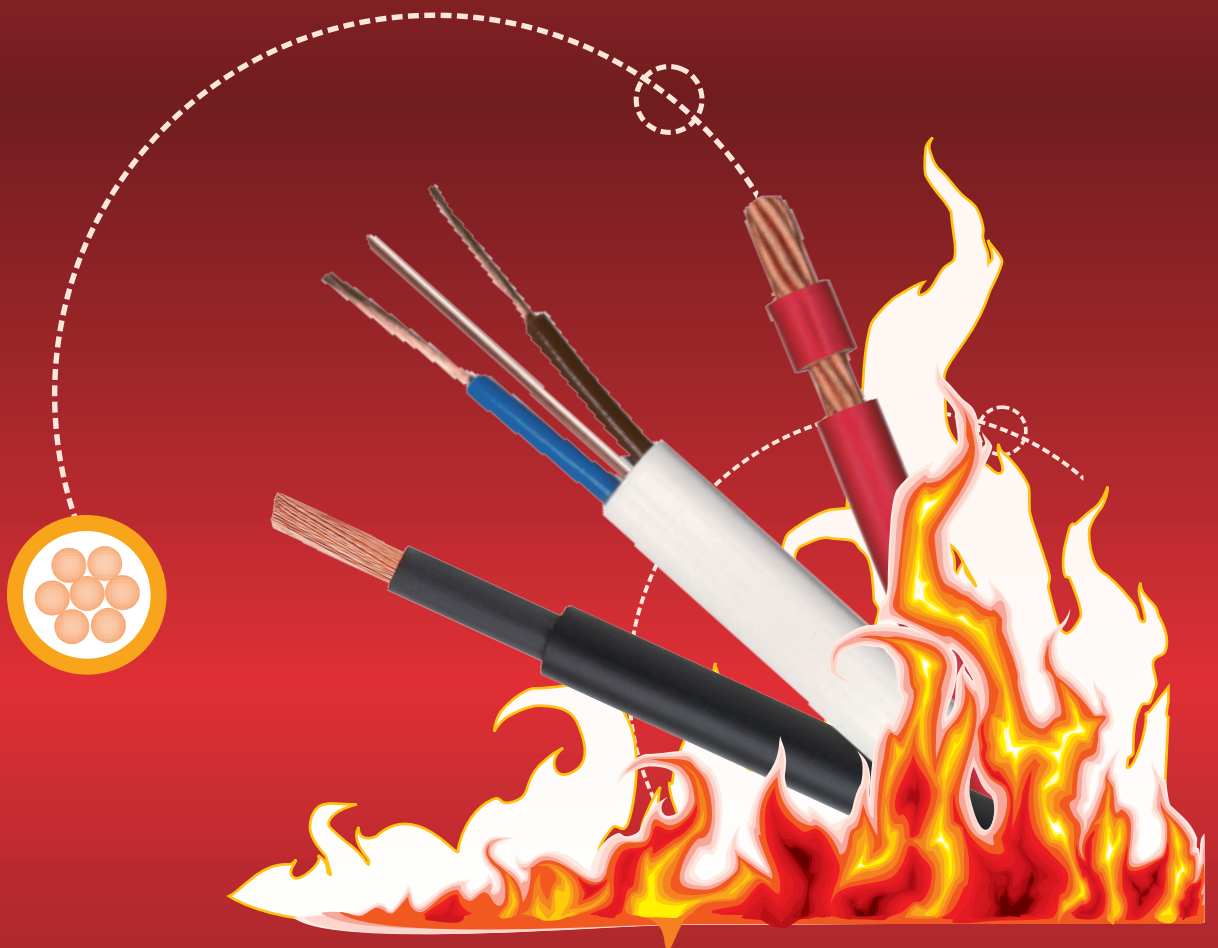




# Caledonian

## Industrial Cables

Single and Multi-core cables  
to British Standard



[www.caledonian-cables.co.uk](http://www.caledonian-cables.co.uk)

[www.caledonian-cables.com](http://www.caledonian-cables.com)



**Addison**



# Company Profile

Caledonian, established in 1978, offers one of the most complete lines of fiber and copper cabling system solutions with over hundreds of different cabling system products. Our superior products provide leading edge within every cable series and for every application.

Among the national and international standards with which our cables could comply are: BS - British Standard; LPCB Fire Performance Standard. ISO Standard etc. Caledonian Cables offers a comprehensive stock of cables and cabling products through its nationwide network of resellers and distributors. Caledonian Cables has continually expanded its global presence in Europe and Asia.

Caledonian & Addison, produces a wide range of cables for communication, power and electronics in its primary plants in UK, Italy and Spain. To stay in front, we continually keep expanding our manufacturing capabilities in more low cost region such as Romania, Taiwan, Malaysia etc. This low-cost manufacturing facilities enable us provide a flexible, scalable global system that delivers superior operational performance and optimal results for our customers.

Our extensive global network of manufacturing facilities gives us significant scale and the flexibility to fulfill our customer requirements. This global presence provides design and consultancy solutions that are combined with core cable manufacturing, logistic services, and vertically integrated with our E-commerce technologies, to optimize customer operations by lowering costs and reducing time to market.

Caledonian & Addison has been respected for its high standards of quality, excellent service level, competitive pricing and a unique and innovative spirit. With our latest technologies, we are both inspired and well-positioned to meet the changing needs of our customers. We have the resources to diversify and to enhance our product lines and services. We understand the need for change and with our accurate planning, we are ready for the future and the promise of new marketing opportunities. Our tradition of growth through excellence is assured.

Our Design Centers work closely with customers to constantly improve its standard range of products and technologies and to develop customized, country and industry-specific solutions. Caledonian & Addison has established an extensive network of design, manufacturing, and logistics facilities in the world's major markets to serve the growing outsourcing needs of both multinational and regional customers.



# Our Certificate

INTERNATIONAL FIRST CERTIFICATION



INTERNATIONAL FIRST CERTIFICATION

## CERTIFICATE

**Caledonian Cables Limited**

20-22 Wenlock Road London N1 7GU England  
Novus Seahami Spectrum 7 Spectrum Business Park Seaham SR7 7tt, England

IFC Global Certification confirms that the above-named organization's management system has been assessed and complies with the requirements of the following standard.

Standard:

**ISO 9001:2015**

Scope:

Manufacture, desing, supply, installation, assembly, commissioning, testing and maintenance of LV/MV/HV energy cables, data cables, instrumentation cables, telecommunication cables, fibre optic cables, railway cables, rolling stock cables, photovoltaic cables, marine cables, cabling system, cable accessories, ABC, AAC, ACSR, AAAC, power and distribution transformers, switchgears, communication systems, IT systems

Initial Date : 1.02.2024  
Issue Date : 1.02.2024  
Date of Validity : 31.01.2025  
Expiry Date : 31.01.2027  
Certificate No : IFC-Q-2-24-2084



TÜRKAK BDS NO  
YS-7B43-3448



TÜRKAK BDS NO  
YS-7B43-3448

Approval

IFC GLOBAL SERTİFİKASYON MUAYENE VE EĞİTİM HİZMETLERİ ANONİM ŞİRKETİ

Adalet Mah. 2132/2 Sokak No:3 Trend Office D:45 Bayraklı İZMİR TÜRKİYE T: +90 850 304 35 00 F: +90 850 304 35 00  
Bu belge, müşterinin IFC'nin kurallarına ve sözleşme şartlarına uyduğu sürece geçerlidir. Sertifiika geçerlilik durumu IFC internet sitesinden takip edilebilir.

[www.ifcglobal.com.tr](http://www.ifcglobal.com.tr) [info@ifcglobal.com.tr](mailto:info@ifcglobal.com.tr)



# Table of Contents

## Single Core Fixed Wiring Cable

2491B/6701B to BS 7211 .....	7
2491X to BS 6004 .....	9
2491X Heat Resistant cables to BS 6004/ 6231 .....	11
6491B to BS 7211.....	13
6491X/6491X HR to BS 6004.....	16
6181B to BS 7889 .....	19
6181Y/6181X to BS 6004 6346.....	21
6381B to BS 7211.....	23
6381Y to BS 6004 and 6346 .....	25
Tri-rated Cable to BS6231 .....	27
H01N2-D/E to BS 638 .....	29
0361TQ to BS 683.....	31
Coil End Lead Cable to BS 6195 type 4.....	33
6591TQ to BS 6883.....	36

## Multi-Core Flexible Cables

218Y to BS 6500 .....	39
2192Y to BS 6500 .....	41
6192Y/ 6193Y to BS 6004 .....	43



6241B/6242B/ 6243B to BS 7211 .....	45
6241Y/6242Y/ 6243Y to BS 6004.....	48
209Y to BS 6500 .....	50
309Y to BS 6500 .....	52
318Y to BS 6500 .....	54
3192Y to BS 6500 .....	56
318B to BS 6500 .....	58
318TRS to BS 6500.....	60
318TQ to BS 6500.....	62
638TQ to BS 7919.....	65
657TQ to BS 6883.....	70
ARCTIC+GRADE to BS 6500 .....	74
380TQ to BS 6500.....	76
680TQ to BS 6007.....	79
658TQ to BS 6883.....	81

### Reference Notes

Fire Performance.....	85-90
-----------------------	-------



## Single Core Fixed Wiring Cable

**2491B/6701B to BS 7211**

**2491X to BS 6004**

**2491X Heat Resistant cables to BS 6004**

**6491B to BS 7211**

**6491X/6491X HR to BS 6004**

**6181B to BS 7889**

**6181Y/6181X to BS 6004 and 6346**

**6381B to BS 7211**

**6381Y to BS 6004 and 6346**

**Tri-rated Cable to BS6231**

**H01N2-D/E to BS 638**

**0361TQ to BS 683**

**Coil End Lead Cable to BS 6195 type 4**

**6591TQ to BS 6883**

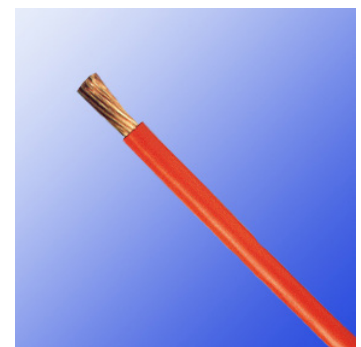


### 2491B/6701B to BS 7211

#### Application and Description

These flexible cable are used in panel, conduit and general fixed wiring applications where there is a requirement for flexibility during installation and in the event of fire, a need to minimize the risk from smoke and toxic fumes but where circuit integrity is not required. Not suitable for wet or immersed applications. 2491B/6701B is equivalent to harmonized code H05Z-K/H07Z-K.

#### Cable Construction



6701B

- Fine bare copper strands
- Stranding to to BS 6360 Class 5 or IEC 60228 Class 5
- LSOH thermosetting core insulation type EI5

#### Core Identification

Green/Yellow, Black, Blue, Brown, Red, White, Yellow, Grey, Violet,Grey, Orange, Pink

#### Technical Characteristics

- Working voltage: 300/500v (2491B), 450/750v (6701B)
- Test voltage: 2000 / 2500 volts
- Minimum bending radius: 5xOverall diameter
- Flexing temperature: -15° C to +90° C
- Static temperature: -40° C to +90° C
- Insulation resistance: 10 MΩxkm



- Halogen free acc. to EN 50267-2-1 / IEC 60754-1
- Smoke density acc. to EN 50268-2 / IEC 61034-2
- Corrosivity of gases acc. to EN 50267-2-2, IEC 60754-2
- Flame retardancy acc. to EN 50265-2-1, IEC 60332-1

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
2491B					
20(16/32)	1x0.5	0.6	2.1-2.6	4.8	9
18(24/32)	1x0.75	0.6	2.2-2.8	7.2	12.4
17(32/32)	1x1	0.6	2.4-2.9	9.6	15
6701B					
16(30/30)	1x1.5	0.7	2.8-3.5	14.4	24
14(50/30)	1x2.5	0.8	3.4-4.3	24	35
12(56/28)	1x4	0.8	3.9-4.9	38	51
10(84/28)	1x6	0.8	4.4-5.5	58	71
8(80/26)	1x10	1.0	5.7-7.1	96	118
6(128/26)	1x16	1.0	6.7-8.4	154	180
4(200/26)	1x25	1.2	8.4-10.6	240	278
2(280/26)	1x35	1.2	9.7-12.1	336	375
1(400/26)	1x50	1.4	11.5-14.4	480	560
2/0(356/24)	1x70	1.4	13.2-16.6	672	780
3/0(485/24)	1x95	1.6	15.1-18.8	912	952
4/0(614/24)	1x120	1.6	16.7-20.9	1152	1200
300MCM (765/24)	1x150	1.8	18.6-23.3	1440	1505
350MCM (944/24)	1x185	2.0	20.6-25.8	1776	1845
500MCM(1225/24)	1x240	2.2	23.5-29.4	2304	2400

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

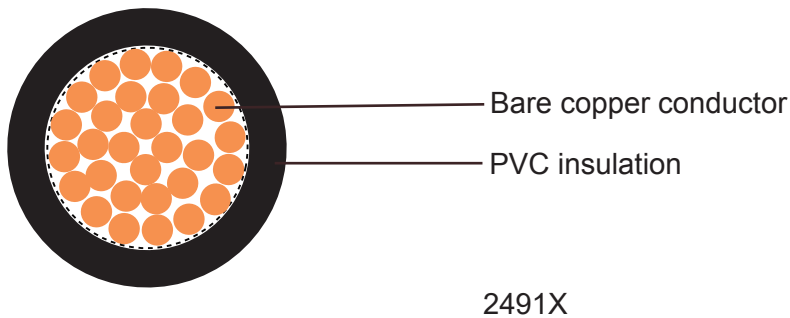


### 2491X to BS 6004

#### Application and Description

These cables are designed for use in the switch control, relay and instrumentation panels of power switchgear and for purposes such as internal connectors in rectifier equipment, motor starters and controllers. 2491X is equivalent to harmonized code H05V-K/H07V-K.

#### Cable Construction



- Fine bare copper strands
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- Special PVC TI1 core insulation to BS 7655

#### Core Identification

Black, Blue, Green/Yellow, Red, Yellow, White, Violet, Brown, Grey, Orange, Pink

#### Technical Characteristics

- Working voltage: 300/500v (H05V-K)/ 450/750v (H07V-K)
- Test voltage: 2000 -2500 volts
- Minimum bending radius: 6xOverall diameter
- Flexing temperature: -5° C to +70° C
- Static temperature: -30° C to +80° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 10 MΩxkm



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
H05V-K					
20(16/32)	1x0.5	0.6	2.1	4.9	10
18(24/32)	1x0.75	0.6	2.4	7.2	13
17(32/32)	1x1	0.6	2.6	9.6	15
H07V-K					
16(30/30)	1x1.5	0.7	3.1	14.4	20
14(50/30)	1x2.5	0.8	3.6	24	31
12(56/28)	1x4	0.8	4.3	38.0	48
10(84/28)	1x6	0.8	4.9	58.0	69
8(80/26)	1x10	1.0	6.4	96	121
6(128/26)	1x16	1.0	8.1	154	211
4 (200/26)	1x25	1.2	9.8	240	303
2 (280/26)	1x35	1.2	11.1	336	417
1 (400/26)	1x50	1.4	13.1	480	539
2/0 (356/24)	1x70	1.4	15.5	672	730
3/0 (485/24)	1x95	1.6	17.2	912	900
4/0 (614/24)	1x120	1.6	19.7	1152	1135
300MCM (765/24)	1x150	1.8	21.3	1440	1410
350MCM (944/24)	1x185	2.0	23.4	1776	1845
500MCM(1225/24)	1x240	2.2	27.1	2304	2270

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

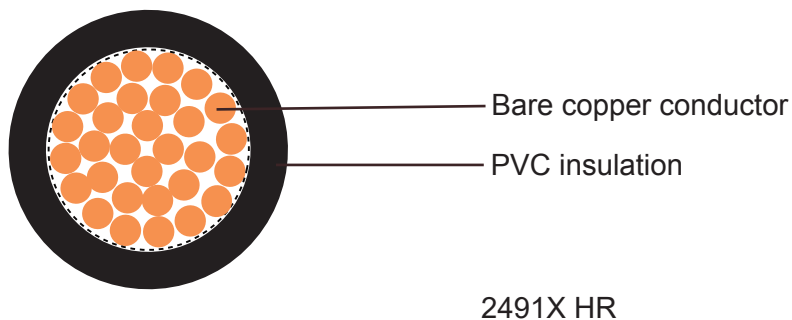


## 2491X Heat Resistant cables to BS 6004

### Application and Description

These special heat-resistant flexible single-conductor hook-up wires are ideal for use in power current installation, switch cabinets, motors and transformers which are subject to direct contact with high temperature equipments (e.g. varnishing machines and drying towers etc.). These are also suitable for inside wiring of electrical equipments such as lighting and heating apparatus. 2491X HR is equivalent to harmonized code H05V2-K/ H07V2-K.

### Cable Construction



2491X HR

- Fine bare copper strands
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- Special heat resistant PVC TI3 core insulation to BS 7655
- H05V2-K (20, 18 & 17 AWG)
- H07V2-K (16 AWG and Larger)

### Core Identification

Black, Blue, Green/Yellow, Red, Yellow, White, Violet, Brown, Grey, Orange, Pink

### Technical Characteristics

- Working voltage: 300/500v (H05V2-K)/ 450/750v (H07V2-K)
- Test voltage: 2000/2500 volts
- Flexing bending radius: 10-15xOverall diameter
- Static bending radius: 10-15xOverall diameter



- Flexing temperature: +5° C to +90° C
- Static temperature: -10° C to +105° C
- Short circuit temperature: +160° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
H05V2-K					
20(16/32)	1x0.5	0.6	2.5	4.8	8.7
18(24/32)	1x0.75	0.6	2.7	7.2	11.9
17(32/32)	1x1	0.6	2.8	9.6	14
H07V2-K					
16(30/30)	1x1.5	0.7	3.4	14.4	20
14(50/30)	1x2.5	0.8	4.1	24	33.3
12(56/28)	1x4	0.8	4.8	38	48.3
10(84/28)	1x6	0.8	5.3	58	68.5
8(80/26)	1x10	1.0	6.8	96	115
6(128/26)	1x16	1.0	8.1	154	170
4 (200/26)	1x25	1.2	10.2	240	270
2 (280/26)	1x35	1.2	11.7	336	367
1 (400/26)	1x50	1.4	13.9	480	520
2/0 (356/24)	1x70	1.4	16	672	729
3/0 (485/24)	1x95	1.6	18.2	912	962
4/0 (614/24)	1x120	1.6	20.2	1115	1235
300 MCM (765/24)	1x150	1.8	22.5	1440	1523
350 MCM (944/24)	1x185	2.0	24.9	1776	1850
500MCM(1225/24)	1x240	2.2	28.4	2304	2430

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

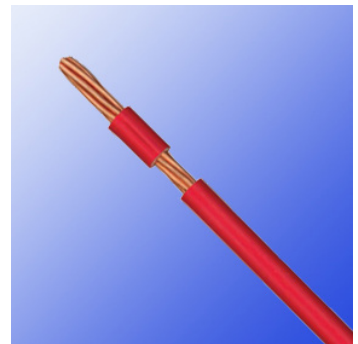
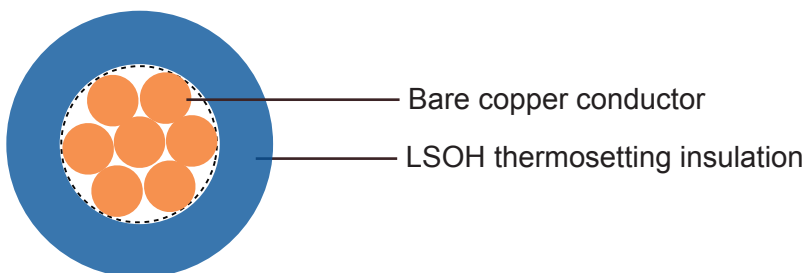


## 6491B to BS 7211

### Application and Description

These cables are designed for fixed wiring purposes in domestic and industrial power/lighting applications. They can be used in trunking or conduit, or may be surface mounted when used for earthing. and they are generally in areas (such as public and government buildings) where smoke and toxic fumes may cause a threat to life and equipment. The cables produce no corrosive gasses when burnt and which is particularly important where electronic equipment is installed. 6491B is equivalent to harmonized code H05Z-U/ H07Z-U/H07Z-R.

