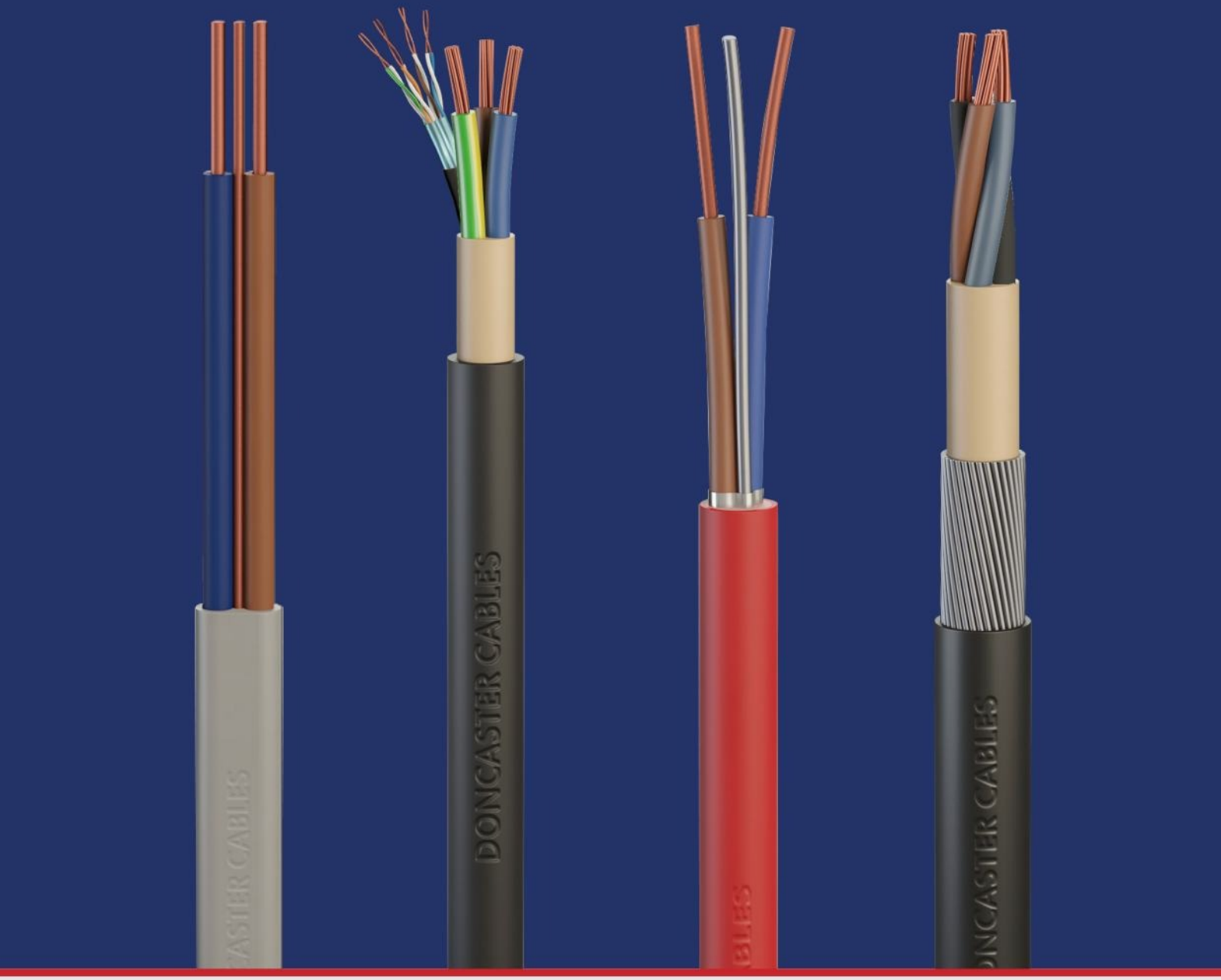
Doncaster Cables

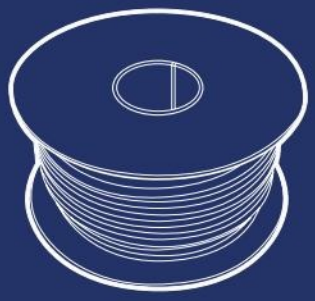
The Electricians Cable of Choice



Product Catalogue

ESTD

1984



Doncaster Cables is the largest British owned manufacturer of general wiring cables in the UK. Since 1984 we've been manufacturing cables to the highest British, European and International safety standards. Now trading for over 40 years, the Doncaster Cables brand offers the highest level of quality and reliability, which is something our customers have come to trust completely.

QUALITY, SAFETY, RELIABILITY AND TRUST.

These are the core values of Doncaster Cables at the heart of our manufacturing, sales and distribution processes.

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British Manufacturing Since 1984

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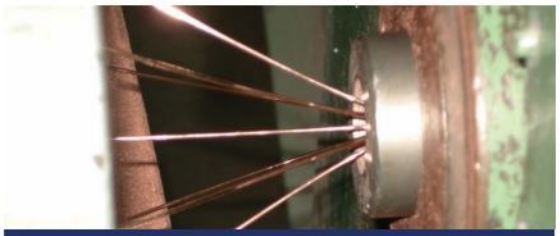

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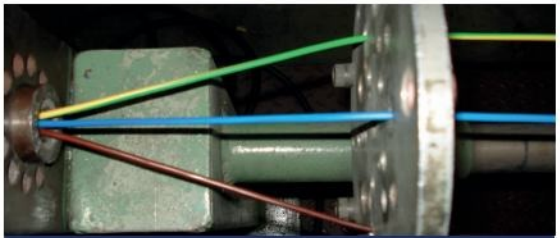

5. LAY UP

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9. HIGH VOLTAGE TESTING

8. SHEATH EXTRUSION

7. STEEL WIRE ARMOURING

6. BEDDING EXTRUSION

MANUFACTURING CAPABILITIES

Our 300,000 sq ft manufacturing facility in Doncaster, South Yorkshire is equipped to handle every aspect of cable manufacturing.

This means we control every element of the cable manufacturing process across 300 different product lines. Everything from wire drawing through to final cable winding is controlled by advanced plant and machinery, producing a high quality range of standard and specialist cables to meet the needs of wholesalers and electricians everywhere.

The factory manufactures everything from simple single core to complex multi-cored cables ranging in sizes from 0.22mm² to 185mm². The facility which is operational 24 hours a day, five days week can also operate throughout weekends whenever required. We also produce our own PVC insulating and sheathing materials used in the manufacture of our cables, giving us even greater control over quality.

DIRECT DELIVERY

We offer a range of first-class delivery services, covering all areas of the UK and Europe. We also offer delivery to the Middle East and Asia.

Our central UK location allows us to provide the highest levels of service to all our customers. This, combined with our dedication to customer service and industry renowned reliability, means that we can provide highly efficient Nationwide coverage and distribution.

We have cost effective export services and having established strong relationships with numerous international shipping and freight partners throughout the world, this now allows us to handle export requirement via air, road or sea freight.

QUALITY AND SAFETY

Our cables are subjected to stringent testing throughout the entire production process.

The majority of our cables conform not only to British, European and International standards, but also comply with a Quality Management System audited and approved by third party companies.

EXPERT KNOWLEDGE AND TECHNICAL ASSISTANCE

At Doncaster Cables our experienced staff have the skills and knowledge needed to maintain the stringent levels of quality we have set ourselves.

We continue to invest in modern cable making equipment with the aim of improving our production systems, product quality and customer service. Our specialist technical staff offer expert knowledge and assistance, which helps to resolve customer queries on a daily basis. We work with electrical wholesalers and contractors so they can deliver only the safest, industry approved cabling to their customers too.

Patented EV-Ultra®

The smart EV charging Installation solution

Power and data connectivity combined in one cable

Hard wired data connectivity is a superior and secure alternative to using WiFi, resulting in a faster, neater and easier installation process. Available in both PVC Tuff-Sheath and SWA variants. This cable is designed for use in the installation of electric vehicle charge points. The cable incorporates power conductors and a 2 core screened data cable, encapsulated in a double sheathed design for extra protection. These cables are designed to be installed in air, clipped to surface, on cable tray/ ladder work and embedded in concrete. The cables can be laid direct in the ground providing that suitable additional mechanical protection is in place.

EV-Ultra® Tuff-Sheath

EV-Ultra® SWA

EV-Ultra® Cat5 Tuff-Sheath

EV-Ultra® Cat5 SWA

Conductor:
Plain Annealed Copper
Class 2 Stranded to BS EN 60228

Insulation:
Thermosetting XLPE Type GP8 to BS 7655-1.3

Bedding:
CarbonTek®

Steel Wire Armour:
Galvanised steel wire armour (where applicable)

Sheathing:
CarbonTek®

Energy Monitor Cable:
2 Core Screened Energy Monitor Cable
Cat5e FTP – Foil Screened 4 Twisted Pair

Electrical Properties

	4.0mm²	6.0mm²
Maximum Current rating	45	58
Voltage Drop (mV/A/m)	12	7.9

Key benefits

- Power and data combined in one cable
- Less storage space required
- Easier to handle
- Easier to route through walls and building
- Saves installation time
- Gives a cleaner, neater looking installation

EV-ULTRA®

PVC Tuff-Sheathed or SWA Variants

STANDARD CORE COLOURS

3 CORE

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 90°C

MINIMUM BENDING RADIUS 8xØ

	Conductor Size	3 Core	5 Core	2 Core Data	4 Pair CAT5 Data	Steel Wire Armour	CarbonTek®
EV-ULTRA3C4.0	4.0mm²	✓		✓			✓
EV-ULTRA3C4.0SWA	4.0mm²	✓		✓		✓	✓
EV-ULTRA3C6.0	6.0mm²	✓		✓			✓
EV-ULTRA3C6.0SWA	6.0mm²	✓		✓		✓	✓
EV-ULTRA3C4.0CAT5	4.0mm²	✓			✓		✓
EV-ULTRA3C4.0CAT5SWA	4.0mm²	✓			✓	✓	✓
EV-ULTRA3C6.0CAT5	6.0mm²	✓			✓		✓
EV-ULTRA3C6.0CAT5SWA	6.0mm²	✓			✓	✓	✓
EV-ULTRA3C710.0CAT5	10mm²	✓			✓		✓
EV-ULTRA3C710.0CAT5SWA	10mm²	✓			✓	✓	✓
EV-ULTRA3C716.0CAT5	16mm²	✓			✓		✓
EV-ULTRA3C716.0CAT5SWA	16mm²	✓			✓	✓	✓
EV-ULTRA5C6.0CAT5	6.0mm²		✓		✓		✓
EV-ULTRA5C6.0CAT5SWA	6.0mm²		✓		✓	✓	✓
EV-ULTRA5C710.0CAT5	10mm²		✓		✓		✓
EV-ULTRA5C710.0CAT5SWA	10mm²		✓		✓	✓	✓
EV-ULTRA5C716.0CAT5SWA	16mm²		✓		✓	✓	✓
EV-ULTRAPLUS3C6.0	6.0mm²	✓			✓ ✓		✓
EV-ULTRAPLUS3C6.0SWA	6.0mm²	✓			✓ ✓		✓

Voltage 1 band

Defined as levels of voltage which are too low to provide serious electric shocks; effectively this limits the band to extra-low voltage (ELV), including telecommunications, signalling, bell, control and alarm circuits.

Voltage 2 band

Defined as all voltages which are used in electrical installations not included in Band I. This means that all 230V supplies are included in Band II.

Running data and power in a single cable is a concern for many electricians, with most believing that segregation of power (Band II) and data (Band I) is always required. It is however already common to find power and data inside one cable in many existing applications, an example is DALI networks which incorporate data within a 5 core power cable.

What do the regulations say?

Proximity of electrical services (extract from 528.1) - Except where one of the following methods is adopted, neither a Band I nor a Band II circuit shall be contained in the same wiring system as a circuit of nominal voltage exceeding that of low voltage, and a Band I circuit shall not be contained in the same wiring system as a Band II circuit. (i) - Every cable or conductor is insulated for the highest voltage present.

EV-Ultra® consists of power conductors and data cables that are rated to the same nominal voltage – therefore segregation of power and data is not required. Proximity of communications cables (extract from 528.2) - Special considerations of electrical interference, both electromagnetic and electrostatic, may apply to telecommunication circuits, data transfer circuits and the like. EV-Ultra® has been designed with these considerations in mind, it incorporates screened, twisted pair data cables and is also constructed with a lay length that reduces interference. Laboratory and on-site installation tests have also been conducted and no interference or degredation of signal was recorded.

PV-Ultra® is specially developed to meet the requirements of DC installations on photovoltaic systems.

Application

This cable is designed to meet the requirements of the DC interconnections between the solar panels and the other components of the photovoltaic system, such as the isolators and invertors.

PV-Ultra provides excellent mechanical properties, can be installed both internally and externally, and has been designed with high quality materials to achieve an anticipated lifespan of circa 25 years.

The cables are designed to operate at a normal maximum conductor temperature of 90°C, but for a maximum of 20,000 hours a max. conductor temperature of 120 °C at a max. ambient temperature of 90°C is permitted.

PV-Ultra has red and white core colours to comply with the latest requirements of BS7671 with regards to two-wire unearthed DC power circuits (BS7671 Table 51).

The double insulation of PV-Ultra ensures that the electrical equipment up to the DC connection of the PV inverter is Class II or equivalent insulation (as specified in BS7671 Clause 712.412.101).

PV Ultra is a multicore DC solution that previously was solved by a multicore armoured cable.
These multicore armoured cables are no longer recommended for use on the DC side of the installation.
PV Ultra can now serve as a direct replacement allowing for a compliant multicore solution.

The double insulated conductors are particularly suitable for use at the direct current (d.c.) side of the photovoltaic system, with a nominal d.c. voltage of 1.5kV between conductor and between conductor and earth. Due to the double insulation these cables are suitable to be used with Class II equipment (meeting the requirement of BS7671 Clause 712.412.101 which states that the electrical equipment up to the DC connection of the PV inverter shall be Class II or equivalent insulation)

The double insulated conductors are enclosed in a CarbonTek® bedding, to give even more electrical protection against the steel wire armour (where applicable), with a final outer sheathing of SolarTek® PVC being applied to all variants of the cable (steel wire armoured or not).

PV-Ultra is aesthetically similar to a mains power cable, as opposed to being similar in appearance to a coaxial cable. Which reduces the probability of homeowners/electricians/DIYers accidently cutting a live d.c. cable.

PV-Ultra also includes a yellow warning print that further highlights the hazard that these cables are live during daylight hours.

Conductor:
Tinned Annealed Copper Class 5 Flexible

Insulation:
Double insulated cross-linked and fulfilling the requirements of BS EN 50618 Annex B.

Sheath:
SolarTek®

Bedding:
CarbonTek®

STANDARD CORE COLOURS
2 CORE
4 CORE

MINIMUM OPERATING TEMPERATURE
-15°C

MAXIMUM OPERATING TEMPERATURE
90°C

Comments for the installer

PV-Ultra provides a quicker, easier and neater install and can be installed using normal cable accessories, cleats and/or clips and gives additional protection without the need for conduit installations. The cable can also remove the need for d.c. junction boxes in certain installations.

We have incorporated a built-in high-tensile rip cord to aid the stripping of the inner bedding. This removes the risk of causing damage to the inner cores when using traditional stripping methods such as cable knives, utility knives, or other stripping tools. This construction of the cable, and the inclusion of this high-tensile rip cord, mean that exposing the cable conductors is an easy process regardless of what length you need to strip back.

Standard MC4 connectors can be applied to the cores meaning that the termination and connection to panels is the same as when using traditional single core PV cables.

PV-Ultra allows for direct connections from the solar panels to the DC isolator/invertor every time, without the need to assess the route for whether conduits will be required, and without the need for junction boxes.

Understanding the product codes

	Conductor Size	2 Core	4 Core
PV-ULTRA2C4.0	4.0mm²	✓	
PV-ULTRA2C6.0	6.0mm²	✓	
PV-ULTRA4C4.0	4.0mm²		✓
PV-ULTRA4C6.0	6.0mm²		✓

Dimensional Details:

Product Code	Number & nominal CSA of conductors	Nominal overall diameter of bedding	Approx. overall diameter	Approx. weight
PV-ULTRA2C4.0	2 x 4.0mm²	12.6mm	15.0mm	335kg/km
PV-ULTRA2C6.0	2 x 6.0mm²	14.0mm	16.5mm	405kg/km
PV-ULTRA4C4.0	4 x 4.0mm²	15.3mm	17.7mm	585kg/km
PV-ULTRA4C6.0	4 x 6.0mm²	17.0mm	19.4mm	715kg/km

Weight and dimensional information is provided as an approximate guide only.

Current carrying capacities based on ambient temperature of 60°C , for temperatures above 60°C temperature derating factors should be applied as follows 70°C=0.91, 80°C=0.82, 90°C=0.71. Refer to BS7671 fur further guidance.

Features and Benefits

- Easier to handle
- Saves installation costs
- Saves installation time
- Easy polarity identification
- Easier to route along/through buildings or walls
- Reduces the risk of accidental damage
- Gives a cleaner, neater installation
- Safer as it removes the need for junction boxes
- Safer as it looks like a power cable

H1Z2Z2-K

Halogen free cable for photovoltaic equipment

Cable Construction

Type: EN50618:2014 H1Z2Z2-K 1x**mm2 DC 1500V

Product Standard: EN50618:2014

Insulation Material: Cross Linked Halogen Free compound, Black or White

Cover Material: Cross Linked Halogen Free compound, Black

Application

SolarSure® is a double insulated cable designed for interconnections between the solar panels and the other components of the photovoltaic system. The cables are suitable for fixed installations, and for both internal and external applications within conduits or systems. SolarSure® is also suitable for direct burial where appropriate mechanical protection is also applied. The cables are particularly suitable for installations where fire, smoke and toxic fumes would create risk to life and equipment due to their low smoke and none halogen design, and are also water resistant to AD8.

This range of cables meets the growing requirements of the renewable energy industry, with a particular focus on the solar energy sector which has achieved great success in capturing energy from our environment to supply sustainable energy to national and local energy networks.

SolarSure® meets the requirements of BSEN50618 which is the standard that superseded the original PV1-F specification originally set by TÜV Rheinland Group. Our cables are TÜV approved and have been subjected to extensive testing to ensure they are resilient and durable, with an anticipated lifespan of approximately 25 years.

SOLARSURE®
Halogen free cable for photovoltaic equipment

Product Details:

Cross Section (mm^2)	Construction (No./mm±0.008) Tinned copper wire	DIA. (mm)	Insulation Thickness (mm)		Insulation Od. (mm±0.15)	Jacket Thickness (mm)		Cable Od. (mm±0.2)
			Avg.	Min.		Avg.	Min.	
1x2.5	49/0.25	2.02	0.7	0.53	3.60	0.8	0.58	5.4
1x4	56/0.283	2.46	0.7	0.53	3.90	0.8	0.58	5.6
1x6	84/0.283	3.02	0.7	0.53	4.60	0.8	0.58	6.3
1x10	146/0.283	4.00	0.7	0.53	7.00	0.8	0.58	7.8
1x16	228/0.283	5.00	0.7	0.53	0.53	0.9	0.67	9.3

The class of the conductor shall be Class 5 in accordance with IEC 60228.

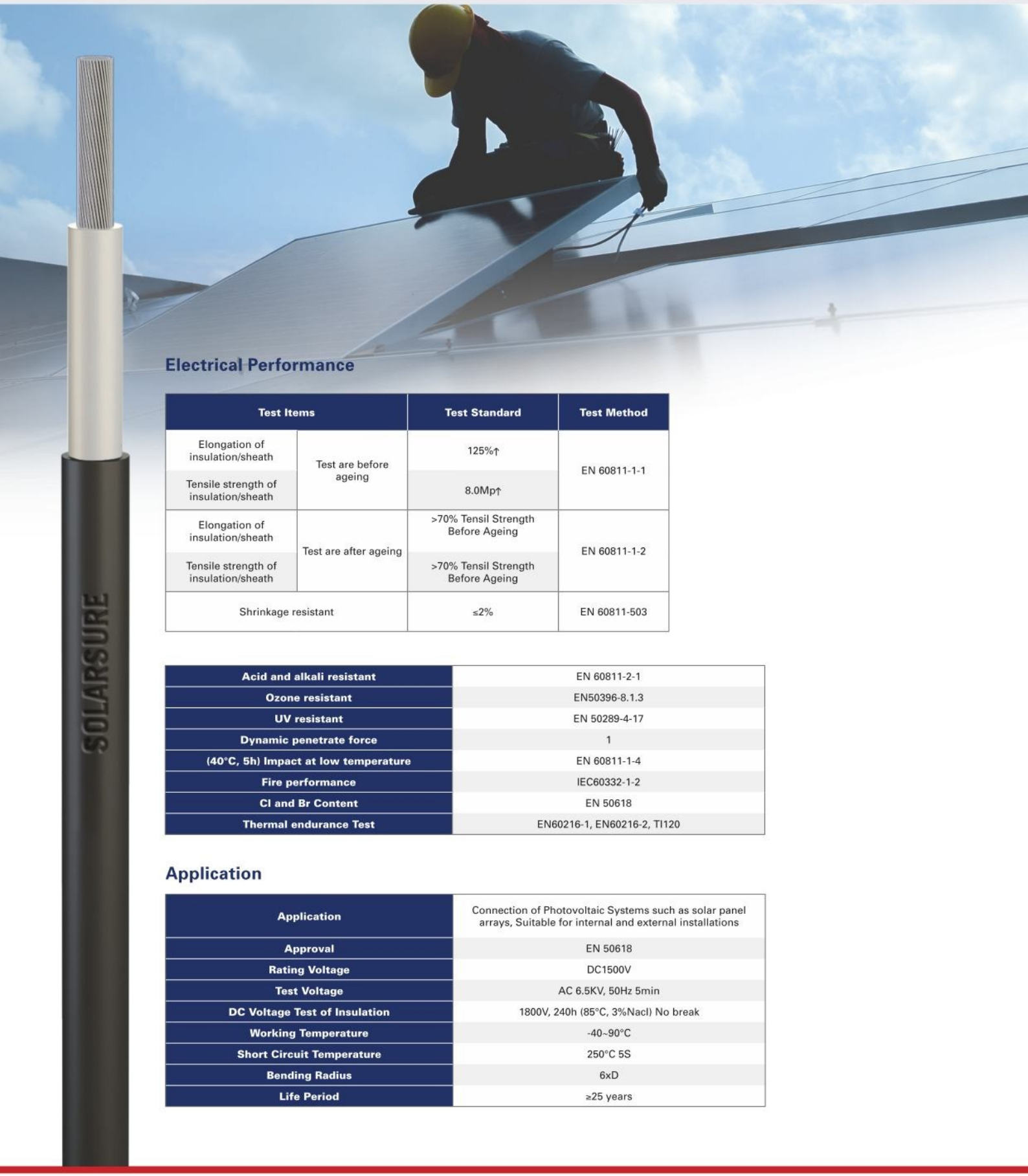
Electrical Properties:

Cross Section(mm^2)	1x2.5	1x4	1x6	1x10	1x16
Conductor Max. Resistance AT 20°C (Ω/km)	7.98	5.09	3.39	1.95	1.24
Insulation Min. Resistance AT 20°C (MΩ·km)	690	579	499	419	339
Insulation Min. Resistance AT 90°C (MΩ·km)	0.69	0.579	0.499	0.419	0.339

Current Rating Ambient Temperature - AMPS

Cross Section (mm^2)	Single Cable Free in Air	Single Cable Free on Surface	Two Loaded Cables Touching, on a Surface
1x4	55	52	44
1x6	70	67	57
1x10	98	93	79
1x16	132	125	107

Ambient Temperature	60°C
Max. Conductor Temperature	120°C



Electrical Performance

Test Items		Test Standard	Test Method
Elongation of insulation/sheath	Test are before ageing	125%↑	EN 60811-1-1
Tensile strength of insulation/sheath		8.0Mp↑	
Elongation of insulation/sheath	Test are after ageing	>70% Tensil Strength Before Ageing	EN 60811-1-2
Tensile strength of insulation/sheath		>70% Tensil Strength Before Ageing	
Shrinkage resistant		≤2%	EN 60811-503

Acid and alkali resistant	EN 60811-2-1
Ozone resistant	EN50396-8.1.3
UV resistant	EN 50289-4-17
Dynamic penetrate force	1
(40°C, 5h) Impact at low temperature	EN 60811-1-4
Fire performance	IEC60332-1-2
Cl and Br Content	EN 50618
Thermal endurance Test	EN60216-1, EN60216-2, TI120

Application

Application	Connection of Photovoltaic Systems such as solar panel arrays, Suitable for internal and external installations
Approval	EN 50618
Rating Voltage	DC1500V
Test Voltage	AC 6.5KV, 50Hz 5min
DC Voltage Test of Insulation	1800V, 240h (85°C, 3%Nacl) No break
Working Temperature	-40~90°C
Short Circuit Temperature	250°C 5S
Bending Radius	6xD
Life Period	≥25 years

Powerwall Connect – AC-AC Battery Cable

Designed and tested with TESLA Engineers to provide an easy solution for Powerwall installations.

