	Minimum average thickness of insulation	Nominal thickness of oversheath	Approximate diameter overall	Minimum bending radius	Approximate cable weight	Maximum pulling eye force	Maximum DC resistance at 20°C	Maximum AC resistance at 90°C	Approximate Capacitance (cable to cable in Trefoil)	Approximate Inductance in Trefoil	Approximate Reactance @ 50Hz	Approximate Impedance @ 50Hz
mm <sup>2</sup>	mm	mm	mm	mm	kg/km	kg	Ohms/km	Ohms/km	uF/km	mH/km	Ohms/km	Ohms/km

### Single Core

50	1.0	1.4	13.1	60	535	250	0.387	0.494	0.462	0.311	0.098	0.504
70	1.1	1.4	15.1	70	745	350	0.268	0.342	0.501	0.304	0.096	0.356
95	1.1	1.5	16.7	70	1000	475	0.193	0.247	0.559	0.298	0.094	0.265
120	1.2	1.5	18.3	80	1245	600	0.153	0.196	0.588	0.294	0.093	0.217
150	1.4	1.6	20.2	90	1525	750	0.124	0.159	0.577	0.293	0.093	0.185
185	1.6	1.6	22.4	90	1900	925	0.0991	0.128	0.579	0.292	0.092	0.158
240	1.7	1.7	25.3	160	2450	1200	0.0754	0.097	0.621	0.286	0.090	0.132
300	1.8	1.8	28.1	170	3050	1500	0.0601	0.080	0.662	0.280	0.088	0.119
400	2.0	1.9	31.2	190	3875	2000	0.0470	0.064	0.673	0.280	0.088	0.109
500	2.2	2.0	34.6	210	4925	2000	0.0366	0.051	0.687	0.279	0.088	0.102
630	2.4	2.2	38.9	240	6250	2000	0.0283	0.042	0.711	0.278	0.088	0.098
800	2.6	2.3	43.6	270	8250	2000	0.0221	0.033	0.746	0.274	0.087	0.094
1000	2.8	2.4	50.8	310	10400	2000	0.0176	0.027	0.819	0.260	0.082	0.087

Nominal cross sectional area	Short Circuit Rating  1 Sec Short Circuit Rating of Conductor (90 to 250C)	Current Ratings (ERA 69-30 pt V)					Approximate Volt Drops			Standard current ratings from ERA 69-30 pt V  Ambient temperature (Air) 25°C	Variation in Temperature	
		In Air Horizontal Spaced Single Phase	In Air Vertical Spaced Single Phase	In Air Trefoil format on Three Phase	In Air Vertical Spaced Three Phase	In Air Horizontal Spaced Three Phase	Single Phase Spaced*	Three Phase Trefoil	Three Phase Spaced*		Temperature °C	In air rating
mm <sup>2</sup>	KA	Amps	Amps	Amps	Amps	Amps	mV/A/m	mV/A/m	mV/A/m			

### Single Core

50	7.1	289	268	223	260	289	1.00	0.87	0.89		15	-
70	10.0	366	342	284	331	366	0.73	0.61	0.65		20	-
95	13.6	452	423	352	411	452	0.56	0.45	0.49		25	1.0
120	17.2	527	495	412	482	527	0.47	0.37	0.42		30	0.96
150	21.4	604	570	475	554	604	0.41	0.31	0.37		35	0.92
185	26.4	699	662	551	644	699	0.36	0.26	0.33		40	0.88
240	34.3	835	792	658	772	834	0.31	0.22	0.29		45	0.83
300	42.9	966	919	761	896	965	0.29	0.195	0.27		50	0.78
400	57.2	1129	1077	887	1050	1127	0.27	0.175	0.26		55	0.73
500	71.5	1315	1257	1027	1226	1312	0.26	0.16	0.25			
630	90.1	1533	1469	1186	1434	1529	0.25	0.15	0.24			
800	114	1765	1694	1347	1655	1761	0.25	0.145	0.24			
1000	143	1993	1916	1503	1878	1993	0.24	0.14	0.24			

Note: The oversheath diameters are only approximate, if tolerance dimensions are required please specify at time of enquiry or order placement.