### Cable Construction



- Bare copper made of solid/strands conductor
- Solid to BS 6360 Class 1 or IEC 60228 Class 1(H05Z-U/H07Z-U)
- Stranding to BS 6360 Class 2 or IEC 60228 Class 2(H07Z-R)
- LSOH thermosetting core insulation type EI5

### Core Identification

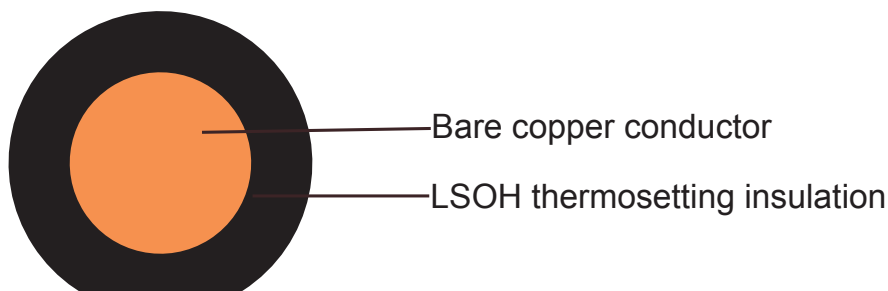
Black, Blue, Green/Yellow, Red, Yellow, White, Violet, Brown, Grey, Orange, Pink

### Technical Characteristics

- Working voltage: 300/500 volts(H05Z-R), 450/750 volts(H07Z-U/H07Z-R)
- Test voltage: 2000 volts(H05Z-R), 2500 volts(H07Z-U/H07Z-R)
- Minimum bending radius: up to 10 mm<sup>2</sup> - 3xoverall diameter,  
above 25 mm<sup>2</sup> - 6xoverall diameter



- Operating temperature: +0° C to +90° C
- Short circuit temperature: +250° C
- Insulation resistance: 10 MΩxkm
- Halogen free acc. to EN 50267-2-1 / IEC 60754-1
- Smoke density acc. to EN 50268-2 / IEC 61034-2
- Corrosivity of gases acc. to EN 50267-2-2, IEC 60754-2
- Flame retardancy acc. to EN 50265-2-1, IEC 60332-1



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
H05Z-U					
20	1x0.5	0.6	2.0	4.8	8
18	1x0.75	0.6	2.2	7.2	12
17	1x1	0.6	2.3	9.6	14
H07Z-U					
16	1x1.5	0,7	2.8	14.4	20
14	1x2.5	0,8	3.3	24	30
12	1x4	0,8	3.8	38	45
10	1x6	0,8	4.3	58	65
8	1x10	1,0	5.5	96	105
H07Z-R					
16(7/24)	1x1.5	0.7	3.0	14.4	21
14(7/22)	1x2.5	0.8	3.6	24	33
12(7/20)	1x4	0.8	4.1	39	49
10(7/18)	1x6	0.8	4.7	58	71
8(7/16)	1x10	1	6	96	114
6(7/14)	1x16	1	6.8	154	172
4(7/12)	1x25	1.2	8.4	240	265



## Industrial Cables to British Standard

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
2(7/10)	1x35	1.2	9.3	336	360
1(19/13)	1x50	1.4	10.9	480	487
2/0(19/11)	1x70	1.4	12.6	672	683
3/0(19/10)	1x95	1.6	14.7	912	946
4/0(37/12)	1x120	1.6	16	1152	1174
300MCM(37/11)	1x150	1.8	17.9	1440	1448
350MCM(37/10)	1x185	2.0	20.0	1776	1820
500MCM(61/11)	1x240	2.2	22.7	2304	2371
-(61/10)	1x300	2.4	25.4	2980	3050
-(61/9)	1x400	2.6	28.8	3765	3842
-(61/8)	1x500	2.8	32.8	4725	4900
-(127/10)	1x630	2.8	36.5	6205	6334

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

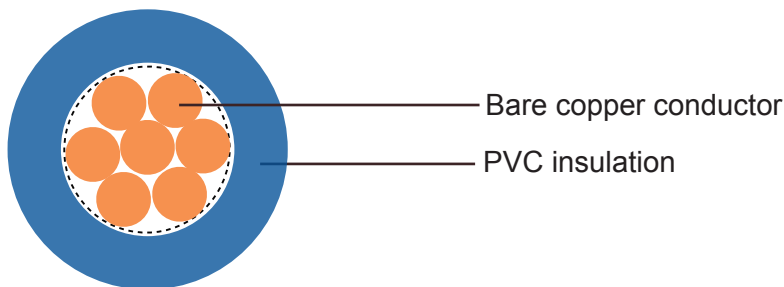


### 6491X/6491X HR to BS 6004

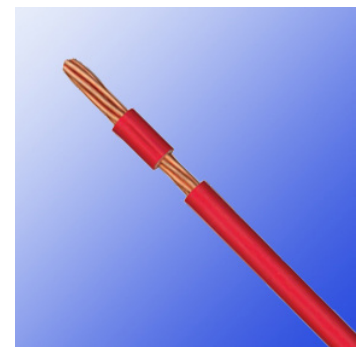
#### Application and Description

These cables are designed for use as fixed wiring in domestic, Industrial power and lighting applications such as light fittings, appliances, switchgear and control gear, they can be used in conduit or trunking or surface mounted when used as an earth. 6491X is equivalent to H05V-U/H07V-U/H07V-R. The heat-resistant version is ideal for use in installation which are subject to direct contact with high temperature equipments (e.g. varnishing machines and drying towers etc.).

#### Cable Construction



6491X



6491X

- Bare copper made of solid/strands conductor
- Solid to BS 6360 Class 1 or IEC 60228 Class 1(H05V-U/H07V-U)
- Stranding to BS 6360 Class 2 or IEC 60228 Class 2(H07V-R.)
- Special PVC TI1/TI3(for 6491X HR ) core insulation
- H05V-U (20, 18 & 17 AWG)
- H07V-U (16 AWG and Larger)

#### Core Identification

Green/Yellow, Black, Blue, Brown, Red, White, Grey, Violet

#### Technical Characteristics

- Working voltage: 300/500 volts(H05V-R), 450/750 volts(H07V-U/H07V-R)
- Test voltage: 2000 volts(H05V-R), 2500 volts(H07V-U/H07V-R)

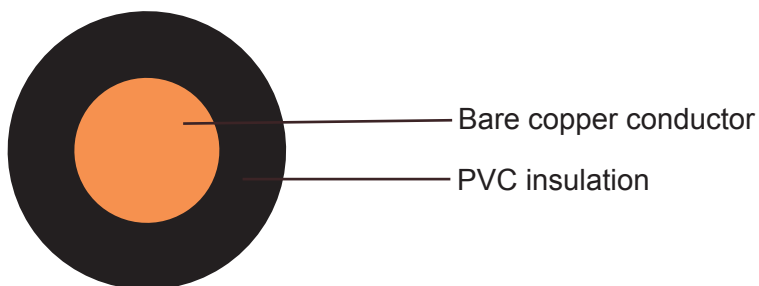


## Industrial Cables to British Standard

- Minimum bending radius: Up to 10mm<sup>2</sup>: 3xoverall diameter  
10mm<sup>2</sup> to 25mm<sup>2</sup>: 4xoverall diameter  
Above 25mm<sup>2</sup>: 5xoverall diameter
- Operating temperature: -0° C to +70° C/105 ° C(for 6491X HR)
- Short circuit temperature: +160° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 10 MΩxkm



6491X



6491X

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
H05V-U					
20	1x0.5	0.6	2.1	4.8	9
18	1x0.75	0.6	2.2	7.2	11
17	1x1	0.6	2.4	9.6	14
H07V-U					
16	1x1.5	0.7	2.9	14.4	21
14	1x2.5	0.8	3.5	24	33
12	1x4	0.8	3.9	38.0	49
10	1x6	0.8	4.5	58.0	69
8	1x10	1.0	5.7	96	115
H07V-R					
16(7/24)	1x1.5	0.7	3.0	14.4	23
14(7/22)	1x2.5	0.8	3.6	24	35
12(7/20)	1x4	0.8	4.2	39	51
10(7/18)	1x6	0.8	4.7	58	71
8(7/16)	1x10	1	6.1	96	120
6(7/14)	1x16	1	7.2	154	170



AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
4(7/12)	1x25	1.2	8.4	240	260
2(7/10)	1x35	1.2	9.5	336	350
1(19/13)	1x50	1.4	11.3	480	480
2/0(19/11)	1x70	1.4	12.6	672	680
3/0(19/10)	1x95	1.6	14.7	912	930
4/0(37/12)	1x120	1.6	16.2	1152	1160
300MCM(37/11)	1x150	1.8	18.1	1440	1430
350MCM(37/10)	1x185	2.0	20.2	1776	1780
500MCM(61/11)	1x240	2.2	22.9	2304	2360
-(61/10)	1x300	2.4	24.5	2980	2940
-(61/9)	1x400	2.6	27.5	3765	3740

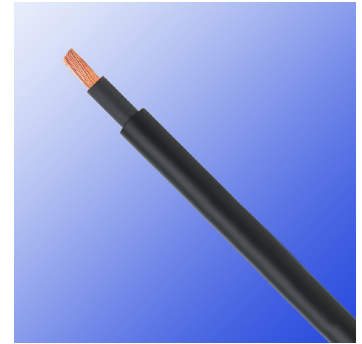
Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.



## 6181B to BS 7889

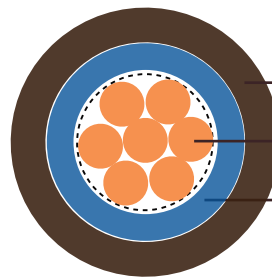
### Application and Description

These cables are designed for fixed wiring purposes in domestic and industrial power/lighting applications. They can be installed in trunking or conduit, or may be surface mounted when used for earthing. They are suitable for use in areas (such as public and government buildings) where smoke and toxic fumes may cause a threat to life and equipment. When mechanical protection is required, they can be embedded in concrete.



### Cable Construction

- Bare copper made of strands conductor
- Stranding to IEC 60228 Class 2
- XLPE insulation
- LSOH sheath



- LSOH sheath
- Bare copper conductor
- XLPE insulation

6181B

### Core Identification

Black, Blue, Brown

### Technical Characteristics

- Working voltage: 600/1000 volts
- Minimum bending radius: up to 25 mm<sup>2</sup> - 4xoverall diameter,  
above 25 mm<sup>2</sup> - 6xoverall diameter
- Operating temperature: -15° C to +90° C
- Insulation resistance: 10 MΩxkm
- Halogen free acc. to EN 50267-2-1 / IEC 60754-1
- Smoke density acc. to EN 50268-2 / IEC 61034-2
- Corrosivity of gases acc. to EN 50267-2-2, IEC 60754-2
- Flame retardancy acc. to EN 50265-2-1, IEC 60332-1



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #x $\text{mm}^2$	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
16(1/16)	1x1.5	0.7	1.4	6	50
14(1/14)	1x2.5	0.7	1.4	6.5	70
12(7/20)	1x4	0.7	1.4	7	80
10(7/18)	1x6	0.7	1.4	7.5	110
8(7/16)	1x10	0.7	1.4	8.5	150
6(7/14)	1x16	0.7	1.4	9.5	215
4(7/12)	1x25	0.9	1.4	11.5	315
2(7/10)	1x35	0.9	1.4	12	415
1(19/13)	1x50	1	1.4	13	555
2/0(19/11)	1x70	1.1	1.4	15	760
3/0(19/10)	1x95	1.1	1.5	17	1025
4/0(37/12)	1x120	1.2	1.5	18.5	1270
300MCM(37/11)	1x150	1.4	1.6	21.5	1575
350MCM(37/10)	1x185	1.6	1.6	23	1955
500MCM(61/11)	1x240	1.7	1.7	26	2470
-(61/10)	1x300	1.8	1.8	28	3155
-(61/9)	1x400	2	1.9	32	4049
-(61/8)	1x500	2.2	2	36	5100
-(127/10)	1x630	2.4	2.2	40	6410

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

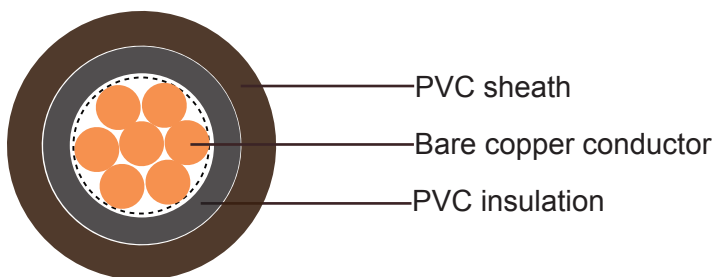


### 6181Y/6181X to BS 6004 and 6346

#### Application and Description

These cables are designed for surface wiring where there is little risk of mechanical damage and are suitable for use in electrical installations such as power and lighting.

#### Cable Construction



6181Y



6181Y

- Bare copper conductor
- Solid to BS 6360 class 1 or IEC 60228 class 1; stranding to BS 6360 class 2 or IEC 60228 class 2  
1.0mm<sup>2</sup>- 2.5mm Class 1 – circular solid  
4mm<sup>2</sup> and above - Class 2 – stranded circular or circular compacted
- PVC insulation Type TI1 to BS7655 or XLPE(6181X)
- PVC sheath Type TM1 or Type 6 to BS7655

#### Core Identification

Black, Blue, Brown

#### Technical Characteristics

- Working voltage: 1.0mm<sup>2</sup> to 35mm<sup>2</sup> - 300/500V to BS 6004  
50mm<sup>2</sup> and above - 600/1000V to BS 6346
- Minimum bending radius: up to 35 mm<sup>2</sup> : 3xoverall diameter,  
50mm<sup>2</sup> to 185mm<sup>2</sup>above: 4xoverall diameter  
240mm<sup>2</sup> and above: 6xoverall diameter
- Operating temperature: -15° C to +70° C



- Insulation resistance: 10 MΩxkm
- Flame retardant: IEC 60332.1

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
18	1x1	0.6	0.8	4.5	27
16	1x1.5	0.7	0.8	4.9	36
14	1x2.5	0.8	0.8	5.8	52
12(7/20)	1x4	0.9	0.9	6.8	76
10(7/18)	1x6	0.8	0.9	7.4	100
8(7/16)	1x10	1	0.9	8.8	160
6(7/14)	1x16	1	1	10.5	230
4(7/12)	1x25	1.2	1.1	12.5	340
2(7/10)	1x35	1.2	1.1	13.5	440
1(19/13)	1x50	1	1.4	13.7	541
2/0(19/11)	1x70	1.1	1.4	15.8	749
3/0(19/10)	1x95	1.1	1.5	17.5	1000
4/0(37/12)	1x120	1.2	1.5	19.3	1241
300MCM(37/11)	1x150	1.4	1.6	21.5	1523
350MCM(37/10)	1x185	1.6	1.6	24.7	1942
500MCM(61/11)	1x240	1.7	1.7	27.7	2514
-(61/10)	1x300	1.8	1.8	30.6	3125
-(61/9)	1x400	2	1.9	34.2	3967
-(61/8)	1x500	2.2	2	38	5063
-(127/10)	1x630	2.4	2.2	42.9	6491

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

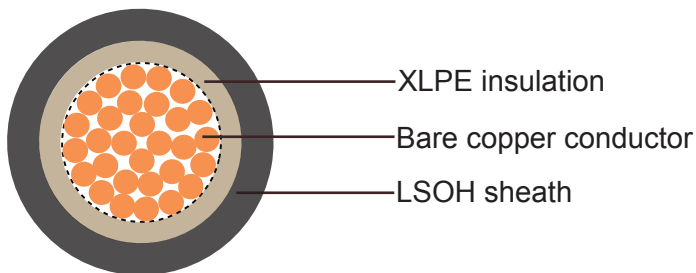


### 6381B to BS 7211

#### Application and Description

These cables are suitable for D.C. power supplies on telecom equipment and power applications where flexibility is required. The cables produce no corrosive gases when burnt which is important where electronic equipment is installed.

#### Cable Construction



6381B



6381B

- Bare copper conductor
- Stranding to BS6360 Class 5 or IEC60228 Class 5
- XLPE(Cross-Linked Polyethylene) insulation
- LSOH(Low Smoke Zero Halogen) sheath

#### Sheath/Core Identification

Blue (Blue), Grey (Grey), Green/Yellow (Green/Yellow), Brown (Brown), Special colours to order

#### Technical Characteristics

- Working voltage: 600/1000V
- Minimum bending radius: up to 50 mm<sup>2</sup> : 3xoverall diameter,  
70mm<sup>2</sup> and above: - 4xoverall diameter
- Operating temperature: 0° C to +90° C
- Insulation resistance: 10 MΩxkm
- Flame retardant: IEC 60332.1, BS4066 Part 1



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
16(30/30)	1x1.5	0.9	0.8	5.2	42
14(50/30)	1x2.5	0.9	0.8	5.7	54
12(56/28)	1x4	1	0.9	6.6	77
10(84/28)	1x6	1.1	0.9	7.3	102
8(80/26)	1x10	1.2	1	8.6	160
6(128/26)	1x16	1.2	1	9.6	210
4(200/26)	1x25	1.4	1.1	11.5	320
2(280/26)	1x35	1.4	1.1	12.8	420
1(400/26)	1x50	1.4	1.4	14.9	590
2/0(356/24)	1x70	1.4	1.4	17.2	810
3/0(485/24)	1x95	1.6	1.5	18.6	1020
4/0(614/24)	1x120	1.6	1.8	20.8	1285
300MCM (765/24)	1x150	1.8	1.8	23.1	1610
350MCM (944/24)	1x185	2	1.8	25.3	1940
500MCM(1225/24)	1x240	2.2	1.8	27.8	2480
-(1525/24)	1x300	2.4	2	31.2	3050
-(2013/24)	1x400	2.6	2.1	35.3	4035
-(1769/23)	1x500	2.8	2.2	38.8	4970
-(2257/23)	1x630	2.8	2.4	43.8	6510

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

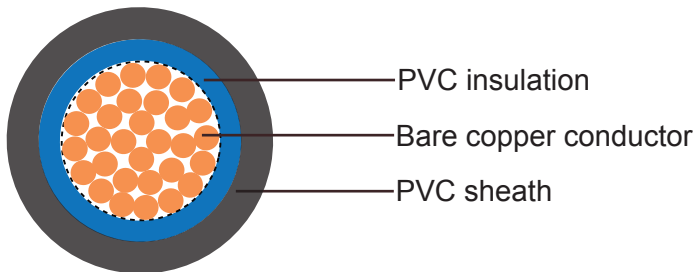


### 6381Y to BS 6004 and 6346

#### Application and Description

These cables are designed for DC power supplies on Telecom equipment and power applications where flexibility is required.