Cable Construction

Power Conductors
Conductor: Plain Annealed Copper Class 2 Stranded to BS EN 60228
Insulation: Thermosetting XLPE Type GP8 to BS 7655-1.3

12V Supply
Conductor: Plain Annealed Copper Class 1 Solid to BS EN 60228
Insulation: Specially formulated PVC

Powerwall Communication Port Data Cables
Conductor: Annealed Copper Class 5 to BS EN 60228
Insulation: Specially formulated PVC
Core Colours: Yellow and Grey
Drain Wire: Tinned Copper
Screen: High coverage Tinned Copper 'Super Screen'
Sheath: Specially formulated PVC

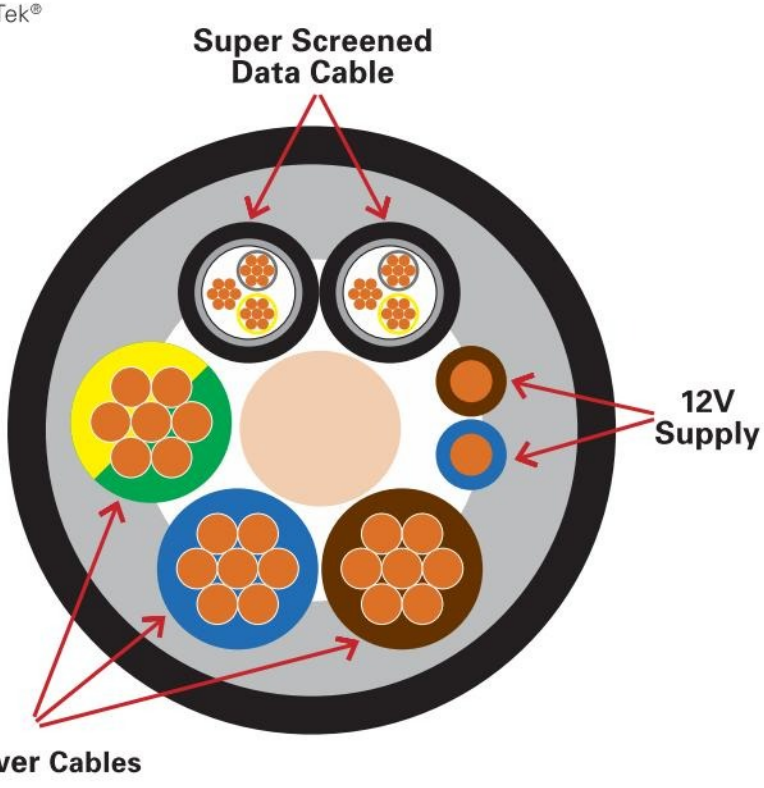
Inner Protective Bedding
Material: Specially developed 'CarbonTek® S' Material

Outer Jacket
Material: Specially developed CarbonTek® Sheathing Compound
Impact resistant / Abrasion Resistant / Temperature Resistant / UV Stable

Weights and Dimensions

Overall Diameter:
Approximately 19mm

Weight:
530 kg/km



General Wiring
PVC

The General PVC Wiring range includes: Single Core PVC Insulated, PVC Sheathed Cables | PVC Insulated, PVC Sheathed with full size Circuit Protective Conductor | PVC Insulated, PVC Sheathed Cables with Circuit Protective Conductor | Single Core Conduit Cables

6181Y
Single Core PVC Insulated, PVC Sheathed Cables

Designed for use in light industrial and domestic wiring. These cables are particularly suited for installation as meter tails and are intended for fixed installation in dry or damp premises.

These cables can be installed in conduit, in cable trunking and in cable ducting. Or where there is deemed little risk of mechanical damage these cables can be clipped direct, on cable tray, embedded or in free air. These cables are not intended to be laid underground.

Manufactured to BS 6004 Table 3

Annealed Stranded Copper Conductor / PVC Insulated / PVC Sheathed. 300/500V

Conductor:
Plain Annealed Copper
Class 1 or 2 to BS EN 60228

Insulation:
PVC Type TI1 to BS EN 50363-3

Sheathing:
PVC Type 6 to BS7655-4.2

Current Ratings:
For current ratings refer to table 4D1 of BS7671 wiring regulations.

STANDARD CORE COLOURS

1 CORE  OR 

Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal radial thickness of insulation (mm)	Nominal radial thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
6181Y1.0	National Type	1.0	1 / 1.13	0.6	0.8	3.8	4.5	26
6181Y1.5	National Type	1.5	1 / 1.38	0.7	0.8	4.2	4.9	35
6181Y2.5	National Type	2.5	1 / 1.78	0.8	0.8	4.8	5.8	55
6181Y4.0	National Type	4.0	7 / 0.85	0.8	0.9	5.4	6.8	75
6181Y6.0	National Type	6.0	7 / 1.04	0.8	0.9	6.0	7.4	95
6181Y710	National Type	10.0	7 / 1.35	1.0	0.9	7.2	8.8	155
6181Y716	National Type	16.0	7 / 1.70	1.0	1.0	8.4	10.5	225
6181Y725	National Type	25.0	7 / 2.14	1.2	1.1	10.0	12.5	340
6181Y725F	National Type	25.0	19 / 1.28	1.2	1.1	10.0	12.5	340
6181Y735	National Type	35.0	7 / 2.52	1.2	1.1	11.0	13.5	445

6241Y / H6242Y / H6243Y

PVC Insulated, PVC Sheathed Cables with Circuit Protective Conductor

Designed for use in light industrial and domestic wiring. These cables are intended for fixed installation in dry or damp premises.

These cables can be installed in conduit, in cable trunking and in cable ducting. Or where there is deemed little risk of mechanical damage these cables can be clipped direct, on cable tray, embedded or on free air. These cables are not intended to be laid underground.

Manufactured to BS 6004 Table 4

Plain Annealed Copper Conductor / PVC Insulated / PVC Sheathed with bare Circuit Protective Conductor. 300/500V.

Conductor:
Plain Annealed Copper
Class 1 or 2 to BS EN 60228

Insulation:
PVC Type TI1 to BS EN 50363-3

Sheathing:
PVC Type 6 to BS7655-4.2

Current Ratings:
For current ratings refer to table 4D1 of BS7671 wiring regulations

STANDARD CORE COLOURS

1 CORE ● OR ●
2 CORE ● ●
3 CORE ● ● ●

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 70°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Number and Nominal Cross Sectional Area of Conductors (mm²)	Nominal Stranding of Conductor (mm)	Nominal Stranding of CPC (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of Sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)
6241Y	1 x 1.0	1 / 1.13	1 / 1.13 (1.0mm²)	0.6	0.9	4.0 x 5.1	5.2 x 6.4
6241Y	1 x 1.5	1 / 1.38	1 / 1.13 (1.0mm²)	0.7	0.9	4.4 x 5.4	5.8 x 7.0
H6242Y	2 x 1.0	1 / 1.13	1 / 1.13 (1.0mm²)	0.6	0.9	4.0 x 7.2	4.7 x 8.6
H6242Y	2 x 1.5	1 / 1.38	1 / 1.13 (1.0mm²)	0.7	0.9	4.4 x 8.2	5.4 x 9.6
H6242YST	2 x 1.5	7 / 0.53	1 / 1.13 (1.0mm²)	0.7	0.9	4.5 x 8.4	6.6 x 10.0
H6242Y	2 x 2.5	1 / 1.78	1 / 1.38 (1.5mm²)	0.8	1.0	5.2 x 9.8	6.2 x 11.5
H6242YST	2 x 2.5	7 / 0.67	1 / 1.38 (1.5mm²)	0.8	1.0	5.2 x 9.8	6.6 x 12.0
H6242Y	2 x 4.0	7 / 0.85	1 / 1.38 (1.5mm²)	0.8	1.0	5.6 x10.5	7.2 x 13.0
H6242Y	2 x 6.0	7 / 1.04	1 / 1.78 (2.5mm²)	0.8	1.1	6.4 x 12.5	8.0 x 15.0
H6242Y	2 x 10.0	7 / 1.35	7 / 0.85 (4.0mm²)	1.0	1.2	7.8 x 15.5	9.6 x 19.0
H6242Y	2 x 16.0	7 / 1.70	7 / 1.04 6.0mm²)	1.0	1.3	9.8 x 18.0	11.0 x 22.5
H6243Y	3 x 1.0	1 / 1.13	1 / 1.13 (1.0mm²)	0.6	0.9	4.0 x 9.6	4.7 x 11.0
H6243Y	3 x 1.5	1 / 1.38	1 / 1.13 (1.0mm²)	0.7	0.9	4.4 x 10.5	5.4 x 12.5
H6243Y	3 x 2.5	1 / 1.78	1 / 1.38 (1.5mm²)	0.8	1.0	5.2 x 12.5	6.2 x 14.5

6491X (H07V-U / H07V-R)
PVC Insulated Single Core Conduit Cable

These cables are intended for installation in surface mounted or embedded conduits, or similar closed systems. These cables are suitable for use in channels with cover. Suitable for fixed protected installation in or on light fittings and inside applications, switchgear and controlgear, for voltages up to 750V a.c or up to 450V to earth d.c. When installed in an earthed metal enclosure, cables are suitable for voltages up to 1000V a.c or up to 750V to earth d.c. underground.

Manufactured to BS EN 50525-2-31:2011 Clause 4.1, Table B.1

Annealed Copper Conductor / PVC Insulated. 450/750V*.

Conductor:
Plain Annealed Copper Class 1 or 2 to BS EN 60228

Current Ratings:
For current ratings refer to table 4D1 of BS7671 wiring regulations.

Insulation:
PVC Type TI1 to BS EN 50363-3

STANDARD CORE COLOURS
(Other colours available)

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 70°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
6491X	HO5V-U	1.0*	1 / 1.13	0.6	2.2	2.7	15
6491X	HO7V-U	1.5	1 / 1.38	0.7	2.6	3.2	21
ST91X	HO7V-R	1.5	7 / 0.53	0.7	2.7	3.3	21
6491X	HO7V-U	2.5	1 / 1.78	0.8	3.2	3.9	33
ST91X	HO7V-R	2.5	7 / 0.67	0.8	3.3	4.0	35
6491X	HO7V-R	4.0	7 / 0.85	0.8	3.8	4.6	50
6491X	HO7V-R	6.0	7 / 1.04	0.8	4.3	5.2	70
6491X	HO7V-R	10.0	7 / 1.35	1.0	5.6	6.7	120
6491X	HO7V-R	16.0	7 / 1.70	1.0	6.4	7.8	175
6491X	HO7V-R	25.0	7 / 2.14	1.2	8.1	9.7	290
6491X	HO7V-R	35.0	7 / 2.52	1.2	9.0	10.9	400
6491X	HO7V-R	50.0	19 / 1.78	1.4	10.6	12.8	565
6491X	HO7V-R	70.0	19 / 2.14	1.4	12.1	14.6	770
6491X	HO7V-R	95.0	19 / 2.52	1.6	14.1	17.1	1010
6491X	HO7V-R	120.0	37 / 2.03	1.6	15.6	18.8	1260
6491X	HO7V-R	150.0	37 / 2.25	1.8	17.3	20.9	1522
6491X	HO7V-R	185.0	37 / 2.52	2.0	19.3	23.3	1900
6491X	HO7V-R	240.0	61 / 2.25	2.2	22.0	26.6	2490
6491X	HO7V-R	300.0**	61 / 2.52	2.4	24.5	29.6	3100

Metre Tail Packs

6181Y (Blue/Grey and Brown/Grey

Manufactured to BS 6004 Table 3 Annealed Copper Conductor / PVC Insulated / PVC Sheathed. 300/500V

Conductor:
Plain Annealed Copper Class 2 to BS EN 60228

Insulation:
PVC Type TI1 to BS EN 50363-3

Sheath:
PVC Type 6 to BS7655-4.2

Current Ratings:
For current ratings refer to table 4E2 of BS7671 wiring regulations.

6491X (Green/Yellow)

Manufactured to BS EN 50525-2-31 Clause 4.1. Table B.1. Annealed Copper Conductor / PVC Insulated. 450/700V

Conductor:
Plain Annealed Copper Class 2 to BS EN 60228

Insulation:
PVC Type TI1 to BS EN 50363-3

Flexible meter tails

Pre-cut meter tail packs available in various length and in either standard or 'easi-fit' flexible conductors.

- Extra flexibility
- Easier to work with
- Easier to install in tight spaces
- Less effort required

Product Code	Cable size mm²	Length of cable in m	Description
MTP1 16.0	16	1	1 metre tail pack (2 x 6181Y 16mm² & 1 x 6491X 16mm²
MTP2 16.0	16	2	2 metre tail pack (2 x 6181Y 16mm² & 1 x 6491X 16mm²
MTP3 16.0	16	3	3 metre tail pack (2 x 6181Y 16mm² & 1 x 6491X 16mm²
MTP1 25.0	25	1	1 metre tail pack (2 x 6181Y 25mm² & 1 x 6491X 16mm²
MTP2 25.0	25	1	1 metre tail pack (2 x 6181Y 25mm² & 1 x 6491X 16mm²
MTP3 25.0	25	2	2 metre tail pack (2 x 6181Y 25mm² & 1 x 6491X 16mm²
MTPF1 25.0	25	3	3 metre tail pack (2 x 6181Y 25mm² & 1 x 6491X 16mm²
MTPF2 25.0	25	1	1 metre tail pack (2 x 6181Y 25mm² 19 strand & 1 x 6491X 16mm²
MTPF3 25.0	25	3	3 metre tail pack (2 x 6181Y 25mm² 19 strand & 1 x 6491X 16mm²
MTP5 16.0	16	5	5 metre tail pack (2 x 6181Y 16mm² & 1 x 6491X 16mm²)
MTP5 25.0	25	5	5 metre tail pack (2 x 6181Y 25mm² & 1 x 6491X 16mm²)

Also available in Blue/Blue and Brown/Brown

GENERAL WIRING PVC
Lighting Cable

1/0.8mm Copper with heat resisting insulation

This cable is manufactured generally to BS EN 50525-2-31:2011 where applicable.

Conductor:
Plain Annealed Copper Class 1 Solid to BSEN60228

Insulation:
Heat Resisting PVC Type TI3 to BS EN 50363-3

This cable is primarily used for internal wiring of lighting products. It consists of a single solid conductor (allowing for easy termination) and a heat resisting PVC insulation.

Voltage Rating = 300/500V
Maximum Conductor Operating Temperature = 105°C
Spark Test Voltage = 6kV AC or 9kV DC
Short Circuit Rating = 22A for 5s or 50A for 1s
Continuous Current Rating = 3A

STANDARD CORE COLOURS
As Requested

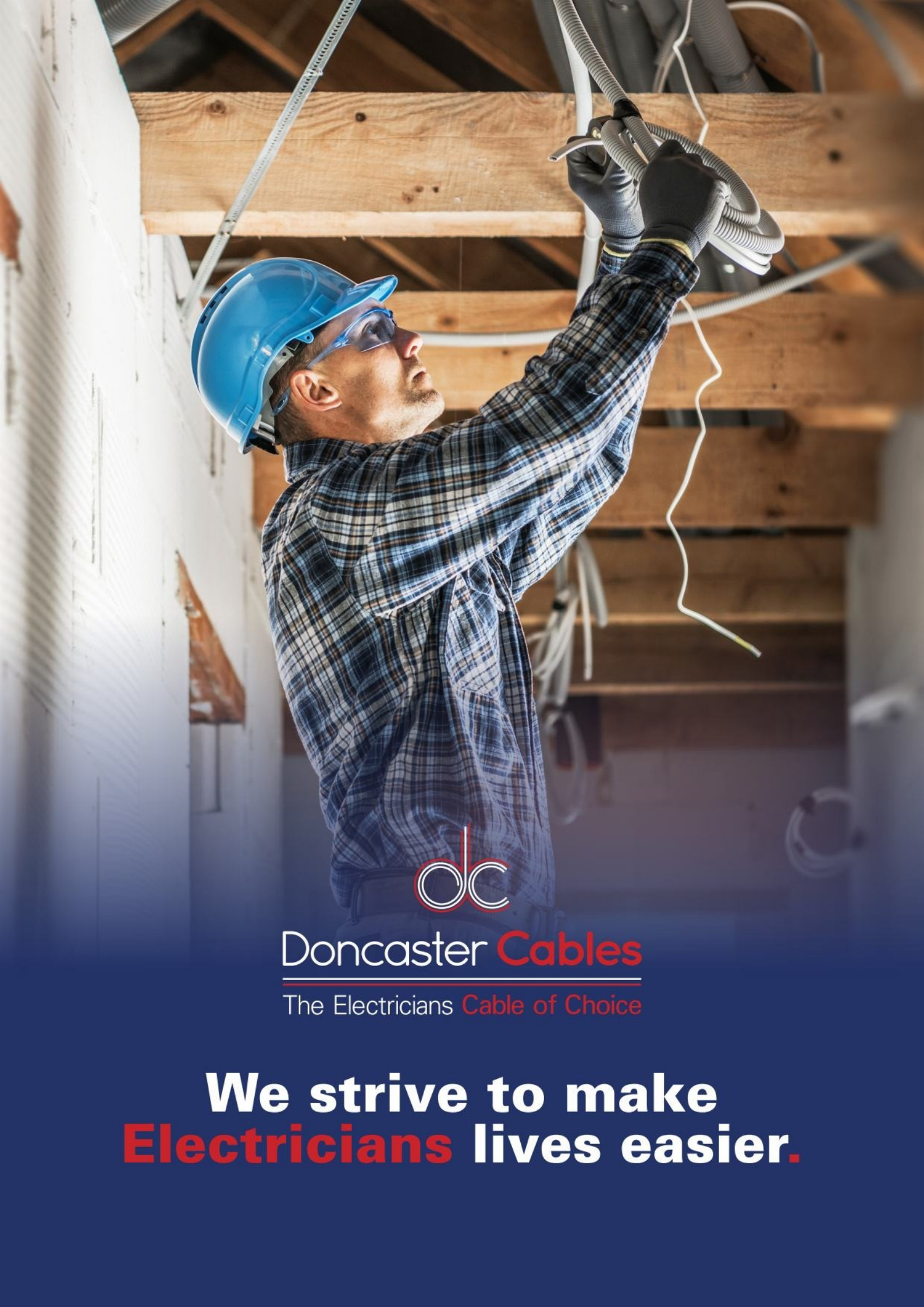
MINIMUM OPERATING TEMPERATURE
-15°C

MAXIMUM OPERATING TEMPERATURE
105°C

MINIMUM BENDING RADIUS
6xØ

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Approx. Overall Dimensions (mm)	Approx. Weight (kg/km)
LC0.5	0.5	1 / 0.8	0.6	2.3	8.6



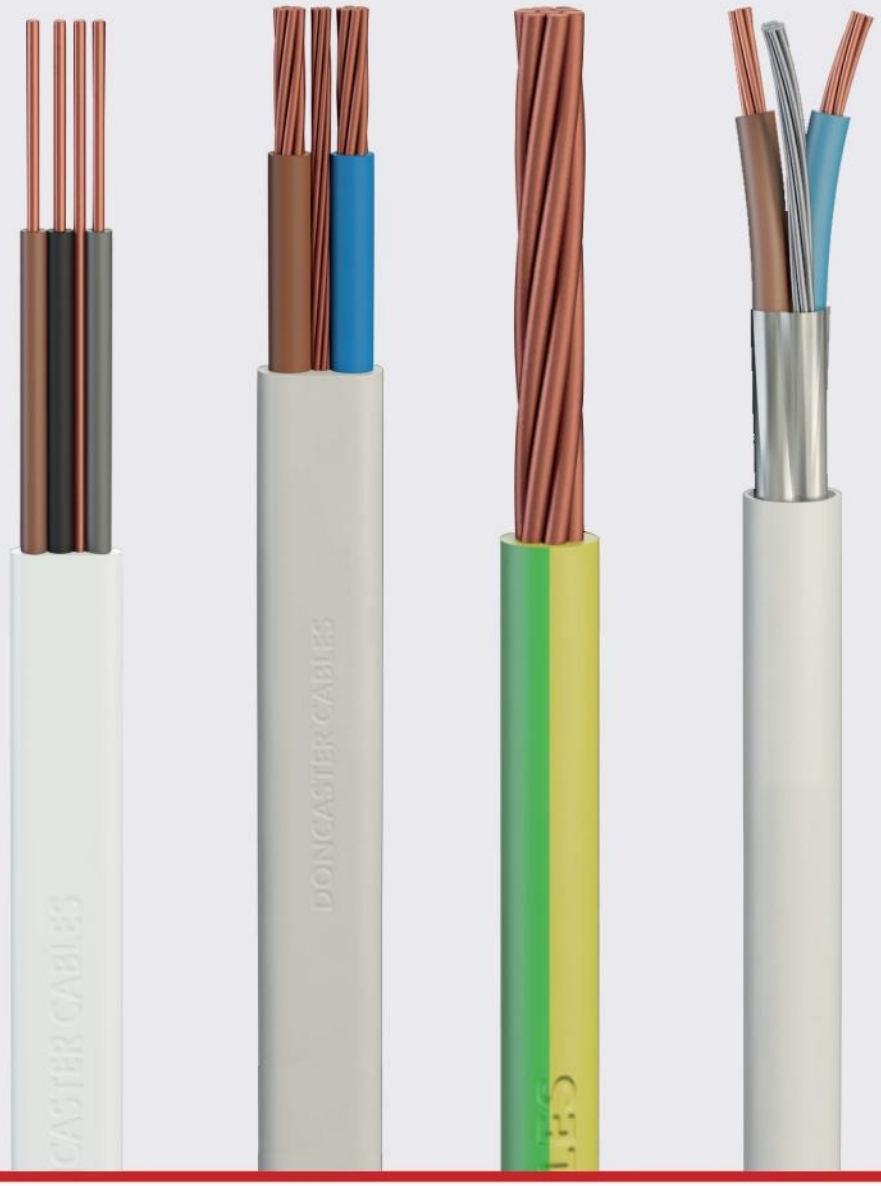
Doncaster Cables

The Electricians Cable of Choice

We strive to make Electricians lives easier.

General Wiring
LSNH

The General LSNH Wiring range includes: Single Core XLPE Insulated and LSNH Sheathed | Multiuse Screened/Protected fixed Wiring Cable | PVC Insulated Single Core Conduit Cable | Thermosetting LSNH Insulated non sheathed Single Core Cable



BS8436 Multiuse Protected Fixed Wiring Cable

This cable is manufactured to BS8436 - which means that it is a protected fixed wiring cable. The protection is given by an aluminium tape which is adhered to the outer sheath of the cable. This cable design provides a fail safe when used in an electrical circuit that is penetrated by nailsor other sharp metalic objects.

These cables can be installed in conduit, in cable trunking and in cable ducting. Or where there is deemed little risk of mechanical damage these cables can be clipped direct, on cable tray, embedded or in free air. These cables are not intended to be laid underground.

BS8436 Multiuse Cable

Screened/protected fixed wiring cable

These cables are intended for installation in air (which includes installation in trunking or other closed systems), and in thin partitions and building voids when connected to a suitably selected protective device. Providing that the design and installation is carried out in accordance with BS7671 the cable can also be installed in ductwork, behind plaster, indoors and outdoors (where suitably protected) Key benefits to using Multiuse cable are that it is quick to install, lightweight, flexible and pliable - all these features result in a pre-shielded cable which is easy to install and easily dressed.

However, the main advantages of Multiuse cable can be found when being installed in floors, ceilings, thin walls and partitions. Multiuse can be used as a solution to meeting BS7671:2008 clauses 522.6.100 to 522.6.103 - which relate to concealed cables at a depth of less than 50mm.

Manufactured to BS 8436 Table 1

Plain Annealed Copper Conductors / XLPE Insulated / Tinned Copper Circuit Protective Conductor / Laminated Aluminium Tape Screen / Thermoplastic Low Smoke Non-Halogen (LSNH) Sheath. 300/500V

Conductor:
Plain Annealed Copper Class 1 or 2 to BS EN 60228

Insulation:
Thermosetting XLPE Type GP8 to BS 7655-1.3

Sheath:
Thermoplastic LSNH Type LTS 3 to BS 7655-6.1

Current Ratings:
For current ratings refer to table 4D1 of BS7671 wiring regulations.

Screen:
Laminated Aluminium Screen In Direct Contact with tinned annealed copper CPC. Providing excellent earthing characteristics.

