



مصنع أبوظبي للكابلات

Abu Dhabi Cable Factory

BUILDING WIRES AND CABLES



علامة الجودة الإماراتية
Emirates Quality Mark



TEST CERTIFICATE



Issued to: Abu Dhabi Cable Factory
Abu Dhabi
United Arab Emirates

For the product: Single core non-sheathed cables with halogen-free thermoplastic insulation

Trade name: ADCABLE

Type/Model: H07Z1-R 1Cx2,5 mm²

Ratings: 450/750 V

Manufactured by: Abu Dhabi Cable Factory
Abu Dhabi
United Arab Emirates

Subject: Low voltage energy cables of rated voltages up to and including 450/750 V - Cables with special fire performance - Single core non-sheathed cables with halogen-free thermoplastic insulation, and low emission of smoke

Requirements: BS EN 50525-3-31:2011 Clause 4.1

Remarks: The tested cable meets the requirements of the BS EN 50525-3-31:2011

This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in a confidential file no 2161049.50.

The examination has been carried out on one single specimen of the product, submitted by the manufacturer. The Attestation does not include an assessment of the manufacturer's production. Conformity of his production with the specimen tested by DEKRA is not the responsibility of DEKRA.

Amhem, 4 July 2013 **Number: 2161049.01**

DEKRA Certification B.V.

drs. G.J. Zoetbrood
Managing Director

H.R.M. Barends
Certification Manager

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DEKRA Certification B.V. Utrechtseweg 310, 6812 AR Amhem P.O. Box 5185, 6802 ED Amhem, The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Company registration 09065396

TEST CERTIFICATE



Issued to: Abu Dhabi Cable Factory
Abu Dhabi
United Arab Emirates

For the product: power cable 600/1000 V (XLPE insulated, Steel Wire Armour and LSF outer sheath)

Trade name: ADCABLE

Type/Model: CU/XLPE/SW/LSF 4x185 mm²

Ratings: 600/1000 V

Manufactured by: Abu Dhabi Cable Factory
Abu Dhabi
United Arab Emirates

Subject: Electric cables - Thermosetting insulated, armoured cables for voltages of 600/1000 V and 1900/3300 V

Requirements: BS 6724:1997 + A3:2008

Remarks: The tested cable meets the requirements of the BS 6724

This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in a confidential file no 2161049.56.

The examination has been carried out on one single specimen of the product, submitted by the manufacturer. The Attestation does not include an assessment of the manufacturer's production. Conformity of his production with the specimen tested by DEKRA is not the responsibility of DEKRA.

Amhem, 4 July 2013 **Number: 2161049.02**

DEKRA Certification B.V.

drs. G.J. Zoetbrood
Managing Director

H.R.M. Barends
Certification Manager

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TEST CERTIFICATE



Issued to: Abu Dhabi Cable Factory
Sector No. M-43, Plot 19.20.21
Back side of Moodem Bakery Ne
Musaffah, Abu Dhabi
United Arab Emirates

For the product: XLPE insulated, steel wire armoured and halogen-free sheathed cable

Trade name: ADCABLE

Type/Model: CU/XLPE/SW/LSF 4x16 mm²

Ratings: 600/1000 V

Manufactured by: Abu Dhabi Cable Factory
Sector No. M-43, Plot 19.20.21
Back side of Moodem Bakery Ne
Musaffah, Abu Dhabi
United Arab Emirates

Subject: Electric cables - thermosetting insulated, armoured cables for voltages of 600/1000V and 1900/3300 V

Requirements: BS 6724:1997 +A3:2008

Remarks: The tested cable meets the requirements of the BS 6724

This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in a confidential file no 2165483.51.

The examination has been carried out on one single specimen of the product, submitted by the manufacturer. The Attestation does not include an assessment of the manufacturer's production. Conformity of his production with the specimen tested by DEKRA is not the responsibility of DEKRA.