#### Cable Construction



6381Y



6381Y

- Bare copper conductor
- Stranding to BS6360 Class 5 or IEC60228 Class 5
- PVC insulation Type TI1 to BS7655
- PVC sheath Type TM1 to BS7655  
oxygen index > 30%
- Meets requirements for flammability as required by BT specification M231

#### Sheath/Core Identification

Blue (Blue), Grey (Grey), Green/Yellow (Green/Yellow), Brown (Brown), Special colours to order

#### Technical Characteristics

- Working voltage: 1.0mm<sup>2</sup> to 35mm<sup>2</sup> - 450/750V to BS 6004  
50mm<sup>2</sup> and above - 600/1000V to BS 6346
- Minimum bending radius: up to 50 mm<sup>2</sup> : 3xoverall diameter,  
70mm<sup>2</sup> and above: - 4xoverall diameter
- Operating temperature: -15° C to +70° C
- Insulation resistance: 10 MΩxkm
- Flame retardant: IEC 60332.1, BS4066 Part 1



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
16(30/30)	1x1.5	0.9	0.8	4.9	36
14(50/30)	1x2.5	0.9	0.8	5.4	52
12(56/28)	1x4	1	0.9	6.3	76
10(84/28)	1x6	1.1	0.9	7.6	100
8(80/26)	1x10	1.2	1	8.6	160
6(128/26)	1x16	1.2	1	9.8	230
4(200/26)	1x25	1.4	1.1	11.5	340
2(280/26)	1x35	1.4	1.1	12.5	440
1(400/26)	1x50	1.4	1.4	15.1	541
2/0(356/24)	1x70	1.4	1.4	17.0	749
3/0(485/24)	1x95	1.6	1.5	19.1	1000
4/0(614/24)	1x120	1.6	1.8	21.6	1241
300MCM (765/24)	1x150	1.8	1.8	23.4	1523
350MCM (944/24)	1x185	2	1.8	25.5	1942
500MCM(1225/24)	1x240	2.2	1.8	28.5	2514
-(1525/24)	1x300	2.4	2	31.2	3125
-(2013/24)	1x400	2.6	2.1	35.3	3967
-(1769/23)	1x500	2.8	2.2	38.8	5063
-(2257/23)	1x630	2.8	2.4	43.8	6491

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

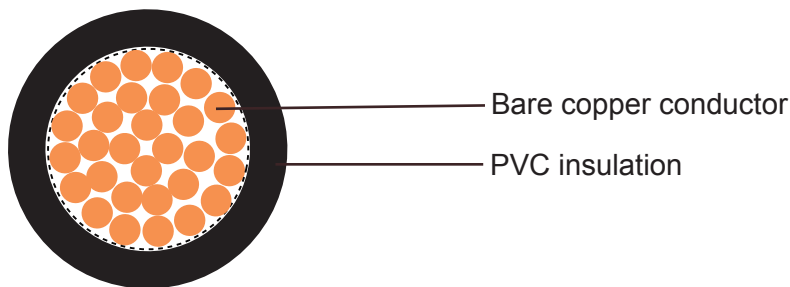


### Tri-rated Cable to BS6231

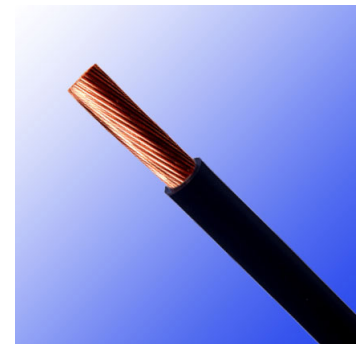
#### Application and Description

Tri-rated Cable panel wiring is a high temperature, flame retardant cable designed for use in the switch control, relay and instrumentation panels of power switchgear and for purposes such as internal connectors in rectifier equipment, motor starters and controllers. Tri-rated Cable is sometimes referred to as BS6231 Cable or Panel Wire.

#### Cable Construction



tri-rated cables



tri-rated cables

- Fine bare copper strands
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- Special heat resistant PVC core insulation

#### Core Identification

Black, Blue, Brown, Red, White, Yellow, Grey, Violet, Pink, Green/Yellow, Other colours are available on request

#### Technical Characteristics

- Working voltage: 600/1000v
- Minimum bending radius: 6xOverall diameter
- Operating temperature: 0° C to +90° C (105°C for 15,000 hours)
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Weight kg/km
20(16/32)	1x0.5	0.80	2.50	12
18(24/32)	1x0.75	0.80	2.70	15
17(32/32)	1x1	0.80	2.95	18
16(30/30)	1x1.5	0.80	3.20	23
14(50/30)	1x2.5	0.80	3.65	34
12(56/28)	1x4	0.80	4.20	48
10(84/28)	1x6	0.80	4.70	67
8(80/26)	1x10	1.14	6.50	119
6(128/26)	1x16	1.52	8.00	187
4(200/26)	1x25	1.52	9.40	291
2(280/26)	1x35	1.52	10.60	406
1(400/26)	1x50	2.02	12.90	580
2/0(356/24)	1x70	2.02	14.60	780
3/0(485/24)	1x95	2.02	16.10	1055
4/0(614/24)	1x120	2.02	17.90	1175
300 MCM (765/24)	1x150	2.41	20.20	1425
350 MCM (944/24)	1x185	2.41	22.85	1735
500MCM(1225/24)	1x240	2.41	24.40	2310

\*Cables above 120mm<sup>2</sup> in size are referred to as Bi-rated since the CSA standard applies only to sizes up to and including 120mm<sup>2</sup>

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

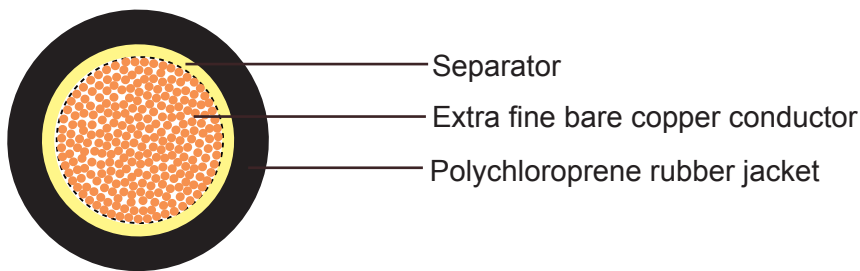


### H01N2-D/E to BS 638

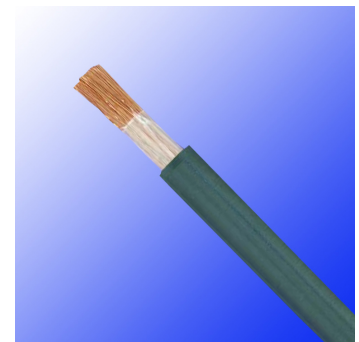
#### Application and Description

These cables are used as a connection between the welding generator, the hand-electrode and the work piece, they are suitable for use in the automobile industry, ship building, transport and conveyor systems, tool making machinery, welding robots etc. These cables retain their high flexibility even under influence of ozone, light, oxygen, protective gases, oil and petrol. Robust design of these cables makes them resistant to low and high temperature, fire, ozone and radiation, oils, acids, fats and petrols. These cables are also ideal for outside installation in dry, moist and wet areas.

#### Cable Construction



H01N2-D



H01N2-D

- Extra fine bare copper strands
- Stranding to BS 6360 Class 5/6, IEC 60228 Class 5/6
- Synthetic or paper separator over core
- Chlorosulphonated Polyethylene (C.S.P.), HOFR (Heat and Oil Resistant and Flame Retardant) to BS7655 , black/ orange

#### Technical Characteristics

- Working voltage: 100/100 volts
- Test voltage: 1000 volts
- Minimum bending radius: 12.0xOverall diameter (H01N2-D)  
10xOverall diameter (H01N2-E)
- Flexing Temperature: -25° C to +80° C
- Fixed Temperature: -40° C to +80° C
- Flame retardant: IEC 60332.1



### Cable Parameter

#### H01N2-D (standard flexibility)

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #x $\text{mm}^2$	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
8(320/32)	1x10	2.0	7.7-9.7	96	135
6(512/32)	1x16	2.0	8.8-11.0	154	205
4(800/32)	1x25	2.0	10.1-12.7	240	302
2(1120/32)	1x35	2.0	11.4-14.2	336	420
1(1600/32)	1x50	2.2	13.2-16.5	480	586
2/0(2240/32)	1x70	2.4	15.3-19.2	672	798
3/0(3024/32)	1x95	2.6	17.1-21.4	912	1015
4/0(614/24)	1x120	2.8	19.2-24	1152	1310
300MCM(765/24)	1x150	3.0	21.2-26.4	1440	1620
350MCM(944/24)	1x185	3.2	23.1-28.9	1776	1916
500MCM(1225/24)	1x240	3.4	25-29.5	2304	2540

#### H01N2-E(high flexibility)

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #x $\text{mm}^2$	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
8(566/35)	1x10	1.2	6.2-7.8	96	119
6(903/35)	1x16	1.2	7.3-9.1	154	181
4(1407/35)	1x25	1.2	8.6-10.8	240	270
2(1974/35)	1x35	1.2	9.8-12.3	336	363
1(2830/35)	1x50	1.5	11.9-14.8	480	528
2/0(3952/35)	1x70	1.8	13.6-17.0	672	716
3/0(5370/35)	1x95	1.8	15.6-19.5	912	1012
4/0(3819/32)	1x120	1.8	17.2-21.6	1152	1190
300MCM(4788/32)	1x150	1.8	18.8-23.5	1440	1305
500MCM(5852/32)	1x185	1.8	20.4-25.5	1776	1511

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

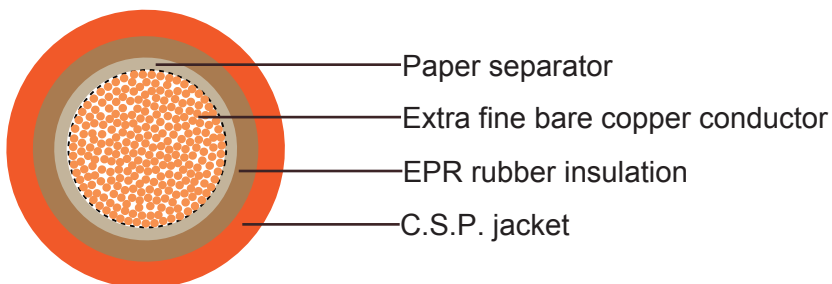


### 0361TQ to BS 683

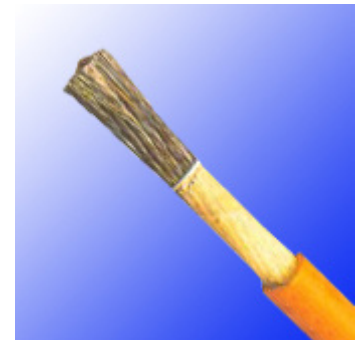
#### Application and Description

These cables are used for the transmission of high currents from the electric welding machine to the welding tool. they are suitable for flexible use under rough conditions, on assembly lines and conveyor systems, in machine tool and motor car manufacturing, ship building, for manually and automatically operated line and spot welding machines.

#### Cable Construction



0361TQ



0361TQ

- Extra fine bare/tinned copper strands
- Stranding to BS 6360 class 6, or class 5 (120mm<sup>2</sup> and above)
- Synthetic or paper separator over core
- EPR (Ethylene Propylene Rubber) to BS7655
- Chlorosulphonated Polyethylene (C.S.P.), HOFR (Heat and Oil Resistant and Flame Retardant) to BS7655 , black/ orange

#### Technical Characteristics

- Working voltage: 100/100 volts  
(450V for non-welding applications if suitably protected from mechanical damage)
- Test voltage: 1000 volts
- Minimum bending radius: 6xOverall diameter
- Operating temperature: -25° C to +85° C
- Flame retardant: IEC 60332.1



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
6(903/35)	1x16	1.2	2	11.0±0.5	230
4(1407/35)	1x25	1.4	2	12.5±0.5	325
2(1974/35)	1x35	1.4	2	14±0.5	440
1(2830/35)	1x50	1.6	2.2	16.5±0.5	600
2/0(3952/35)	1x70	1.6	2.4	18.5±0.5	830
3/0(5370/35)	1x95	1.8	2.6	21.0±0.5	1110
4/0(614/24)	1x120	1.8	2.8	23.5±0.5	1375
300 MCM (765/24)	1x150	2	3	26±0.5	1680
350 MCM (944/24)	1x185	2.2	3.2	27.5±0.5	2050
500MCM(1225/24)	1x240	2.4	3.2	30.5±0.5	2630

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

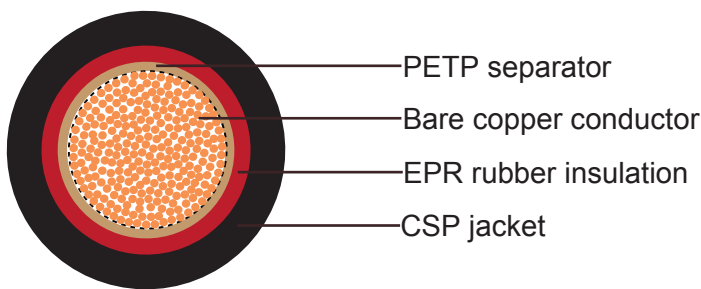


### Coil End Lead Cable to BS 6195 type 4

#### Application and Description

These cables are designed as power leads for permanent connection to coil winding motors, panel wiring and electrical machinery. They are able to withstand high temperature and immersion in varnish. Other applications include vehicle wiring, The HOFR sheath resists oil and varnish and the stranding is designed as a compromise between flexibility and positional stability. Also they are suitable for use as an alternative to tri-rated and bi-rated cable in certain applications.

#### Cable Construction



- Fine bare copper strands or tinned copper
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- PETP(Polyethylene Terephthalate) tape separator
- EPR-HOFR( Ethylene Propylene Rubber-Heat and Oil Resistant and Flame Retardant) insulation, type FR1 (for type 4A & 4C) & type FR2 (for type 4D & 4E&4F) to BS 7655
- CSP(Chlorosulphonated Polyethylene), HOFR (Heat and Oil Resistant and Flame Retardant) sheath to BS 6899, black

#### Technical Characteristics

- Working voltage: Type 4A: 300/500V  
                           Type 4C: 600/1000V  
                           Type 4D: 1900/3300V  
                           Type 4E: 3800/6600V  
                           Type 4F: 6350/11000V
- Minimum bending radius: 4xOverall diameter
- Operating temperature: -20° C to +90° C



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Weight kg/km
<b>TYPE 4A</b>				
18(24/32)	1x0.75	0.8	3.5	16
17(32/32)	1x1	0.8	3.7	19
16(30/30)	1x1.5	0.8	4	25
14(50/30)	1x2.5	0.9	4.6	37
12(56/28)	1x4	1	5.4	57
10(84/28)	1x6	1	6.5	80
8(80/26)	1x10	1.2	7.9	130
<b>TYPE 4C</b>				
20(16/32)	1x0.5	1.4	4.5	17
18(24/32)	1x0.75	1.4	4.7	21
17(32/32)	1x1	1.4	4.9	24
16(30/30)	1x1.5	1.4	5.2	30
14(50/30)	1x2.5	1.4	5.6	41
12(56/28)	1x4	1.4	6.3	66
10(84/28)	1x6	1.5	7.5	93
8(80/26)	1x10	1.5	8.5	136
6(128/26)	1x16	1.5	9.6	206
4(200/26)	1x25	1.6	11.4	300
2(280/26)	1x35	1.6	12.8	406
1(400/26)	1x50	1.7	14.8	573
2/0(356/24)	1x70	1.8	17.2	793
3/0(485/24)	1x95	2	19.7	1028
4/0(614/24)	1x120	2.2	21.9	1285
300 MCM (765/24)	1x150	2.3	24.1	1562
350 MCM (944/24)	1x185	2.4	26.3	1914
500MCM(1225/24)	1x240	2.4	28.3	2431
(1525/24)	1x300	2.6	33	3024
(2013/24)	1x400	2.8	37.4	3948
<b>TYPE 4D</b>				
6(128/26)	1x16	2.8	12.4	255
4(200/26)	1x25	2.8	13.8	351
2(280/26)	1x35	2.8	15.2	458



## Industrial Cables to British Standard

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Weight kg/km
1(400/26)	1x50	2.8	17.1	616
2/0(356/24)	1x70	2.8	19.2	820
3/0(485/24)	1x95	3	22	1097
4/0(614/24)	1x120	3	23.5	1340
300 MCM (765/24)	1x150	3	25.5	1635
350 MCM (944/24)	1x185	3	27.5	1973
500MCM(1225/24)	1x240	3	30.6	2504
(1525/24)	1x300	3	33.8	3098
(2013/24)	1x400	3	37.8	4045
<b>TYPE 4E</b>				
6(128/26)	1x16	5	17.2	384
4(200/26)	1x25	5	18.6	495
2(280/26)	1x35	5	20	613
1(400/26)	1x50	5	22.1	796
2/0(356/24)	1x70	5	24.2	1020
3/0(485/24)	1x95	5	26.3	1287
4/0(614/24)	1x120	5	27.8	1542
300 MCM (765/24)	1x150	5	29.8	1853
350 MCM (944/24)	1x185	5	32.1	2225
500MCM(1225/24)	1x240	5	35.1	2782
<b>TYPE 4F</b>				
6(128/26)	1x16	7.6	22.9	566
4(200/26)	1x25	7.6	24.1	680
2(280/26)	1x35	7.6	25.5	810
1(400/26)	1x50	7.6	27.3	997
2/0(356/24)	1x70	7.6	29.4	1237
3/0(485/24)	1x95	7.6	31.5	1520
4/0(614/24)	1x120	7.6	33.3	1804
300 MCM (765/24)	1x150	7.6	35.3	2131
350 MCM (944/24)	1x185	7.6	37.3	2503
500MCM(1225/24)	1x240	7.6	40.3	3081

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

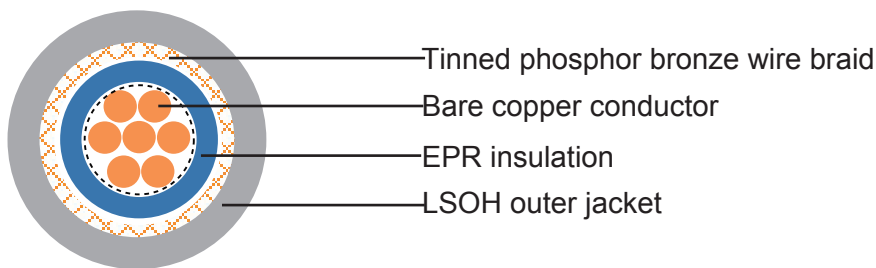


### 6591TQ to BS 6883

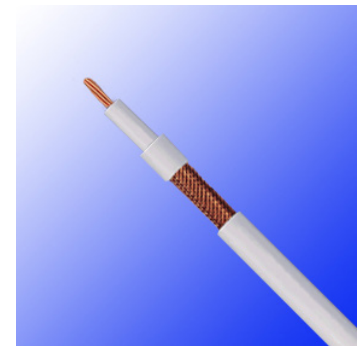
#### Application and Description

These cables are designed for use in offshore applications where mechanical protection is not required. Examples of application include fixed wiring in ships and fixed offshore drilling rigs and oil platforms.

#### Cable Construction



6591TQ



6591TQ

- Fine bare copper strands
- Stranding to BS 6360 Class 2 or IEC 60228 Class 2
- EPR(Ethylene Propylene Rubber) rubber insulation to BS 6899, white
- TPBWB (Tinned phosphor bronze wire braid) non-magnetic armour
- LSOH (Low Smoke Zero Halogen), type SW4 to BS 6899

#### Technical Characteristics

- Working voltage: 600/1000 volts
- Test voltage: 2000 volts
- Minimum bending radius: up to 10mm<sup>2</sup> - 3xOverall diameter  
10mm<sup>2</sup>-25mm<sup>2</sup> - 4xOverall diameter  
Above 25mm<sup>2</sup> - 6xOverall diameter
- Temperature Range: -25° C to +85° C
- Oxygen Index 32%, HCL 5%
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Bedding mm	Diameter of Braid Wire mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
17(7/26)	1x1.0	0.8	1	0.3	1	8.8	135
16(7/24)	1x1.5	0.8	1	0.3	1.1	9.3	145
14(7/22)	1x2.5	0.8	1	0.3	1.1	9.8	165
12(7/20)	1x4	1	1	0.3	1.1	10.8	190
10(7/18)	1x6	1	1	0.3	1.1	11.4	225
8(7/16)	1x10	1	1	0.3	1.2	13.1	315
6(7/14)	1x16	1	1	0.3	1.2	14.2	395
4(7/12)	1x25	1.2	1.2	0.3	1.3	16.7	565
2(7/10)	1x35	1.2	1.2	0.3	1.4	17.8	670
1(19/13)	1x50	1.4	1.4	0.3	1.4	19.7	865
2/0(19/11)	1x70	1.4	1.4	0.3	1.5	22.1	1120
3/0(19/10)	1x95	1.6	1.6	0.3	1.6	24.4	1440
4/0(37/12)	1x120	1.6	1.6	0.3	1.7	26.6	1780
300MCM (37/11)	1x150	1.8	1.8	0.3	1.8	28.9	2120
350MCM (37/10)	1x185	2	2	0.45	1.9	32.5	2700
500MCM (61/11)	1x240	2.2	2.2	0.45	2	36	3410
-(61/10)	1x300	2.4	2.4	0.45	2.2	39.4	4180
-(61/9)	1x400	2.6	2.6	0.45	2.3	43.9	5280
-(61/8)	1x500	2.8	2.8	0.45	2.5	48.1	6480
-(127/10)	1x630	2.8	2.8	0.45	2.6	52.3	7820

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.