BS8436 Multiuse

Screened/protected fixed wiring cable

Product Details:

Product Code	Nominal Cross Sectional Area of Conductors (mm^2)	Nominal Stranding of Conductor (mm)	Nominal Stranding of CPC (mm)	Nominal radial thickness of insulation (mm)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
HMU2C1.5	2 x 1.5	7 / 0.53	7 / 0.53	0.7	7.6	98
HMU2C2.5	2 x 2.5	7 / 0.67	7 / 0.67	0.7	8.5	143
HMU2C4.0	2 x 4.0	7 / 0.85	7 / 0.85	0.7	9.7	193
HMU2C6.0	2 x 6.0	7 / 0.04	7 / 0.04	1.0	12.3	284
HMU3C1.5	3 x 1.5	7 / 0.53	7 / 0.53	0.7	8.4	135
HMU3C2.5	3 x 2.5	7 / 0.67	7 / 0.67	0.7	9.6	199
HMU3C4.0	3 x 4.0	7 / 0.85	7 / 0.85	0.7	11.0	244
HMU4C1.5	4 x 1.5	7 / 0.53	7 / 0.53	0.7	9.4	201
HMU4C2.5	4 x 2.5	7 / 0.67	7 / 0.67	0.7	10.5	221
HMU4C4.0	4 x 4.0	7 / 0.85	7 / 0.85	0.7	12.5	304
HMU4C6.0	4 x 6.0	7 / 1.04	7 / 1.04	1.0	16.2	428

H6241B / H6242B / H6243B
XLPE Insulated and LSNH Sheathed Flat Cables With Bare CPC

These cables are designed to be used in installations where smoke and acid gas emission would pose a major hazard in the event of a fire. Designed for use in light industrial and domestic wiring. These cables are intended for fixed installation in dry or damp premises.

These cables can be installed in conduit, in cable trunking and in cable ducting. Or where there is deemed little risk of mechanical damage these cables can be clipped direct, on cable tray, embedded or in free air. These cables are not intended to be laid underground.

Manufactured to BS 7211:2012 Table 5

Plain Annealed Copper Conductor / XLPE Insulated / LSNH Sheathed with bare Circuit Protective Conductor. 300/500V.

Conductor:
Plain Annealed Copper Class 1 or 2 to BS EN 60228

Insulation:
Thermosetting XLPE Type GP8 to BS 7655-1.3

Sheath:
Thermoplastic LSNH Type LTS 2 to BS 7655-6.1

Current Ratings:
For current ratings refer to table 4E2 of BS7671 wiring regulations.

STANDARD CORE COLOURS
1 CORE OR
2 CORE
3 CORE

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 90°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Number and Nominal Cross Sectional Area of Conductors (mm²)	Nominal Stranding of Conductor (mm)	Nominal Stranding of CPC (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of Sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
6241B1.5	1 x 1.5	1 / 1.38	1 / 1.13 (1.0mm²)	0.7	0.9	4.4 x 5.4	5.3 x 6.6	56
H6242B1.0	2 x 1.0	1 / 1.13	1 / 1.13 (1.0mm²)	0.7	0.9	4.1 x 7.6	5.0 x 9.1	64
+H6242B1.5	2 x 1.5	1 / 1.38	1 / 1.13 (1.0mm²)	0.7	0.9	4.4 x 8.1	5.3 x 9.7	80
H6242B2.5	2 x 2.5	1 / 1.78	1 / 1.38 (1.5mm²)	0.7	1.0	4.9 x 9.3	6.0 x 11.2	108
H6242B4.0	2 x 4.0	7 / 0.85	1 / 1.38 (1.5mm²)	0.7	1.0	5.5 x 10.4	6.7 x 12.6	158
H6242B6.0	2 x 6.0	7 / 1.04	1 / 1.78 (2.5mm²)	0.7	1.1	6.2 x 12.0	7.5 x 14.6	225
H6242B710	2 x 10.0	7 / 1.35	7 / 0.85 (4.0mm²)	0.7	1.2	7.3 x 14.5	8.8 x 17.6	405
H6242B716	2 x 16.0	7 / 1.70	7 / 1.04 (6.0mm²)	0.7	1.3	8.4 x 17.0	10.1 x 20.5	561
H6243B1.0	3 x 1.0	1 / 1.13	1 / 1.13 (1.0mm²)	0.7	0.9	4.1 x 10.0	5.1 x 12.1	86
H6243B1.5	3 x 1.5	1 / 1.38	1 / 1.13 (1.0mm²)	0.7	0.9	4.4 x 10.7	5.3 x 12.9	111

+Available with 2 brown cores—one skinned for easier identification.

6491B (H07Z-R)

Thermosetting LSNH Insulated non sheathed single Core Cable

These cables are designed to be used in installations where smoke and acid gas emission would pose a major hazard in the event of a fire. They are intended for installation in surface mounted or embedded conduits, or similar closed systems. These cables are suitable for use in channels with cover. Suitable for fixed protected installation in or on light fittings and inside applications, switchgear and controlgear, for voltages up to 750V a.c or up to 450V to earth d.c.

Manufactured to BS EN 50525-3-41:2011 Clause 4.1, Table B.1

Plain Annealed Copper Conductor / Thermosetting LSNH
(Low Smoke Non Halogen) Insulated. Single Core. 450/750V

Conductor:
Plain Annealed Copper Class 2 to BS EN 60228

Insulation:
LSNH Thermosetting Type EI5 to BS EN 50363-5

Current Ratings:
For current ratings refer to table 4E1 of BS7671 wiring regulations.

STANDARD CORE COLOURS

(Other colours available)

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 90°C

MINIMUM BENDING RADIUS 6xØ

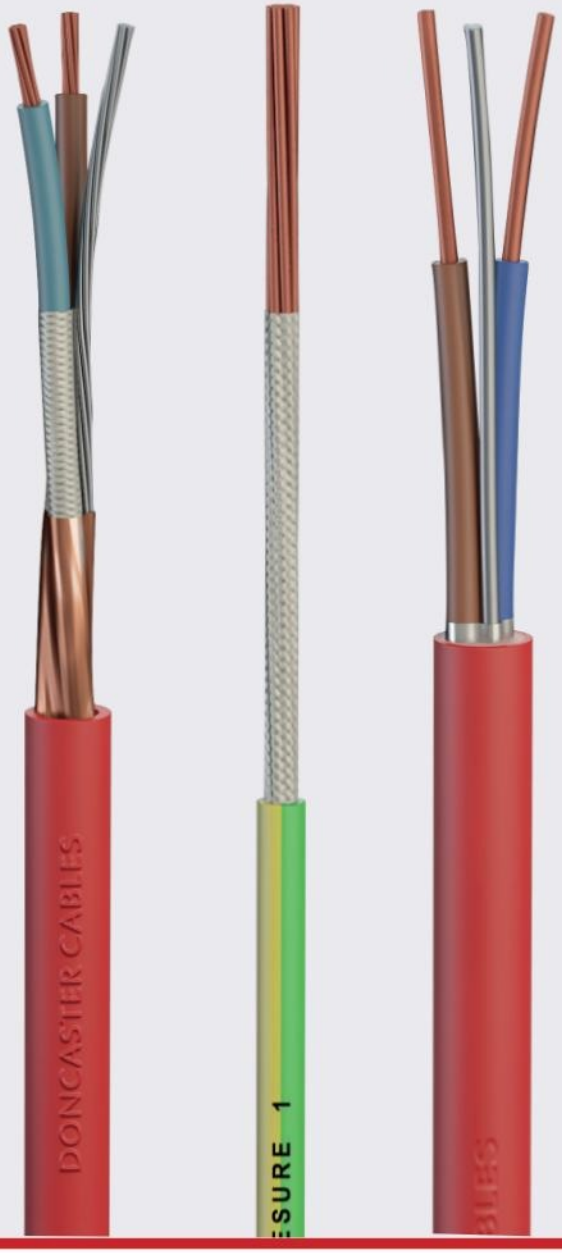
Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
6491B1.5	HO7Z-R	1.5	7 / 0.53	0.7	2.7	3.4	21
6491B2.5	HO7Z-R	2.5	7 / 0.67	0.8	3.3	4.1	35
6491B4.0	HO7Z-R	4.0	7 / 0.85	0.8	3.8	4.7	50
6491B6.0	HO7Z-R	6.0	7 / 1.04	0.8	4.3	5.4	70
6491B710	HO7Z-R	10.0	7 / 1.35	1.0	5.6	7.0	120
6491B716	HO7Z-R	16.0	7 / 1.70	1.0	6.4	8.0	175
6491B725	HO7Z-R	25.0	7 / 2.14	1.2	8.1	10.1	284
6491B735	HO7Z-R	35.0	7 / 2.52	1.2	9.0	11.3	375
6491B750	HO7Z-R	50.0	19 / 1.78	1.4	10.6	13.2	520
6491B770	HO7Z-R	70.0	7 / 2.14	1.4	12.1	15.1	704
6491B795	HO7Z-R	95.0	7 / 2.52	1.6	14.1	17.6	992
6491B8120	HO7Z-R	120.0	37 / 2.03	1.6	15.6	19.4	1234
6491B8150	HO7Z-R	150.0	37 / 2.25	1.8	17.3	21.6	1487
6491B8185	HO7Z-R	185.0	37 / 2.52	2.0	19.3	24.1	1792

Fire Performance

Our Firesure® range of fire performance cables are world renowned for being manufactured to the highest quality and being designed to the highest specification possible, offering features and benefits that are unique and not found in our competitors' cables.

Firesure®500 Firesure®Plus Firesure®1



Firesure 500
Fire Performance Cable designed for easier termination

These cables are suitable for both indoor and outdoor applications in suitably protected environments and is particularly appropriate for direct burial in plaster, clipped directly to surface, tray and other installations requiring a dressable product.

Manufactured to BS7629-1 Table 2
Plain Annealed Copper Conductors / Silicone Rubber Insulated / Circuit Protective Conductor / Single Layer of Aluminium/Co-Polymer Tape (tape is adhered to the sheathing and will come away with the sheath when stripping the cable) Thermoplastic Low Smoke Non-Halogen (LSNH) Sheath. 300/500V

Conductor:
Plain Annealed Copper Class 1 or 2 to BS EN 60228

Insulation:
Silicone Rubber Type EI2 to BS EN 50363-1

Sheath:
Thermoplastic LSNH Type LTS 3 to BS 7655-6.1

Current Ratings:
For current ratings refer to table 4D2 of BS7671 wiring regulations.

Screen:
Single Aluminium/Co-Polymer Screen In Direct Contact With Tinned Annealed Copper CPC. Providing excellent Earthing Characteristics

STANDARD CORE COLOURS
1 CORE
2 CORE
3 CORE

MINIMUM OPERATING TEMPERATURE
-15°C

MAXIMUM OPERATING TEMPERATURE
70°C

MINIMUM BENDING RADIUS
6xØ

Fire Performance:

BS 6387:2013
(Category C – Resistance to fire alone, 3 hours at 950°

BS 6387:2013
(Category W – Resistance to fire with water spray)

BS 6387:2013
(Category Z – Resistance to fire with mechanical shock)

EN 50200:2015
(ph30, ph60 and ph120)

EN 50200:2015
Annex E – Resistance to fire with mechanical shock and water

BS 5839-1
Clause 26.2d (Standard)

Product Details:

Product Code	Number and nominal cross sectional area of conductors (mm²)	Nominal stranding of conductor (mm)	Nominal Stranding of CPC (mm)	Nominal radial thickness of insulation (mm)	Nominal radial thickness of sheath (mm)	Nominal Overall Diameter (mm)	Approximate weight (kg/km)	Recommended clip (DC)
HFS5002C1.5	2 x 1.5	1 / 1.38	1 / 1.38	0.7	0.9	7.8	95	DC30
HFS5002C2.5	2 x 2.5	1 / 1.78	1 / 1.78	0.8	1.0	8.9	140	DC34
HFS5002C4.0	2 x 4.0	7 / 0.85	7 / 0.85	0.8	1.1	10.9	231	DC47
HFS5003C1.5	3 x 1.5	1 / 1.38	1 / 1.38	0.7	0.9	8.3	120	DC32
HFS5003C2.5	3 x 2.5	1 / 1.78	1 / 1.78	0.8	1.0	10.1	195	DC43
HFS5004C1.5	4 x 1.5	1 / 1.38	1 / 1.38	0.7	1.0	9.2	140	DC34

NOTE: More sizes available in the future or on request.

Firesure 500
Fire Performance Cable designed for easier termination

Firesure 500 Cable Clips

	2 Core				3 Core		4 Core	
Size (mm²)	1.0	1.5	2.5	4.0	1.5	2.5	1.5	2.5
Recommended Clip (DC)	26	30	34	47	32	43	34	47
Maximum Horizontal Clipping Distance	300	300	300	300	300	300	300	300
Maximum Vertical Clipping Distance	400	400	400	400	400	400	400	400

Weight and dimensional information is provided as an approximate guide only.

Firesure 500 benefits

Our Firesure 500 cable has been designed for easier stripping whilst retaining the benefits of a helically wrapped design. The Firesure 500 design consists of a specially formulated single co-polymer metallic tape. The tape adheres to the sheath so upon stripping the sheath the tape is also removed.

However, other leading manufacturers of this type of design use a 'longitudinally applied tape'. These longitudinal designs mean that the metallic tape required is simply folded along the inner conductors with a minimum 1mm tape overlap. Firesure 500 was designed to still incorporate a 'helically' applied metallic tape. This helically applied tape design means that the tape is continuously wrapped around the conductors with a minimum tape overlap of 20%.

The sheathing material of Firesure 500 is 'pressure extruded' as opposed to 'tubed extruded'. This means that rather than having the cores loosely placed within the sheath, the sheathing material is pressured onto the cores to fill interstices to allow a compact and solid cable.

The above features allows for the following key performance benefits, whilst still competing with the more electrician friendly termination process of removing the sheath and tape simultaneously.

Firesure 500 Key benefits

- **TAPE IS ADHERED TO THE SHEATH**
  (Allows tape and sheath to be removed simultaneously)
- **SUPERIOR EARTH CONTINUITY**
  (Pressured sheath allows better contact of tape and CPC)
- **ENHANCED RESISTANCE TO CABLE KINKS**
  (Subsequently protecting cables performance)
- **EXTREMELY ROBUST /DURABLE DESIGN**
  (Pressured sheath leaves fewer gaps within cable)
- **SMALLER OVERALL DIAMETER**
  (Pressured sheath results in more compact cable)
- **PREVENTS TRANSMISSION OF SMOKE AND DANGEROUS GASES THROUGH THE CABLE**
  (Due to tightly pressured sheath resulting in minimal air gaps within the cable)

Firesure Plus
Fire Performance Cable

These cables are suitable for both indoor and outdoor applications in suitably protected environments and is particularly appropriate for direct burial in plaster, clipped directlyto surface, tray and other installations requiring a dressable product.

Manufactured to BS7629-1 Table 2

Plain Annealed Copper Conductors / Silicone Rubber Insulated / Glass Fibre Tape / Tinned Copper Circuit Protective Conductor / Double Layer of Copper/Polyester Tapes / Thermoplastic Low Smoke Non-Halogen (LSNH) Sheath. 300/500V

Conductor:
Plain Annealed Copper Class 1 or 2 to BS EN 60228

Insulation:
Silicone Rubber Type EI2 to BS EN 50363-1

Sheath:
Thermoplastic LSNH Type LTS 3 to BS 7655-6.1

Current Ratings:
For current ratings refer to table 4D2 of BS7671 wiring regulations.

Screen 1:
Glass Fibre Tape

Screen 2:
Double Copper/Polyester Screen In Direct Contact With Tinned Annealed Copper CPC. Providing excellent Earthing Characteristics

STANDARD CORE COLOURS
1 CORE
2 CORE
3 CORE

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 70°C

MINIMUM BENDING RADIUS 6xØ

Fire Performance:

BS 6387:2013
(Category C – Resistance to fire alone, 3 hours at 950°

BS 6387:2013
(Category W – Resistance to fire with water spray)

BS 6387:2013
(Category Z – Resistance to fire with mechanical shock)

EC 60311-21 (950°C)

IEC 60332-3-24

EN 50200:2015 (PH120)

BS8434-2 (120 minutes)

BS 5839-1
Clause 26.2e (Enhanced)

Product Details:

Product Code	Number and nominal cross sectional area of conductors (mm²)	Nominal stranding of conductor (mm)	Nominal Stranding of CPC (mm)	Nominal radial thickness of insulation (mm)	Nominal radial thickness of sheath (mm)	Nominal Overall Diameter (mm)	Approximate weight (kg/km)	Recommended clips
HFSP2C1.0	2 x 1.0	1 / 1.13	1 / 1.13	0.6	0.9	8.5	104	DC30
HFSP2C1.5	2 x 1.5	1 / 1.38	1 / 1.38	0.7	0.9	9.0	128	DC34
HFSP2C2.5	2 x 2.5	7 / 0.67	7 / 0.67	0.8	1.0	11.0	185	DC43
HFSP2C4.0	2 x 4.0	7 / 0.85	7 / 0.85	0.8	1.1	12.3	TBA	DC47
HFSP3C1.5	3 x 1.5	1 / 1.38	1 / 1.38	0.7	0.9	10.0	TBA	DC37
HFSP3C2.5	3 x 2.5	7 / 0.67	7 / 0.67	0.8	1.0	12.5	251	DC47
HFSP3C4.0	3 x 4.0	7 / 0.85	7 / 0.85	0.8	1.1	13.3	TBA	DC54
HFSP4C1.5	4 x 1.5	1 / 1.38	1 / 1.38	0.7	1.0	11.0	187	DC43
HFSP4C2.5	4 x 2.5	7 / 0.67	7 / 0.67	0.8	1.1	13.0	264	DC51
HFSP4C4.0	4 x 4.0	7 / 0.85	7 / 0.85	0.8	1.2	15.0	399	DC54

NOTE: More sizes available in the future or on request.

Firesure Plus
Fire Performance Cable

Relevant Standards:

BS EN 60332-1-2
(Vertical flame propagation)

BS EN 60754-1
(Emission of acid gas)

BS EN 61034-2
(Smoke density)

BS EN 60332-3-24
Cat C (Vertical Flame Propagation)

Firesure Plus Cable Clips

	2 Core				3 Core				4 Core			
Size (mm²)	1.0	1.5	2.5	4.0	1.0	1.5	2.5	4.0	1.0	1.5	2.5	4.0
Recommended Clip	30	34	43	47	34	37	47	54	37	43	51	54
Maximum Horizontal Clipping Distance	250	300	300	300	300	300	300	300	300	300	300	350
Maximum Vertical Clipping Distance	400	400	400	400	400	400	400	400	400	400	400	450

Weight and dimensional information is provided as an approximate guide only.

Firesure Plus benefits

Our Firesure Plus cable has at least twice as many copper tapes than any other leading Fire Performance Cable; some other enhanced fire performance cables even opt to use an aluminium tape (usually seen on standard fire performance cables). The Firesure Plus design also incorporates a glass fibre tape which covers the inner conductors. These additional protections improve the fire performance and general characteristics of our cable.

The Doncaster Cables Firesure Plus design offers numerous advantages in comparison to some other suppliers who opt for a 'longitudinally applied tape' design. These longitudinal designs mean that the metallic tape required is simply folded along the inner conductors with a minimum 1mm tape overlap. In comparison to this, the Firesure Plus design consists of 2 'helically' applied copper tapes. This helically applied tape design means that both tapes are continuously wrapped around the conductors with a minimum tape overlap of 20%.

This increased overlap allows for the following key performance benefits. The following benefits are further amplified through Firesure Plus cable as there are two metallic tapes as opposed to the minimum British Standard requirement of a single tape.

Firesure Plus Key benefits

- **HIGHER RESISTANCE TO ELECTROMAGNETIC INTERFERENCE**
- **SUPERIOR EARTH CONTINUITY**
  (The bare CPC is placed between two copper tapes)
- **ENHANCED RESISTANCE TO CABLE KINKS**
  (Subsequently protecting cables performance)
- **EXTREMELY ROBUST /DURABLE DESIGN**
  (Due to increased tape numbers and overlap)
- **IMPROVED DATA TRANSMISSION**
  (Due to twisted cores and additional screening)

Firesure 1
Fire Performance Cable

These cables are suitable for use in fixed installations in industrial areas, buildings and similar applications, where the maintenance of power supply during a fire is required for a defined period of time.

Particularly suitable for locations where a defined level of resistance to fire and a low level of emission of smoke and corrosive gases are required when the cable is affected by fire or burning. For use where special fire performance is necessary or where local conditions or regulations require increased levels of public safety.

Manufactured to BS 8592 Table 2

Plain Annealed Copper Conductors / Mineral Ceramic (Mica) Tape / Cross Linked Low Smoke Non Halogen (LSNH) Insulation. 450/750V

Conductor:
Plain Annealed Copper Class 2 to BS EN 60228

Insulation:
Cross Linked 90°C Thermosetting LSNH Type EI5 to BS EN 50363-5 / BS8592

Fire Resistant Tape:
Mineral Ceramic (Mica)

Current Ratings:
For current ratings refer to table 4E1 of BS7671 wiring regulations.

STANDARD CORE COLOURS

(Other colours available on request)

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 90°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Nominal cross sectional area of conductor (mm²)	Nominal stranding of conductor (mm)	Nominal radial thickness of insulation (mm)	Approximate Overall Diameter (mm)	Approximate weight (kg/km)
FS1 1.5	1.5	7 / 0.53	0.7	3.4	23
FS1 2.5	2.5	7 / 0.67	0.8	4.0	35
FS1 4.0	4.0	7 / 0.85	0.8	4.6	52
FS1 6.0	6.0	7 / 1.04	0.8	5.2	71
FS1 710	10.0	7 / 1.35	1.0	6.5	115
FS1 716	16.0	7 / 1.70	1.0	7.6	175
FS1 725	25.0	7 / 2.14	1.2	9.4	265
FS1 735	35.0	7 / 2.52	1.2	10.5	360
FS1 750	50.0	19 / 1.78	1.4	12.4	500
FS1 770	70.0	19 / 2.14	1.4	14.1	670
FS1 795	95.0	19 / 2.52	1.6	16.4	945
FS1 8120	120	37 / 2.03	1.6	17.9	1215
FS1 8150	150	37 / 2.25	1.8	19.9	1475
FS1 8185	185	37 / 2.52	2.0	22.1	1790

NOTE: 1.5mm² to 70mm² are manufactured to BS8592:2016
95mm² to 185mm² are manufactured 'Generally to BS8592:2016' and are NOT BASEC approved

Firesure 1
Fire Performance Cable

Fire Performance:

IEC 60331-3
(Resistance to fire with shock, 2 hour rated (120 minutes))

BS6387:2013
(Category C – Resistance to fire alone, 3 hours at 950°C)

BS6387:2013
(Category W – Resistance to fire with water spray)

BS6387:2013
(Category Z – Resistance to fire with mechanical shock)

Firesure 1 benefits

Firesure 1 is a Fire Resistant Single Core Cable manufactured by Doncaster Cables in the United Kingdom and is for use in emergency safety circuits to maintain circuit integrity under fire conditions.

Firesure 1 has obtained approval from the British Approvals Service for Cables (BASEC).

The cables are certified as fire resistant through compliance to BS8592:2016 (up to and including 70mm²). BS8592:2016 includes fire testing in accordance with IEC 60331-3, this test specifies that the cables maintain circuit integrity under fire conditions for 120 minutes (2 hour rating).

In addition to BS8592:2016 requirements, Firesure 1 has been tested in accordance with BS6387:2013 and achieved rating 'CAT CWZ'. Cat C = resistance to fire alone, 3 hours at 950°C. Cat W = Resistance to fire with water spray. Cat Z = Resistance to fire with mechanical shock).

Our Firesure 1 Range is designed for laying in metallic conduit or in cable trunking where electrical circuit integrity under fire circumstances is of the upmost importance.

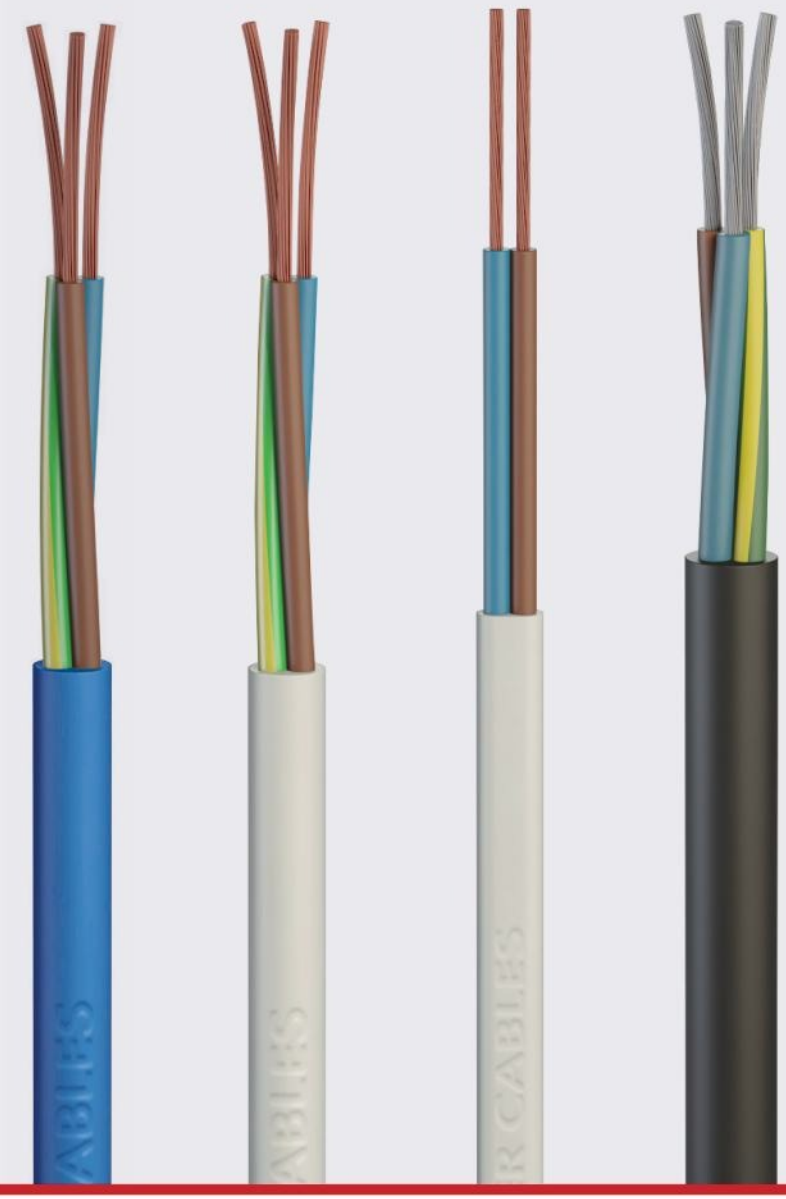
Firesure 1 is tested in accordance with BS EN 60754-1 (determination of halogen acid gas content) – as there is no halogen or acidic gas emission during fire/burning conditions, any sensitive equipment in surrounding areas are not affected adversely.