Amhem, 22 November 2013 **Number: 2165483.01**

DEKRA Certification B.V.

drs. G.J. Zoetbrood
Managing Director

H.R.M. Barends
Certification Manager

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DEKRA Certification B.V. Meander 1051, 6825 MJ Amhem P.O. Box 5185, 6802 ED Amhem, The Netherlands
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TEST CERTIFICATE



Issued to: Abu Dhabi Cable Factory
Sector No. M-43, Plot 19.20.21
Back side of Moodem Bakery Ne
Musaffah, Abu Dhabi
United Arab Emirates

For the product: XLPE insulated, steel wire armoured and halogen-free sheathed cable

Trade name: ADCABLE

Type/Model: CU/XLPE/SW/LSF
Tested cable: 4cx16 mm²
Certified cables: 4cx16 mm² up to and including 4cx300 mm²

Ratings: 600/1000 V

Manufactured by: Abu Dhabi Cable Factory
Sector No. M-43, Plot 19.20.21
Back side of Moodem Bakery Ne
Musaffah, Abu Dhabi
United Arab Emirates

Subject: Electric cables - thermosetting insulated, armoured cables for voltages of 600/1000V and 1900/3300 V

Requirements: BS 6724:1997 +A3:2008

Remarks: The tested cable meets the requirements of the BS 6724:1997+A3:2008

This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in a confidential file no 2165483.51.

The examination has been carried out on one single specimen of the product, submitted by the manufacturer. The Attestation does not include an assessment of the manufacturer's production. Conformity of his production with the specimen tested by DEKRA is not the responsibility of DEKRA.

Amhem, 22 November 2013 **Number: 2165483.01**

DEKRA Certification B.V.

drs. G.J. Zoetbrood
Managing Director

H.R.M. Barends
Certification Manager

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KEMA

REPORT OF PERFORMANCE 07-1238

OBJECT Single-core LV cable
TYPE HDV-F 1x1.5mm²
 450/750 V, Cu/PVC

MANUFACTURER Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
CLIENT Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
TESTED BY KEMA HIGH-VOLTAGE LABORATORY
 Amhem, The Netherlands
DATE(S) OF TESTS 27 November 2006 to 5 February 2007
TEST PROGRAMME Selected tests in accordance with BS 6854 (2006)
 (see page 2)
SUMMARY AND CONCLUSION The cable did not pass the requirements regarding the marking on the cable.
 All other tests were passed.

Report of Performance applies only to the object tested. The responsibility for conformity of any
 having the same designations with that tested rests with the Manufacturer.

Report consists of 10 sheets in total.

Changes: Any integral reproduction of this report or reproduction of its parts
 is prohibited by any person in which is stated by electronic storage of the original report.
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KEMA Netherlands V
 P. J. van der
 KEMA T&D Testing Services
 Managing Director
 Amhem, 12 April 2007

KEMA

REPORT OF PERFORMANCE 07-1241

OBJECT 4-core LV power cable
TYPE 0.6/1 kV 4x25 mm²
 Cu/XPPE/PVC/SWA/PVC

MANUFACTURER Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
CLIENT Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
TESTED BY KEMA HIGH-VOLTAGE LABORATORY
 Amhem, The Netherlands
DATE(S) OF TESTS 11 December 2006 to 8 February 2007
TEST PROGRAMME Type tests in accordance with IEC 60502-1 (2004) and BS 5467 (1997)
 (see page 2)
SUMMARY AND CONCLUSION All tests were passed.

Report of Performance applies only to the object tested. The responsibility for conformity of any
 having the same designations with that tested rests with the Manufacturer.

Report consists of 33 sheets in total.