\* If the Cable Spacing is Larger than 1 cable diameter then the volt drop will be larger than those specified.

If current rating and buildings is required reference should be made to BS7671 (IEE Wiring Regs). Alternatively rating are as BS6724 cables.

## Certificate of Product Approval

Licensee:

**Prysmian Cables & Systems Ltd**

Chickenhall Lane, Eastleigh, SO50 6YU, Hampshire, United Kingdom

Factory:

Chickenhall Lane, Eastleigh, SO50 6YU, Hampshire, United Kingdom

Standard:

BS 7889:2012

Description:

Non-armoured power cables with PVC sheathing

Details:

N/A

Materials:

Insulation GP 8, Sheath Type 9

Brand Name:

N/A

Origin Mark:

PRYSMIAN (B) or (B) PRYSMIAN or BRITCABLE (B) or (B) BRITCABLE

### Permissible Approval Marks:

**BASEC**

BASEC name



BASEC roundel

Signed for and on behalf of  
BASEC Group Ltd

*Kieran O'Brien* Date: 06/07/2023

Date of original issue: 14/04/2014

Check BASEC website to verify validity.

Page 1 of 2

BASEC Group Ltd, Presley House, Presley Way, Milton Keynes, MK8 0ES, UK  
Registered in England No. 13950143, Tel: +44 (0)1908 267300  
Email: mail@basec.org.uk Web: www.basec.org.uk

BSF079 Issue 5 (20-03-2023)



Expiry date:  
**11/08/2026**



Certificate No:  
**017/004/320**

Issue No: 6

Type(s) and Range(s) of Approval

Table / Clause	Code Designation	Conductor Class	Range of Cores	Min Nominal Size -sqmm	Max Nominal Size - sqmm
2	N/A	Class 2	1	1.5	95

Signed for and on behalf of  
BASEC Group Ltd

*Kieran O'Brien* Date: 06/07/2023

Date of original issue: 14/04/2014

Check BASEC website to verify validity.



Expiry date:  
**11/08/2026**

## Certificate of Product Approval

Licensee:

**Prysmian Cables & Systems Ltd**

Chickenhall Lane, Eastleigh, SO50 6YU, Hampshire, United Kingdom

Factory:  
Oak Road

Wrexham Industrial Estate, Wrexham, LL13 9PH, Clwyd, United Kingdom

Standard:  
BS 7889:2012

Description:  
Non-armoured power cables with PVC sheathing

Details:  
N/A

Materials:  
Insulation GP 8, Sheath Type 9

Brand Name:  
N/A

Origin Mark:  
PRYSMIAN (W) or BRITCABLE (W)

### Permissible Approval Marks:

**BASEC**

BASEC name



BASEC roundel

Signed for and on behalf of  
BASEC Group Ltd

*Kieran O'Brien* Date: 20/07/2023

Date of original issue: 24/06/2001

Check BASEC website to verify validity.