Firesure 1 is tested in accordance with BS EN 61034-2 (measurement of smoke density of cables burning under defined conditions) – low smoke generation allows better visibility in fire/burning conditions. This increased visibility can be essential to allow emergency evacuations and to help fire fighters in any rescue operations.

Made in **BRITAIN**

Flexibles

The Flexible Range includes: Lighting Cables | Flat Twin Low Voltage Lighting Cable | PVC Insulated & Sheathed Flexible Cords – Light Duty | PVC Insulated & Sheathed Flexible Cords – Ordinary Duty | Heat Resisting PVC Insulated & Sheathed Flexible Cords 90°c – Ordinary Duty | TRS VR Insulated Tough Rubber Sheathed Flexible Cords – Ordinary Duty | TQ 90°c EP Rubber Insulated & CSP (HOFR) Sheathed Flexible Cords | LSNH Insulated & Sheathed Flexible Cords – Ordinary Duty



Flat Twin Low Voltage Lighting Cable

PVC Insulated and Sheathed

Manufactured in accordance with BS6862

Part 1 Table 7 1971 where applicable. Cu / PVC / PVC.

Conductor:
Plain Annealed Copper Class 5
Flexible to BS EN 60228

Insulation:
PVC Type TI1
to BS EN 50363-3

Sheathing:
PVC Type 6
to BS7655-4.2

Originally designed for use as an automotive cable and manufactured to BS6862 Part 1 1971; it is now commonly used by electricians as a low voltage lighting cable. It is often seen operating in 12V and 24V lighting circuits.

STANDARD CORE COLOURS
2 CORE

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 70°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of Sheath (mm)	Approx. Overall Dimensions (mm)	Maximum Loading (W)		Approx. Weight (kg/km)
						12V	24V	
LV2.0	2.0	28 / 0.3	0.6	0.6	4.5x7.7	240	480	81

Maximum Current Rating = 20A **Maximum Conductor Resistance = 9.42Ω/km**

2 Core Flat Twin Festoon Cable Arctic Grade PVC Insulated and Sheathed

Designed for use with festoon BC lamp holders. This cable allows the festoon lamp holders to be easily fixed along the length of the cable; allowing electricians to create bespoke festoon harnesses for lighting projects. Typically used in gardens, chicken sheds, signs, fascia's and the entertainment industries. It is advised that reassurance is gained from the lamp holder supplier/manufacturer that their festoon lamp holders are compatible with this type of cable. It is not advised that festoon cable be reused once the cable has been pierced.

For use with Festoon Lamp Holders

This cable is manufactured dimensionally to the last published version of BS6007 Table 2. BS6007 has since been withdrawn with no replacement for this cable type

Cu / PVC / PVC. 300/500V

Conductor:

Plain Annealed Copper Class 2 Stranded to BSEN60228

Sheath:

Low Temperature PVC Type 10 to BS 7655-4.2

Insulation:

Low Temperature PVC Type TI4 to BS EN 50363-3

STANDARD CORE COLOURS
2 CORE

MINIMUM OPERATING TEMPERATURE
-40°C

MAXIMUM OPERATING TEMPERATURE
70°C

MINIMUM BENDING RADIUS
6xØ

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Approx. Overall Diameter Lower Limit (mm)	Approx. Overall Diameter Upper Limit (mm)	Approx. Weight (kg/km)
6192PVC2.5	2.5	7 / 0.67	0.8	1.1	5.4 x 8.8	6.8 x 11.0	125

2192Y (H03VVH2-F) / 218-Y (H03VV-F)
Light Duty PVC Insulated and Sheathed Flexible Cords

Light duty flexible cords are used where the risk of mechanical damage and mechanical stresses is low, i.e. under external influences to be expected in th normal use of light, hand-held appliances and light portable equipment in domestic premises, offices and shops. Examples of appliances that use light duty flexible cords include domestic hair dryers and hair styling appliances, radio sets, table and standard lamps and small desktop machines.

Manufactured to BS EN 50525-2-11:2011 Clause 4.1, Table B.1

Annealed Flexible Copper Conductor / PVC Insulated / PVC Sheathed. 300/300V
2192Y (H03VVH2-F) = Flat Parallel Cord 218-Y (H03VV-F) = Circular Cords

Conductor:
Plain Annealed Copper Class 5 Flexible to BS EN 60228

Insulation:
PVC Type TI2 to BS EN 50363-3

Sheathing:
PVC Type TM2 to B EN 50363-4-1

Current Ratings:
For current ratings refer to table 4F3 of BS7671 IET wiring regulations.

STANDARD CORE COLOURS
2 CORE
3 CORE
4 CORE

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 70°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
2192Y0.5	H03VVH2-F	0.5	16 / 0.2	2.2	0.6	3.0 x 4.9	3.7 x 5.9	31
2192Y0.75	H03VVH2-F	0.75	24 / 0.2	2.4	0.6	3.2 x 5.2	3.8 x 6.3	37
2182Y0.5	H03VV-F	0.5	16 / 0.2	0.8	0.6	4.6	5.9	41
2182Y0.75	H03VV-F	0.75	24 / 0.2	0.8	0.6	4.9	6.3	50
2183Y0.5	H03VV-F	0.5	16 / 0.2	1.0	0.6	4.9	6.3	48
2183Y0.75	H03VV-F	0.75	24 / 0.2	1.0	0.6	5.2	6.7	57

309-Y (H05V2V2-F)
Heat Resisting PVC Insulated and Sheathed Flexible Cords, 90°C - Ordinary Duty

Heat resisting ordinary duty flexible cords are used where the risk of mechanical damage and mechanical stresses is normal, i.e. when cables are subject to low mechanical stresses in the areas of application, and the risk of mechanical damage is low, as is the case to be expected in the normal use of small to medium size equipment in domestic and commercial as well as in light industrial premises. Examples of appliances that use heat resisting ordinary duty flexible cords are portable tools, immersion heaters, washing machines, cookers and refrigerators; especially in higher temperature zones.

Manufactured to BS EN 50525-2-11:2011 Clause 5.2, Table B.2.
Annealed Flexible Copper Conductor / Heat Resisting PVC Insulated / Heat Resisting PVC Sheathed. 300/500V

Conductor:
Plain Annealed Copper Class 5 Flexible to BS EN 60228

Insulation:
PVC Type TI3 to BS EN 50363-3

Sheathing:
PVC Type TM3 to B EN 50363-4-1

Current Ratings:
For current ratings refer to table 4F3 of BS7671 wiring regulations.

STANDARD CORE COLOURS
2 CORE
3 CORE
4 CORE
5 CORE

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 90°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
3092Y0.75	H05V2V2-F	0.75	24 / 0.2	0.6	0.8	5.7	7.2	56
3092Y1.0	H05V2V2-F	1.0	32 / 0.2	0.6	0.8	5.9	7.5	73
3092Y1.5	H05V2V2-F	1.5	30 / 0.25	0.7	0.8	6.8	8.6	95
3092Y2.5	H05V2V2-F	2.5	50 / 0.25	0.8	1.0	8.4	10.6	150
3092Y4.0	H05V2V2-F	4.0	56 / 0.30	0.8	1.1	9.7	12.1	195
3093Y0.75	H05V2V2-F	0.75	24 / 0.2	0.6	0.8	6.0	7.6	69
3093Y1.0	H05V2V2-F	1.0	32 / 0.2	0.6	0.8	6.3	8.0	77
3093Y1.25	N/A*	1.25	40 / 0.2	0.7	0.9	6.9	8.7	90
3093Y1.5	H05V2V2-F	1.5	30 / 0.25	0.7	0.9	7.4	9.4	100
3093Y2.5	H05V2V2-F	2.5	50 / 0.25	0.8	1.1	9.2	11.4	150
3093Y4.0	H05V2V2-F	4.0	56 / 0.30	0.8	1.2	10.5	13.1	252
3094Y0.75	H05V2V2-F	0.75	24 / 0.2	0.6	0.8	6.6	8.3	78
3094Y1.0	H05V2V2-F	1.0	32 / 0.2	0.6	0.9	7.1	9.0	110
3094Y1.5	H05V2V2-F	1.5	30 / 0.25	0.7	1.0	8.4	10.5	150
3094Y2.5	H05V2V2-F	2.5	50 / 0.25	0.8	1.1	10.1	12.5	220
3094Y4.0	H05V2V2-F	4.0	56 / 0.30	0.8	1.2	11.5	14.3	310
H3095Y0.75	H05V2V2-F	0.75	24 / 0.2	0.6	0.9	7.4	9.3	94
H3095Y1.0	H05V2V2-F	1.0	32 / 0.2	0.6	0.9	7.8	9.8	132
H3095Y1.5	H05V2V2-F	1.5	30 / 0.25	0.7	1.1	9.3	11.6	180
H3095Y2.5	H05V2V2-F	2.5	50 / 0.25	0.8	1.2	11.2	13.9	264
H3095Y4.0	H05V2V2-F	4.0	56 / 0.30	0.8	1.4	13.0	16.1	370

318-Y (H05VV-F)
Ordinary Duty PVC Insulated and Sheathed Flexible Cords

Ordinary duty flexible cords are used where the risk of mechanical damage and mechanical stresses is normal, i.e. when cables are subject to low mechanical stresses in the areas of application, and the risk of mechanical damage is low, as is the case to be expected in the normal use of small to medium size equipment in domestic and commercial as well as in light industrial premises. Examples of appliances that use ordinary duty flexible cords include vacuum cleaners, toasters, washing machines, refrigerators, dryers and televisions.

Manufactured to BS EN 50525-2-11:2011 Clause 4.2, Table B.2

Annealed Flexible Copper Conductor / PVC Insulated / PVC Sheathed. 300/500V

Conductor:
Plain Annealed Copper Class 5 Flexible to BS EN 60228

Insulation:
PVC Type TI2 to BS EN 50363-3

Sheathing:
PVC Type TM2 to B EN 50363-4-1

Current Ratings:
For current ratings refer to table 4F3 of BS7671 wiring regulations.

STANDARD CORE COLOURS
2 CORE
3 CORE
4 CORE
5 CORE

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 70°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
3182Y0.75	H05VV-F	0.75	24 / 0.2	0.6	0.8	5.7	7.2	56
3182Y1.0	H05VV-F	1.0	32 / 0.2	0.6	0.8	5.9	7.5	73
3182Y1.5	H05VV-F	1.5	30 / 0.25	0.7	0.8	6.8	8.6	95
3182Y2.5	H05VV-F	2.5	50 / 0.25	0.8	1.0	8.4	10.6	150
3182Y4.0	H05VV-F	4.0	56 / 0.30	0.8	1.1	9.7	12.1	195
3183Y0.75	H05VV-F	0.75	24 / 0.2	0.6	0.8	6.0	7.6	69
3183Y1.0	H05VV-F	1.0	32 / 0.2	0.6	0.8	6.3	8.0	77
3183Y1.25	N/A*	1.25	40 / 0.2	0.7	0.9	6.9	8.7	90
3183Y1.5	H05VV-F	1.5	30 / 0.25	0.7	0.9	7.4	9.4	100
3183Y2.5	H05VV-F	2.5	50 / 0.25	0.8	1.1	9.2	11.4	150
3183Y4.0	H05VV-F	4.0	56 / 0.30	0.8	1.2	10.5	13.1	252
3183Y6.0**	H05VV-F	6.0	84 / 0.30	0.8	1.2	13.5 nominal		315
3184Y0.75	H05VV-F	0.75	24 / 0.2	0.6	0.8	6.6	8.3	78
3184Y1.0	H05VV-F	1.0	32 / 0.2	0.6	0.9	7.1	9.0	110
3184Y1.5	H05VV-F	1.5	30 / 0.25	0.7	1.0	8.4	10.5	150
3184Y2.5	H05VV-F	2.5	50 / 0.25	0.8	1.1	10.1	12.5	220
3184Y4.0	H05VV-F	4.0	56 / 0.30	0.8	1.2	11.5	14.3	310
3184Y6.0**	H05VV-F	6.0	84 / 0.30	0.8	1.2	14.8 nominal		405
H3185Y0.75	H05VV-F	0.75	24 / 0.2	0.6	0.9	7.4	9.3	94
H3185Y1.0	H05VV-F	1.0	32 / 0.2	0.6	0.9	7.8	9.8	132
H3185Y1.5	H05VV-F	1.5	30 / 0.25	0.7	1.1	9.3	11.6	180
H3185Y2.5	H05VV-F	2.5	50 / 0.25	0.8	1.2	11.2	13.9	264
H3185Y4.0	H05VV-F	4.0	56 / 0.30	0.8	1.4	13.0	16.1	370

* NOT HARMONISED . Weight and dimensional information is provided as an approximate guide only. ** NOT BASEC Approved

318 – Tough Rubber Sheath (TRS) (H05RR-F)

Tough Rubber Insulated and Sheathed Flexible Cords

Ordinary duty rubber flexible cords are used where the risk of mechanical damage and mechanical stresses is normal, i.e. when cables are subject to low mechanical stresses in the areas of application, and the risk of mechanical damage is low, as is the case to be expected in the normal use of small to medium size equipment in domestic and commercial as well as in light industrial premises.

Examples of appliances that use ordinary duty rubber flexible cords include vacuum cleaners, kitchen equipment, small electrical welding machines and portable hand tools.

Manufactured to BS EN 50525-2-21:2011 Clause 4.1

Annealed Flexible Copper Conductor / Rubber Insulated / Rubber Sheathed. 300/500V

Conductor:
Annealed Copper Class 5 Flexible to BS EN 60228

Sheath:
EM2 Type Elastomer to EN 50363-2-1

Insulation:
E14 Type Rubber (EPR) to EN 50363-1

Current Ratings:
For current ratings refer to table 4F3 of BS7671 wiring regulations.

Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
31820.75	H05RR-F	0.75	24 / 0.2	0.6	0.8	5.7	7.4	65
31821.0	H05RR-F	1.0	32 / 0.2	0.6	0.9	6.1	8.0	75
31821.5	H05RR-F	1.5	30 / 0.25	0.8	1.0	7.6	9.8	110
31822.5	H05RR-F	2.5	50 / 0.25	0.9	1.1	9.0	11.6	155
31830.75	H05RR-F	0.75	24 / 0.2	0.6	0.9	6.2	8.1	80
31831.0	H05RR-F	1.0	32 / 0.2	0.6	0.9	6.5	8.5	90
31831.5	H05RR-F	1.5	30 / 0.25	0.8	1.0	8	10.4	135
31832.5	H05RR-F	2.5	50 / 0.25	0.9	1.1	9.6	12.4	190
31840.75	H05RR-F	0.75	24 / 0.2	0.6	0.9	6.8	8.8	95
31841.0	H05RR-F	1.0	32 / 0.2	0.6	0.9	7.1	9.3	110
31841.5	H05RR-F	1.5	30 / 0.25	0.8	1.1	9.0	11.6	170
31842.5	H05RR-F	2.5	50 / 0.25	0.9	1.2	10.7	13.8	245
H31851.5	H05RR-F	1.5	30 / 0.25	0.8	1.1	9.8	12.7	195
H31852.5	H05RR-F	2.5	50 / 0.25	0.9	1.3	11.9	15.3	290

318–TQ (H05BN4-F & H07BN4-F)

EPR Insulated and CSP Sheathed Flexible Cords

Heat Oil and Flame Resistant (HOFR) rubber flexible cords are used where the risk of mechanical damage and mechanical stresses is normal, i.e. when cables are subject to low mechanical stresses in the areas of application, and the risk of mechanical damage is low, as is the case to be expected in the normal use of small to medium size equipment in domestic and commercial as well as in light industrial premises. Examples of appliances that use HOFR rubber flexible cords include cooking appliances, soldering irons, toasters, water immersions heaters, small electronic welding equipment.

Manufactured to BS EN 50525-2-21:2011 Clause 6.3 and 6.4

Annealed Flexible Copper Conductor / Ethylene Propylene Rubber (EPR) Insulated / ChloroSulphonated Propylene Rubber (CSP) Sheathed.
300/500V (H05) or 450/750V (H07).

Conductor:
Annealed Copper Class 5 Flexible to BS EN 60228

Sheathing:
Cross Linked Elastomeric Type EM7 to BS EN 50363-2-1

Insulation:
Cross Linked Elastomeric Type EI7 to BS EN 50363-1

Current Ratings:
For current ratings refer to table 4F3 of BS7671 wiring regulations.

STANDARD CORE COLOURS

Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
3183TQ0.75	H05BN4-F	0.75	24/0.2	0.6	0.9	6.2	8.1	80
3183TQ1.0	H05BN4-F	1.0	32/0.2	0.6	0.9	6.5	8.5	90
3183TQ1.5	H05BN4-F	1.5	30/0.25	0.8	1.0	8	10.4	135
3183TQ2.5	H05BN4-F	2.5	50/0.25	0.9	1.1	9.6	12.4	195
3184TQ0.75	H05BN4-F	0.75	24/0.2	0.6	0.9	6.8	8.8	100
3184TQ1.0	H05BN4-F	1.0	32/0.2	0.8	1.5	9.2	11.9	110
3184TQ1.5	H05BN4-F	1.25	30/0.25	0.8	1.7	10.2	13.1	170
3184TQ2.5	H05BN4-F	2.5	50/0.25	0.9	1.9	12.1	15.5	245
H3185TQ1.0	H05BN4-F	1.0	32/0.2	0.8	1.6	10.2	13.1	135
H3185TQ1.5	H05BN4-F	1.5	30/0.25	0.9	1.8	11.2	14.4	197

318-B (LSNH)

Ordinary Duty LSNH Insulated and Sheathed Flexible Cords

These cables are designed to be used in installations where smoke and acid gas emission would pose a major hazard in the event of a fire. Ordinary duty flexible cords are used where the risk of mechanical damage and mechanical stresses is normal, i.e. when cables are subject to low mechanical stresses in the areas of application, and the risk of mechanical damage is low, as is the case to be expected in the normal use of small to medium size equipment in domestic and commercial as well as in light industrial premises. Examples of appliances that use ordinary duty flexible cords include vacuum cleaners, toasters, washing machines, refrigerators, dryers and televisions.

Manufactured dimensionally to BS EN 50525-2-11:2011 Clause 4.2, Table B.2.

Annealed Flexible Copper Conductor / LSNH Insulated / LSNH Sheathed. 300/500V

Conductor:
Plain Annealed Copper Class 5 Flexible to BS EN 60228

Insulation:
Low Smoke Non Halogen

Sheathing:
Low Smoke Non Halogen

Current Ratings:
For current ratings refer to table 4F3 of BS7671 wiring regulations.

STANDARD CORE COLOURS

2 CORE
3 CORE
4 CORE
5 CORE

MINIMUM OPERATING TEMPERATURE
-15°C

MAXIMUM OPERATING TEMPERATURE
70°C

MINIMUM BENDING RADIUS
6xØ

Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)
3182B0.75	0.75	24/0.2	0.6	0.8	5.7	7.2
3182B1.0	1.0	32/0.2	0.6	0.8	5.9	7.5
3182B1.5	1.5	30/0.25	0.7	0.8	6.8	8.6
3183B0.75	0.75	24/0.2	0.6	0.8	6.0	7.6
3183B1.0	1.0	32/0.2	0.6	0.8	6.3	8.0
3183B1.5	1.5	30/0.25	0.7	0.9	7.4	9.4
3183B2.5	2.5	50/0.25	0.8	1.0	9.2	11.4
3184B0.75	0.75	24/0.2	0.6	0.8	6.6	8.3
3184B1.0	1.0	32/0.2	0.6	0.9	7.1	9.0
3184B1.5	1.5	30/0.25	0.7	1.0	8.4	10.5
3184B2.5	2.5	50/0.25	0.8	1.1	10.1	12.5
H3185B0.75	0.75	24/0.2	0.6	0.9	8.0	9.2
H3185B1.0	1.0	32/0.2	0.6	0.9	8.8	9.8

318-A Arctic Grade

Low Temperature PVC Insulated and Sheathed Flexible Cord

These 'Arctic Grade' flexible cords are manufactured with a low temperature PVC insulation and sheath. They are suitable for installation and handling at temperatures down to -25°C and are cold bend tested to -40°C. These cables are suitable for use on ELV systems (110V centre tapped) on building sites in the UK, for use with temporary traffic light systems when suitably protected, indoor use at low voltage (230V). These cables are not designed for outdoor use at voltages exceeding 110V.

Yellow sheathed flexibles are intended for use on ELV and site services etc

Blue sheathed flexibles are for intended for use on temporary traffic lights etc

Manufactured to BS 6004 Table 6 (previously BS7919 Table 44)

Plain Annealed Flexible Copper Conductors / Low Temperature PVC Insulated / Low Temperature PVC Sheathed. 300/500V

Conductor:
Plain Annealed Copper Class 5 to BS EN 60228

Sheath:
Low Temperature PVC Type 10 to BS 7655-4.2

Insulation:
Low Temperature PVC Type TI4 to BS EN 50363-3

Current Ratings:
For current ratings refer to table 4F3 of BS7671 IEE Wiring Regulations Seventeenth Edition.

Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
31822.5	National Type	1.0	30/0.20	0.6	0.8	5.9	7.5	71
3183Y1.0A	National Type	1.0	30/0.20	0.6	0.8	6.3	8.0	85
3183Y1.5A	National Type	1.5	30/0.25	0.7	0.9	7.4	9.4	118
3183Y2.5A	National Type	2.5	50/0.25	0.8	1.1	9.2	11.4	177
3183Y4.0A	National Type	4.0	56/0.30	0.8	1.2	10.5	13.1	253
3184Y1.5A	National Type	1.5	30/0.25	0.7	1.0	8.4	10.5	146
3184Y2.5A	National Type	2.5	50/0.25	0.8	1.1	10.1	12.5	235

◁HAR▷ H07RN-F

Thermosetting Rubber Insulated & Sheathed Flexibles

These cables are designed to provide high flexibility and have the capacity to withstand harsh weather conditions, oil and greases, mechanical and thermal stress - therefore these cables are well suited for use in harsh industrial conditions. Applications include handling equipment, mobile power supplies, worksites, stage and audio visual equipment and also port and dam areas. Due to the cables suitability for submersion under water it is also used for drainage and water treatment as well as electric motors and pumps in underwater conditions.

Manufactured to BS EN 50525-2-21:2011 Clause 4.3 and 4.4

Annealed Flexible Copper Conductor / Thermosetting Rubber (Type EI7) Insulated / Thermosetting Rubber (Type EM2) Sheathed. 450/750V

Conductor:

Annealed Copper Class 5/6 Flexible to BS EN 60228

Insulation:

Thermosetting Rubber Type EI7 to BSEN50363-1

Sheathing:

Thermosetting Rubber Type EM2 to BS EN 50363-2-1

Current Ratings:

For current ratings refer to table 4F1 and 4F3 of BS7671 Wiring Regulations.