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KEMA Netherlands V
 P. J. van der
 KEMA T&D Testing Services
 Managing Director
 Amhem, 12 April 2007

KEMA

REPORT OF PERFORMANCE 07-1239

OBJECT 4-core LV cable
TYPE HDV-F 1x1.5mm²
 450/750 V, Cu/PVC

MANUFACTURER Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
CLIENT Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
TESTED BY KEMA HIGH-VOLTAGE LABORATORY
 Amhem, The Netherlands
DATE(S) OF TESTS 27 November 2006 to 5 February 2007
TEST PROGRAMME Selected tests in accordance with BS 6854 (2006)
 (see page 2)
SUMMARY AND CONCLUSION The cable did not pass the requirements regarding the marking on the cable.
 All other tests were passed.

Report of Performance applies only to the object tested. The responsibility for conformity of any
 having the same designations with that tested rests with the Manufacturer.

Report consists of 10 sheets in total.

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KEMA Netherlands V
 P. J. van der
 KEMA T&D Testing Services
 Managing Director
 Amhem, 12 April 2007

KEMA

REPORT OF PERFORMANCE 07-1243

OBJECT 4-core LV power cable
TYPE 0.6/1 kV 4x25 mm²
 Cu/XPPE/PVC/SWA/PVC

MANUFACTURER Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
CLIENT Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
TESTED BY KEMA HIGH-VOLTAGE LABORATORY
 Amhem, The Netherlands
DATE(S) OF TESTS 17 to 29 January 2007
TEST PROGRAMME Selected tests in accordance with IEC 60502-1 (2004) and BS 5467 (1997)
 (see page 2)
SUMMARY AND CONCLUSION All tests were passed.

Report of Performance applies only to the object tested. The responsibility for conformity of any
 having the same designations with that tested rests with the Manufacturer.

Report consists of 10 sheets in total.

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KEMA Netherlands V
 P. J. van der
 KEMA T&D Testing Services
 Managing Director
 Amhem, 12 April 2007

KEMA

REPORT OF PERFORMANCE 07-1242

OBJECT 1-core LV power cable
TYPE 0.6/1 kV 1x630 mm²
 Cu/XPPE/PVC/SWA/PVC

MANUFACTURER Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
CLIENT Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
TESTED BY KEMA HIGH-VOLTAGE LABORATORY
 Amhem, The Netherlands
DATE(S) OF TESTS 11 December 2006 to 8 February 2007
TEST PROGRAMME Type tests in accordance with IEC 60502-1 (2004) and BS 5467 (1997)
 (see page 2)
SUMMARY AND CONCLUSION All tests were passed.

Report of Performance applies only to the object tested. The responsibility for conformity of any
 having the same designations with that tested rests with the Manufacturer.

Report consists of 32 sheets in total.

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KEMA Netherlands V
 P. J. van der
 KEMA T&D Testing Services
 Managing Director
 Amhem, 12 April 2007

KEMA

REPORT OF PERFORMANCE 07-1240

OBJECT 3-core LV cable
TYPE HDV-F 4x1.5mm²
 300/500 V, Cu/PVC

MANUFACTURER Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
CLIENT Abu Dhabi Cable Factory LLC
 Abu Dhabi, U.A.E.
TESTED BY KEMA HIGH-VOLTAGE LABORATORY
 Amhem, The Netherlands
DATE(S) OF TESTS 27 November 2006 to 8 February 2007
TEST PROGRAMME Selected tests in accordance with BS 6854 (2006)
 (see page 2)
SUMMARY AND CONCLUSION The cable did not pass the requirements regarding the marking on the cable.
 All other tests were passed.

Report of Performance applies only to the object tested. The responsibility for conformity of any
 having the same designations with that tested rests with the Manufacturer.

Report consists of 11 sheets in total.