## **Multi-Core Flexible Cables**

**218Y to BS 6500**

**2192Y to BS 6500**

**6192Y/ 6193Y to BS 6004**

**6241B/6242B/ 6243B to BS 7211**

**6241Y/6242Y/ 6243Y to BS 6004**

**209Y to BS 6500**

**309Y to BS 6500**

**318Y to BS 6500**

**3192Y to BS 6500**

**318B to BS 6500**

**318TRS to BS 6500**

**318TQ to BS 6500**

**638TQ to BS 7919**

**657TQ to BS 6883**

**ARCTIC+GRADE to BS 6500**

**380TQ to BS 6500**

**680TQ to BS 6007**

**658TQ to BS 6883**

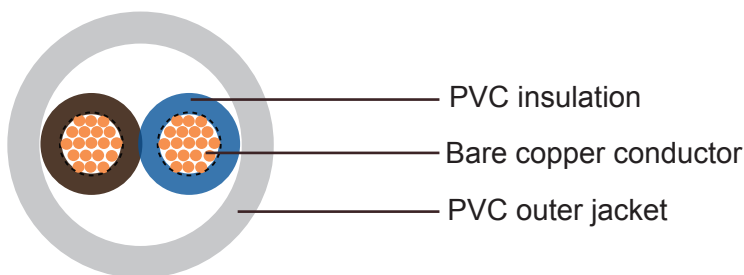


### 218Y to BS 6500

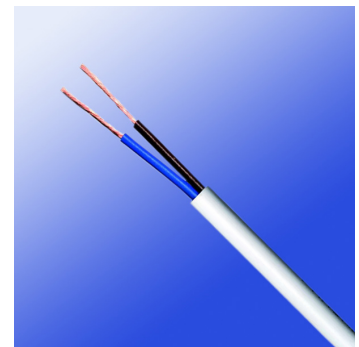
#### Application and Description

These cable types are especially suited for use on small appliances with low mechanical stress and for connection for light household appliances, e.g. kitchen utensils, desk lamps, floor lamps, vacuum cleaners, office machines, radios, etc. As far as these cables are admitted to the relevant specifications of the equipment, They are not permitted for use with cooking or heating apparatus. 218Y is equivalent to harmonized code H03VV-F.

#### Cable Construction



2182Y



2182Y

- Bare copper fine wire conductor
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- PVC core insulation TI2 to BS 7655
- Green/Yellow grounding (3 conductors and above)
- PVC outer jacket TM2 to BS 7655

#### Core Identification

- 2 Cores: Blue, Brown
- 3 Cores: Green/Yellow, Blue, Brown
- 4 cores: Green/Yellow, black, brown, blue



### Technical Characteristics

- Working voltage: 300/300 volts
- Test voltage: 2000 volts
- Flexing bending radius: 7.5xOverall diameter
- Static bending radius: 4xOverall diameter
- Flexing temperature: -5° C to +70° C
- Static temperature: -40° C to +70° C
- Short circuit temperature: +160° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
<b>2182Y</b>						
20(16/32)	2x0.50	0.5	0.6	5	9.6	38
18(24/32)	2x0.75	0.5	0.6	5.5	14.4	46
<b>2183Y</b>						
20(16/32)	3x0.50	0.5	0.6	5.4	14.4	45
18(24/32)	3x0.75	0.5	0.6	6	21.6	59
<b>2184Y</b>						
20(16/32)	4x0.50	0.5	0.6	5.8	19.2	55
18(24/32)	4x0.75	0.5	0.6	6.5	28.8	72

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.



### 2192Y to BS 6500

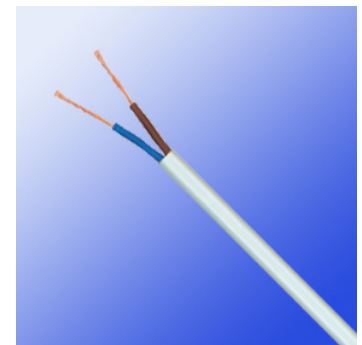
#### Application and Description

These cable types are especially suited for use on small appliances with low mechanical stress and for connection for light household appliances, e.g. kitchen utensils, desk lamps, floor lamps, vacuum cleaners, office machines, radios, etc. These cables are admitted to the relevant specifications of the equipment, They are not permitted for use with cooking or heating apparatus. 2192Y is equivalent to harmonized code H03VVH2-F.

#### Cable Construction



2192Y



2192Y

- Bare copper fine wire conductor
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- PVC core insulation T12 to BS 7655
- PVC outer jacket TM2 to BS 7655

#### Core Identification

2 Cores: Blue, Brown

#### Technical Characteristics

- Working voltage: 300/300 volts
- Test voltage: 2000 volts
- Flexing bending radius: 7.5xOverall diameter
- Static bending radius: 4xOverall diameter



- Flexing temperature: -5° C to +70° C
- Static temperature: -40° C to +70° C
- Short circuit temperature: +160° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
<b>2192Y</b>						
20(16/32)	2x0.50	0.5	0.6	3.2x5.2	9.7	32
18(24/32)	2x0.75	0.5	0.6	3.4x5.6	14.4	35

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

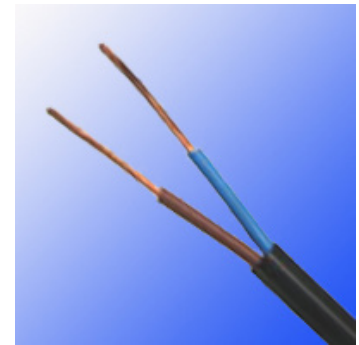
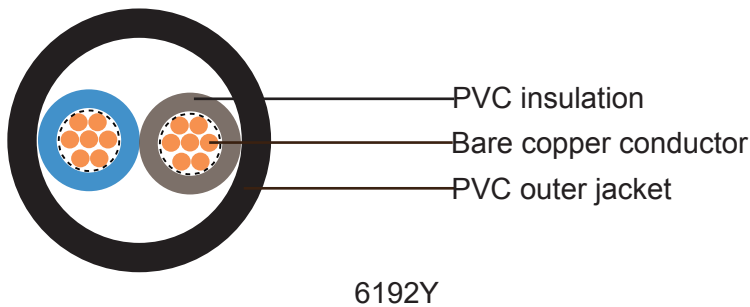


### 6192Y/ 6193Y to BS 6004

#### Application and Description

These cables are suitable for fixed installation in dry or damp premises on walls, boards or trays, in channels or embedded in plaster. They should be laid in conduit in conduit or trunking where mechanical protection is required.

#### Cable Construction



6192Y

- Fine bare copper strands
- Stranding to BS 6360, IEC 60228 Class 1 or 2
- PVC insulation type TI1 to BS 7655
- PVC sheath type T6 to BS 7655

#### Core Identification

- 2 cores: brown and blue
- 3 cores: brown, black and grey

#### Technical Characteristics

- Working voltage: 300/500v
- Test voltage: 2000 volts
- Minimum bending radius: 4xOverall diameter
- Operating temperature: -15° C to +70° C
- Short circuit temperature: +160° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 10 MΩxkm



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal thickness of insulation mm	Nominal thickness of sheath mm	Nominal overall dimensions		Nominal Weight kg/km
				lower limit mm	upper limit mm	
<b>6192Y</b>						
17	2 × 1.0	0.6	0.9	4x6.2	4.7x7.4	53
16	2 × 1.5	0.7	0.9	4.4x7.0	5.4x8.4	70
14	2 × 2.5	0.8	1	5.2x8.4	6.2x9.8	105
12(7/20)	2 × 4	0.8	1	6x10.4	7.2x11.5	150
10(7/18)	2 × 6	0.8	1.1	6.8x11.5	8.0x13.0	205
8(7/16)	2 × 10	1	1.2	7.8x15.1	9.6x16	325
6(7/14)	2 × 16	1	1.3	9.8x17.2	11.0x18.5	465
<b>6193Y</b>						
17	3 × 1.0	0.6	0.9	4x8.4	4.7x9.8	77
16	3 × 1.5	0.7	0.9	4.4x9.8	5.4x11.5	100
14	3 × 2.5	0.8	1	5.2x11.5	6.2x13.5	150
12(7/20)	3 × 4	0.8	1.1	6x14.8	7.4x16.5	230
10(7/18)	3 × 6	0.8	1.1	6.8x16.5	8.0x18.0	300
8(7/16)	3 × 10	1	1.2	7.8x21.0	9.6x22.5	485
6(7/14)	3 × 16	1	1.3	9.8x24.8	11.0x26.5	700

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

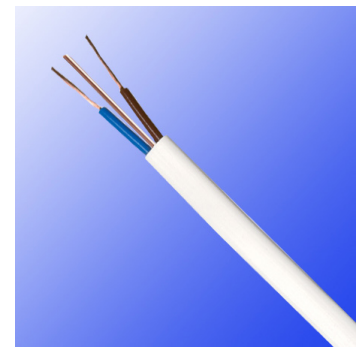
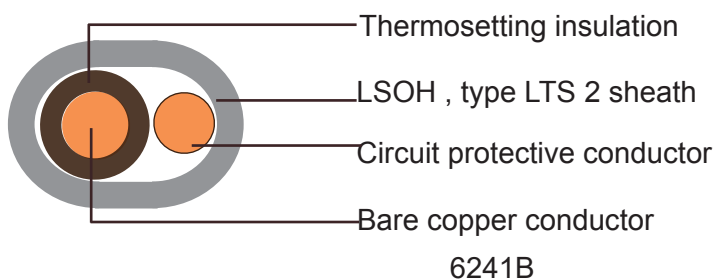


### 6241B/6242B/ 6243B to BS 7211

#### Application and Description

These cables are suitable for fixed installation particularly for situations in which low emission smoke and domestic wiring cable for the surface wiring of sockets and lighting where fire, smoke emission and toxic fumes create a potential threat to life and equipment. Can be installed in fixed installations in dry or damp premises on walls, boards or trays, in channels or embedded in plaster. Suitable for laying in conduit or trunking where mechanical protection is required.

#### Cable Construction

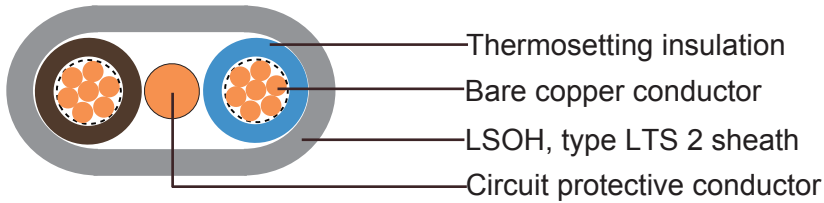


- Fine bare copper strands
- Stranding to IEC 60228 Class 1 or 2
- Thermosetting core insulation type EI5 or GP 8
- The core or cores shall be laid parallel with the uninsulated circuit protective conductor
- For twin cores, the protective conductor centrally placed between cores in same plane
- For 3 cores, the protective conductor centrally placed between black and grey cores in same plane
- LSOH sheath, type LTS 2, white

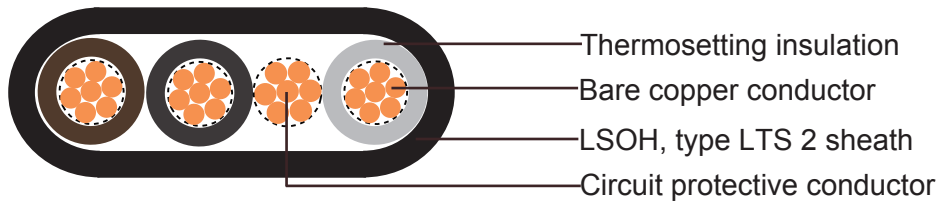
#### Core Identification

2 cores: brown and blue, or, for 2 × 1.0 and 2 × 1.5 cables, brown and brown

3 cores: brown, black (centre core) and grey



6242B



6243B

### Technical Characteristics

- Working voltage: 300/500v
- Test voltage: 2000 volts
- Flexing bending radius: 15xOverall diameter
- Static bending radius: 10xOverall diameter
- Flexing temperature: +5° C to +90° C
- Short circuit temperature: +250° C
- Insulation resistance: 10 MΩxkm
- Halogen free acc. to EN 50267-2-1 / IEC 60754-1
- Smoke density acc. to EN 50268-2 / IEC 61034-2
- Corrosivity of gases acc. to EN 50267-2-2, IEC 60754-2
- Flame retardancy acc. to EN 50265-2-1, IEC 60332-1

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal thickness of insulation mm	Nominal thickness of sheath mm	Nominal overall dimensions		Circuit protective conductor AWG	Nominal Weight kg/km
				lower limit mm	upper limit mm		
<b>6241B</b>							
17	1 × 1.0	0.7	0.9	4.1 × 5.2	5.0 × 6.3	17	45
16	1 × 1.5	0.7	0.9	4.4 × 5.4	5.3 × 6.6	17	55



## Industrial Cables to British Standard

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal thickness of insulation mm	Nominal thickness of sheath mm	Nominal overall dimensions		Circuit protective conductor AWG	Nominal Weight kg/km
				lower limit mm	upper limit mm		
<b>6242B</b>							
17	2 × 1.0	0.7	0.9	4.1 × 7.6	5.0 × 9.1	17	68
17(7/26)	2 × 1.0	0.7	0.9	4.2 × 7.8	5.1 × 9.4	17	73
16	2 × 1.5	0.7	0.9	4.4 × 8.1	5.3 × 9.7	17	85
16(7/24)	2 × 1.5	0.7	0.9	4.5 × 8.3	5.4 × 10	17	90
14	2 × 2.5	0.7	1.0	4.9 × 9.3	6 × 11.2	16	120
14(7/22)	2 × 2.5	0.7	1.0	5.0 × 9.5	6.1 × 11.4	16	125
12(7/20)	2 × 4	0.7	1.0	5.5 × 10.4	6.7 × 12.6	16	175
10(7/18)	2 × 6	0.7	1.1	6.2 × 12.0	7.5 × 14.6	14	240
8(7/16)	2 × 10	0.7	1.2	7.3 × 14.5	8.8 × 17.6	12(7/20)	390
6(7/14)	2 × 16	0.7	1.3	8.4 × 17.0	10.1 × 20.5	10(7/18)	560
<b>6243B</b>							
17	3 × 1.0	0.7	0.9	4.1 × 10	5.1 × 12.1	17	91
16	3 × 1.5	0.7	0.9	4.4 × 10.7	5.3 × 12.9	17	115
14	3 × 2.5	0.7	1.0	4.9 × 12.0	6 × 14.6	17	170
12(7/20)	3 × 4	0.7	1.0	5.5 × 14	6.7 × 16.9	16	196
10(7/18)	3 × 6	0.7	1.1	6.2 × 16.2	7.5 × 19.5	14	291
8(7/16)	3 × 10	0.7	1.2	7.3 × 19.5	8.8 × 23.6	12(7/20)	440
6(7/14)	3 × 16	0.7	1.3	8.4 × 22.8	10.1 × 27.6	10(7/18)	670

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

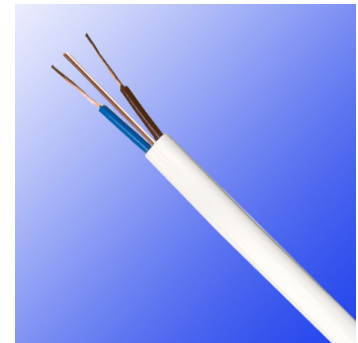
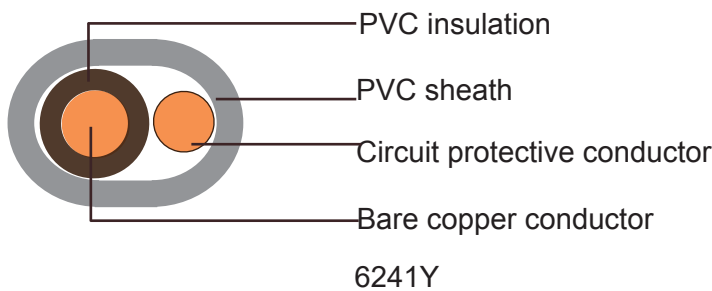


### 6241Y/6242Y/ 6243Y to BS 6004

#### Application and Description

These cables are suitable for fixed installation in dry or damp premises on walls, boards or trays, in channels or embedded in plaster. They should be laid in conduit or trunking where mechanical protection is required.