STANDARD CORE COLOURS

2 CORE
3 CORE
4 CORE
5 CORE

MINIMUM OPERATING TEMPERATURE
-30°C

MAXIMUM OPERATING TEMPERATURE
60°C to 90°C

MINIMUM BENDING RADIUS
6xØ

Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
HO7RNF6.01C	HO7RN-F	6.0	84/0.3	1.0	1.6	7.9	9.8	130
HO7RF7101C	HO7RN-F	10.0	80/0.4	1.2	1.8	9.5	11.9	190
HO7RNF7161C	HO7RN-F	16.0	126/0.4	1.2	1.9	10.8	13.4	259
HO7RNF7251C	HO7RN-F	25.0	196/0.4	1.4	2.0	12.7	15.8	396
HO7RNF7351C	HO7RN-F	35.0	276/0.4	1.4	2.2	14.3	17.9	520
HO7RNF7501C	HO7RN-F	50.0	396/0.4	1.6	2.4	16.5	20.6	719
HO7RNF7701C	HO7RN-F	70.0	360/0.5	1.6	2.6	18.6	23.3	947
HO7RNF7951C	HO7RN-F	95.0	475/0.5	1.8	2.8	20.8	26.0	1230
HO7RNF81201C	HO7RN-F	120.0	608/0.5	1.8	3.0	22.8	28.6	1445
HO7RNF81501C	HO7RN-F	150.0	756/0.5	2.0	3.2	25.2	31.4	1887
HO7RNF81851C	HO7RN-F	185.0	925/0.5	2.2	3.4	27.6	34.4	2274
HO7RNF82401C	HO7RN-F	240.0	1221/0.5	2.4	3.5	30.6	38.3	2955
HO7RNF1.02C	HO7RN-F	1.0	32/0.2	0.8	1.3	7.7	10.0	9 9
HO7RNF1.52C	HO7RN-F	1.5	30/0.25	0.8	1.5	8.5	11.0	130
HO7RNF2.52C	HO7RN-F	2.5	50/0.25	0.9	1.7	10.2	13.1	195
HO7RNF4.02C	HO7RN-F	4.0	56/0.3	1.0	1.8	11.8	15.1	280
HO7RNF6.02C	HO7RN-F	6.0	84/0.3	1.0	2.0	13.1	16.8	360

Product Details:

Product Code	Harmonisation Code	Nominal Cross Sectional Area of Conductor (mm^2)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
HO7RNF1.03C	HO7RN-F	1.0	32/0.2	0.8	1.4	8.3	10.7	125
HO7RNF1.53C	HO7RN-F	1.5	30/0.25	0.8	1.6	9.2	11.9	155
HO7RNF2.53C	HO7RN-F	2.5	50/0.25	0.9	1.8	10.9	14.0	235
HO7RNF4.03C	HO7RN-F	4.0	56/0.3	1.0	1.9	12.7	16.2	305
HO7RNF6.03C	HO7RN-F	6.0	84/0.3	1.0	2.1	14.1	18.0	495
HO7RNF7103C	HO7RN-F	10.0	80/0.4	1.2	3.3	19.1	24.2	810
HO7RNF7163C	HO7RN-F	16.0	126/0.4	1.2	3.5	21.8	27.6	1000
HO7RNF7253C	HO7RN-F	25.0	196/0.4	1.4	3.8	26.1	33.0	1250
HO7RNF7353C	HO7RN-F	35.0	276/0.4	1.4	4.1	29.3	37.1	1850
HO7RNF1.54C	HO7RN-F	1.5	30/0.25	0.8	1.7	10.2	13.1	190
HO7RNF2.54C	HO7RN-F	2.5	50/0.25	0.9	1.9	12.1	15.5	280
HO7RNF4.04C	HO7RN-F	4.0	56/0.3	1.0	2.0	14.0	17.9	380
HO7RNF6.04C	HO7RN-F	6.0	84/0.3	1.0	2.3	15.7	20.0	510
HO7RNF7104C	HO7RN-F	10.0	80/0.4	1.2	3.4	20.9	26.5	940
HO7RNF7164C	HO7RN-F	16.0	126/0.4	1.2	3.6	23.8	30.1	1250
HO7RNF7254C	HO7RN-F	25.0	196/0.4	1.4	4.1	28.9	36.6	1850
HO7RNF7354C	HO7RN-F	35.0	276/0.4	1.4	4.4	32.5	41.1	2310
HO7RNF7504C	HO7RN-F	50.0	396/0.4	1.6	4.8	37.7	47.5	3160
HO7RNF7704C	HO7RN-F	70.0	360/0.5	1.6	5.2	42.7	54.0	4250
HO7RNF1.55C	HO7RN-F	1.5	30/0.25	0.8	1.8	11.2	14.4	230
HO7RNF2.55C	HO7RN-F	2.5	50/0.25	0.9	2.0	13.3	17.0	340
HO7RNF4.05C	HO7RN-F	4.0	56/0.3	1.0	2.2	15.6	19.9	470
HO7RNF6.05C	HO7RN-F	6.0	84/0.3	1.0	2.5	17.5	22.2	630
HO7RNF7105C	HO7RN-F	10.0	80/0.4	1.2	3.6	22.9	29.1	1150
HO7RNF7165C	HO7RN-F	16.0	126/0.4	1.2	3.9	26.4	33.3	1540
HO7RNF7255C	HO7RN-F	25.0	196/0.4	1.4	4.4	32.0	40.4	2200
HO7RNF7355C	HO7RN-F	35.0	276/0.4	1.4	4.6	35.7	45.1	2700
HO7RNF1.57C	HO7RN-F	1.5	30/0.25	0.8	2.6	14.7	18.7	320
HO7RNF2.57C	HO7RN-F	2.5	50/0.25	0.8	2.8	17.1	21.8	470
HO7RNF1.512C	HO7RN-F	1.5	30/0.25	0.8	2.9	17.6	22.4	450

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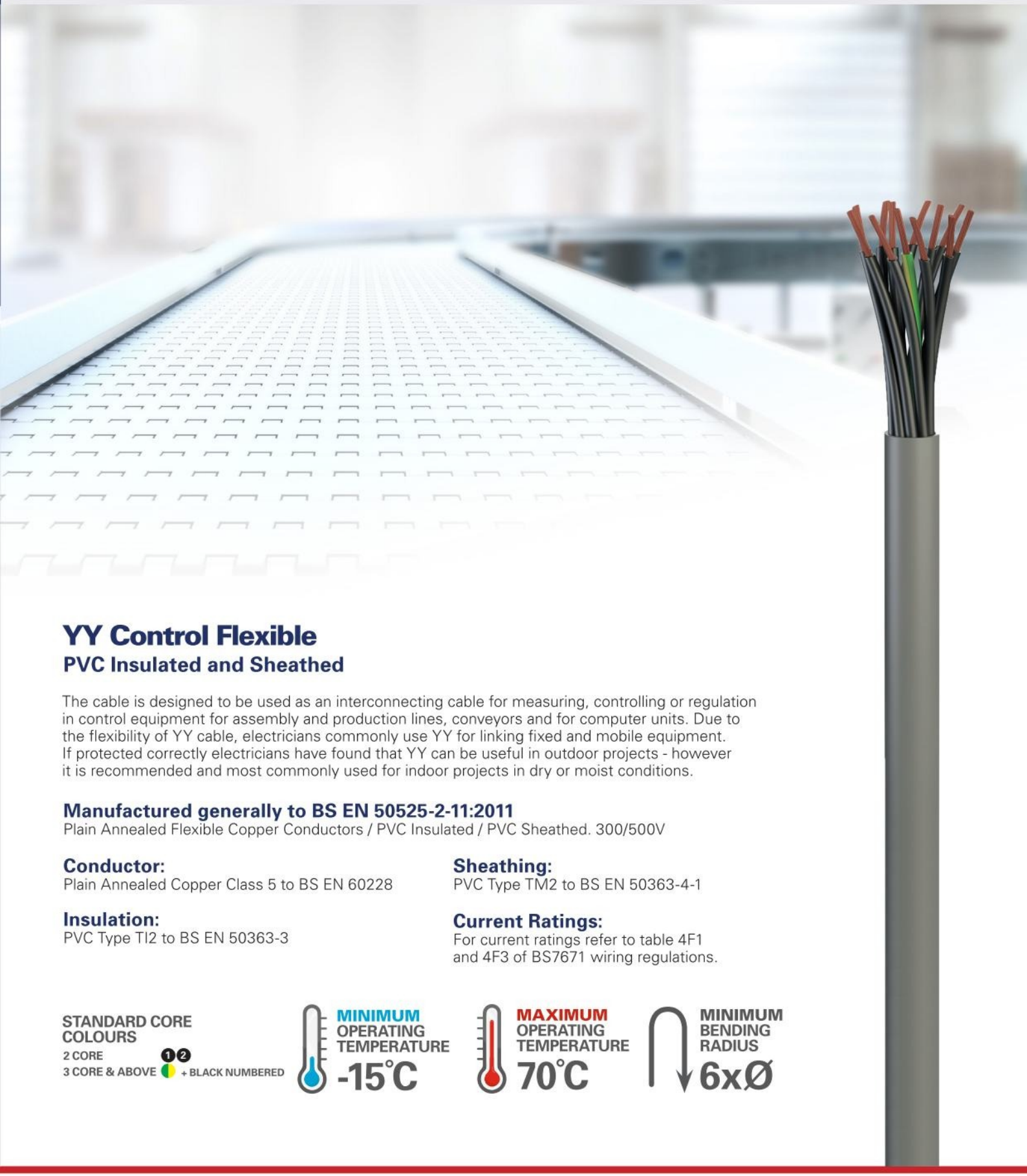


YY Control Flexible

PVC Insulated and Sheathed

The cable is designed to be used as an interconnecting cable for measuring, controlling or regulation in control equipment for assembly and production lines, conveyors and for computer units. Due to the flexibility of YY cable, electricians commonly use YY for linking fixed and mobile equipment. If protected correctly electricians have found that YY can be useful in outdoor projects - however it is recommended and most commonly used for indoor projects in dry or moist conditions.

Manufactured generally to BS EN 50525-2-11:2011

Plain Annealed Flexible Copper Conductors / PVC Insulated / PVC Sheathed. 300/500V

Conductor:
Plain Annealed Copper Class 5 to BS EN 60228

Insulation:
PVC Type TI2 to BS EN 50363-3

Sheathing:
PVC Type TM2 to BS EN 50363-4-1

Current Ratings:
For current ratings refer to table 4F1 and 4F3 of BS7671 wiring regulations.

STANDARD CORE COLOURS
2 CORE 1 2
3 CORE & ABOVE + BLACK NUMBERED

MINIMUM OPERATING TEMPERATURE
-15°C

MAXIMUM OPERATING TEMPERATURE
70°C

MINIMUM BENDING RADIUS
6xØ

YY Control Flexible
PVC Insulated and Sheathed

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
YY0.752C	0.75	24/0.2	0.5	0.6	4.8	6.8	49
YY1.02C	1.0	32/0.2	0.5	0.6	5.2	7.2	58
YY1.52C	1.5	30/0.25	0.5	0.6	5.8	7.8	72
YY2.52C	2.5	50/0.25	0.5	0.6	6.6	8.6	99
YY0.53C	0.5	16/0.2	0.5	0.6	4.7	6.7	48
YY0.753C	0.75	24/0.2	0.5	0.6	5.2	7.2	59
YY1.03C	1.0	32/0.2	0.5	0.6	5.6	7.6	70
YY1.53C	1.5	30/0.25	0.5	0.6	6.2	8.2	89
YY2.53C	2.5	50/0.25	0.5	0.6	7.0	9.0	125
YY4.03C	4.0	56/0.3	0.5	0.6	8.3	10.3	185
YY6.03C	6.0	84/0.3	0.5	0.8	10.3	12.3	256
YY7103C	10.0	80/0.4	0.6	0.8	12.6	14.6	443
YY0.54C	0.5	16/0.2	0.5	0.6	5.2	7.2	58
YY0.754C	0.75	24/0.2	0.5	0.6	5.7	7.7	74
YY1.04C	1.0	32/0.2	0.5	0.6	6.2	8.2	87
YY1.54C	1.5	30/0.25	0.5	0.6	6.8	8.8	111
YY2.54C	2.5	50/0.25	0.5	0.6	7.8	9.8	157
YY4.04C	4.0	56/0.3	0.5	0.6	9.3	11.3	240
YY6.04C	6.0	84/0.3	0.5	0.8	11.4	13.4	326
YY7104C	10.0	80/0.4	0.6	0.8	14.1	16.1	532
YY7164C	16.0	126/0.4	0.6	0.8	17.7	19.7	849
YY7254C	25.0	196/0.4	0.7	0.8	20.6	22.6	1275
YY0.55C	0.5	16/0.2	0.5	0.6	5.8	7.8	63
YY0.755C	0.75	24/0.2	0.5	0.6	6.3	8.3	80
YY1.05C	1.0	32/0.2	0.5	0.6	6.8	8.8	98
YY1.55C	1.5	30/0.25	0.5	0.6	7.6	9.6	127
YY2.55C	2.5	50/0.25	0.5	0.6	8.7	10.7	181
YY4.05C	4.0	56/0.3	0.5	0.6	10.3	12.3	267
YY6.05C	6.0	84/0.3	0.5	0.8	12.6	14.6	373
YY7105C	10.0	80/0.4	0.6	0.8	15.6	17.6	675
YY7165C	16.0	126/0.4	0.6	0.8	22.1	24.1	1067

CY Control Flexible

PVC Insulated / TCWB / PVC Sheathed

The cable is designed to be used as an interconnecting cable for measuring, controlling or regulation in control equipment for assembly and production lines, conveyors and for computer units. The shielding on CY cable helps to reduce electromagnetic interference; therefore CY cable is commonly used in situations where reduced interference signal and data transmission is required. If protected correctly electricians have found that CY can be useful in outdoor projects - however it is recommended and most commonly used for indoor projects in dry or moist conditions.

Manufactured generally to BS EN 50525-2-11

Plain Annealed Flexible Copper Conductors / PVC Insulated / Tinned Copper Wire Braid (TCWB) / PVC Sheathed. 300/500V

Conductor:

Plain Annealed Copper Class 5 to BS EN 60228

Insulation:

PVC Type TI2 to BS EN 50363-3

Braiding:

Tinned Copper Wire Braid (TCWB)

Sheathing:

PVC Type TM2 to BS EN 50363-4-1

Current Ratings:

For current ratings refer to table 4F1 and 4F3 of BS7671 wiring regulations

STANDARD CORE COLOURS

2 CORE 1 2
3 CORE + + BLACK NUMBERED

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 70°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
CY0.52C	0.5	16/0.2	0.5	0.6	4.7	6.7	45
CY0.752C	0.75	24/0.2	0.5	0.6	5.3	7.3	54
CY1.02C	1.0	32/0.2	0.5	0.6	5.5	7.5	60
CY1.52C	1.5	30/0.25	0.5	0.6	6.1	8.1	70
CY2.52C	2.5	50/0.25	0.5	0.6	7.3	9.3	104
CY0.53C	0.5	16/0.2	0.5	0.6	5.1	7.1	53
CY0.753C	0.75	24/0.2	0.5	0.6	5.6	7.6	65
CY1.03C	1.0	32/0.2	0.5	0.6	5.8	7.8	73
CY1.53C	1.5	30/0.25	0.5	0.6	6.5	8.5	90
CY2.53C	2.5	50/0.25	0.5	0.6	7.9	9.9	140
CY0.54C	0.5	16/0.2	0.5	0.6	5.6	7.6	63
CY0.754C	0.75	24/0.2	0.5	0.6	6.1	8.1	77
CY1.04C	1.0	32/0.2	0.5	0.6	6.3	8.3	89
CY1.54C	1.5	30/0.25	0.5	0.6	7.1	9.1	108
CY2.54C	2.5	50/0.25	0.5	0.6	8.7	10.7	173
CY4.04C	4.0	56/0.3	0.5	0.6	10.4	12.4	236
CY6.04C	6.0	84/0.3	0.5	0.8	12.1	14.1	339

CY Control Flexible

PVC Insulated / TCWB / PVC Sheathed

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of sheath (mm)	Overall Diameter Lower Limit (mm)	Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
CY0.55C	0.5	16/0.2	0.5	0.6	6.0	8.0	76
CY0.755C	0.75	24/0.2	0.5	0.6	6.6	8.6	91
CY1.05C	1.0	32/0.2	0.5	0.6	6.9	8.9	105
CY1.55C	1.5	30/0.25	0.5	0.6	7.7	9.7	125
CY2.55C	2.5	50/0.25	0.5	0.6	9.3	11.3	206
CY0.757C	0.75	24/0.2	0.5	0.6	7.1	9.1	115
CY1.07C	1.0	32/0.2	0.5	0.6	7.7	9.7	139
CY1.57C	1.5	30/0.25	0.5	0.6	8.6	10.6	160
CY2.57C	2.5	50/0.25	0.5	0.6	10.1	12.1	267
CY0.512C	0.5	16/0.2	0.5	0.6	8.5	10.5	140
CY0.7512C	0.75	24/0.2	0.5	0.6	9.4	11.4	177
CY1.012C	1.0	32/0.2	0.5	0.6	9.7	11.7	207
CY1.512C	1.5	30/0.25	0.5	0.6	11.1	13.1	279
CY0.7518C	0.75	24/0.2	0.5	0.6	10.9	12.9	250
CY1.018C	1.0	32/0.2	0.5	0.6	11.7	13.7	295

Multicore Loading

In practice, the majority of cores in a multicore control cable of 7 cores and above carry only small or intermittent current and a current rating based on the assumption that all cores are equally loaded is quite unrealistic. In most cases only two cores, the line and neutral feed cores are likely to approach the maximum permitted loading. The current rating for twin core cable can therefore be used in these cables. Where more than two cores are known to carry an appreciable current, the multiplying factors applicable to the two core ratings are given below. The normal current rating for twin cable may also be used in cases where the number of cores carrying appreciable current does not exceed the square root of the total number of cores in the cable.

Number of loaded cores	3	4	5	6	7	10	12	14
Multiplying factor	0.87	0.78	0.72	0.67	0.63	0.56	0.53	0.51

Number of loaded cores	19	24	27	30	37	44	46	48
Multiplying factor	0.45	0.42	0.40	0.39	0.36	0.34	0.33	0.33

SY Control Flexible

Insulated, Bedded and Sheathed with Galvanised Steel Braid

The cable is designed to be used as interconnecting cable for measuring, controlling or regulation in control equipment for assembly and production lines, conveyors and for computer units. It is commonly used in a wide number of industries including building and construction, rail and transport infrastructures, transmission and automation and process control.

This cable is also used by electricians in certain fixed installations where only light mechanical stress may occur. This cable can also be used outdoors (but should be protected); however, it is best suited to dry or moist conditions indoors.

Manufactured generally to BS EN 50525-2-11:2011

Plain Annealed Flexible Copper Conductors / PVC Insulated / Tinned Copper Wire Braid (TCWB) / PVC Sheathed. 300/500V

Conductor:

Plain Annealed Copper Class 5 to BS EN 60228

Braiding:

GSWB (Galvanised Steel Wire Braid)

Insulation:

PVC Type TI2 to BS EN 50363-3

Sheathing:

Clear PVC Type TM2 to BS EN 50363-4-1

Bedding:

PVC Type TM2 to BS EN 50363-4-1

Current Ratings:

For current ratings refer to table 4F1 and 4F3 of BS7671 IET Wiring Regulations.

STANDARD CORE COLOURS

2 CORE
3 CORE
4 CORE
5 CORE
7 CORE+ + BLACK NUMBERED

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 70°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm2)	Nominal Cross Stranding of Conductor (mm2)	Nominal Radial Thickness of Insulation (mm)	Nominal Radial Thickness of Bedding (mm)	Nominal Radial Thickness of Sheath (mm)	Approximate Overall Diameter Lower Limit (mm)	Approximate Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
SY0.752C	0.75	24/0.2	0.5	0.4	1.0	7.1	9.1	103
SY1.02C	1.0	32/0.2	0.5	0.4	1.0	7.5	9.5	113
SY1.52C	1.5	30/0.25	0.5	0.6	1.0	7.9	9.9	128
SY0.753C	0.75	24/0.2	0.5	0.4	1.0	7.9	9.9	115
SY1.03C	1.0	32/0.2	0.5	0.4	1.0	8.3	10.3	126
SY1.53C	1.5	30/0.25	0.5	0.4	1.0	8.9	10.9	146
SY2.53C	2.5	50/0.25	0.5	0.4	1.0	9.7	11.7	184
SY4.03C	4.0	56/0.3	0.5	0.4	1.0	11.0	13.0	247
SY6.03C	6.0	84/0.3	0.5	0.6	1.0	13.0	15.0	322
SY7103C	10.0	80/0.4	0.6	0.6	1.0	15.6	17.6	485
SY7163C	16.0	126/0.4	0.6	0.8	1.0	19.1	21.1	900

Weight and dimensional information is provided as an approximate guide only.

SY Control Flexible

Insulated, Bedded and Sheathed with Galvanised Steel Braid

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm2)	Nominal Cross Stranding of Conductor (mm2)	Nominal Radial Thickness of Insulation (mm)	Nominal Radial Thickness of Bedding (mm)	Nominal Radial Thickness of Sheath (mm)	Approximate Overall Diameter Lower Limit (mm)	Approximate Overall Diameter Upper Limit (mm)	Approximate Weight (kg/km)
SY0.754C	0.75	24/0.2	0.5	0.4	1.0	8.4	10.4	130
SY1.04C	1.0	32/0.2	0.5	0.4	1.0	8.9	10.9	145
SY1.54C	1.5	30/0.25	0.5	0.4	1.0	9.5	11.5	170
SY2.54C	2.5	50/0.25	0.5	0.4	1.0	10.5	12.5	218
SY4.04C	4.0	56/0.3	0.5	0.4	1.0	12.0	14.0	299
SY6.04C	6.0	84/0.3	0.5	0.6	1.0	14.2	16.2	394
SY7104C	10.0	80/0.4	0.6	0.6	1.0	17.6	19.6	638
SY7164C	16.0	126/0.4	0.6	0.8	1.0	21.2	23.2	996
SY7254C	25.0	196/0.4	0.8	0.8	1.0	25.7	27.7	1383
SY7354C	35.0	276/0.4	0.8	0.8	1.0	29.5	31.5	1938
SY0.755C	0.75	24/0.2	0.5	0.4	1.0	9.0	11.0	147
SY1.05C	1.0	32/0.2	0.5	0.4	1.0	9.5	11.5	167
SY1.55C	1.5	30/0.25	0.5	0.4	1.0	10.3	12.3	196
SY2.55C	2.5	50/0.25	0.5	0.4	1.0	11.3	13.3	256
SY4.05C	4.0	56/0.3	0.5	0.4	1.0	13.0	15.0	356
SY6.05C	6.0	84/0.3	0.5	0.6	1.0	15.3	17.3	476
SY7105C	10.0	80/0.4	0.6	0.6	1.0	19.3	21.3	766
SY7165C	16.0	126/0.4	0.6	0.8	1.0	23.3	25.2	1159
SY255C	25.0	196/0.4	0.8	0.8	1.0	28.1	30.1	1758
SY7355C	35.0	276/0.4	0.8	0.8	1.0	32.0	34.0	2560
SY0.757C	0.75	24/0.2	0.5	0.4	1.0	9.7	11.7	174
SY1.07C	1.0	32/0.2	0.5	0.4	1.0	10.2	12.2	195
SY1.57C	1.5	30/0.25	0.5	0.4	1.0	11.0	13.0	235
SY2.57C	2.5	50/0.25	0.5	0.4	1.0	12.2	14.2	313
SY4.07C	4.0	56/0.3	0.5	0.4	1.0	14.0	16.0	460
SY0.7512C	0.75	24/0.2	0.5	0.5	1.0	12.3	14.3	221
SY1.012C	1.0	32/0.2	0.5	0.5	1.0	12.5	14.5	238
SY1.512C	1.5	30/0.25	0.5	0.5	1.0	14.4	16.4	321
SY2.512C	2.5	50/0.25	0.5	0.5	1.0	16.9	18.9	499
SY0.7518C	0.75	24/0.2	0.5	0.5	1.0	14.3	16.3	279
SY1.018C	1.0	32/0.2	0.5	0.5	1.0	15.2	17.2	326
SY1.518C	1.5	30/0.25	0.5	0.5	1.0	16.9	18.9	464
SY2.518C	2.5	50/025	0.5	0.5	1.0	19.9	21.9	685
SY0.7525C	0.75	24/0.2	0.5	0.5	1.0	16.9	18.9	397
SY1.025C	1.0	32/0.2	0.5	0.5	1.0	17.7	19.7	479

Weight and dimensional information is provided as an approximate guide only.

SY Control Flexible

Insulated, Bedded and Sheathed with Galvanised Steel Braid

XT Gland Chart

Size mm2	Number of Cores							
	2	3	4	5	7	12	18	25
0.75	20S	20S	20S	20S	20S	20	25	25
1.0	20S	20S	20S	20S	20S	20	25	25
1.5	20S	20S	20S	20	20	25	25	32
2.5	-	20	20	20	25	25	25	
4.0	-	20	20	25	25			
6.0	-	25	25	25				
10.0	-	25	32	32				
16.0	-	32	32	40				
25.0	-	-	40	40				
35.0	-	-	40	40				

Multicore Loading

In practice, the majority of cores in a multicore control cable of 7 cores and above carry only small or intermittent current and a current rating based on the assumption that all cores are equally loaded is quite unrealistic. In most cases only two cores, the line and neutral feed cores are likely to approach the maximum permitted loading. The current rating for twin core cable can therefore be used in these cables.

Where more than two cores are known to carry an appreciable current, the multiplying factors applicable to the two core ratings are given below. The normal current rating for twin cable may also be used in cases where the number of cores carrying appreciable current does not exceed the square root of the total number of cores in the cable.