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KEMA Netherlands V
 P. J. van der
 KEMA T&D Testing Services
 Managing Director
 Amhem, 12 April 2007



CAB



certificate of registration

GCAS certifies that the Quality Management System of

ABU DHABI CABLE FACTORY

Sector No. M-43, Plot No. 19, 20,21, 22, Industrial Area,
Mussafah, P.O. Box 30331,
Abu Dhabi – UAE

has been assessed by GCAS and found to be in conformance with

ISO 9001:2015

The scope of registration applies to the:

**Manufacturer of Single Core, Multi Core & Power Cables to 1KV with
XLPE, PVC, LSZH Insulation, Sheathing & Jacketing.**



Certificate No.: ME/06/1066
Date of Current Approval: June 04, 2017
Valid Untill: August 05, 2020
Date of First Approval: August 06, 2006


GCAS Representative



The certificate remains the property of GCAS Quality Certifications. This certificate will remain valid as long as periodical annual surveillance audits are conducted, client management system conformance to the certified standard and conditions as set out in the terms & conditions. To check this certificate validity, please visit www.gcasquality.com or contact P.O.Box 65561, Dubai, email: info.dubai@gcasquality.com. Further clarification regarding scope of certificate and the applicability of the management system requirements may be obtained by consulting the organization.



certificate of registration

GCAS certifies that the Environmental Management System of

ABU DHABI CABLE FACTORY

Sector No. M-43, Plot No. 19, 20, 21, 22, Industrial Area,
Mussafah, P.O. Box 30331,
Abu Dhabi – UAE

has been assessed by GCAS and found to be in conformance with

ISO 14001:2015

The scope of registration applies to the:

**Manufacturer of Single Core, Multi Core & Power Cables to 1KV with
XLPE, PVC, LSZH Insulation, Sheathing & Jacketing.**

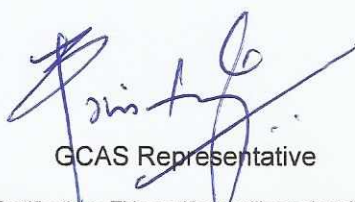


Certificate No.: ME/14/2006

Date of Current Approval: June 04, 2017

Valid Untill: May 29, 2020

Date of First Approval: May 30, 2014


GCAS Representative



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certificate of registration

GCAS certifies that the Occupational Health & Safety Management System of

ABU DHABI CABLE FACTORY

Sector No. M-43, Plot No. 19, 20, 21, 22, Industrial Area,
Mussafah, P.O. Box 30331,
Abu Dhabi – UAE

has been assessed by GCAS and found to be in conformance with

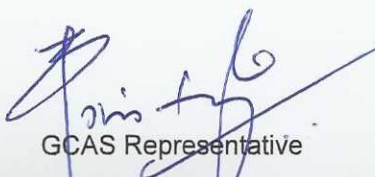
OHSAS 18001:2007

The scope of registration applies to the:

**Manufacture of Single Core, Multi Core & Power Cables to 1KV with
XLPE, PVC, LSZH Insulation, Sheathing & Jacketing.**



Certificate No.: ME/14/6008
Date of Current Approval: June 04, 2017
Valid Until: May 29, 2020
Date of First Approval: May 30, 2014


GCAS Representative



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مؤسسة الإمارات للمواصفات والمقاييس
Emirates Authority For Standardization & Metrology



LICENSE FOR THE USE OF EMIRATES QUALITY MARK (AL-ALAMA)



License No.:	17-04-3355/Q17-01-000011	رقم الرخصة:
Issue Date:	4/18/2017	تاريخ الإصدار:
Valid Until:	4/17/2020	تاريخ الإنتهاء:
Issued To:	ABU DHABI CABLE FACTORY P.O. Box 30331, Abu Dhabi, United Arab Emirates	أصدرت إلى:

Based on the Emirates Product Certification Scheme Agreement No. 17-04-3355/Q17-01-000011 for the following:

Product for which the license is granted :	Cables
Product Description	See attached Schedule of Certification
Standards:	BS 5467, BS 6231, BS 6724, BS EN 50525-2-11, BS EN 50525-3-31, UAE.S EN 50525-2-31, UAE.S IEC 60502-1



علامة الجودة الإماراتية
Emirates Quality Mark

هذه الشهادة صدرت إلكترونياً ولا تحتاج إلى ختم وتوقيع.
للتأكد من صحة هذه الشهادة يرجى زيارة موقعنا على الإنترنت www.esma.gov.ae
و الدخول إلى خدمة الاستعلام عن المستندات الصادرة
أي كشط أو تغيير في هذه الشهادة يلغيها.