#### Cable Construction



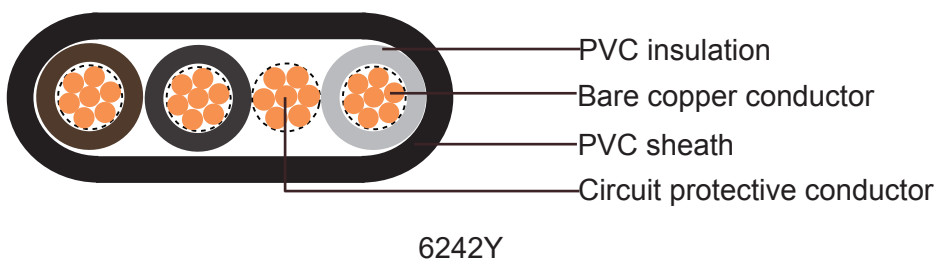
6241Y

- Fine bare copper strands
- Stranding to IEC 60228 Class 1 or 2
- PVC insulation type TI1 to BS 7655
- The core or cores shall be laid parallel with the uninsulated circuit protective conductor
- For twin cores, the protective conductor centrally placed between cores in same plane
- For 3 cores, the protective conductor centrally placed between black and grey cores in same plane
- PVC sheath type T6 to BS 7655

#### Core Identification

2 cores: brown and blue, or, for 2 × 1.0 and 2 × 1.5 cables, brown and brown

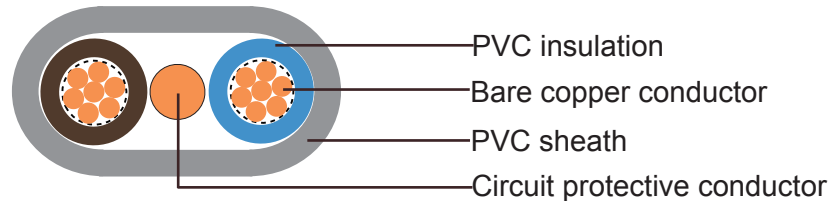
3 cores: brown, black (centre core) and grey





### Technical Characteristics

- Working voltage: 300/500v
- Test voltage: 2000 volts
- Minimum bending radius: 4xOverall diameter
- Flexing temperature: -15° C to +70° C
- Short circuit temperature: +160° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 10 MΩxkm



### Cable Parameter

6243Y

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal thickness of insulation mm	Nominal thickness of sheath mm	Nominal overall dimensions		Circuit protective conductor AWG	Nominal Weight kg/km
				lower limit mm	upper limit mm		
<b>6241Y</b>							
17	1 × 1.0	0.6	0.9	4x5.1	5.2x6.4	17	45
16	1 × 1.5	0.7	0.9	4.4x5.4	5.8x7.0	17	55
<b>6242Y</b>							
17	2 × 1.0	0.6	0.9	4 × 7.2	4.7 × 8.6	17	68
17(7/26)	2 × 1.0	0.7	0.9	4.2 × 7.8	5.1 × 9.4	17	73
16	2 × 1.5	0.7	0.9	4.4x8.2	5.4x9.6	17	85
16(7/24)	2 × 1.5	0.7	0.9	4.5x8.4	5.6x10	17	90
14	2 × 2.5	0.8	1	5.2x9.8	6.2x11.5	16	120
14(7/22)	2 × 2.5	0.8	1	5.2x9.8	6.6x12.0	16	125
12(7/20)	2 × 4	0.8	1	5.6x10.5	7.2x13.0	16	175
10(7/18)	2 × 6	0.8	1.1	6.4x12.5	8.0x15.0	14	240
8(7/16)	2 × 10	1	1.2	7.8x15.5	9.6x19.0	12(7/20)	390
6(7/14)	2 × 16	1	1.3	9.0x18.0	11.0x22.5	10(7/18)	560
<b>6243Y</b>							
17	3 × 1.0	0.6	0.9	4x9.6	4.7x11.0	17	91
16	3 × 1.5	0.7	0.9	4.4x10.5	5.4x12.5	17	115
14	3 × 2.5	0.8	1	5.2x12.5	6.2x14.5	17	170
12(7/20)	3 × 4	0.8	1.1	5.8x14.5	7.4x18.0	16	250
10(7/18)	3 × 6	0.8	1.1	6.4x16.5	8.0x20.0	14	340
8(7/16)	3 × 10	1	1.2	7.8x21.0	9.6x25.5	12(7/20)	540
6(7/14)	3 × 16	1	1.3	9.0x24.5	11.0x29.5	10(7/18)	790

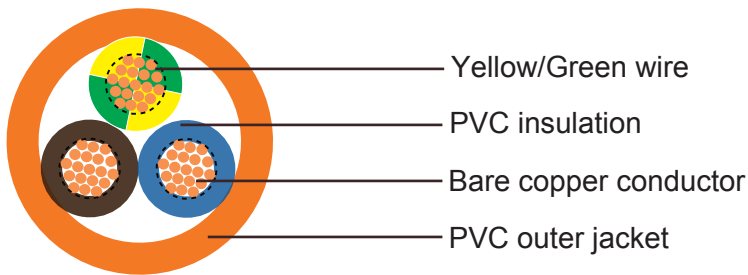


### 209Y to BS 6500

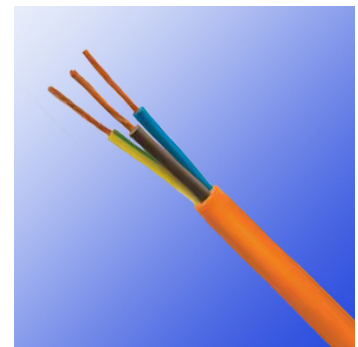
#### Application and Description

These cables are suitable for domestic premises, kitchen, office for light service or light portable apparatuses. With their special insulation and sheath compounds, these cables are adapted for apparatus in kitchen and heating and for use in zones with high temperatures (like lighting system apparatuses) without contact with warm parts and radiations. 209Y is equivalent to harmonized code H03V2V2-F.

#### Cable Construction



209Y



209Y

- Bare copper fine wire conductor
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- PVC core insulation TI3
- PVC outer jacket TM3

#### Core Identification

- 2 Cores: Blue, Brown
- 3 Cores: Green/Yellow, Blue, Brown
- 4 cores: Green/Yellow, Black, Brown, Blue
- 5 Cores: Green/Yellow, Brown, Black, Grey, Blue



### Technical Characteristics

- Working voltage: 300/300 volts
- Test voltage: 3000 volts
- Flexing bending radius: 4xOverall diameter
- Static bending radius: 3xOverall diameter
- Flexing temperature: +5° C to +90° C
- Static temperature: -40° C to +90° C
- Short circuit temperature: +160° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
<b>2092Y</b>						
20(16/32)	2x0.50	0.5	0.6	5	9.6	38
18(24/32)	2x0.75	0.5	0.6	5.5	14.4	46
<b>2093Y</b>						
20(16/32)	3x0.50	0.5	0.6	5.4	14.4	45
18(24/32)	3x0.75	0.5	0.6	6	21.6	59
<b>2094Y</b>						
20(16/32)	4x0.50	0.5	0.6	5.8	19.2	55
18(24/32)	4x0.75	0.5	0.6	6.5	28.8	72

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

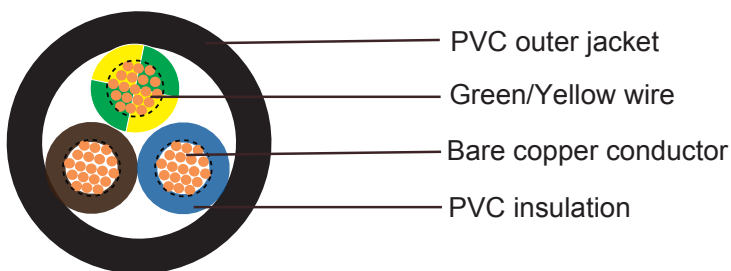


### 309Y to BS 6500

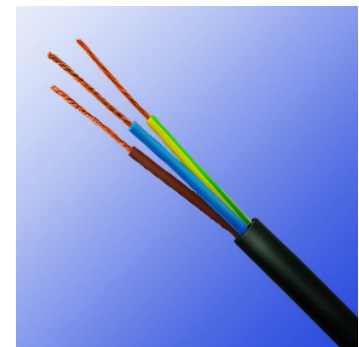
#### Application and Description

These cables are suitable for domestic premises, kitchen, office for light service or light portable apparatuses. With their special insulation and sheath compounds, these cables are adapted for apparatus in kitchen and heating and for use in zones with high temperature (like lighting system apparatuses) without contact with warm parts and radiations. Unsuitable for outdoor use, in industrial and agricultural buildings or non-domestic portable tools. 309Y is equivalent to harmonized code H05V2V2-F.

#### Cable Construction



309Y



309Y

- Bare copper fine wire conductor
- Stranding to BS Class 5 or IEC 60228 Class 5
- PVC core insulation TI3 to BS 7655
- Green/Yellow grounding (3 conductors and above)
- PVC outer jacket TM3 to BS 7655

#### Core Identification

- 2 Cores: Blue, Brown
- 3 Cores: Green/Yellow, Blue, Brown
- 4 Cores: Green/Yellow, Brown, Black, Grey
- 5 Cores: Green/Yellow, Brown, Black, Grey, Blue



### Technical Characteristics

- Working voltage: 300/500 volts
- Test voltage: 2000 volts
- Flexing bending radius: 15xOverall diameter
- Static bending radius: 4xOverall diameter
- Flexing temperature: +5° C to +90° C
- Static temperature: -40° C to +90° C
- Short circuit temperature: +160° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
<b>3092Y</b>						
20(16/32)	2x0.50	0.6	0.8	5.6-7	14.4	46
18(24/32)	2x0.75	0.6	0.8	6-7.6	14.4	56
17(32/32)	2x1.00	0.6	0.8	6.4-8	19	65
16(30/30)	2x1.50	0.7	0.8	7.4-9	29	80
14(30/50)	2x2.50	0.8	1.0	8.9-11	48	135
<b>3093Y</b>						
20(16/32)	3x0.50	0.6	0.8	5.8-7.2	14.4	56
18(24/32)	3x0.75	0.6	0.8	6.4-8	21.6	61
17(32/32)	3x1.00	0.6	0.8	6.8-8.4	29	77
16(30/30)	3x1.50	0.7	0.9	8-9.8	43	108
14(30/50)	3x2.50	0.8	1.1	9.6-12	72	165
12(56/28)	3x40	0.8	1.2	10.8-13.1	115	224
<b>3094Y</b>						
20(16/32)	4x0.50	0.6	0.8	6.4-7.8	14.4	68
18(24/32)	4x0.75	0.6	0.8	6.8-8.6	29	80
17(32/32)	4x1.00	0.6	0.9	7.6-9.4	38	100
16(30/30)	4x1.50	0.7	1.0	9-11	58	140
14(30/50)	4x2.50	0.8	1.1	10.5-13	96	210
12(56/28)	4x40	0.8	1.2	11.8-14.1	154	295
<b>3095Y</b>						
18(24/32)	5x0.75	0.6	0.9	7.4-9.6	36	110
17(32/32)	5x1.00	0.6	0.9	8.3-10	48	130
16(30/30)	5x1.50	0.7	1.1	10-12	72	185
14(30/50)	5x2.50	0.8	1.2	11.5-14	120	265
12(56/28)	5x40	0.8	1.4	13.1-16.3	192	361

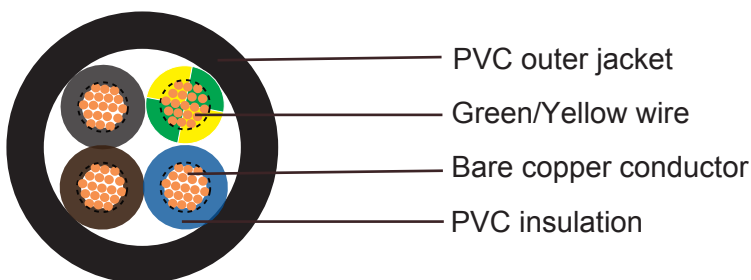


### 318Y to BS 6500

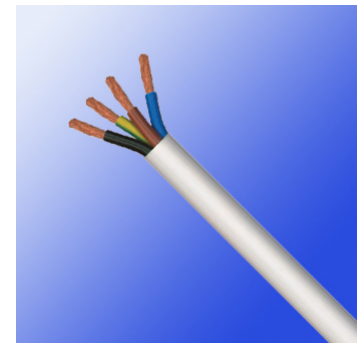
#### Application and Description

These cables are suited for medium mechanical stress in damp and wet environments such as refrigerators, washing machines, spin dryers and other appliances, as long as it meets applicable equipment specifications. These cables are also suited for cooking and heating apparatus, provided that the cable does not come into direct contact with the hot parts of the apparatus or with any other heat source. Further applications of this cable include: Fixed installation in furniture, partition walls, decorative covering, and in the hollow spaces of prefabricated building parts. They are not suitable for outdoor use, industrial (except clothing manufacture) or farming applications. 318Y is equivalent to harmonized code H05VV-F,

#### Cable Construction



3184Y



3184Y

- Bare copper fine wire conductor
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- PVC core insulation TI2 to BS 7655
- Green/Yellow grounding (3 conductors and above)
- PVC outer jacket TM2 to BS 7655

#### Core Identification

- 2 Cores: Blue, Brown
- 3 Cores: Green/Yellow, Blue, Brown
- 4 Cores: Green/Yellow, Brown, Black, Grey
- 5 Cores: Green/Yellow, Brown, Black, Grey, Blue



### Technical Characteristics

- Working voltage: 300/500 volts
- Test voltage: 2000 volts
- Flexing bending radius: 7.5xOverall diameter
- Static bending radius: 4xOverall diameter
- Flexing temperature: -5° C to +70° C
- Static temperature: -40° C to +70° C
- Short circuit temperature: +160° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
<b>3182Y</b>						
18(24/32)	2x0.75	0.6	0.8	6.4	14.4	57
17(32/32)	2x1.00	0.6	0.8	6.8	19	65
16(30/30)	2x1.50	0.7	0.8	7.6	29	87
14(30/50)	2x2.50	0.8	1.0	9.2	48	134
12(56/28)	2x40	0.8	1.1	10.5	77	174
<b>3183Y</b>						
18(24/32)	3x0.75	0.6	0.8	6.8	21.6	68
17(32/32)	3x1.00	0.6	0.8	7.2	29	79
16(30/30)	3x1.50	0.7	0.9	8.2	43	111
14(30/50)	3x2.50	0.8	1.1	10.1	72	169
12(56/28)	3x40	0.8	1.2	11.3	115	233
<b>3184Y</b>						
18(24/32)	4x0.75	0.6	0.8	7.4	29	84
17(32/32)	4x1.00	0.6	0.9	8.0	38	101
16(30/30)	4x1.50	0.7	1.0	9.2	58	142
14(30/50)	4x2.50	0.8	1.1	11.2	96	211
12(56/28)	4x40	0.8	1.2	12.5	154	292
<b>3185Y</b>						
18(24/32)	5x0.75	0.6	0.9	8.5	36	106
17(32/32)	5x1.00	0.6	0.9	8.8	48	123
16(30/30)	5x1.50	0.7	1.1	10.5	72	176
14(30/50)	5x2.50	0.8	1.2	12.4	120	262
12(56/28)	5x40	0.8	1.4	13.7	192	369



### 3192Y to BS 6500

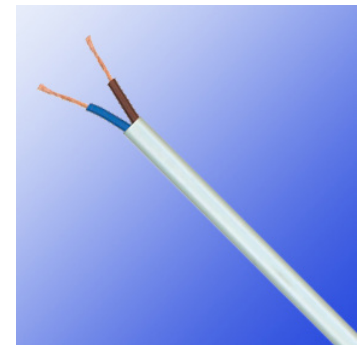
#### Application and Description

These cables are suited for medium mechanical stress in damp and wet environments such as refrigerators, washing machines, spin dryers and other appliances, as long as it meets applicable equipment specifications. These cables are also suited for cooking and heating apparatus, provided that the cable does not come into direct contact with the hot parts of the apparatus or with any other heat source. Further applications of this cable include: Fixed installation in furniture, partition walls, decorative covering, and in the hollow spaces of prefabricated building parts. They are not suitable for outdoor use, industrial (except clothing manufacture) or farming applications. 2192Y is equivalent to harmonized code H05VVH2-F.

#### Cable Construction



3192Y



3192Y

- Bare copper fine wire conductor
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- PVC core insulation TI2 to BS 7655
- PVC outer jacket TM2 to BS 7655

#### Core Identification

- 2 Cores: Blue, Brown
- 3 Cores: Green/Yellow, Blue, Brown
- 4 Cores: Green/Yellow, Brown, Black, Grey
- 5 Cores: Green/Yellow, Brown, Black, Grey, Blue



### Technical Characteristics

- Working voltage: 300/500 volts
- Test voltage: 2000 volts
- Flexing bending radius: 7.5xOverall diameter
- Static bending radius: 4xOverall diameter
- Flexing temperature: -5° C to +70° C
- Static temperature: -40° C to +70° C
- Short circuit temperature: +160° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
<b>3192Y</b>						
18(24/32)	2x0.75	0.6	0.8	4.2x6.8	14.4	48
17(32/32)	2x1.00	0.6	0.8	4.4x7.2	19.2	57

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

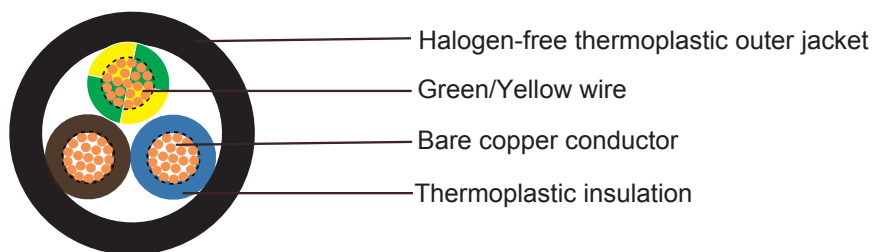


### 318B to BS 6500

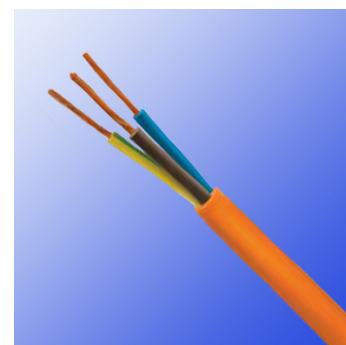
#### Application and Description

These cables may be used as an indoor general wiring cable primarily for installations in public areas. Examples include use on pendant lighting drops or as a general supply lead within hospital or airport projects. They are suitable for installations where fire, smoke emission and toxic fumes create a potential threat to life and equipment. 318B is equivalent to harmonized code H05Z1Z1-F.

#### Cable Construction



3183B



3183B

- Fine bare copper strands
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- Halogen-free thermoplastic TI6 core insulation
- Green/Yellow grounding (3 conductors and above)
- Halogen-free thermoplastic TM7 outer jacket

#### Core Identification

- 2 Cores: Brown, Blue
- 3 Cores: Brown, Blue and Green/Yellow
- 4 Cores: Brown, Grey, Black and Green/Yellow
- 5 Cores: Brown, Blue, Grey, Black and Green/Yellow

#### Technical Characteristics

- Working voltage: 300/500 volts
- Test voltage: 2500 volts



## Industrial Cables to British Standard

- Flexing bending radius: 6xOverall diameter
- Fixed bending radius: 4xOverall diameter
- Operating temperature: -30° C to +90° C
- Short circuit temperature: +160° C
- Insulation resistance: 20 MΩxkm
- Halogen free acc. to EN 50267-2-1 / IEC 60754-1
- Smoke density acc. to EN 50268-2 / IEC 61034-2
- Corrosivity of gases acc. to EN 50267-2-2, IEC 60754-2
- Flame retardancy acc. to EN 50265-2-1, IEC 60332-1

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
<b>3182B</b>						
18(24/32)	2x0.75	0.6	0.8	6.2	14.4	58
17(32/32)	2x1	0.6	0.8	6.6	19	67
16(30/30)	2x1.5	0.7	0.8	7.4	29	87
14(50/30)	2x2.5	0.8	1.0	9.3	48	138
12(56/28)	2x4	0.8	1.1	10.6	76.8	190
<b>3183B</b>						
18(24/32)	3x0.75	0.6	0.8	6.6	21.6	68
17(32/32)	3x1	0.6	0.8	6.9	29	81
16(30/30)	3x1.5	0.7	0.9	8.1	43	109
14(50/30)	3x2.5	0.8	1.1	10.1	72	172
12(56/28)	3x4	0.8	1.2	11.5	115.2	242
<b>3184B</b>						
18(24/32)	4x0.75	0.6	0.8	7.1	29	81
17(32/32)	4x1	0.6	0.9	7.7	38	101
16(30/30)	4x1.5	0.7	1.0	9	58	117
14(50/30)	4x2.5	0.8	1.1	11	96	210
12(56/28)	4x4	0.8	1.4	12.5	153.6	298
<b>3185B</b>						
18(24/32)	5x0.75	0.6	0.9	8	36	102
17(32/32)	5x1	0.6	0.9	8.4	48	107
16(30/30)	5x1.5	0.7	1.1	10	72	169
14(50/30)	5x2.5	0.8	1.2	12.3	120	260
12(56/28)	5x4	0.8	1.4	14.1	192	371

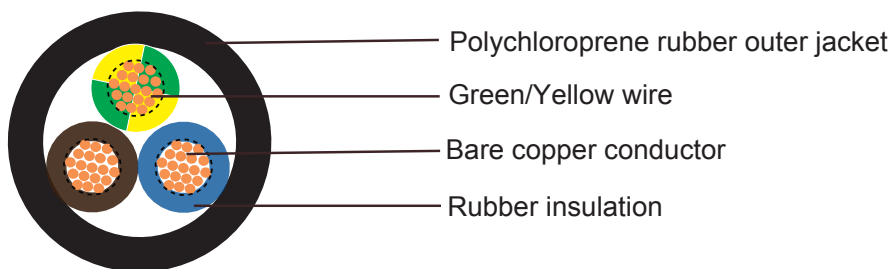


### 318TRS to BS 6500

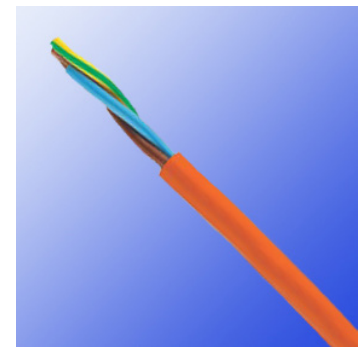
#### Application and Description

These cables are suitable for use with electronics and electrical equipment such as appliances, small hand tools and office equipment, where the cables may be subject to light and medium stresses in both dry and damp environments. They can be used in flat irons, soldering irons, kitchen aids, toasters, stoves in connections with light commercial electric tools. They are also suitable for fixed installation in furniture, decorative coverings, wall partitions and pre-fabricated building parts. 318TRS is equivalent to harmonized code H05RR-F.