Number of loaded cores	3	4	5	6	7	10	12	14
Multipying factor	0.87	0.78	0.72	0.67	0.63	0.56	0.53	0.51

Number of loaded cores	19	24	27	30	37	44	26	48
Multipying factor	0.45	0.42	0.40	0.39	0.36	0.34	0.33	0.33

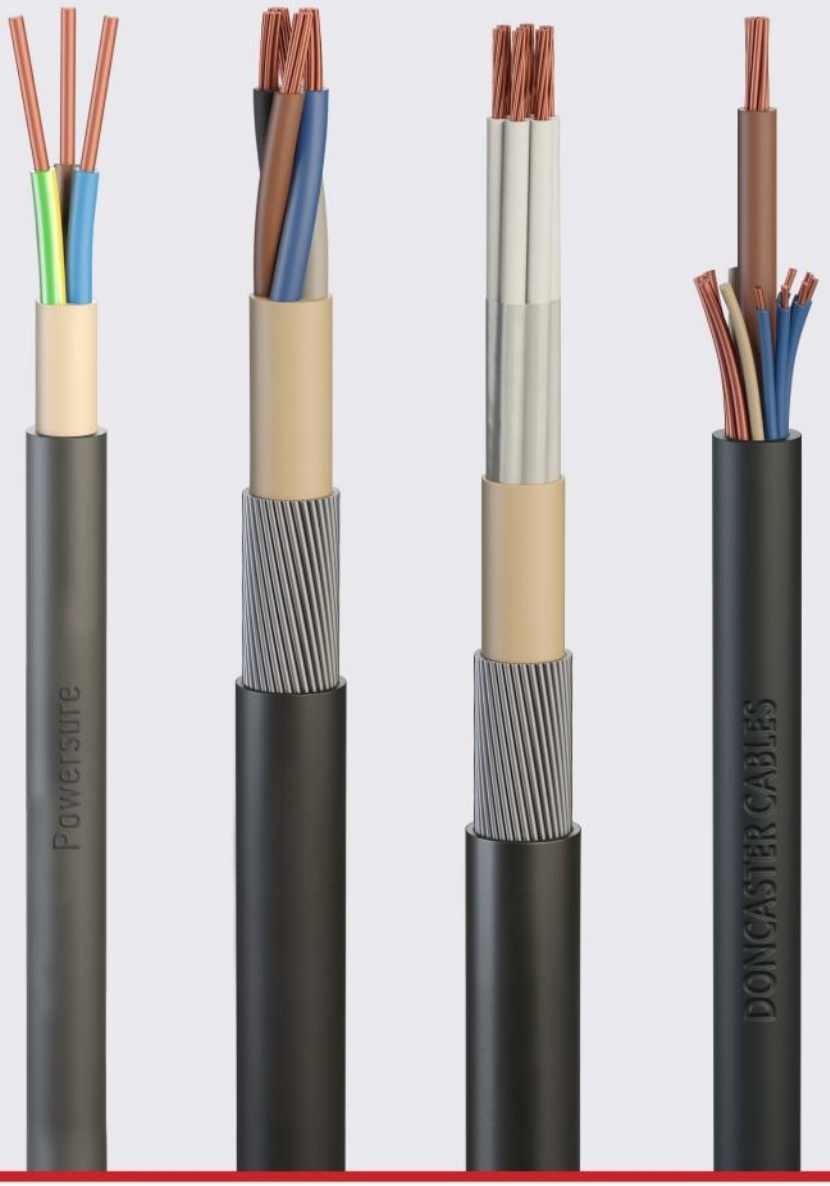
DON'T FORGET

XT Glands
See Page 82

SWA and Mains Distribution

The SWA and Mains Distribution Range includes: XLPE Insulated, PVC Bedded and Tuff-Sheathed Non Armoured Cables • XLPE Insulated, PVC Bedded and Sheathed, Steel Wire Armoured Cables • XLPE Insulated, PVC Bedded and Sheathed, Steel Wire Armoured Auxiliary Cables • XLPE Insulated, LSNH Bedded and Sheathed, Steel Wire Armoured Cables • XLPE Insulated, LSNH Bedded and Sheathed, Steel Wire Armoured Auxiliary Cables • PVC Insulated Split Concentric Cables

Weight and dimensional information is provided as an approximate guide only.



XLPE Insulated, PVC Bedded and Tuff-Sheathed Non Armoured Cables

This cable is designed for industrial wiring and mains distribution in areas where the mechanical protection of an SWA cable is not required. It is particularly suited for warehouses, farm buildings, gantry wiring and factories. These cables are designed to be installed in air, clipped to surface, on cable tray/ladder work and embedded in concrete. The cables can be laid direct in the ground providing that suitable additional mechanical protection is in place.

Manufactured generally to BS 5467 Table 8 (3 Core) Table 10 (4 Core) Table 13 (5 Core)

Plain Annealed Copper Conductor / XLPE Insulated / PVC Bedded / Non Armoured / Tuff PVC Sheathed. 600/1000V

Conductor:
Plain Annealed Copper Class 2 Stranded to BS EN 60228

Insulation:
Thermosetting XLPE Type GP8 to BS 7655-1.3

Bedding:
Compatible Polymeric Material (PVC)

Sheathing:
PVC Type 9 to BS 7655-4.2

Current Ratings:
For current ratings refer to table 4E4A of BS7671 wiring regulations.

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Radial Thickness of bedding (mm)	Nominal Radial Thickness of sheath (mm)	Approximate Overall Diameter (mm)	Approximate Weight (kg/km)	Recommended Gland size
HTS3C1.5	3 x 1.5	7/0.53	0.6	0.4	1.3	10.0	135	20S
HTS3C2.5	3 x 2.5	7/0.67	0.7	0.4	1.4	11.5	185	20S
HTS3C4.0	3 x 4.0	7/0.85	0.7	0.4	1.4	12.7	280	20S
HTS3C6.0	3 x 6.0	7/1.04	0.7	0.4	1.4	14.0	375	20
HTS3C710	3 x 10.0	7/1.35	0.7	0.6	1.5	16.5	515	20
HTS4C1.5	4 x 1.5	7/0.53	0.6	0.4	1.3	11.0	160	20S
HTS4C2.5	4 x 2.5	7/0.67	0.7	0.4	1.4	12.5	220	20S
HTS4C4.0	4 x 4.0	7/0.85	0.7	0.4	1.5	14.0	350	20
HTS4C6.0	4 x 6.0	7/1.04	0.7	0.6	1.5	15.7	460	20
HTS5C1.5	5 x 1.5	7/0.53	0.6	0.4	1.4	12.0	185	20S
HTS5C2.5	5 x 2.5	7/0.67	0.7	0.4	1.4	13.5	270	20S
HTS5C4.0	5 x 4.0	7/0.85	0.7	0.6	1.5	15.5	430	20
HTS5C6.0	5 x 6.0	7/1.04	0.7	0.6	1.5	17.0	570	20

NYY-J

PVC Insulated and sheathed multicore cable

These cables are widely used for power and control for fixed wiring installations with a voltage rating of 600/1000V. They can be safely deployed in most applications where mechanical stresses are not anticipated and are suitable for use indoors and outdoors.

These black NYY cables have a UV-stabilised outersheath making them suitable for direct exposure to sunlight.

Manufactured to BS EN 60502-1

Annealed Copper Conductor / PVC Insulated / PVC Bedding / PVC Sheath / 600/1000v

Conductor:

Plain Annealed Copper to BS EN 60228

Insulation:

PVC Insulation

Outer Sheath:

Black PVC Sheath

Current Ratings:

For current ratings refer to table 4D2A and 4D2B of BS7671 IET Wiring Regulations.

STANDARD CORE COLOURS

2 CORE
3 CORE
4 CORE
5 CORE

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 70°C

MINIMUM BENDING RADIUS 12xØ

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm^2)	Conductor Class to BS EN 60228	Nominal Radial Thickness of Insulation (mm)	Nominal Radial Thickness of Sheath (mm)	Approximate Overall Diameter (mm)	Approximate Weight (kg/km)
NYY3C1.5	1.5	Class 1	0.8	1.8	11.0	177
NYY3C2.5	2.5	Class 1	0.8	1.8	11.9	221
NYY3C4.0	4.0	Class 1	1.0	1.8	13.7	308
NYY3C6.0	6.0	Class 1	1.0	1.8	14.7	387
NYY3C10	10.0	Class 2	1.0	1.8	17.4	569
NYY3C16	16.0	Class 2	1.0	1.8	19.5	777
NYY4C1.5	1.5	Class 1	0.8	1.8	12.0	215
NYY4C2.5	2.5	Class 1	0.8	1.8	12.9	270
NYY4C4.0	4.0	Class 1	1.0	1.8	14.9	380
NYY5C1.5	1.5	Class 1	0.8	1.8	12.6	244
NYY5C2.5	2.5	Class 1	0.8	1.8	13.7	311
NYY5C4.0	4.0	Class 1	1.0	1.8	14.9	380
NYY5C6.0	6.0	Class 1	1.0	1.8	17.3	568
NYY5C710	10.0	Class 2	1.0	1.8	20.6	849
NYY5C716	16.0	Class 2	1.0	1.8	22.4	1158

XLPE Insulated, PVC Bedded and Sheathed, Steel Wire Armoured Cables

SWA (H694-XL) - CU / XLPE / PVC / SWA / PVC

Steel Wire Armoured cables are predominantly used for industrial wiring and mains distribution. They are designed to be used in industrial areas, in and around buildings and other similar environments. These cables are designed to be installed in air, clipped to surface, on cable tray /ladder work, embedded in concrete and buried direct or in ducting underground.

Manufactured to BS 5467 Table 6 (2 Core) Table 8 (3 Core) Table 10 (4 Core) Table 13 (5 Core)
Plain Annealed Copper Conductor / XLPE Insulated / PVC Bedded / Galvanised Steel Wire Armour / PVC Sheathed. 600/1000V

Conductor:
Plain Annealed Copper Class 2 Stranded to BS EN 60228

Insulation:
Thermosetting XLPE Type GP8 to BS 7655-1.3

Bedding:
Compatible Polymeric Material (PVC)

Steel Wire Armour:
Galvanised Steel Wire

Sheathing:
PVC Type 9 to BS 7655-4.2

Current Ratings:
For current ratings refer to table 4E4A of BS7671 wiring regulations.

STANDARD CORE COLOURS
2 CORE
3 CORE
4 CORE
5 CORE

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 90°C

MINIMUM BENDING RADIUS 8xØ

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Thickness of Extruded Bedding (mm)	Wire Diameter (mm) Nominal Steel Armour	Nominal Thickness of Oversheath (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)	Recommended Gland Size
H6942XL1.5	2 x 1.5	7/0.53	0.6	0.8	0.9	1.3	11.0	240	20S
H6942XL2.5	2 x 2.5	7/0.67	0.7	0.8	0.9	1.4	12.6	260	20S
H6942XL4.0	2 x 4.0	7/0.85	0.7	0.8	0.9	1.4	13.4	340	20S
H6942XL6.0	2 x 6.0	7/1.04	0.7	0.8	0.9	1.4	13.7	400	20S
H6942XL710	2 x 10.0	7/1.35	0.7	0.8	0.9	1.5	16.4	620	20
H6942XL716	2 x 16.0	7/1.70	0.7	0.8	1.25	1.5	20.0	780	25
H6942XL725	2 x 25.0	7/2.14	0.9	0.8	1.25	1.6	23.8	1000	25
H6942XL735	2 x 35.0	7/2.52	0.9	1.0	1.6	1.7	27.7	1350	32
H6943XL1.5	3 x 1.5	7/0.53	0.6	0.8	0.9	1.3	11.9	260	20S
H6943XL2.5	3 x 2.5	7/0.67	0.7	0.8	0.9	1.4	12.6	320	20S
H6943XL4.0	3 x 4.0	7/0.85	0.7	0.8	0.9	1.4	13.6	440	20S
H6943XL6.0	3 x 6.0	7/1.04	0.7	0.8	0.9	1.4	14.9	610	20
H6943XL710	3 x 10.0	7/1.35	0.7	0.8	1.25	1.5	18.3	840	20
H6943XL716	3 x 16.0	7/1.70	0.7	0.8	1.25	1.6	20.4	1075	25
H6943XL725	3 x 25.0	7/2.14	0.9	1.0	1.6	1.7	25.2	1450	32
H6943XL735	3 x 35.0	7/2.52	0.9	1.0	1.6	1.8	28.8	1850	32

XLPE Insulated, PVC Bedded and Sheathed, Steel Wire Armoured Cables

SWA (H694-XL) - CU / XLPE / PVC / SWA / PVC

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm^2)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Thickness of Extruded Bedding (mm)	Wire Diameter (mm) Nominal Steel Armour	Nominal Thickness of Oversheath (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)	Recommended Gland Size
H6944XL1.5	4 x 1.5	7/0.53	0.6	0.8	0.9	1.3	12.1	290	20S
H6944XL2.5	5 4 x 2.5	7/0.67	0.7	0.8	0.9	1.4	13.5	370	20S
H6944XL4.0	4 x 4.0	7/0.85	0.7	0.8	0.9	1.4	14.7	590	20
H6944XL6.0	4 x 6.0	7/1.04	0.7	0.8	1.25	1.5	16.6	680	20
H6944XL710	4 x 10.0	7/1.35	0.7	0.8	1.25	1.5	20.5	960	25
H6944XL716	4 x 16.0	7/1.70	0.7	0.8	1.25	1.6	22.8	1400	25
H6944XL725	4 x 25.0	7/2.14	0.9	1.0	1.6	1.7	27.8	1900	32
H6944XL735	4 x 35.0	7/2.52	0.9	1.0	1.6	18	31.0	2400	32
H6945XL1.5	5 x 1.5	7/0.53	0.6	0.8	0.9	1.4	12.8	433	20S
H6945XL2.5	5 x 2.5	7/0.67	0.7	0.8	0.9	1.4	14.5	530	20S
H6945XL4.0	5 x 4.0	7/0.85	0.7	0.8	0.9	1.5	16.8	775	20
H6945XL6.0	5 x 6.0	7/1.04	0.7	0.8	1.25	1.5	17.9	929	25
H6945XL710	5 x 10.0	7/1.35	0.7	0.8	1.25	1.6	21.6	1300	25
H6945XL716	5 x 16.0	7/1.70	0.7	1.0	1.6	1.7	26.3	1880	25
H6945XL725	5 x 25.0	7/2.14	0.9	1.0	1.6	1.8	30.9	2670	40

DON'T FORGET

Gland Pack + Cleats
See Page 82 & 84

XLPE Insulated, PVC Bedded and Sheathed, Steel Wire Armoured Auxiliary Cables

SWA (H694-XL) - CU / XLPE / PVC / SWA / PVC

Auxiliary Steel Wire Armoured cables are predominantly used for industrial wiring and signalling. They are designed to be used in industrial areas, areas with higher risk of mechanical stress/damage, in and around buildings and other similar environments. These cables are designed to be installed in air, clipped to surface, on cable tray / ladder work, embedded in concrete and buried direct or in ducting underground

Manufactured to BS 5467 Table 18

Plain Annealed Copper Conductor / XLPE Insulated / PVC Bedded / Galvanised Steel Wire Armour / PVC Sheathed. 600/1000V

Conductor:
Plain Annealed Copper Class 2 Stranded to BS EN 60228

Insulation:
Thermosetting XLPE Type GP8 to BS 7655-1.3

Bedding:
Compatible Polymeric Material (PVC)

Steel Wire Armour:
Galvanised Steel Wire

Sheathing:
PVC Type 9 to BS 7655-4.2

Current Ratings:
For current ratings refer to table 4E4A of BS7671 wiring regulations.

STANDARD CORE COLOURS

WHITE NUMBERED CORES

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 90°C

MINIMUM BENDING RADIUS 8xØ

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Thickness of Bedding (mm)	Nominal Diameter of Armour Wire (mm)	Nominal Radial Thickness of Sheath (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)	Recommended Gland Size
7C1.5	7 x 1.5	7/0.53	0.6	0.8	0.9	1.4	15.2	506	20S
7C2.5	7 x 2.5	7/0.67	0.7	0.8	0.9	1.4	17.1	618	20
12C1.5	12 x 1.5	7/0.53	0.6	0.8	1.3	1.5	19.4	854	25
12C2.5	12 x 2.5	7/0.67	0.7	0.8	1.3	1.6	22.4	1080	25
19C1.5	19 x 1.5	7/0.53	0.6	0.8	1.3	1.6	22.2	1120	25

*Manufactured generally to BS5467, not BASEC approved

**Not BASEC approved.

XLPE Insulated, PVC Bedded and Sheathed, Steel Wire Armoured Auxiliary Cables

SWA (H694-XL) - CU / XLPE / PVC / SWA / PVC

Multicore Loading

In practice, the majority of cores in a multicore control cable of 7 cores and above carry only small or intermittent current and a current rating based on the assumption that all cores are equally loaded is quite unrealistic. In most cases only two cores, the line and neutral feed cores are likely to approach the maximum permitted loading.
The current rating for twin core cable can therefore be used in these cables.

Where more than two cores are known to carry an appreciable current, the multiplying factors applicable to the two core ratings are given below. The normal current rating for twin cable may also be used in cases where the number of cores carrying appreciable current does not exceed the square root of the total number of cores in the cable.

Number of loaded cores	3	4	5	6	7	10	12	14
Multiplying factor	0.87	0.78	0.72	0.67	0.63	0.56	0.53	0.51

Number of loaded cores	19	24	27	30	37	44	46	48
Multiplying factor	0.45	0.42	0.40	0.39	0.36	0.34	0.33	0.33

DON'T FORGET

Gland Pack + Cleats
See Page 82 & 84

XLPE Insulated, LSNH Bedded and Sheathed, Steel Wire Armoured Cables

SWA LSNH - CU / XLPE / LSNH / SWA / LSNH

These cables are designed to be used in installations where smoke and acid gas emission would pose a major hazard in the event of a fire. Steel Wire Armoured cables are predominantly used for industrial wiring and mains distribution. They are designed to be used in industrial areas, in and around buildings and other similar environments. These cables are designed to be installed in air, clipped to surface, on cable tray/ ladder work, embedded in concrete and buried direct or in ducting underground.

Manufactured to BS 6724 Table 6 (2 Core) Table 8 (3 Core) Table 10 (4 Core) Table 13 (5 Core)
Plain Annealed Copper Conductor / XLPE Insulated / LSNH Bedded / Galvanised Steel Wire Armour / LSNH Sheathed. 600/1000V

Conductor:
Plain Annealed Copper Class 2 Stranded to BS EN 60228

Insulation:
Thermosetting XLPE Type GP8 to BS 7655-1.3

Bedding:
Compatible LSNH Polymeric Material (LSNH)

Steel Wire Armour:
Galvanised Steel Wire

Sheathing:
LSNH Type LTS1 to BS 7655-6.1

Current Ratings:
For current ratings refer to table 4E4A of BS7671 wiring regulations.

STANDARD CORE COLOURS
2 CORE
3 CORE
4 CORE
5 CORE

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 90°C

MINIMUM BENDING RADIUS 8xØ

Product Details:

Product Code	Number and Nominal Cross Sectional Area of Conductors (mm²)	Nominal Stranding of Conductor (mm)	Nominal Thickness of Insulation (mm)	Nominal Thickness of Extruded Bedding (mm)	Nominal Steel Armour Wire Diameter (mm)	Nominal Thickness of Oversheath (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)	Recommended Gland Size
H6942XL1.5LSNH	2 x 1.5	7/0.53	0.6	0.8	0.9	1.3	11.0	240	20S
H6942XL2.5LSNH	2 x 2.5	7/0.67	0.7	0.8	0.9	1.4	12.6	260	20S
H6942XL4.0LSNH	2 x 4.0	7/0.85	0.7	0.8	0.9	1.4	13.4	340	20S
H6942XL6.0LSNH	2 x 6.0	7/1.04	0.7	0.8	0.9	1.4	13.7	400	20S
H6942XL710LSNH	2 x 10.0	7/1.35	0.7	0.8	0.9	1.5	16.4	620	20
H6942XL716LSNH	2 x 16.0	7/1.70	0.7	0.8	1.25	1.5	20.0	780	25
H6942XL725LSNH	2 x 25.0	7/2.14	0.9	0.8	1.25	1.6	23.8	1000	25
H6942XL735LSNH	2 x 35.0	7/2.52	0.9	1.0	1.6	1.7	27.7	1350	32
H6943XL1.5LSNH	3 x 1.5	7/0.53	0.6	0.8	0.9	1.3	11.9	260	20S
H6943XL2.5LSNH	3 x 2.5	7/0.67	0.7	0.8	0.9	1.4	12.6	320	20S
H6943XL4.0LSNH	3 x 4.0	7/0.85	0.7	0.8	0.9	1.4	13.6	440	20S
H6943XL6.0LSNH	3 x 6.0	7/1.04	0.7	0.8	0.9	1.4	14.9	610	20
H6943XL710LSNH	3 x 10.0	7/1.35	0.7	0.8	1.25	1.5	18.3	840	20
H6943XL716LSNH	3 x 16.0	7/1.70	0.7	0.8	1.25	1.6	20.4	1075	25
H6943XL725LSNH	3 x 25.0	7/2.14	0.9	1.0	1.6	1.7	25.2	1450	32
H6943XL735LSNH	3 x 35.0	7/2.52	0.9	1.0	1.6	1.8	28.8	1850	32

XLPE Insulated, LSNH Bedded and Sheathed, Steel Wire Armoured Cables

SWA LSNH - CU / XLPE / LSNH / SWA / LSNH

Product Details:

Product Code	Number and Nominal Cross Sectional Area of Conductors (mm^2)	Nominal Stranding of Conductor (mm)	Nominal Thickness of Insulation (mm)	Nominal Thickness of Extruded Bedding (mm)	Nominal Steel Armour Wire Diameter (mm)	Nominal Thickness of Oversheath (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)	Recommended Gland Size
H6944XL1.5LSNH	4 x 1.5	7/0.53	0.6	0.8	0.9	1.3	12.1	290	20S
H6944XL2.5LSNH	4 x 2.5	7/0.67	0.7	0.8	0.9	1.4	13.5	370	20S
H6944XL4.0LSNH	4 x 4.0	7/0.85	0.7	0.8	0.9	1.4	14.7	590	20
H6944XL6.0LSNH	4 x 6.0	7/1.04	0.7	0.8	1.25	1.5	16.6	680	20
H6944XL710LSNH	4 x 10.0	7/1.35	0.7	0.8	1.25	1.5	20.5	960	25
H6944XL716LSNH	4 x 16.0	7/1.70	0.7	0.8	1.25	1.6	22.8	1400	25
H6944XL725LSNH	4 x 25.0	7/2.14	0.9	1.0	1.6	1.7	27.8	1900	32
H6944XL735LSNH	4 x 35.0	7/2.52	0.9	1.0	1.6	18	31.0	2400	32
H6945XL1.5LSNH	5 x 1.5	7/0.53	0.6	0.8	0.9	1.4	12.8	433	20S
H6945XL2.5LSNH	5 x 2.5	7/0.67	0.7	0.8	0.9	1.4	14.5	530	20S
H6945XL4.0LSNH	5 x 4.0	7/0.85	0.7	0.8	0.9	1.5	16.8	775	20
H6945XL6.0LSNH	5 x 6.0	7/1.04	0.7	0.8	1.25	1.5	17.9	929	25
H6945XL710LSNH	5 x 10.0	7/1.35	0.7	0.8	1.25	1.6	21.6	1300	25
H6945XL716LSNH	5 x 16.0	7/1.70	0.7	1.0	1.6	1.7	26.3	1880	25
H6945XL725LSNH	5 x 25.0	7/2.14	0.9	1.0	1.6	1.8	30.9	2670	40

DON'T FORGET

Gland Pack + Cleats
See Page 82 & 84

XLPE Insulated, LSNH Bedded and Sheathed, Steel Wire Armoured Auxiliary Cables

AUXILLARY SWA LSNH - CU / XLPE / LSNH / SWA / LSNH

These cables are designed to be used in installations where smoke and acid gas emission would pose a major hazard in the event of a fire. Auxiliary Steel Wire Armoured cables are predominantly used for industrial wiring and signalling. They are designed to be used in industrial areas, areas with higher risk of mechanical stress/damage, in and around buildings and other similar environments. These cables are designed to be installed in air, clipped to surface, on cable tray/ ladder work, embedded in concrete and buried direct or in ducting underground.

Manufactured to BS 6724 Table 18. (LSNH = Low Smoke Non Halogen)
Plain Annealed Copper Conductor / XLPE Insulated / LSNH Bedded / Galvanised Steel Wire Armour / LSNH Sheathed. 600/1000V

Conductor:
Plain Annealed Copper Class 2 Stranded to BSEN 60228

Insulation:
Thermosetting XLPE Type GP8 to BS 7655-1.3

Bedding:
Compatible LSNH Polymeric Material (LSNH)

Steel Wire Armour:
Galvanised Steel Wire

Sheathing:
LSNH Type LTS1 to BS 7655-6.1

Current Ratings:
For current ratings refer to table 4E4A of BS7671 wiring regulations.