Page 1 of 2

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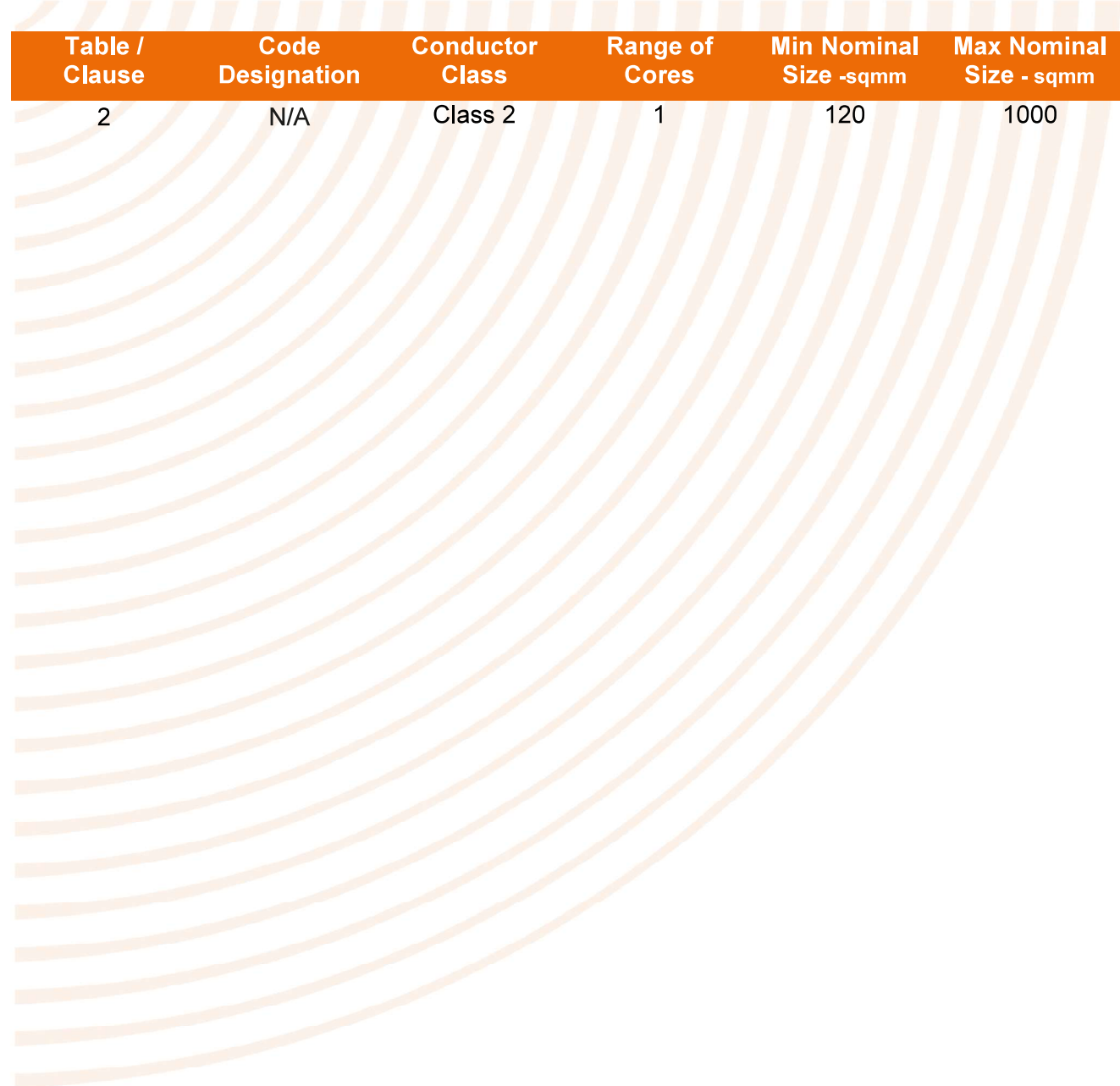


Certificate No:  
**017/006/081**

Issue No: 6

Type(s) and Range(s) of Approval

Table / Clause	Code Designation	Conductor Class	Range of Cores	Min Nominal Size -sqmm	Max Nominal Size - sqmm
2	N/A	Class 2	1	120	1000



Signed for and on behalf of  
BASEC Group Ltd

*Kieran O'Brien* Date: 20/07/2023

Date of original issue: 24/06/2001

Check BASEC website to verify validity.

Page 2 of 2

BASEC Group Ltd, Presley House, Presley Way, Milton Keynes, MK8 0ES, UK  
Registered in England No.13950143, Tel: +44 (0)1908 267300  
Email: mail@basec.org.uk Web: www.basec.org.uk

BSF079 Issue 5 (20-03-2023)



Expiry date:  
**11/08/2026**

**15<sup>th</sup> October 2015**

Peaceman Cable Engineering Ltd.  
Flat B, 6/F., Sui Ying Ind. Bldg  
No. 1 Yuk Yat Street, To Kwa Wan.  
Kowloon.  
Hong Kong.

Att: To All Concerned

**BS7889 Cable Diameter**

Due to the Wrexham facility switching to a more compact copper strand design which reduces the spacing between individual copper strands but still adhering to the required cross sectional area. This has led to improved manufacturing process control which has meant improved material usage, this in turn has led to a slight reduction in the overall cable diameters over the previously stated cable diameters for the BS7889 cable range.

If you require any further information please contact me.

Yours sincerely



**Andrew Chilton**

Export Sales Manager

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