#### Cable Construction



3183TRS



3183TRS

- Fine bare copper strands
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- Rubber core insulation EI4 to VDE-0282 Part-1
- Green/Yellow grounding, 3 conductors and above
- Polychloroprene rubber (neoprene) jacket EM3

#### Core Identification

- 2 Cores: Brown, Blue
- 3 Cores: Brown, Blue and Green/Yellow
- 4 Cores: Brown, Grey, Black and Green/Yellow
- 5 Cores: Brown, Blue, Grey, Black and Green/Yellow



### Technical Characteristics

- Working voltage: 300/500 volts
- Test voltage: 2000 volts
- Flexing bending radius: 8xOverall diameter
- Fixed bending radius: 6xOverall diameter
- Temperature range: -30° C to +60° C
- Short circuit temperature: +200 ° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter min-max mm	Nominal Copper Weight kg/km	Nominal Weight kg/km
<b>3182TRS</b>						
18(24/32)	2x0.75	0.6	0.8	5.7-7.4	14.4	61
17(32/32)	2x1	0.6	0.9	6.1-8.0	19.0	73
16(30/30)	2x1.5	0.8	1.0	7.6-9.8	29.0	115
14(50/30)	2x2.5	0.9	1.1	9.0-11.6	48.0	160
<b>3183TRS</b>						
18(24/32)	3x0.75	0.6	0.9	6.2-8.1	21.6	75
17(32/32)	3x1	0.6	0.9	6.5-8.5	29.0	86
16(30/30)	3x1.5	0.8	1.0	8.0-10.4	43.0	135
14(50/30)	3x2.5	0.9	1.1	9.6-12.4	72.0	191
<b>3184TRS</b>						
18(24/32)	4x0.75	0.6	0.9	6.8-8.8	28.8	94
17(32/32)	4x1	0.6	0.9	7.1-9.3	38.4	105
16(30/30)	4x1.5	0.8	1.1	9.0-11.6	58.0	165
14(50/30)	4x2.5	0.9	1.2	10.7-13.8	96	235
<b>3185TRS</b>						
18(24/32)	5x0.75	0.6	1.0	7.6-9.9	36	110
17(32/32)	5x1	0.6	1.0	8.0-10.3	48.0	130
16(30/30)	5x1.5	0.8	1.1	9.8-12.7	72.0	190
14(50/30)	5x2.5	0.9	1.3	11.9-15.3	120	285

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

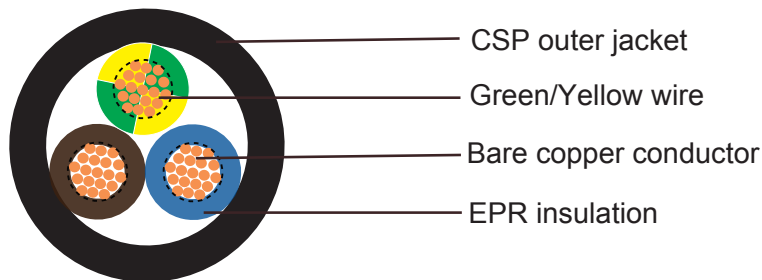


### 318TQ to BS 6500

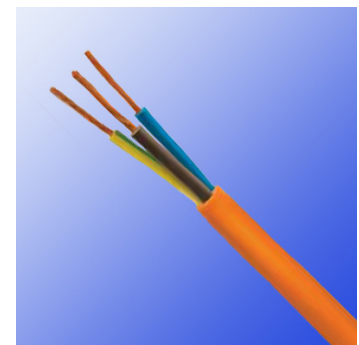
#### Application and Description

These cables can be used either in dry, humid or wet places or in contact with oil or grease, in weather conditions and under weak mechanical stress, they are suitable for power supply to small appliances in industrial plants, machine shops, heating plates, portable lamps, farming equipment etc. They are also suitable for caravans and camping equipment. 318TQ is equivalent to harmonized code H05BN4-F.

#### Cable Construction



3183TQ



3183TQ

- Fine bare copper strands
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- EPR(Ethylene Propylene Rubber) rubber EI7 insulation
- CSP(Chlorosulphonated Polyethylene) outer jacket EM7

#### Core Identification

- 2 cores: Brown, Blue
- 3 cores: Green/Yellow, Brown, Blue
- 4 cores: Green/Yellow, Brown, Black, Grey
- 5 cores: Green/Yellow, Blue, Brown, Black, Grey
- 6 cores and above: white insulation with black numerals



### Technical Characteristics

- Working voltage: 300/500 volts
- Test voltage: 2000 volts
- Flexing bending radius: 6xOverall diameter
- Fixed bending radius: 4xOverall diameter
- Temperature Range: -20° C to +90° C
- Maximum short circuit temperature: +250° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
<b>3181TQ</b>					
20(16/32)	1x0.5	0.6	0.8	3.8	19
18(24/32)	1x0.75	0.6	0.8	4	23
17(32/32)	1x1	0.6	0.8	4.2	28
16(30/30)	1x1.5	0.8	0.8	4.9	38
14(50/30)	1x2.5	0.9	0.8	5.5	41
12(56/28)	1x4	1	0.8	6.3	73
<b>3182TQ</b>					
20(16/32)	2x0.5	0.6	0.8	6.1	59
18(24/32)	2x0.75	0.6	0.8	6.5	66
17(32/32)	2x1	0.6	0.9	7.1	79
16(30/30)	2x1.5	0.8	1	8.7	120
14(50/30)	2x2.5	0.9	1.1	10.1	170
12(56/28)	2x4	1	1.2	11.9	235
<b>3183TQ</b>					
20(16/32)	3x0.5	0.6	0.8	6.5	65
18(24/32)	3x0.75	0.6	0.9	7.1	80
17(32/32)	3x1	0.6	0.9	7.6	94
16(30/30)	3x1.5	0.8	1	9.3	140
14(50/30)	3x2.5	0.9	1.1	10.8	200
12(56/28)	3x4	1	1.2	12.7	285



AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
<b>3184TQ</b>					
18(24/32)	4x0.75	0.6	0.9	7.7	96
17(32/32)	4x1	0.6	0.9	8.2	113
16(30/30)	4x1.5	0.8	1.1	10.3	174
14(50/30)	4x2.5	0.9	1.2	12	252
12(56/28)	4x4	1	1.3	14.1	355
<b>3185TQ</b>					
18(24/32)	5x0.75	0.6	1	8.6	115
17(32/32)	5x1	0.6	1	9.2	140
16(30/30)	5x1.5	0.8	1.2	11.5	195
14(50/30)	5x2.5	0.9	1.2	13.1	290
12(56/28)	5x4	1	1.3	15.4	417
<b>3186TQ</b>					
18(24/32)	6x0.75	0.6	1.1	9.6	135
17(32/32)	6x1	0.6	1.1	10.2	171
16(30/30)	6x1.5	0.8	1.3	12.7	235
14(50/30)	6x2.5	0.9	1.4	14.7	340
<b>3187TQ</b>					
18(24/32)	7x0.75	0.6	1.1	10.4	170
17(32/32)	7x1	0.6	1.1	11.1	201
16(30/30)	7x1.5	0.8	1.2	13.6	366
14(50/30)	7x2.5	0.9	1.3	15.8	424
<b>3188TQ</b>					
18(24/32)	8x0.75	0.6	1.2	11.3	175
17(32/32)	8x1	0.6	1.3	12.3	244
16(30/30)	8x1.5	0.8	1.5	15.2	315
14(50/30)	8x2.5	0.9	1.7	17.8	465
<b>3189TQ</b>					
18(24/32)	9x0.75	0.6	1.3	12.4	201
17(32/32)	9x1	0.6	1.3	13.2	268
16(30/30)	9x1.5	0.8	1.6	16.6	333
14(50/30)	9x2.5	0.9	1.8	19.4	490
<b>31810TQ</b>					
18(24/32)	10x0.75	0.6	1.3	12.4	215
17(32/32)	10x1	0.6	1.3	13.2	286
16(30/30)	10x1.5	0.8	1.6	16.6	360
14(50/30)	10x2.5	0.9	1.8	19.4	530

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.



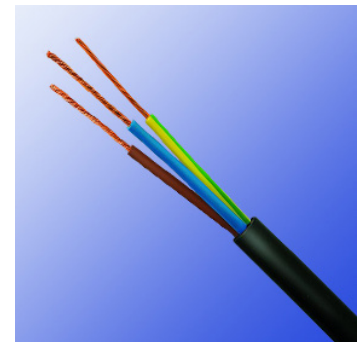
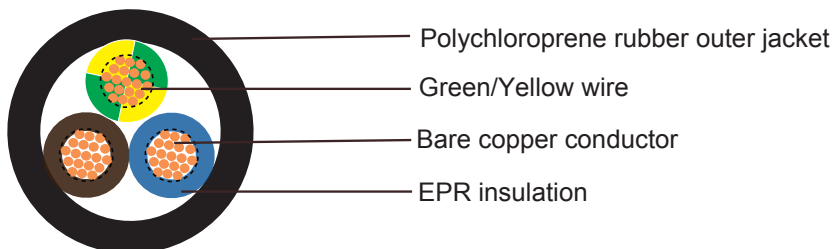
### 638TQ to BS 7919

#### Application and Description

These cables can be used either in dry, humid or wet places, in contact with oil or grease, in weather conditions and under medium mechanical stress. They are suitable for power supply to equipment in industrial plants, large size boilers, heating plates, portable lamps, electrical tools such as drilling machines, disk saws, portable engines and machines, building and farming equipments etc. These cables are also suitable for stationary equipments designed for wind-tower application. The particular cable construction and the special sheath materials have improved the cable torsion resistance (max150°/m), which is a key requirement for drop cables in wind-generators. The cables are also suitable on plaster in temporary buildings and builders huts, and wiring in machinery elevators. 638TQ is equivalent to harmonized code H07BN4-F.

#### Cable Construction

- Fine bare copper strands



6383TQ

- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- EPR(Ethylene Propylene Rubber) rubber insulation, Type GP1 to BS 7655
- CSP (Chlorosulphonated Polyethylene), Type RS4 to BS 7655 H.O.F.R. Heat and Oil Resistant Flame Retardant

#### Core Identification

- 1 core: Black
- 2 cores: Brown, Blue
- 3 cores: Green/Yellow, Brown, Blue
- 4 cores: Green/Yellow, Brown, Black, Grey
- 5 cores: Green/Yellow, Blue, Brown, Black, Grey
- 6 cores and above: white insulation with black numerals



### Technical Characteristics

- Working voltage: 450/750 volts
- Test voltage: 2500 volts
- Flexing bending radius: 6xOverall diameter
- Fixed bending radius: 4xOverall diameter
- Temperature Range: -40° C to +90° C
- Wind energy: -15° C to +90° C
- Maximum short circuit temperature: +250° C
- Flame retardant: IEC 60332.1C2/NF C 32-070
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
<b>6381TQ</b>					
16(30/30)	1x1.5	0.8	1.4	5.9	50
14(50/30)	1x2.5	0.9	1.4	6.5	65
12(56/28)	1x4	1	1.5	7.8	105
10(84/28)	1x6	1	1.6	9	130
8(80/26)	1x10	1.2	1.8	10.8	200
6(128/26)	1x16	1.2	1.9	12.1	275
4(200/26)	1x25	1.4	2	14.1	400
2(280/26)	1x35	1.4	2.2	15.9	520
1(400/26)	1x50	1.6	2.4	18.5	730
2/0(356/24)	1x70	1.6	2.6	21	980
3/0(485/24)	1x95	1.8	2.8	23.9	1270
4/0(614/24)	1x120	1.8	3	25.8	1570
300 MCM (765/24)	1x150	2	3.2	28.6	1960
350 MCM (944/24)	1x185	2.2	3.4	31.5	2380
500MCM(1225/24)	1x240	2.4	3.5	35.1	3100
-(1525/24)	1x300	2.6	3.6	38.7	3790
-(2013/24)	1x400	2.8	3.8	43.5	4880
-(1769/23)	1x500	3	4	47.8	6070
-(2257/23)	1x630	3	4.1	51.5	7460
<b>6382TQ</b>					
17(32/32)	2x1	0.8	1.3	8.2	93



## Industrial Cables to British Standard

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
16(30/30)	2x1.5	0.8	1.5	9.3	118
14(50/30)	2x2.5	0.9	1.7	10.9	172
12(56/28)	2x4	1	1.8	13.2	275
10(84/28)	2x6	1	2	15.6	370
8(80/26)	2x10	1.2	3.1	20.6	690
6(128/26)	2x16	1.2	3.3	23.3	910
4(200/26)	2x25	1.4	3.6	27.4	1290
<b>6383TQ</b>					
17(32/32)	3x1	0.8	1.4	8.9	114
16(30/30)	3x1.5	0.8	1.6	10	144
14(50/30)	3x2.5	0.9	1.8	11.7	210
12(56/28)	3x4	1	1.9	14.1	335
10(84/28)	3x6	1	2.1	16.6	450
8(80/26)	3x10	1.2	3.3	22.1	835
6(128/26)	3x16	1.2	3.5	24.8	1120
4(200/26)	3x25	1.4	3.8	29.3	1600
2(280/26)	3x35	1.4	4.1	32.9	2080
1(400/26)	3x50	1.6	4.5	38.5	2890
2/0(356/24)	3x70	1.6	4.8	43.6	3850
3/0(485/24)	3x95	1.8	5.3	50	4970
4/0(614/24)	3x120	1.8	5.6	53.9	6350
300 MCM (765/24)	3x150	2	6	59.9	7700
350 MCM (944/24)	3x185	2.2	6.4	65.9	9350
500MCM(1225/24)	3x240	2.4	7.1	74.7	1200
-(1525/24)	3x300	2.6	7.7	83.2	14910
<b>6384TQ</b>					
17(32/32)	4x1	0.8	1.5	9.8	139
16(30/30)	4x1.5	0.8	1.7	11	177
14(50/30)	4x2.5	0.9	1.9	12.8	257
12(56/28)	4x4	1	2	15.5	420
10(84/28)	4x6	1	2.3	18.5	565
8(80/26)	4x10	1.2	3.4	24.1	1020
6(128/26)	4x16	1.2	3.6	27.1	1380
4(200/26)	4x25	1.4	4.1	32.5	2140



AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
2(280/26)	4x35	1.4	4.4	36.5	2610
1(400/26)	4x50	1.6	4.8	42.6	3650
2/0(356/24)	4x70	1.6	5.2	48.6	4880
3/0(485/24)	4x95	1.8	5.9	56	6390
4/0(614/24)	4x120	1.8	6	59.9	7750
300 MCM (765/24)	4x150	2	6.5	66.8	9780
350 MCM (944/24)	4x185	2.2	7	73.5	11900
500MCM(1225/24)	4x240	2.4	7.7	83.2	15330
-(1525/24)	4x300	2.6	8.4	92.8	19030
<b>6385TQ</b>					
16(30/30)	5x1.5	0.8	1.8	12.1	226
14(50/30)	5x2.5	0.9	2	14.1	329
12(56/28)	5x4	1	2.2	17.2	515
10(84/28)	5x6	1	2.5	20.5	690
8(80/26)	5x10	1.2	3.6	26.5	1240
6(128/26)	5x16	1.2	3.9	30.1	1695
4(200/26)	5x25	1.4	4.4	36.1	2470
2(280/26)	5x35	1.4	4.7	40.5	3187
1(400/26)	5x50	1.6	5.1	47.3	4450
2/0(356/24)	5x70	1.6	5.6	54	5938
3/0(485/24)	5x95	1.8	6.2	62	7924
<b>6386TQ</b>					
12(56/28)	6x4	1	2.6	19.6	643
10(84/28)	6x6	1	3	23.4	917
8(80/26)	6x10	1.2	3.6	28.8	1420
6(128/26)	6x16	1.2	3.9	32.7	1973
4(200/26)	6x25	1.4	4.4	39.2	2921
2(280/26)	6x35	1.4	4.7	44	3822
1(400/26)	6x50	1.6	5.3	51.8	5337
<b>6387TQ</b>					
16(30/30)	7x1.5	0.8	2.6	14.7	385
14(50/30)	7x2.5	0.9	2.8	17.1	445
12(56/28)	7x4	1	2.8	21.6	773
10(84/28)	7x6	1	3.2	25.7	1089
8(80/26)	7x10	1.2	3.8	31.6	1706



## Industrial Cables to British Standard

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
6(128/26)	7x16	1.2	4	35.7	2330
4(200/26)	7x25	1.4	4.7	43.2	3560
2(280/26)	7x35	1.4	5	48.5	4576
1(400/26)	7x50	1.6	5.7	57.4	6436
<b>6388TQ</b>					
12(56/28)	8x4	17.3	3	23.5	908
<b>63810TQ</b>					
12(56/28)	10x4	18.9	3.1	25.3	1073
<b>63812TQ</b>					
12(56/28)	12x4	19.6	3.2	26.2	1183
<b>63816TQ</b>					
12(56/28)	16x4	22.1	3.5	29.3	1505
<b>63818TQ</b>					
12(56/28)	18x4	23.6	3.6	31	1687
<b>63820TQ</b>					
12(56/28)	20x4	25.2	3.8	33	1902

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.



### 657TQ to BS 6883

#### Application and Description

These cables are designed for use in offshore applications where mechanical protection is not required. Examples of application include fixed wiring in ships and fixed offshore drilling rigs and oil platforms.