STANDARD CORE COLOURS

WHITE NUMBERED CORES

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 90°C

MINIMUM BENDING RADIUS 8xØ

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Nominal Thickness of Bedding (mm)	Nominal Diameter of Armour Wire (mm)	Nominal Radial Thickness of Sheath (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)	Recommended Gland Size
7C1.5LSF	7 x 1.5	7/0.53	0.6	0.8	0.9	1.4	15.2	506	20S
7C2.5LSF	7 x 2.5	7/0.67	0.7	0.8	0.9	1.4	17.1	618	20
12C1.5LSF	12 x 1.5	7/0.53	0.6	0.8	1.3	1.5	19.4	854	25
12C2.5LSF	12 x 2.5	7/0.67	0.7	0.8	1.3	1.6	22.4	1080	25
19C1.5LSF	19 x 1.5	7/0.53	0.6	0.8	1.3	1.6	22.2	1120	25
19C2.5LSF	19 x 2.5	7/0.67	0.7	1.0	1.6	1.7	26.6	1570	25

XLPE Insulated, LSNH Bedded and Sheathed, Steel Wire Armoured Auxiliary Cables

AUXILLARY SWA LSNH - CU / XLPE / LSNH / SWA / LSNH

Multicore Loading

In practice, the majority of cores in a multicore control cable of 7 cores and above carry only small or intermittent current and a current rating based on the assumption that all cores are equally loaded is quite unrealistic. In most cases only two cores, the line and neutral feed cores are likely to approach the maximum permitted loading. The current rating for twin core cable can therefore be used in these cables.

Where more than two cores are known to carry an appreciable current, the multiplying factors applicable to the two core ratings are given below. The normal current rating for twin cable may also be used in cases where the number of cores carrying appreciable current does not exceed the square root of the total number of cores in the cable.

Number of loaded cores	3	4	5	6	7	10	12	14
Multiplying factor	0.87	0.78	0.72	0.67	0.63	0.56	0.53	0.51

Number of loaded cores	19	24	27	30	37	44	46	48
Multiplying factor	0.45	0.42	0.40	0.39	0.36	0.34	0.33	0.33

DON'T FORGET

Gland Pack + Cleats
See Page 82 & 84

PVC Insulated Split Concentric Cables with Copper Conductors

Split concentric cables are predominantly used by Distribution Network Operators (DNO's) when providing the final service connection to domestic properties. Split concentric cables are also suitable for sub main distribution and have been found to be particularly useful within high rise buildings and street lighting systems. These cables are designed to be installed in air, or for burial in free draining soil conditions.

Manufactured to BS 4553-1 Table 3

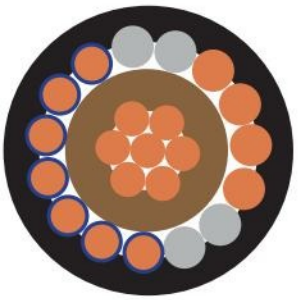
The insulated neutrals and bare earth wires are laid in a concentric layer around the insulated phase conductor with PVC string separators separating the neutral and earths. This is then bound with a clear polyester tape and then PVC sheathed. (See diagram on the right)

Conductors:

Phase:	Plain Annealed Copper Class 2 Stranded to BSEN60228
Neutral:	Plain Annealed Copper Class 1 Solid to BSEN60228
Earth:	Plain Annealed Copper Class 1 Solid to BSEN60228

Insulation:

Phase:	PVC Type TI1 to BS EN 50363-3
Neutral:	Blue Compatible Polymeric Compound (PVC)



Split concentric cables are predominantly used by Distribution Network Operators (DNO's) when providing the final service connection to domestic properties. Split concentric cables are also suitable for sub main distribution and have been found to be particularly useful within high rise buildings and street lighting systems. These cables are designed to be installed in air, or for burial in free draining soil conditions.

MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 70°C

MINIMUM BENDING RADIUS 6xØ

PVC Insulated Split Concentric Cables with Copper Conductors

Product Details:

Product Code	HSPLITCON4.0	HSPLITCON6.0	HSPLITCON710	HSPLITCON716	HSPLITCON725
Nominal CSA of Phase Conductor (mm²)	4.0	6.0	10.0	16.0	25.0
Nominal Makeup of Phase Conductor (mm)	7/0.85	7/1.04	7/1.35	7/1.70	7/2.14
Approx Combined CSA of Neutrals (mm²)	4.0	6.0	10.0	16.0	25.0
Nominal Makeup of Neutrals (mm)	7 x 0.85	7 x 1.04	7 x 1.35	7 x 1.70	11 x 1.70
Nominal Combined CSA of Earth (mm²)	4	6.0	10.0	16.0	16.0
Nominal Makeup of Earth (mm)	3 x 1.35	4 x 1.53	4 x 1.78	4 x 2.25	4 x 2.25
Nominal Radial Thickness of Insulation (mm)	0.8	0.8	1.0	1.0	1.2
Nominal Radial Thickness of Sheath (mm)	1.4	1.4	1.4	1.4	1.5
Approx. Overall Diameter (mm)	9.8	11.2	12.6	15.0	18.3
Approx. Weight (kg/km)	207	291	403	656	848

Current Ratings and associated Voltage Drops

Phase Conductor Size (mm²)	Current Rating		Approx Voltage Drop (mV/A/m)
	In Air (A)	In Ground (A)	
4	42	53	11.0
6	54	66	7.2
10	74	88	4.3
16	97	115	2.7
25	130	150	1.7

Maximum Conductor Resistance per 1000m of cable

Phase Conductor Size (mm²)	PHASE Maximum D.C Conductor Resistance at 20°C (ohm/km)	NEUTRAL Maximum D.C Conductor Resistance at 20°C (ohm/km)	EARTH Maximum D.C Conductor Resistance at 20°C (ohm/km)
4	4.61	4.8	4.8
6	3.08	3.2	3.2
10	1.83	1.9	1.9
16	1.15	1.2	1.2
25	0.727	0.76	1.2

Speaker, Coaxial and Security

The Range includes: Bellwire | Alarm Cable | Stereo Twin Speaker Cables
CCTV Cable | Satellite TV Coaxial Cable as CT100

Weight and dimensional information is provided as an approximate guide only.

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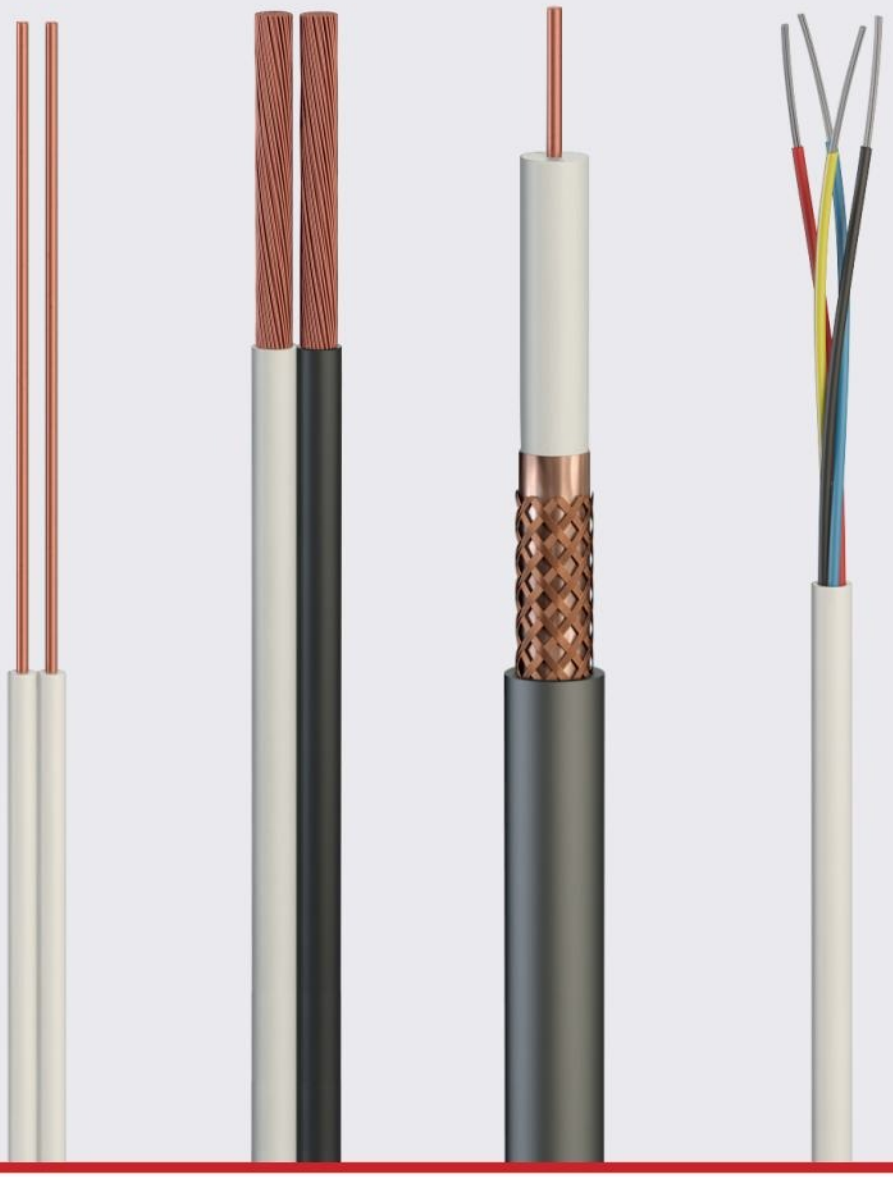
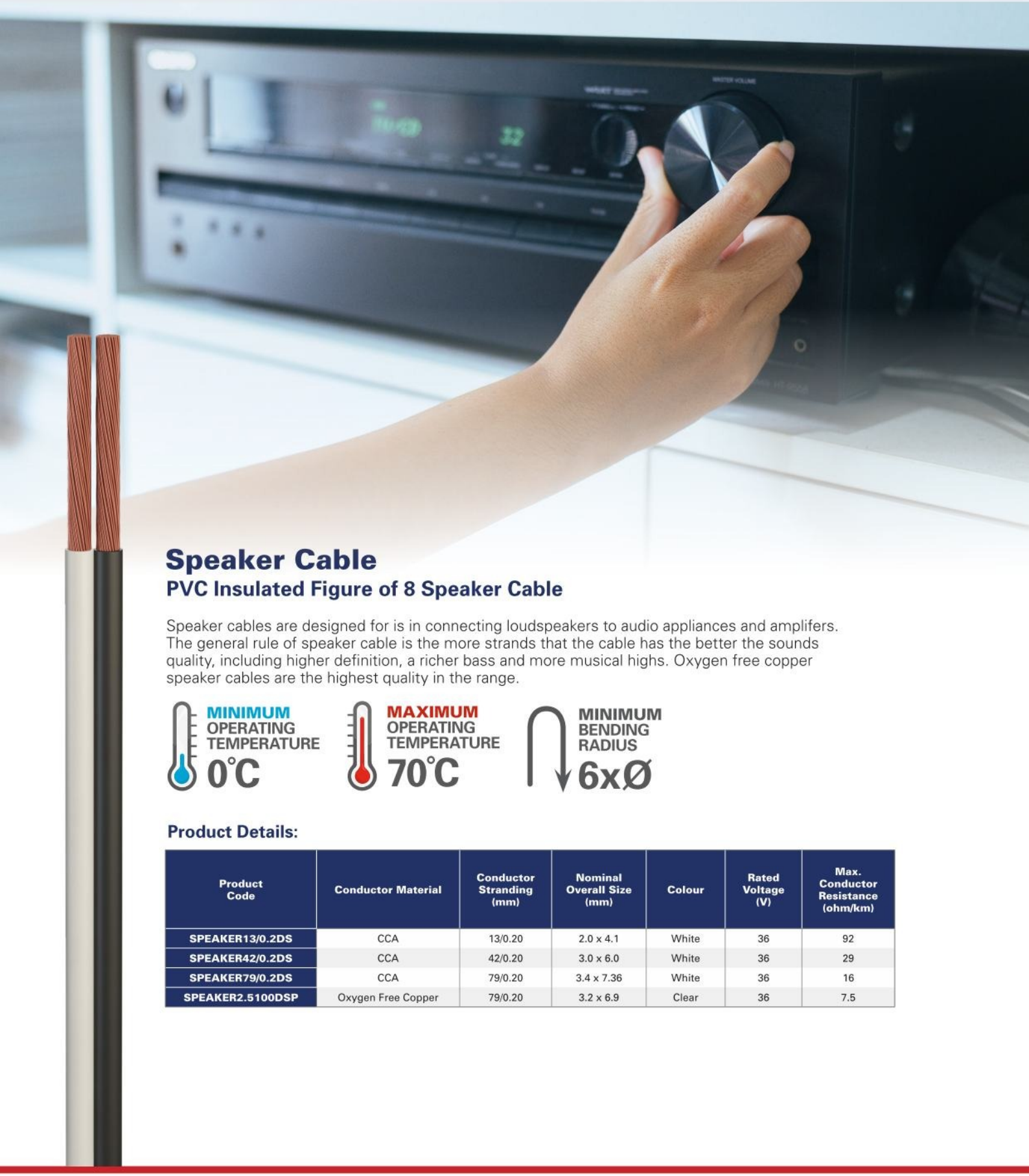




Speaker Cable

PVC Insulated Figure of 8 Speaker Cable

Speaker cables are designed for is in connecting loudspeakers to audio appliances and amplifers. The general rule of speaker cable is the more strands that the cable has the better the sounds quality, including higher definition, a richer bass and more musical highs. Oxygen free copper speaker cables are the highest quality in the range.

MINIMUM OPERATING TEMPERATURE
0°C

MAXIMUM OPERATING TEMPERATURE
70°C

MINIMUM BENDING RADIUS
6xØ

Product Details:

Product Code	Conductor Material	Conductor Stranding (mm)	Nominal Overall Size (mm)	Colour	Rated Voltage (V)	Max. Conductor Resistance (ohm/km)
SPEAKER13/0.2DS	CCA	13/0.20	2.0 x 4.1	White	36	92
SPEAKER42/0.2DS	CCA	42/0.20	3.0 x 6.0	White	36	29
SPEAKER79/0.2DS	CCA	79/0.20	3.4 x 7.36	White	36	16
SPEAKER2.5100DSP	Oxygen Free Copper	79/0.20	3.2 x 6.9	Clear	36	7.5

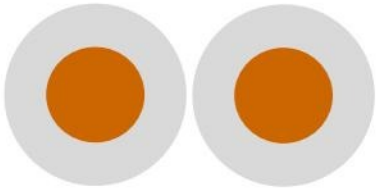
Bellwire

1/0.67mm Copper / Figure 8 PVC Insulated

Each conductor consists of 1 solid strand of 0.67mm copper. The conductors are laid side by side and insulated in a white PVC. This creates a flat 'figure of 8' configuration. This cable is primarily designed for use in connecting door bells and chimes. However, electricians have also found this cable suitable for other applications where extra-low voltage (less than 50V) is being used.

Conductor:
Plain Annealed Copper Class 1 Solid to BS EN 60228

Insulation:
PVC Type TI1 to BS EN 50363-3



MINIMUM OPERATING TEMPERATURE -15°C

MAXIMUM OPERATING TEMPERATURE 60°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Nominal Cross Sectional Area of Conductor (mm²)	Nominal Stranding of Conductor (mm)	Nominal Radial Thickness of insulation (mm)	Approx. Width (Major Axis) (mm)	Approx. Width (Major Axis) (mm)	Approx. Web Details (mm)	Approx. Weight (kg/km)
BW	0.35	1/0.67	0.5	1.7	3.7	0.3x0.2	14

Alarm Cable

Type 2 Unscreened

This multicore flexible cables, often used for interconnecting wiring in intruder alarm systems in buildings as signal transmission

Manufactured to BS4737 Section 3.30

Tinned Annealed Copper Conductor / PVC Insulated / PVC Sheathed.

Conductor :

Tinned Annealed Copper Class 5 Flexible to BSEN 60228

Insulation:

Polyvinyl Chloride (PVC) to BS EN 50363-3.2

Sheath:

Polyvinyl Chloride (PVC) to BS7655-4.2

Key Features:

- Rip Cord
- Maximum conductor resistance value of 89Ω/km
- Very flexible
- Easy to use

MINIMUM OPERATING TEMPERATURE 0°C

MAXIMUM OPERATING TEMPERATURE 70°C

MINIMUM BENDING RADIUS 6xØ

Product Details:

Product Code	Number of Cores	Nominal Stranding of Conductor (mm)	Core Colours	Minimum Radial Thickness of insulation (mm)	Minimum Radial Thickness of sheath (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)
AC4C	4	7/0.19	Red, Yellow, Blue, Black	0.2	0.5	4.0	17.5
AC6C	6	7/0.19	Red, Yellow, Blue, Black, White, Green	0.2	0.5	4.6	24.9
AC8C	8	7/0.19	Red, Yellow, Blue, Black, White, Green, Orange, Brown	0.2	0.5	5.7	32.0
AC12C	12	7/0.19	Red, Yellow, Blue, Black, White, Green, Orange, Brown, Violet, Pink, Grey, Turquoise	0.2	0.5	6.1	47.8

Alarm Cable

Type 3 Unscreened Alarm Cable, TCCA Range

This multicore flexible cables, often used for interconnecting wiring in intruder alarm systems in buildings as signal transmission

Manufactured to BS4737 Section 3.30

TCCA Conductor / PVC Insulated / PVC Sheathed.

Conductor :

Tinned Annealed Copper Class 5 Flexible to BSEN 60228

Insulation:

Polyvinyl Chloride (PVC) to BS EN 50363-3.2

Sheath:

Polyvinyl Chloride (PVC) to BS7655-4.2

Key Features:

- Rip Cord and identity thread with a breaking strain of not less than 40N
- Maximum conductor resistance value of 95Ω/km
- Very flexible
- Easy to use

Product Details:

Product Code	Number of Cores	Nominal Stranding of Conductor (mm)	Core Colours	Minimum Radial Thickness of insulation (mm)	Minimum Radial Thickness of sheath (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)
4C CCA	4	7/0.19	Red, Yellow, Blue, Black	0.2	0.5	4.0	17.5
6C TCCA	6	7/0.19	Red, Yellow, Blue, Black, White, Green	0.2	0.5	4.6	24.9
8C TCCA	8	7/0.19	Red, Yellow, Blue, Black, White, Green, Orange, Brown	0.2	0.5	5.7	32.0
12C CCA	12	7/0.19	Red, Yellow, Blue, Black, White, Green, Orange, Brown, Grey, Pink, Violet, Turquoise	0.2	0.5	6.1	47.8
12C TCCA	12	7/0.19	Red, Yellow, Blue, Black, White, Green, Orange, Brown, Grey, Pink, Violet, Turquoise	0.2	0.5	6.1	47.8

RG59B/U Coaxial Cable

75Ohm Radio Frequency Cable

RG 59 has inner conductor of copper clad steel, dielectric of solid polyethylene, outer shielding of plain copper wire braid and black PVC-sheath. RG 59 is mainly used for transmission of video signals in analogue CCTV systems.

Conductor:
Copper Clad Steel

Braiding:
CCA

Insulation:
Solid Polyethylene (PE)

Sheathing:
Polyvinyl Chloride (PVC)

MINIMUM OPERATING TEMPERATURE
-15°C

MAXIMUM OPERATING TEMPERATURE
50°C

Product Details:

Product Code	Nominal Diameter of Conductor (mm)	Nominal Diameter of Insulation (mm)	Nominal Overall Diameter of Sheath(mm)	Capacitance	Characteristic Impedance at 20° C, 200MHz	Approx. Weight (kg/km
RG59B/U	0.58	3.7	6.1	<50 pF/m	75 ± 5Ω	60
RG59B+2	0.58	3.7	6.1	50 pF/m	75 ± 5Ω	60

	55 MHz	211 MHz	270 MHz	330 MHz	450 MHz	550 MHz	750 MHz	870 MHz	1000 MHz
Attenuation at 20° (db+100M)	14.6	21.8	24.5	25.8	29.6	33.6	39.8	43.2	47.2

DRC100

Satellite Cable (CT100 Equivalent)

DRC100 Double Shielded Coaxial (CT100 Equivalent) - has an inner conductor of 1.0mm² solid copper, solid foam dielectric, 100% coverage CCA foil screen. Copper composite wire braid screen and black PVC sheath. DRC100 has lower losses than standard coaxial cable and is suitable for signals up to 2Ghz. This cable is commonly used for low loss CCTV or satellite installation.

Conductor :
Solid Copper

Shield:
CCA Foil(100% Coverage)

Sheathing:
Polyvinyl Chloride (PVC)

Insulation:
Foam Polyethylene (PE)

Braiding:
Copper Composite Braiding

MINIMUM OPERATING TEMPERATURE
-15°C

MAXIMUM OPERATING TEMPERATURE
50°C

Product Code	Nominal Diameter of Conductor (mm)	Nominal Diameter of Insulation (mm)	Nominal Overall Diameter of Sheath (mm)	Max. d.c. Conductor Resistance at 20C	Capacitance	Characteristic Impedance at 20°C, 200MHz	Approximate Weight (kg/km)
DRC100	1.0	4.6	6.6	2.6 Ω/100m	50 pF/m	75 ± 5Ω	50

	55 MHz	100 MHz	211 MHz	400 MHz	870 MHz	1000 MHz	1750 MHz	2150 MHz
Attenuation at 20°C(dB+100m)	5.5	6.72	9.45	15.61	19.55	21.11	28.52	32.12

Weight and dimensional information is provided as an approximate guide only.

DTS100

Dual Figure 8 DRC100 (CT100 Equivalent)

Dual DRC100 in a figure of 8 style. Double Shielded Coaxial (CT100 Equivalent) - has an inner conductor of 1.0mm² solid copper, solid foam dielectric, 100% coverage CCA Foil screen, CCA wire braid screen and black PVC sheath. DTS100 has lower losses than standard coaxial cable and is suitable for signals up to 2Ghz. This cable is commonly used for low loss CCTV or satellite installation. DTS100 is commonly used for SKY+.

Conductor :
Solid Copper

Insulation:
Foam Polyethylene (PE)

Shield:
CCA Foil (100% Coverage)

Braiding:
Bare Copper Braiding

Sheathing:
Polyvinyl Chloride (PVC)

MINIMUM OPERATING TEMPERATURE
-15°C

MAXIMUM OPERATING TEMPERATURE
50°C

Product Code	Nominal Diameter of Conductor (mm)	Nominal Diameter of Insulation (mm)	Nominal Overall Diameter of Sheath (mm)	Max. d.c. Conductor Resistance at 20C	Minimum Insulation Resistance at 20C	Capacitance	Characteristic Impedance at 20°C, 200MHz	Approximate Weight (kg/km)
DRC100	1.0	4.6	6.6 x 13.3	2.6 Ω/100m	200 MΩ.m	53.5±5 pF/m	75 ± 5Ω	50

	55 MHz	100 MHz	211 MHz	400 MHz	870 MHz	1000 MHz	1750 MHz	2150 MHz
Attenuation at 20°C(dB+100m)	5.5	6.72	9.45	15.61	19.55	21.11	28.52	32.12

Weight and dimensional information is provided as an approximate guide only.

RG6
Satellite Cable

RG6 Satellite Coaxial - has an inner conductor of 1.0mm² copper clad steel, solid foam dielectric, aluminium foil screen, aluminium wire braid screen and black PVC sheath. RG6 has lower losses than standard coaxial cable and is commonly used for distributing signals for cable and satellite TV.

Conductor :
Copper Clad Steel

Insulation:
Foam Polyethylene (PE)

Shield:
Aluminium Foil

Braiding:
Aluminium Wire

Sheathing:
Polyvinyl Chloride (PVC)

MINIMUM OPERATING TEMPERATURE
-15°C

MAXIMUM OPERATING TEMPERATURE
50°C

Product Code	Nominal Diameter of Conductor (mm)	Nominal Diameter of Insulation (mm)	Nominal Overall Diameter of Sheath (mm)	Max. d.c. Conductor Resistance at 20C	Minimum Insulation Resistance at 20C	Capacitance	Characteristic Impedance at 20°C, 200MHz	Approximate Weight (kg/km)
RG6	1.02	4.57	6.5	12.04 Ω/100m	200 MΩ.m	<50 pF/m	75 ± 5Ω	56

	55 MHz	211 MHz	450 MHz	870 MHz	1000 MHz
Attenuation at 20°C(dB+100m)	10	11.5	13.8	19.8	21.4

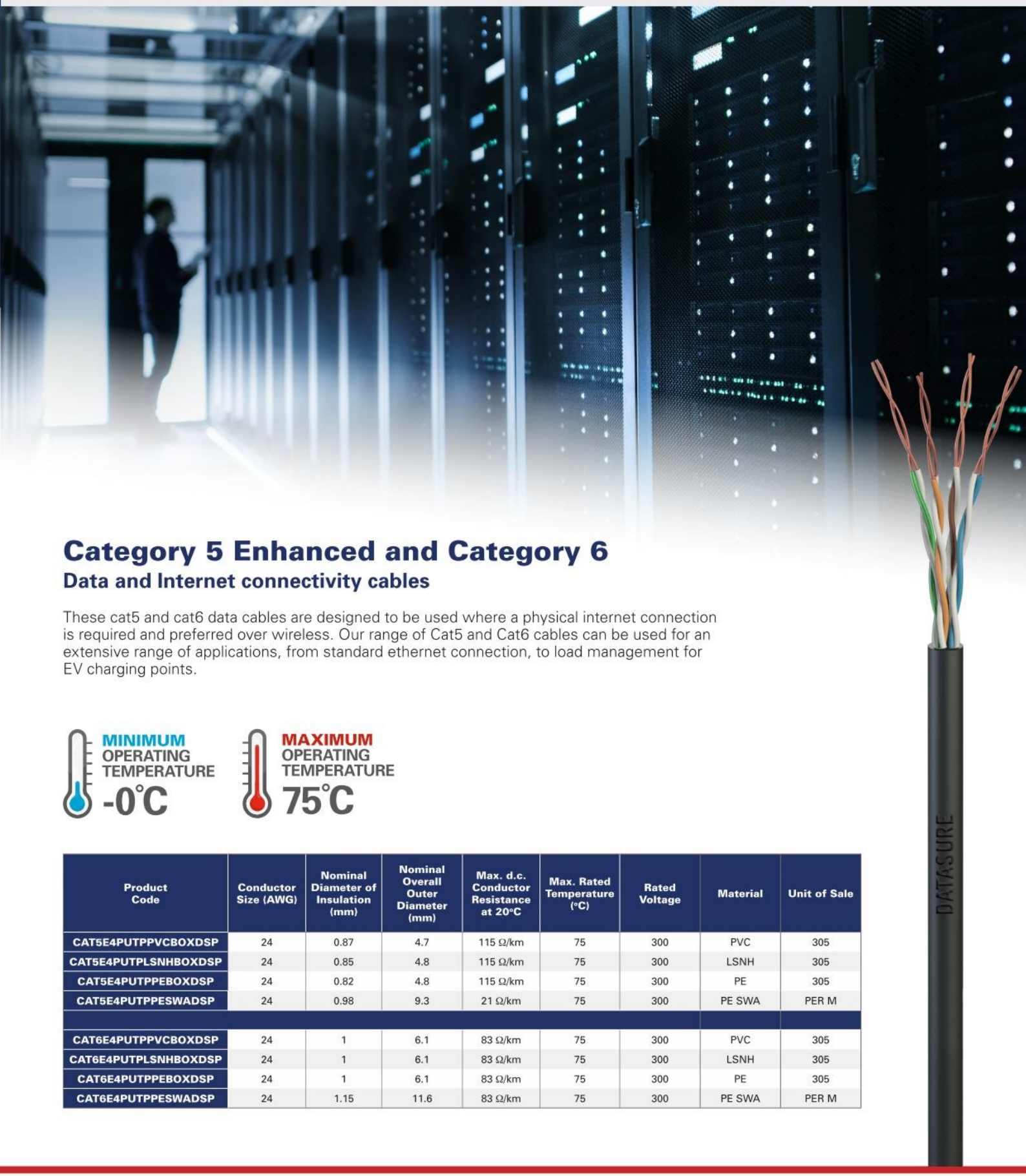
Weight and dimensional information is provided as an approximate guide only.

Data and Communication Cable

The Range includes: Category 5 and Category 6

Weight and dimensional information is provided as an approximate guide only.

Datasure® Datasure® Premium



Category 5 Enhanced and Category 6

Data and Internet connectivity cables

These cat5 and cat6 data cables are designed to be used where a physical internet connection is required and preferred over wireless. Our range of Cat5 and Cat6 cables can be used for an extensive range of applications, from standard ethernet connection, to load management for EV charging points.

MINIMUM OPERATING TEMPERATURE
-0°C

MAXIMUM OPERATING TEMPERATURE
75°C

Product Code	Conductor Size (AWG)	Nominal Diameter of Insulation (mm)	Nominal Overall Outer Diameter (mm)	Max. d.c. Conductor Resistance at 20°C	Max. Rated Temperature (°C)	Rated Voltage	Material	Unit of Sale
CAT5E4PUTPPVCBOXDSP	24	0.87	4.7	115 Ω/km	75	300	PVC	305
CAT5E4PUTPLSNHBOXDSP	24	0.85	4.8	115 Ω/km	75	300	LSNH	305
CAT5E4PUTPPEBOXDSP	24	0.82	4.8	115 Ω/km	75	300	PE	305
CAT5E4PUTPPESWADSP	24	0.98	9.3	21 Ω/km	75	300	PE SWA	PER M
CAT6E4PUTPPVCBOXDSP	24	1	6.1	83 Ω/km	75	300	PVC	305
CAT6E4PUTPLSNHBOXDSP	24	1	6.1	83 Ω/km	75	300	LSNH	305
CAT6E4PUTPPEBOXDSP	24	1	6.1	83 Ω/km	75	300	PE	305
CAT6E4PUTPPESWADSP	24	1.15	11.6	83 Ω/km	75	300	PE SWA	PER M

Telephone cables to CW1308 Specification

Internal Telephone Cable

These cables are designed and most commonly used for the interconnection of telecommunication equipment. However, electricians have also found that these cables are useful in other applications such as low level signalling and the where the interconnection of control and communication equipment is required. These cables are suitable for installation indoors only. Where the moisture resistance, UV resistance and mechanical protection offered by CW1128 and CW1128/1198 style telephone cables are not required.

Manufactured to BT (British Telecom) Standard CW1308

Solid Copper Conductor / LSNH Insulated / Polyethylene Terephthalate (PETP) Taped / LSNH Sheathed.

Conductor:
Solid Copper Conductor

Separator:
Polyethylene Terephthalate (PETP)

Insulation:
Low Smoke Non Halogen (LSNH)

Sheathing:
Low Smoke Non Halogen (LSNH) (with rip cord)

MINIMUM OPERATING TEMPERATURE 0°C

MAXIMUM OPERATING TEMPERATURE 60°C

MINIMUM BENDING RADIUS 8xØ

Product Code	Number of Pairs	Pair Config.	Minimum Insulation Resistance (MΩ/km)	Maximum Capacitance Unbalanced (pF/km)	Approx. Weight (kg/km)	Conductor Resistance (Ω/km)
TC2P	2	1 x 2P	45	500	22	135
TC3P	3	1 x 3P	45	500	28	135
TC4P	4	1 x 4P	45	500	36	135

Cabling Element	Colour of Insulation	
	A-Wire	B-Wire
1	WHITE - Blue	BLUE - White
2	WHITE - Orange	ORANGE - White
3	WHITE - Green	GREEN - White
4	WHITE - Brown	BROWN - White
5	WHITE - Grey	GREY - White
6	RED - Blue	BLUE - Red
7	RED - Orange	ORANGE - Red
8	RED - Green	GREEN - Red
9	RED - Brown	BROWN - Red
10	RED - Grey	GREY - Red
11	BLACK - Blue	BLUE - Black
12	BLACK - Orange	ORANGE - Black
13	BLACK - Green	GREEN - Black

Cabling Element	Colour of Insulation	
	A-Wire	B-Wire
14	BLACK - Brown	BROWN - Black
15	BLACK - Grey	GREY - Black
16	YELLOW - Blue	BLUE - Yellow
17	YELLOW - Orange	ORANGE - Yellow
18	YELLOW - Green	GREEN - Yellow
19	YELLOW - Brown	BROWN - Yellow
20	YELLOW - Grey	GREY - Yellow
21	VIOLET - Blue	BLUE - Violet
22	VIOLET - Orange	ORANGE - Violet
23	VIOLET - Green	GREEN - Violet
24	VIOLET - Brown	BROWN - Violet
25	VIOLET - Grey	GREY - Violet
26	PINK - Blue	BLUE - Pink

Panel Wiring

The Panel Wiring Range includes:
Tri-Rated Switchgear and Panel Wiring Cables

Weight and dimensional information is provided as an approximate guide only.

Tri-Rated Switchgear and Panel Wiring Cables

Manufactured to: -BS 6231 Type CK

Underwriters Laboratory Listed. Conforms to subject 758 Appliance Wiring Material for Styles 1015, 1028, 1283 and 1284 where applicable.

Canadian Standards Association approved. Complies with Standard C22.2, No.127, Type TEW

Conductor Stranding:

Flexible Plain Annealed Copper

Oil Resistance:

This cable is recognised by CSA and UL as resistant to oil at temperatures up to 60°C

Spread of Flame:

Tested to BS EN 50265, VW-1 and FT-1

Temperature range:

UL and CSA recognised as heat resisting with a maximum conductor operating temperature of 105°C. BS6231 specifies a maximum operating temperature of 90°C for continuous use. Annex A of BS6231 explains how under certain conditions these cables can operate at up to 105°C. These cables are intended for use in the wiring of switch, control, metering, relay and instrument panels of power switchgear, and for such purposes as internal connections in rectifier equipment and its motor starters and controllers. They are intended for use at alternating voltages not exceeded 600 V to earth, and direct voltages not exceeded 1000V to earth. When installed in the equipment they are suitable for wiring circuits for which the prescribed alternating test voltage does not exceed 4kV r.m.s for 1 minute. By being approved to three international standards Tri-Rated cable is suitable for equipment installations required to meet both North American and European wiring regulations and codes of practice.

Product Code	Nominal Cross Sectional Area of Conductor (mm^2)	Nominal Stranding of Conductor (mm)	Nominal Overall Diameter (mm)	UL Style Number	Approx. Weight (kg/km)	Maximum Current Rating (Amperes)
TR0.5	0.5	16/0.2	2.6	1015	12	11
TR0.75	0.75	24/0.2	2.8	1015	15	14
TR1.0	1	32/0.2	3	1015	18	17
TR1.5	1.5	30/0.25	3.3	1015	23	21
TR2.5	2.5	50/0.25	3.7	1015	33	30
TR4.0	4	56/0.3	4.3	1015	51	41
TR6.0	6	84/0.3	5.3	1015	73	53
TR710	10	80/0.4	7.1	1028	124	75
TR716	16	126/0.4	8.7	1283	200	100
TR725	25	196/0.4	10.3	1283	295	136
TR735	35	276/0.4	11.7	1283	406	167
TR750	50	396/0.4	14.5	1284	614	204
TR770	70	360/0.5	16.7	1284	795	259
TR795	95	475/0.5	18.9	1284	1011	321
*TR8120	120	608/0.5	20.4	1284	1256	374

*Not BASEC Approved

Current Ratings Based On:

Single conductor in free air
Ambient temperature of 35°C
Conductor temperature rise of 35°C

Accessories & Partnerships

Brass Gland Packs

Both the BW and CW glandas are provided with shrouds, lock nuts and earth tags as standard. They are both also available is an ordinary PVC version or as an LSNH (Low Smoke Non Halogen version depending upon the cable being terminated to.

The following sizes 20S, 20, 25 and 32 contain 2 glands, 2 shrouds, 2 locknuts and 2 earth tags.

The following sizes 40, 50, 63 and 70 contain 1 gland, 1 shrouds, 1 locknut and 1 earth tags.

BW Gland :

Brass gland for use with steel wire armoured cables (H694-XL). Used to provide clamping of the armour wire to ensure electrical continuity and mechanical retention of the cable. The BW gland is used for indoor application when a waterproof seal is not required.

CW Gland :

Brass gland for use with steel wire armoured cables (H694-XL). Used to provide clamping of the armour wire to ensure electrical continuity and mechanical retention of the cable. The CW type gland is used for outdoor applications and where necessary to provide an IP66 seal with the outer sheath of the cable.

core	Nominal Cross Sectional Area of Conductor (mm²)																
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
2	20S	20S	20S	20S	20	25	25	32	25	32	32	40	40	50	50	50	63
3	20S	20S	20S	20	20	25	32	32	32	32	40	40	50	50	63	63	63
4	20S	20S	20	20	25	25	32	32	32	40	50	50	50	63	63	75	75
5	20S	20S	20	25	25	25	40	40	N/A								

SY Brass Gland Packs

SY Glands are provided with shrouds, lock nuts and earth tags as standard and are recommended for internal use only.
For external use we recommend SWA cable and CW glands

The following sizes 20s, 20, 25 and 32 contain 4 brass rings, 2 Brass lock nuts, 2 gland bodies with gland nuts, 2 shrouds & 2 earthing rings.

The following sizes 40 contains 2 brass rings,1 Brass lock nut, 1 gland body with gland nut, 1 shroud & 1 earthing ring.

Brass gland for use with SY cables (SY). Used to provide clamping of the steel wired braid to ensure electrical continuity and mechanical retention of the cable"

SY and XT

Cable Size (mm)	2 Core	3 Core	4 Core	5 Core	7 Core	12 Core	18 Core	25 Core	34 Core
1.0	CXT20S	CXT20S	CXT20S	CXT20S	CXT20	CXT25	CXT25	CXT32	CXT32
1.5	CXT20S	CXT20S	CXT20	CXT20	CXT25	CXT25	CXT32	CXT32	CXT40
2.5	CXT20	CXT20	CXT25	CXT25	CXT25	CXT32	CXT40		CXT50
4		CXT20	CXT25	CXT25	CXT25				
6		CXT25	CXT25						
10			CXT32	CXT40					
16			CXT40	CXT40	CXT50				
25			CXT50	CXT50					
35			CXT50	CXT50					

XT Gland Dimensions

Gland Size	Metric Entry Thread (mm)	Minimum Thread length (mm)	Minimum Outer Sheath Diameter (mm)	Maximum Outer Sheath Diameter (mm)	Maximum Diameter across corners (mm)
20SS	20	15	3	8.6	24.4
20S	20	15	8	11.8	26.5
20	20	15	11	13.8	30
25	25	15	13	19.8	39.9
32	32	15	19	26.4	45.5
40	40	15	25	32.4	55.4
50S	50	15	31.5	38	61
50	50	15	36.5	44	66.5

CW Gland Dimensions

Gland Size	Metric Entry Thread (mm)	Minimum Thread length (mm)	Maximum Bedding Diameter (mm)	Minimum Outer Sheath Diameter (mm)	Maximum Outer Sheath Diameter (mm)	Armour Wire Diameter (mm)	Maximum Diameter across corners (mm)
20/16	20	15	8.6	6	13.4	0.9	24.4
20S	20	10	11.6	11.8	17.8	0.9/1.25	26.6
20	20	10	13.9	14	20.8	0.9/1.25	33.3
25	25	10	19.9	20.3	27.4	1.25/1.6	40.5
32	32	10	26.2	26.5	34.2	1.6/2	51
40	40	15	32.1	33.2	41	1.6/2	61
50S	50	15	38.1	40	47	2/2.5	66.5
50	50	15	44	44	53.5	2/2.5	77.7
63S	63	15	50	50	59	2.5	83.2
63	63	15	55.9	56.5	65.5	2.5	88.7
75S	75	15	61.9	63.5	73	2.5	101.6
75	75	15	67.9	69	79	2.5/3.15	111.1
90	90	15	79.3	79	88	3.15	128.6

BW Gland Dimensions

Gland Size	Metric Entry Thread (mm)	Minimum Thread length (mm)	Maximum Bedding Diameter (mm)	Minimum Outer Sheath Diameter (mm)	Maximum Outer Sheath Diameter (mm)	Armour Wire Diameter (mm)	Maximum Diameter across corners (mm)
20S	20	10	11.6	13	15.5	0.9/1.25	24
20	20	10	13.9	14	21	0.9/1.26	30
25	25	10	19.9	20.5	26	1.25/1.6	36
32	32	10	26.2	26	33.9	1.6/2	44.5
40	40	15	32.1	33	42	1.6/2	56.3
50S	50	15	38.1	-	50.1	2/2.5	63.4
50	50	15	44	42	52	2/2.5	72.1
63S	63	15	50	51	59	2.5	83
63	63	15	55.9	56.5	65.5	2.5	88.7
75S	75	15	61.9	63	74	2.5	99.8
75	75	15	67.9	68.5	79.5	2.5/3.15	105.3

Cable Cleats

- Material: Polypropylene
- Temperature for permanent application: -40°C to +40°C
- Resistant to impact

Part No.	Cable Cleat Size	Cable Diameter	Pack Qty
DCCLEAT4	Size 4	7.7mm - 10.0mm	100
DCCLEAT5	Size 5	10.1mm - 12.7mm	100
DCCLEAT6	Size 6	12.6mm - 15.2mm	100
DCCLEAT7	Size 7	15.1mm - 17.8mm	100
DCCLEAT8	Size 8	17.7mm - 20.3mm	100
DCCLEAT9	Size 9	20.2mm - 22.8mm	100
DCCLEAT10	Size 10	22.7mm - 25.4mm	100

Cable Drum Jack 6 Ton

- Base Size: L 460mm x W 300mm x D 8mm
- Minimum Drum Dia.: 1360mm
- Maximum Drum Dia.: 1900mm
- Minimum Closed Height: 680mm
- Maximum Open Height: 950mm
- Material: Steel
- Finish: Yellow

Part No.
DCCJ6

Cable Drum Jack 3 Ton

- Base Size: L 300mm x W 300mm x D 8mm
- Minimum Drum Dia.: 1060mm
- Maximum Drum Dia.: 1600mm
- Minimum Closed Height: 530mm
- Maximum Open Height: 800mm
- Material: Steel
- Finish: Yellow

Part No.
DCCJ3

Cable Roller - Straight

- Frame Base Size: L 300mm x W 220mm x D 230mm
- Roller Size: 115mm Dia. x 190mm Length
- Shaft Size: 12mm Dia. x 250mm Length
- Material: Steel
- Frame & Roller Finish: Galvanized
- Load Capacity: 750kgs

Part No.
DCCRSG

RUN10157

RUN10166

Cable Guide Rollers

- Aluminium heavy-duty rollers with stainless steel
- Robust metal frame
- CDP coating for protection
- Ergonomic aluminium carrying handle

Part No.	Description
RUN10153	Cable Guide Roller (90 degree)
RUN10156	Cable Guide Roller Shaft Inside edge
RUN10157	Cable Guide Roller Shaft for into or out of shafts
RUN10166	Cable Guide Roller Chain 3 Part

Runpolifter 4500 Cable Drum Lifter

The Runpolifter 4500 is for lifting and rolling cable drums with a maximum weight of 4500kg. The Runpolifter has a maximum drum width capacity of 125cm.

- Maximum capacity of 4,500kg

Part No.	Description
RUN10164	Maximum drum diameter of 160cm and width of 125cm
RUN10162	Maximum drum diameter of 160cm and width of 80cm
RUN10163	Maximum drum diameter of 160cm and width of 100cm

Cable Drum Roller Pro

- Maximum capacity of 215kg

Part No.	Description	Size (W x L x H)
RUN10134	Cable Drum Roller Pro 530	600 x 550 x 85mm
RUN10135	Cable Drum Roller Pro 670	740 x 550 x 86mm

Castors 4 Part Set

- For use with RUN10134 or RUN10135

Part No.
RUN20623

Roll Off Rails

- Set of 2
- Maximum weight of 1,700kg

Part No.
RUN10163

X Board Cable Roller XB500

X Board Cable Roller XB300

Xboard Cable Roller

- Can unwind 2 cable bundles simultaneously
- Compatible with other Runpotec items such as the Runposticks (RUN10016 & RUN10020)

Part No.	Description	WEIGHT CAPACITY
RUN10136	X Board Cable Roller XB500	800kg
RUN10137	X Board Cable Roller XB300	300kg

XBoard Mandrel

- Allows larger drums to be placed on the XBoard
- Compatible with both XBoard 300 and 500

Part No.
RUN20632

Multi-Function Mandrel

- Can be used in combination with XB 300 and XB 500
- Allows loose cable bundles and individual wires to be rolled
- Telescopic centre mandrel, extendable up to 294mm
- This allows high cable bundles or corresponding tube bundles to be accommodated

Part No.
RUN20696

XB300 & Mandrel Set

- Allows loose cable bundles and individual wires to be rolled (Mandrel)
- Loadable up to 300kg (X Board)
- Excellent for damaged cable drums (X Board)
- Non-slip and stable base (X Board)

Part No.
RUN10174

XB300 Complete Set

- Allows loose cable bundles and individual wires to be rolled (Mandrel)
- Loadable up to 300kg (X Board)
- Excellent for damaged cable drums (X Board)
- Non-slip and stable base (X Board)
- System case for easy transport

Part No.
RUN10170

RUNPO5 + XB300 - Multi Set

- Universal cable drum rewinder and unwinder (X Board)
- Loadable up to 300kg (X Board)
- Can be used in combination with XB 300and XB 500 (Mandrel)
- Allows loose cable bundles and individualwires to be rolled (Mandrel)
- 50% less friction resistance (Runpo 5)
- 270 kg total breaking load (Runpo 5)

Part No.
RUN10171


RUN10047


RUN10063


RUN10086

Fibreglass Rod with Cage

- For pulling cables through narrow tubing or ducting.
- Automatic run-out brake and quick run-out
- Extendable feet and storage compartment for accessories

Part No.	Rod Size (W x L)
RUN10047	4.5mm - 60m
RUN10063	6.0mm - 60m
RUN10086	9mm - 120m

RUNPOSTICKS Standard Set

- 2 Runposticks - 4.5 mm soft bending yellow - tension load- 200 kg
- 3 Runposticks - 5.5 mm medium bending black - tension load - 240 kg
- 5 Runposticks - 6.5 mm hard bending red - tension load - 270 kg
- 1 Runpoglider
- 1 Magnet, holds up to 2.5kg
- 1 Ball chain 4.5 mm
- 1 Eye with ring
- 1 Snap hook
- 1 Connection thread
- 1 Storage bag with shoulder strap

Part No.	Size
RUN10016	17 Parts

RUNPOSTICKS Comfort Set

- 2 Runposticks - 4.5 mm soft bending yellow - tension load - 200 kg
- 3 Runposticks - 5.5 mm medium bending black - tension load - 240 kg
- 5 Runposticks - 6.5 mm hard bending red - tension load - 270 kg
- 1 Runpoglider
- 1 Magnet, holds up to 2.5kg
- 1 Ball chain 4.5 mm
- 1 Eye with ring
- 1 Snap hook
- 1 Connection thread
- 1 Storage bag with shoulder strap
- 1 Shockproof LED lamp
- 1 Sliding Hook for barriers up to 6.5 cm height

Part No.	Size
RUN10020	19 Parts

RUNPO 5 Cable Pulling System

- 15mm bending radius
- 50% less friction resistance compared to the Power Rex Fibreglass Cable Pulling Rod
- 270kg total breaking load

Part No.	Size
RUN10013	20m
RUN10014	30m

RUN11137

RUN11137

RUNPOCAM RC2 Multifunction Inspection Cameras

- Protection class IP67 (camera head)
- Pipe inspection from Ø 14 mm (inside)
- Ventilation pipes, drainage pipes, sewage pipes and much more
- Also for cavity inspection and suspended ceilings
- Lengths 10 m, 30 m or 50 m
- Memory function/documented evidence
- Photo (JPG), Video (AVI) and Audio
- Spool with camera cable can be easily unwound or rewound via the X BOARD series

Part No.	DESCRIPTION	Size
RUN10139	Runpocam RC2 Multifunction Inspection Camera	10m
RUN10140	Runpocam RC2 Multifunction Inspection Camera	30m
RUN10141	Runpocam RC2 Multifunction Inspection Camera	50m
RUN11137	Runpocam RC2 Multifunction Inspection Camera & Runposticks Comfort pack	30m

PTE110VPZU1 Handheld Label Printer

- Create durable labels up to 12mm in width
- Dedicated functions for common labelling tasks
- 200 symbols including ones for the electrician, audio visual and network infrastructure
- Built-in cutter for accurate labelling
- Includes AC adapter, full length 8m flexi id black on white tape cassette and handy carry case

Part No.
PTE110VPZU1

PTE300VPZU1 Handheld Label Printer

- Prints hard-wearing labels up to 18mm wide
- Up to 20mm per second print speed + 5 lines of print
- QWERTY style keyboard + 15 character, 2-line Backlit LCD screen
- Time and date printing function, 168 electrical and audio/visual specific symbols
- Convenient manual cutter with pause function
- Comes with carry case, wrist strap and rechargeable Lithium-ion battery pack

Part No.
PTE300VPZU1

PTE550WVPZU1 Handheld Label Printer

- Prints hard-wearing labels up to 24mm wide
- Can print up to 30mm per second, with up to 7 lines of print
- QWERTY style keyboard + 16 character, 3-line backlit LCD screen
- Heat shrink tube compatible
- 384 symbols available for print
- Autopmatic (full and half) cutter
- Comes with carry case, wrist strap, USB cable, 24mm and 12mm tape, and rechargeable lithium-ion battery

Part No.
PTE550WVPZU1

EV-ULTRA®
CABLE STRIPPER

- Large handle diameter for optimum control
- Easy to operate adjusting screw
- Precise, quick and safe stripping
- Quick change of the inner blade with a bayonet fitting

Works perfectly with our EV-ULTRA® Tuff Sheath® cable range!

Suitable on cable with a diameter of 8-27mm

PATENT PENDING

PV-Ultra®

CABLE STRIPPER

- Large handle diameter for optimum control
- Easy to operate adjusting screw
- Precise, quick and safe stripping
- Quick change of the inner blade with a bayonet fitting

Works perfectly with our NEW PV-Ultra® cable range!

Datasure®
Flexisure®
Firesure®
Smokesure®
Solarsure®
Powersure®
POWERWALL CONNECT
Patented EV-Ultra®
PATENT PENDING PV-Ultra®

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