#### Cable Construction

- Tinned anneal copper strands
- Stranding to BS 6360 Class 2 or IEC 60228 Class 2
- EPR(Ethylene Propylene Rubber) rubber insulation to BS 6899
- LSOH(Low Smoke Zero Halogen), type SW4 to BS 6899

#### Core Identification

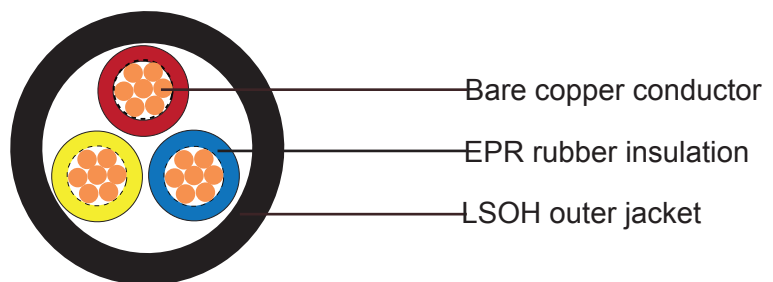
- 1 core: Black or Green/Yellow
- 2 cores and above: white insulation with black numerals

#### Technical Characteristics

- Working voltage: 600/1000 volts
- Test voltage: 2000 volts
- Minimum bending radius: up to 10mm<sup>2</sup> - 3xOverall diameter  
10mm<sup>2</sup>-25mm<sup>2</sup> - 4xOverall diameter  
Above 25mm<sup>2</sup> - 6xOverall diameter
- Temperature Range: -25° C to +85° C
- Oxygen Index 32%, HCL 5%
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm



657TQ



657TQ



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
<b>6571TQ</b>					
17(7/26)	1X1.0	0.8	1	5.2	41
16(7/24)	1X1.5	0.8	1	5.5	47
14(7/22)	1X2.5	0.8	1	6	55
12(7/20)	1X4	1	1	6.9	84
10(7/18)	1X6	1	1	7.5	110
8(7/16)	1X10	1.2	1.1	9	165
6(7/14)	1X16	1.2	1.1	10.1	235
4(7/12)	1X25	1.4	1.2	12.4	375
2(7/10)	1X35	1.4	1.2	13.3	460
1(19/13)	1X50	1.6	1.3	15.2	670
2/0(19/11)	1X70	1.6	1.4	17.2	835
3/0(19/10)	1X95	1.8	1.4	19.3	1200
4/0(37/12)	1X120	1.8	1.5	21.4	1410
300MCM(37/11)	1X150	2	1.6	23.5	1890
350MCM(37/10)	1X185	2.2	1.7	26	2360
500MCM(61/11)	1X240	2.4	1.8	29.2	3050
-(61/10)	1X300	2.6	1.9	32.3	3700
-(61/9)	1X400	2.8	2.1	36.4	4400
-(61/8)	1X500	3	2.2	40.2	5360
-(127/10)	1X630	3	2.3	44.1	6660
<b>6572TQ</b>					
17(7/26)	2X1.0	0.8	1	8	85
16(7/24)	2X1.5	0.8	1	8.6	115
14(7/22)	2X2.5	0.8	1.1	9.8	147
12(7/20)	2X4	1	1.2	12	225
10(7/18)	2X6	1	1.2	13.1	285
8(7/16)	2X10	1.2	1.3	16	440
6(7/14)	2X16	1.2	1.4	18.3	635
4(7/12)	2X25	1.4	1.6	22.9	1020
2(7/10)	2X35	1.4	1.6	24.7	1230
1(19/13)	2X50	1.6	1.8	28.4	1650
2/0(19/11)	2X70	1.6	1.9	32.3	2200



AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
3/0(19/10)	2X95	1.8	2.1	37	2940
4/0(37/12)	2X120	1.8	2.2	40.8	3680
300MCM(37/11)	2X150	2	2.4	45.1	4450
350MCM(37/10)	2X185	2.2	2.6	50	5600
500MCM(61/11)	2X240	2.4	2.8	56.6	7260
-(61/10)	2X300	2.6	3	62.7	9020
<b>6573TQ</b>					
17(7/26)	3X1.0	0.8	1	8.4	95
16(7/24)	3X1.5	0.8	1.1	9.3	130
14(7/22)	3X2.5	0.8	1.1	10.4	175
12(7/20)	3X4	1	1.2	12.7	270
10(7/18)	3X6	1	1.2	13.9	355
8(7/16)	3X10	1.2	1.4	17.2	570
6(7/14)	3X16	1.2	1.4	19.5	790
4(7/12)	3X25	1.4	1.6	24.4	1290
2(7/10)	3X35	1.4	1.7	26.5	1590
1(19/13)	3X50	1.6	1.8	30.3	2150
2/0(19/11)	3X70	1.6	2	34.7	2920
3/0(19/10)	3X95	1.8	2.2	39.7	3790
4/0(37/12)	3X120	1.8	2.3	43.8	4790
300MCM(37/11)	3X150	2	2.5	48.4	5860
350MCM(37/10)	3X185	2.2	2.7	53.9	7290
500MCM(61/11)	3X240	2.4	3	61.1	9500
-(61/10)	3X300	2.6	3.2	67.6	11960
<b>6574TQ</b>					
17(7/26)	4X1.0	0.8	1.1	9.3	130
16(7/24)	4X1.5	0.8	1.1	10.1	160
14(7/22)	4X2.5	0.8	1.1	11.4	220
12(7/20)	4X4	1	1.2	13.9	345
10(7/18)	4X6	1	1.3	15.4	450
8(7/16)	4X10	1.2	1.4	18.9	700
6(7/14)	4X16	1.2	1.5	21.7	1020
4(7/12)	4X25	1.4	1.7	27.1	1630
2(7/10)	4X35	1.4	1.8	29.4	2058
1(19/13)	4X50	1.6	2	33.9	2700



## Industrial Cables to British Standard

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
2/0(19/11)	4X70	1.6	2.1	38.5	3730
3/0(19/10)	4X95	1.8	2.4	44.5	4960
4/0(37/12)	4X120	1.8	2.5	48.9	6240
300MCM(37/11)	4X150	2	2.7	54.1	7600
350MCM(37/10)	4X185	2.2	2.9	60	9510
500MCM(61/11)	4X240	2.4	3.2	68	12410
-(61/10)	4X300	2.6	3.5	75.7	15200
<b>6575TQ</b>					
17(7/26)	5X1.0	0.8	1.1	10.1	155
16(7/24)	5X1.5	0.8	1.1	11	190
14(7/22)	5X2.5	0.8	1.2	12.6	280
12(7/20)	5X4	1	1.3	15.3	425
<b>6576TQ</b>					
17(7/26)	6X1.0	0.8	1.1	11.1	180
16(7/24)	6X1.5	0.8	1.2	12.2	240
14(7/22)	6X2.5	0.8	1.2	13.7	330
12(7/20)	6X4	1	1.3	16.7	505
<b>6577TQ</b>					
17(7/26)	7X1.5	0.8	1.2	12.2	260
16(7/24)	7X2.5	0.8	1.2	14	365
<b>65712TQ</b>					
17(7/26)	12X1.5	0.8	1.2	15.9	380
16(7/24)	12X2.5	0.8	1.2	18.6	589
<b>65716TQ</b>					
17(7/26)	16X1.5	0.8	1.2	17.8	500
16(7/24)	16X2.5	0.8	1.2	20.9	750
<b>65719TQ</b>					
17(7/26)	19X1.5	0.8	1.2	18.8	590
16(7/24)	19X2.5	0.8	1.2	22	860
<b>65724TQ</b>					
17(7/26)	24X1.5	0.8	1.2	21.8	740
16(7/24)	24X2.5	0.8	1.2	25.9	1090

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

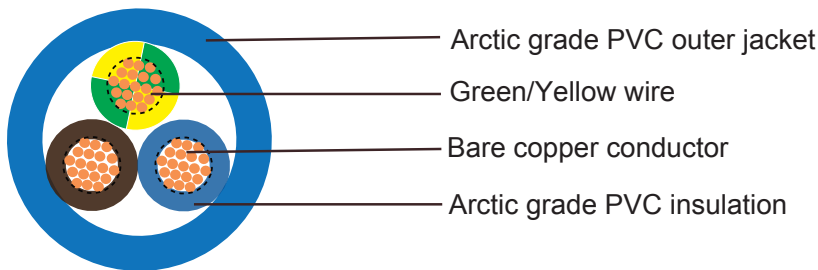


### Arctic Grade to BS 6500

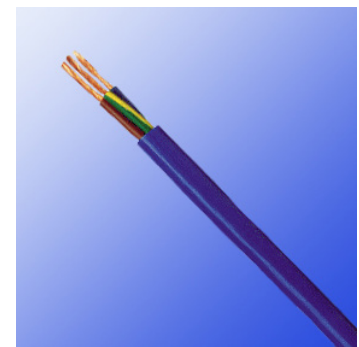
#### Application and Description

These cables are designed to withstand severe external temperatures. The Arctic Grade PVC mains cords generally manufactured to BS6500 will remain flexible at temperatures down to minus -20°C making them particularly suitable for outdoor applications and for use where flexibility is required at sub zero temperatures. At normal temperatures the cable is very limp and flexible, offering some of the characteristics usually found in elastomeric cables.

#### Cable Construction



Arctic grade



Arctic grade

- Fine bare copper strands
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- Arctic grade PVC (Polyvinyl Chloride) insulation
- Arctic grade PVC (Polyvinyl Chloride) sheath, blue/yellow

#### Core Identification

- 2 Cores: Blue, Brown
- 3 Cores: Green/Yellow, Blue, Brown
- 4 cores: Green/Yellow, Brown, Black, Grey



### Technical Characteristics:

- Working voltage: 300/500 volts
- Minimum bending radius: 6xOverall diameter
- Operating temperature: -20° C to +70° C

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Overall Diameter mm	Nominal Weight kg/km
18(24/32)	2x0.75	6.2	58
17(32/32)	2x1.0	6.4	67
16(30/30)	2x1.5	7.4	89
14(50/30)	2x2.5	9.2	140
12(56/28)	2x4	10.4	200
16(30/30)	3x1.5	8.1	90
14(50/30)	3x2.5	10	180
12(56/28)	3x4	11.4	240
10(84/28)	3x6	13.2	315
16(30/30)	4x1.5	9.5	130
14(50/30)	4x2.5	11.3	315

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

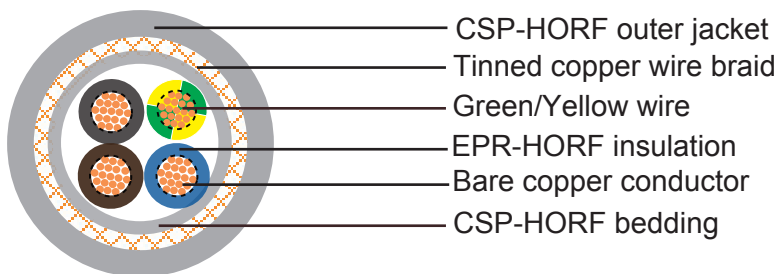


### 380TQ to BS 6500

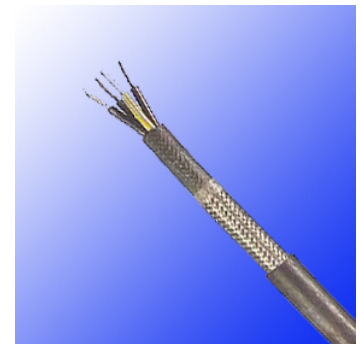
#### Application and Description

These cables are designed for temporary building sites as extension leads for portable or fixed equipment. The copper braid prevents earth leakage and offers mechanical protection.

#### Cable Construction



380TQ



380TQ

- Fine bare copper strands
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- EPR-HOFR( Ethylene Propylene Rubber-Heat and Oil Resistant and Flame Retardant) insulation
- CSP(Chlorosulphonated Polyethylene), HOFR (Heat and Oil Resistant and Flame Retardant) bedding
- TCWB(tinned copper wire braid)
- CSP(Chlorosulphonated Polyethylene), HOFR (Heat and Oil Resistant and Flame Retardant) sheath

#### Core Identification

- 2 cores: Brown, Blue
- 3 cores: Green/Yellow + Brown, Blue
- 4 cores: Green/Yellow, Brown, Black, Grey
- 5 cores: Green/Yellow, Blue, Brown, Black, Grey
- 6 cores and above: white insulation with black numerals



### Technical Characteristics

- Working voltage: 300/500 volts
- Minimum bending radius: 8.0xOverall diameter
- Temperature Range: -20° C to +85° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Bedding mm	Diameter of Braid Wire mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
<b>3802TQ</b>							
18(24/32)	2x0.75	0.6	0.8	0.2	1.1	9.7	149
17(32/32)	2x1	0.6	0.9	0.2	1.1	10.3	169
16(30/30)	2x1.5	0.8	1	0.2	1.3	12.3	236
14(50/30)	2x2.5	0.9	1.1	0.2	1.4	13.9	307
<b>3803TQ</b>							
18(24/32)	3x0.75	0.6	0.9	0.2	1.1	10.3	170
17(32/32)	3x1	0.6	0.9	0.2	1.2	11	196
16(30/30)	3x1.5	0.8	1.1	0.2	1.3	13.1	274
14(50/30)	3x2.5	0.9	1.2	0.2	1.5	15	366
<b>3804TQ</b>							
18(24/32)	4x0.75	0.6	0.9	0.2	1.2	11.1	198
17(32/32)	4x1	0.6	1	0.2	1.2	11.8	227
16(30/30)	4x1.5	0.8	1.1	0.2	1.4	14.1	319
14(50/30)	4x2.5	0.9	1.3	0.2	1.6	16.4	441
<b>3805TQ</b>							
18(24/32)	5x0.75	0.6	1	0.2	1.2	11.9	233
17(32/32)	5x1	0.6	1	0.2	1.3	12.7	272
16(30/30)	5x1.5	0.8	1.2	0.2	1.5	15.4	373
14(50/30)	5x2.5	0.9	1.3	0.2	1.6	17.4	502
<b>3806TQ</b>							
18(24/32)	6x0.75	0.6	1.1	0.2	1.3	13.1	272
16(30/30)	6x1.5	0.8	1.3	0.2	1.6	16.8	438
14(50/30)	6x2.5	0.9	1.4	0.2	1.8	19.2	593



AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Bedding mm	Diameter of Braid Wire mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
<b>3808TQ</b>							
18(24/32)	8x0.75	0.6	1.2	0.2	1.5	15.2	350
16(30/30)	8x1.5	0.8	1.5	0.2	1.8	19.7	575
14(50/30)	8x2.5	0.9	1.7	0.3	2.1	23.4	856
<b>38012TQ</b>							
18(24/32)	12x0.75	0.6	1.3	0.2	1.6	16.8	449
16(30/30)	12x1.5	0.8	1.6	0.3	2	22.5	775
14(50/30)	12x2.5	0.9	1.8	0.3	2.3	26	1060
<b>38016TQ</b>							
18(24/32)	16x0.75	0.6	1.4	0.2	1.7	18.5	544
16(30/30)	16x1.5	0.8	1.8	0.3	2.2	25.3	1010
14(50/30)	16x2.5	0.9	2	0.3	2.5	28.9	1330
<b>38020TQ</b>							
18(24/32)	20x0.75	0.6	1.5	0.3	1.9	21.2	713
16(30/30)	20x1.5	0.8	2.1	0.3	2.6	30.8	1430
14(50/30)	20x2.5	0.9	2.4	0.4	3	36.3	2140
<b>38025TQ</b>							
18(24/32)	25x0.75	0.6	1.7	0.3	2.1	23.6	866
16(30/30)	25x1.5	0.8	2.1	0.3	2.6	30.8	1430
14(50/30)	25x2.5	0.9	2.4	0.4	3	36.3	2140
<b>38030TQ</b>							
18(24/32)	30x0.75	0.6	1.8	0.3	2.2	25	986
16(30/30)	30x1.5	0.8	2.2	0.4	2.8	33.2	1760
14(50/30)	30x2.5	0.9	2.6	0.4	3.2	38.7	2440

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.

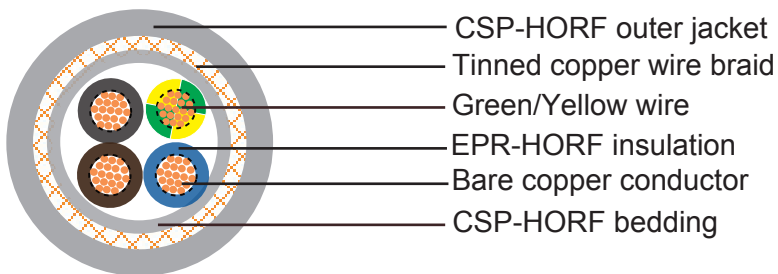


### 680TQ to BS 6007

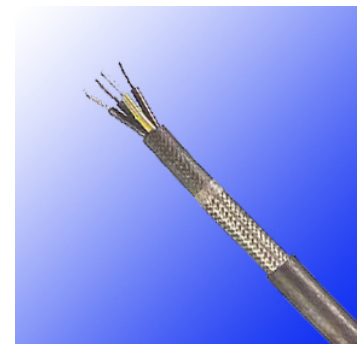
#### Application and Description

These cables are designed for temporary building sites as extension leads for portable or fixed equipment. The copper braid prevents earth leakage and offers mechanical protection.

#### Cable Construction



680TQ



680TQ

- Fine bare copper strands
- Stranding to BS 6360 Class 5 or IEC 60228 Class 5
- EPR-HOFR( Ethylene Propylene Rubber-Heat and Oil Resistant and Flame Retardant) insulation
- CSP(Chlorosulphonated Polyethylene), HOFR (Heat and Oil Resistant and Flame Retardant) bedding
- TCWB(tinned copper wire braid)
- CSP(Chlorosulphonated Polyethylene), HOFR (Heat and Oil Resistant and Flame Retardant) sheath

#### Core Identification

- 2 cores: Brown, Blue
- 3 cores: Green/Yellow, Brown, Blue
- 4 cores: Green/Yellow, Brown, Black, Grey
- 5 cores: Green/Yellow, Blue, Brown, Black, Grey
- 6 cores and above: white insulation with black numerals



### Technical Characteristics

- Working voltage: 450/750 volts
- Minimum bending radius: 8.0xOverall diameter (below 25mm<sup>2</sup>)  
10xOverall diameter (above 25mm<sup>2</sup>)
- Temperature Range: -20° C to +85° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 20 MΩxkm

### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Bedding mm	Diameter of Braid Wire mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
<b>6802TQ</b>							
12(56/28)	2x4	1	2	0.2	2.6	19.8	578
<b>6803TQ</b>							
12(56/28)	3x4	1	2.2	0.2	2.8	21.3	684
10(84/28)	3x6	1	2.4	0.3	3.1	24.8	955
8(80/26)	3x10	1.2	3.1	0.3	3.8	30.7	1450
6(128/26)	3x16	1.2	3.3	0.3	4	33.8	1840
4(200/26)	3x25	1.4	3.6	0.4	4.4	39.6	2620
<b>6804TQ</b>							
12(56/28)	4x4	1	2.3	0.3	3	23.6	874
10(84/28)	4x6	1	2.6	0.3	3.3	27.1	1147
8(80/26)	4x10	1.2	3.3	0.3	4	33.3	1730
6(128/26)	4x16	1.2	3.5	0.4	4.2	37.2	2310
4(200/26)	4x25	1.4	3.8	0.4	4.7	43.2	3170
2(280/26)	4x35	1.4	4.1	0.4	5	47.9	3990
1(400/26)	4x50	1.6	4.6	0.4	5.5	55.1	5320

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.



### 658TQ to BS 6883

#### Application and Description

These cables are designed for use in offshore applications where mechanical protection is not required. Examples of application include fixed wiring in ships and fixed offshore drilling rigs and oil platforms.

#### Cable Construction

- Fine bare copper strands
- Stranding to BS 6360 Class 2 or IEC 60228 Class 2
- EPR(Ethylene Propylene Rubber) rubber insulation to BS 6899
- GSWB (Galvanized steel wire braid) armour
- LSOH(Low Smoke Zero Halogen), type SW4 to BS 6899

#### Core Identification

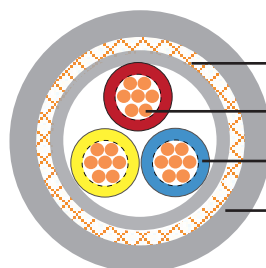
white insulation with black numerals

#### Technical Characteristics

- Working voltage: 600/1000 volts
- Test voltage: 2000 volts
- Minimum bending radius: up to 10mm<sup>2</sup> - 3xOverall diameter  
10mm<sup>2</sup>-25mm<sup>2</sup> - 4xOverall diameter  
Above 25mm<sup>2</sup> - 6xOverall diameter
- Temperature Range: -25° C to +85° C
- Oxygen Index 32%, HCL 5%
- Flame retardant: IEC 60332.1



658TQ



- Galvanized steel wire braid
- Bare copper conductor
- EPR insulation
- LSOH outer jacket

658TQ



### Cable Parameter

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Bedding mm	Diameter of Braid Wire mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
<b>6582TQ</b>							
17(7/26)	2x1.0	0.8	1	0.3	1.2	12.1	230
16(7/24)	2x1.5	0.8	1.1	0.3	1.2	12.7	250
14(7/22)	2x2.5	0.8	1.1	0.3	1.2	13.9	305
12(7/20)	2x4	1	1.2	0.3	1.3	16.3	420
10(7/18)	2x6	1	1.2	0.3	1.4	17.6	515
8(7/16)	2x10	1.2	1.3	0.3	1.5	20.7	725
6(7/14)	2x16	1.2	1.4	0.3	1.6	23.4	975
4(7/12)	2x25	1.4	1.5	0.3	1.7	28.1	1340
2(7/10)	2x35	1.4	1.6	0.3	1.8	30.1	1540
1(19/13)	2x50	1.6	1.7	0.45	2	35.1	2140
2/0(19/11)	2x70	1.6	1.9	0.45	2.2	39.3	2820
3/0(19/10)	2x95	1.8	2.1	0.45	2.3	44.4	3690
4/0(37/12)	2x120	1.8	2.2	0.45	2.5	48.5	4380
300MCM (37/11)	2x150	2	2.3	0.45	2.7	53.4	5360
350MCM (37/10)	2x185	2.2	2.5	0.45	2.9	58.8	6550
500MCM (61/11)	2x240	2.4	2.8	0.45	3.2	65.8	8310
-(61/10)	2x300	2.6	3	0.45	3.4	72.7	10200
<b>6583TQ</b>							
17(7/26)	3x1.0	0.8	1.1	0.3	1.2	12.5	245
16(7/24)	3x1.5	0.8	1.1	0.3	1.2	13.4	280
14(7/22)	3x2.5	0.8	1.1	0.3	1.3	14.7	360
12(7/20)	3x4	1	1.2	0.3	1.3	17	475
10(7/18)	3x6	1	1.2	0.3	1.4	18.4	586
8(7/16)	3x10	1.2	1.3	0.3	1.5	22.1	860
6(7/14)	3x16	1.2	1.4	0.3	1.6	24.6	1150
4(7/12)	3x25	1.4	1.6	0.3	1.8	29.8	1640
2(7/10)	3x35	1.4	1.7	0.45	1.9	33.1	2030
1(19/13)	3x50	1.6	1.8	0.45	2.2	37.2	2640
2/0(19/11)	3x70	1.6	2	0.45	2.2	41.9	3480
3/0(19/10)	3x95	1.8	2.2	0.45	2.5	47.6	4650



## Industrial Cables to British Standard

AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #xmm <sup>2</sup>	Nominal Thickness of Insulation mm	Nominal Thickness of Bedding mm	Diameter of Braid Wire mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
4/0(37/12)	3x120	1.8	2.3	0.45	2.6	52	5540
300MCM (37/11)	3x150	2	2.5	0.45	2.8	57.9	6770
350MCM (37/10)	3x185	2.2	2.7	0.45	3	62.9	8310
500MCM (61/11)	3x240	2.4	2.9	0.45	3.3	70.6	10680
-(61/10)	3x300	2.6	3.2	0.45	3.6	77.9	13100
<b>6584TQ</b>							
17(7/26)	4x1.0	0.8	1.1	0.3	1.2	13.4	300
16(7/24)	4x1.5	0.8	1.1	0.3	1.2	14.2	320
14(7/22)	4x2.5	0.8	1.1	0.3	1.3	15.7	410
12(7/20)	4x4	1	1.2	0.3	1.4	18.4	570
10(7/18)	4x6	1	1.3	0.3	1.5	20.1	720
8(7/16)	4x10	1.2	1.4	0.3	1.6	24	1050
6(7/14)	4x16	1.2	1.5	0.3	1.7	26.9	1410
4(7/12)	4x25	1.4	1.7	0.45	1.9	33.6	2160
2(7/10)	4x35	1.4	1.8	0.45	2	36.1	2510
1(19/13)	4x50	1.6	1.9	0.45	2.2	41	3290
2/0(19/11)	4x70	1.6	2.1	0.45	2.4	46.1	4410
3/0(19/10)	4x95	1.8	2.3	0.45	2.6	52.6	5880
4/0(37/12)	4x120	1.8	2.5	0.45	2.8	57.4	7050
300MCM (37/11)	4x150	2	2.7	0.45	3	63.1	8620
350MCM (37/10)	4x185	2.2	2.9	0.45	3.5	69.6	10620
500MCM (61/11)	4x240	2.4	3.2	0.45	3.6	78.3	13580
-(61/10)	4x300	2.6	3.5	0.45	3.9	82.6	16760
<b>6585TQ</b>							
16(7/24)	5x1.5	0.8	0.8	0.3	1.3	15.6	370
14(7/22)	5x2.5	0.8	0.8	0.3	1.3	17.4	470
12(7/20)	5x4	1	1	0.3	1.5	20.3	680
<b>6586TQ</b>							
16(7/24)	6x1.5	0.8	1.2	0.3	1.3	17	420
14(7/22)	6x2.5	0.8	1.2	0.3	1.4	18.5	545
12(7/20)	6x4	1	1.3	0.3	1.5	21.7	765



AWG (No of Strands/ Strand Diameter)	No. of Cores x Nominal Cross Sectional Area #x $\text{mm}^2$	Nominal Thickness of Insulation mm	Nominal Thickness of Bedding mm	Diameter of Braid Wire mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/km
<b>6588TQ</b>							
16(7/24)	8x1.5	0.8	1.2	0.3	1.3	18.1	545
14(7/22)	8x2.5	0.8	1.3	0.3	1.4	20.5	735
12(7/20)	8x4	1	1.4	0.3	1.5	23.7	1000
<b>65812TQ</b>							
16(7/24)	12x1.5	0.8	1.3	0.3	1.3	21.7	685
14(7/22)	12x2.5	0.8	1.4	0.3	1.4	24	919
12(7/20)	12x4	1	1.6	0.3	1.5	28.2	1240
<b>65816TQ</b>							
16(7/24)	16x1.5	0.8	1.4	0.3	1.3	23.1	791
14(7/22)	16x2.5	0.8	1.5	0.3	1.4	25.9	840
<b>65820TQ</b>							
16(7/24)	20x1.5	0.8	1.4	0.3	1.3	23.9	871
14(7/22)	20x2.5	0.8	1.5	0.3	1.4	26.9	1190
<b>65821TQ</b>							
16(7/24)	21x1.5	0.8	1.5	0.3	1.3	25.4	984
14(7/22)	21x2.5	0.8	1.6	0.3	1.4	28.5	1320
<b>65824TQ</b>							
16(7/24)	24x1.5	0.8	1.6	0.3	1.3	27.9	1130
14(7/22)	24x2.5	0.8	1.7	0.45	1.4	32.2	1650
<b>65827TQ</b>							
16(7/24)	27x1.5	0.8	1.6	0.3	1.3	28.3	1210
14(7/22)	27x2.5	0.8	1.7	0.45	1.4	32.6	1760

Note: The parameters listed above are nominal values as per cable standards. Actual values may vary due to material and manufacturing process variations. For precise specifications or customized requirements, please contact us for further information.



## Reference Notes

**Fire Performance Standard**

**IEC Standard for Flame Retardancy**

**Standard for Fire Resistance**

**Standard for Halogen & Smoke Emission,**

**Corrosivity & Toxicity**



### Fire Performance Standard

At present, in cable industry, Fire Retardant, Low Smoke Halogen Free (LSZH), Low Smoke Fume (LSF) and Fire Resistant cables are all described as Fire survival Cables.

#### □ Flame Retardant

Fire retardant cables are designed for use in fire situations where the spread of flames along a cable route needs to be retarded. Due to relative low cost, fire retardant cables are widely used as fire survival cables. No matter the cables are installed in single wire or in bundles, during a fire, the flame spread will be retarded and the fire will be confined to a small area, thus reducing the fire hazard due to fire propagation.

#### □ Low Smoke & Halogen Free & Fire retardant ( LSZH)

LSZH cables are not only characterized by the fire retardant performance but also by the halogen free properties, thus offering low corrosivity and toxicity. During a fire, the LSZH cables will emit less smoke and acid gases which may damage the human being and expensive equipment. Compared with normal PVC cables, LSZH cables outperform by their fire retardancy, low corrosivity and low smoke emission properties, however, normal PVC cables have better mechanical and electrical properties.

#### □ Low Smoke Fume (LSF)

The low halogen content and low corrosivity of low smoke fume cables lies somewhat in between their of fire retardant cables and LSZH cables. LSF cables also contain halogen but the content is much less than that of PVC cables. LSF cables are designed to reduce the spread of fire, toxic gases and smoke during fire. The LSF cables are usually manufactured from flame retardant PVC blended with HCL additive and smoke absorbent. These materials help improve the fire performance of the LSF cables.

#### □ Fire Resistant (FR)

Fire resistant cables are designed to maintain circuit integrity of those vital emergency services during the fire. The individual conductors are wrapped with a layer of fire resisting mica/glass tape which prevents phase to phase and phase to earth contact even after the insulation has been burnt away. The fire resistant cables exhibit same performance even under fire with water spray or mechanical shock situation.

#### □ Fire Performance Class

The main concerns for the cables in their fire survival properties are their flame spread, smoke characterization and gas toxicity. In American fire standard, the concern lies more on the first two and it differs from the European standard which concerns all these aspects. In USA, it is believed that the fire hazard is mainly due to CO toxic gas emitted and the heat release during the conversion of CO to CO<sub>2</sub> during the fire. Therefore, to control the heat release is the most important concern for reducing the fire hazard. However, in European countries, halogen content, the corrosivity of the gases, the smoke density and the toxicity of the gas are equally important factors affecting the safety and survival of human during a fire.



## IEC Standard for Flame Retardancy

The European Electrical Committee categorizes the fire performance of the cables into three classes, namely IEC 60332-1, IEC 60332-2, IEC 60332-3. IEC 60332-1 and IEC 60332-2 are used to assess the flame propagation characteristics of a single wire. IEC 60332-3 is used to assess the flame propagation characteristics of bundled cables. Comparatively speaking, IEC 60332-3 for bundled cables is more demanding than IEC 60332-1 for single wires.

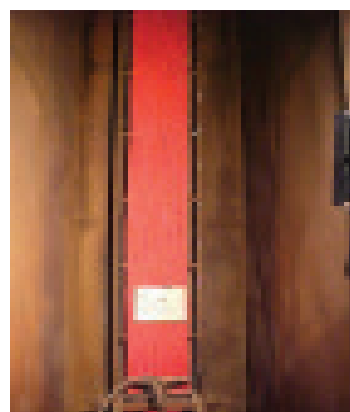
### □ IEC 60332-1/BS 4066-1/EN 50265 (Flame Test On Single Vertical Insulated Wires/Cables)

This test details a method of test for the assessment of the flame propagation characteristics of a single wire or cable. In this test, a 60cm cable sample is fixed vertically inside a metallic box and a 175mm long flame is applied at 45mm from a gas burner placed at 450mm from the top at the upper portion. The specimen is deemed to have passed this test, if after burning has ceased, the charred or affected position does not reach within 50mm of the lower edge of the top clamp which is equivalent to 425mm above the point of flame application. The test method is not suitable for the testing of some small wires due to the melting of the conductors during the time of application of the flame.



### □ IEC 60332-3/BS 4066-3/EN 50266 (Flame Test On Bunched Wires/Cables)

IEC60332-3C describes a method of type approval testing to define the ability of bunched cables to resist fire propagation. In this test, a cable specimen, consisting of number of 3.5m length of cables are fixed to a vertical ladder tray where they are applied with a flame from a gas burner for a specified times under controlled air flow. Four categories (A, B, C & D) are defined and distinguished by test duration and the volume of non metallic material of the sample under test. The cable specimen is deemed to have met the requirements of the standard if, after burning has ceased, the extent of charred or affected portion does not reach a height exceeding 2.5m above the bottom edge of the burner.



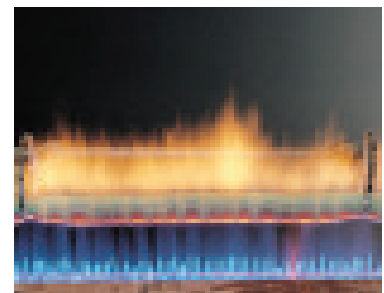


### Standard for Fire Resistance

Fire resistant cables are designed for maintaining circuit integrity during a fire. The IEC and the BS adopted two different standards, namely the IEC 60331 and BS 6387. Comparatively speaking, the fire performance requirement for BS 6387 is more demanding.

#### © IEC 60331 Fire Resistance Test

A cable sample is placed over a gas burner and connected to an electrical supply at its rated voltage. Fire is applied for a period of 3 hours. The temperature on the cable is between 750°C and 800°C. After 3 hours, the fire and the power is switched off. 12 hours later, the cable sample is reenergized and must maintain its circuit integrity.



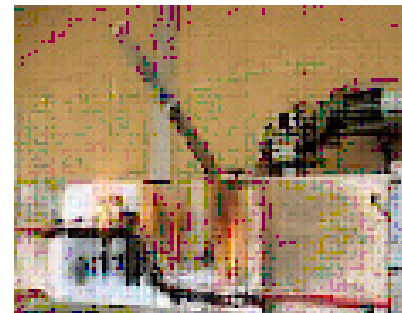
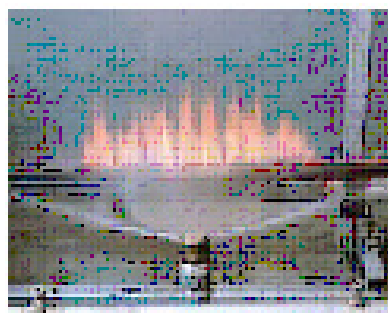
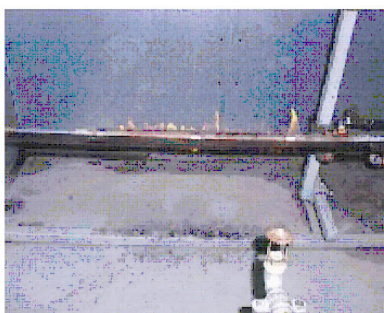
#### © BS6387 Fire Resistance Test

BS6387 specifies the performance requirements for cables required to maintain circuit integrity under fire conditions. It details the following methods to categorize the cables according to cable withstand capacities.

Resistance to fire alone - the cables is tested by gas burner flame while passing a current at its rate voltage. Four survival categories are defined Cat A (3 hours at 650°C) ,Cat B (3 hours at 750°C), Cat C (3 hours at 950°C), and Cat S (20 minutes at 950°C).

Resistance to fire with water spray - a new sample of cable is exposed to flame at 650°C for 15 minutes while passing a current at its rated voltage and then the spray is turned on to give exposure to both fire and water for a further 15 minutes. A single survival category W is defined if the cables surpassed the testing requirement.

Resistance to fire with mechanical shock - the final requirement is mechanical shock damage. A fresh sample is mounted on a backing panel in an S bend and is exposed to flames while the backing panel is stuck with a steel bar with the same diameter as the cables under test every 30 seconds for 15 minutes. The cables will be tested under the following temperatures: X ( 650°C/15min ), Y( 750°C/15min ) and Z ( 950°C/15min ). The highest standard for BS 6387 is CWZ.





## Standard for Halogen & Smoke Emission, Corrosivity & Toxicity

### © IEC 60754-1/BS6425-1 (Emission Of Halogens)

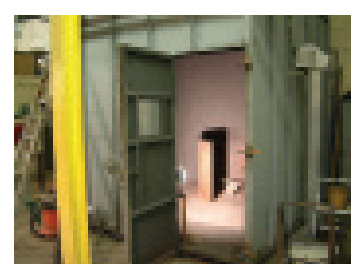
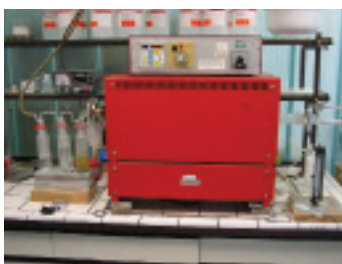
This specifies a test for determination of the amount of halogen acid gas other than the hydrofluoric acid evolved during combustion of compound based on halogenated polymers and compounds containing halogenated additives taken from cable constructions. Halogen includes Fluorine, Chlorine, Bromine, Iodine and Astatine. All these elements are toxic by their nature. In this test, when the burner is heated to 800°C, 1g sample is placed inside and the HCL is absorbed into water inside the chamber fed with air flow. The water is then tested with its acidity. If the hydrochloric acid yield is less than 5 mg/g, the cable specimen is categorized as LSZH. If the hydrochloric acid yield lies between 5mg/g to 15mg/g, the cable specimen is categorized as LSF. IEC60754-1 cannot be used for measuring the exact HCL yield if the yield is less than 5mg/g. This test cannot determine if the cable is 100% halogen free or not. To determine if the cable specimen is 100% halogen free or not, IEC60754-2 has to be employed.

### © IEC 60754-2 (Corrosivity)

This test specifies a method for the determination of degree of acidity of gases evolved during combustion of the cable specimen by measuring its pH and conductivity. The specimen is deemed to pass this test if the pH value is not less than 4.3 when related to 1 litre of water and conductivity is less than 10us/min. When the HCL yield lies between 2mg/g and 5mg/g, a cable specimen can pass IEC 60754-1 but its pH value will likely be less than 4.3 and therefore cannot pass the IEC 60754-2 test.

### © IEC 61034-1/ASTM E662 (Emission of Smoke)

This specifies a test for determination of smoke density. The 3 metre cube test measures the generation of smoke from electric cables during fire. A light beam emitted from a window is projected across the enclosure to a photo cell connected to a recorder at the opposite window. The recorder is adjusted to register from 0% for complete obscuration to 100% luminous transmissions. A 1 metre cable sample is placed in the centre of the enclosure and is applied with a fire. The minimum light transmission is recorded. The result is expressed as percentage of light transmitted. The specimen is deemed to pass this test (IEC61034-1 & 2) if the value is greater than 60% .The higher the light transmittance, the less smoke emitted during a fire.





### © ISO4589-2/BS2863 (Oxygen Index LOI)

This is a test for assessing the oxygen index of the material in accordance with the test method specified in ASTM D2863-95 (Measuring the minimum oxygen concentration to support candle-like combustion of plastics). At room temperature when the oxygen content in the air exceeds the oxygen index, the material will burn by itself automatically. The higher the oxygen index, the more retardant the cable will be. For example, if the oxygen index of a material is 21%, it means that the material will burn by itself even at room temperature because at room temperature the normal oxygen content is 21%. In general, the oxygen index of LSZH cables ranges from 33% to 42%.

### © ISO4589-3/BS2782.1 (Temperature Index TI)

This is a test for assessing the performance of a material when it is tested in accordance with BS2782 Part 1 Method 143A and 143B. The oxygen index of a material will drop when the temperature rises. When the temperature rises and the oxygen index drops to 21%, the material will burn automatically. This temperature is defined as temperature index. For example, the temperature index of coal is 50%. When the temperature climbs to 150°C, its oxygen index drops to 21% and the coal will burn by itself automatically. The temperature index of the coal will then be defined as 150°C. In general, the temperature index of LSZH cables ranges from 250°C to 300°C.

### © ES713 (Toxicity Index)

This is a test defined by Naval Engineering Standard which is directed at the analysis of a specified set of gaseous species which are commonly present in the combustion products of materials used in military application and which may cause lethality at the time of a fire. In this test a 1g cable specimen is completely burnt inside a sealed chamber of volume 0.7-1m<sup>3</sup> using a burner fed with air and gas to give a non-luminous flame. The resulting chamber atmosphere is quantitatively analysed for a specified set of gases. For each gas, the measured concentration (C<sub>i</sub>) is scaled up for 100g and the concentration is recalculated as though the combustion products is diffused into a volume of exactly 1m<sup>3</sup>. The resulting concentration (C<sub>8</sub>) is expressed as the ratio of critical factor (C<sub>f</sub>) which is equal to the concentration of this gas considered fatal to human for 30 minutes exposure. The ratio C<sub>8</sub>/C<sub>f</sub> are summed for all gases detected to give the toxicity index. The higher the toxicity index, the more toxic the cable materials are. In general, the toxicity index of LSZH materials are less than 5. LSZH cable will also emit toxic CO and if the cable materials contains P, N and S, the toxic gases generated will even be greater. Thus LSZH cables cannot be categorized as toxic free. CM, CMR and CMP cables in general contains halogen elements which are essential for passing the strict fire retardancy testing. For example, CMP cables are made from FEP which contains Fluorine and are much more toxic than normal LSZH cables.







# Caledonian Cables Ltd

Merchant Ind. Centre  
Mill-Lane, Laughton, Lewes, Sussex, BN8 6AJ  
England

United Kingdom

Tel: 44- 207- 4195087

Fax: 44- 207- 8319489

Email: *sales@caledonian-cables.com*  
*sales@caledonian-cables.co.uk*  
*sales@addison-cables.com*  
*uk@addison-tech.com*