This is an electronic certificate and does not require stamp and signature.
Visit ESMA website www.esma.gov.ae to verify this certification.
Any alternation or modification on this certificate will affect its validity.



PRODUCTS

S.No	Description	Type
1.	PVC INSULATED SINGLE CORE CABLE (450/750V)	H07V-U / H07V-R
2.	PVC INSULATED SINGLE CORE FLEXIBLE CABLE (300/500V & 450/750V)	H05V-K / H05V2-K / H07V-K / H07V2-K
3.	PVC INSULATED SINGLE CORE FLEXIBLE CABLE (600/1000V)	BK / CK
4.	PVC INSULATED TWISTED TWIN (300/500V)	H05V-K
5.	PVC INSULATED & PVC SHEATHED MULTI CORE FLEXIBLE CABLE-70°C (300/500V)	H05VV-F
6.	PVC INSULATED & PVC SHEATHED MULTI CORE FLEXIBLE CABLE-105°C (300/500V)	H05V2V2-F
7.	PVC INSULATED & PVC SHEATHED WITH OR WITHOUT CPC (300/500V)	-
8.	LSZH INSULATED SINGLE CORE CABLE (450/750V)	H07Z-U / H07Z-R / H07Z1-U / H07Z1-R
9.	LSZH INSULATED SINGLE CORE FLEXIBLE CABLE (450/750V)	H07Z-K / H07Z1-K
10.	THERMOPLASTIC INSULATED & THERMOPLASTIC SHEATHED MULTI CORE FLEXIBLE CABLE (300/500V)	H05Z1Z1-F
11.	IRRIGATION CABLE	-

GENERAL INTRODUCTION

The Abu Dhabi Cable Factory was established in 1995 and a member of Al Hamad Group of Companies. Also known as ADCABLE, we produce high quality certified cables for export and for the local market.

The Abu Dhabi Cable Factory is ISO 9001-2015 certified and had license of Emirates Quality Mark.

Our Products are manufactured to the respective BS/BSEN /IEC standards. We are committed to providing our customers with quality products and services and we endeavor to establish long and healthy relationships with our customers, distributors and business partners.

Our factory is specialized in manufacturing various types of cables such as

- 1. Building Wires (PVC/LSZH)*
- 2. Flexible cables*
- 3. LV power cables (Armoured/Un Armoured)*
- 4. Fire resistant cables*
- 5. Solar cables*

ADCABLE mainly provides services in terms of supply of power and Electrical sectors, Oil, Gas and Petrochemical industries, Industrial divisions, and various Constructions and Infrastructures projects.

Our Vision

To satisfy our valued customers, our people and society at large, as well as contribute to the task of nation building, by perpetual improvement in quality and services.



Our Mission

To attain market leadership, admiration for delivering and being benchmarked as an organization of highest integrity.



Quality Policy

ABU DHABI CABLE FACTORY (ADCABLE) QUALITY ASSURANCE

Product is incomplete unless it is tested to ensure that it meets the requirement . Quality cannot be checked, it is to be build in the product.

In order to ensure anin-built quality assurance system, it is extremely desirable to test and inspect the product at each stage including raw materials and finished product.

ABU DHABI CABLE FACTORY has under quality assurance

- 1 . Raw material inspection
- 2 . In-process checking
- 3 . Finished stage testing.

Abu Dhabi Cable Factory has its own company standards on Raw Meterials, Design Quality, Manufacturing and Testing of cables in line with National, International and Customer's specifications and has all the testing equipment and facilities to test the product.

Raw Meterial Inspection

Inspection of In-coming raw material following internal company standards based in National / International standards. Acceptance of raw materials in store on approval of Q.C. department by sampling inspection.

In-Process Checking

In-Process checks for physical and electrical properties of cable material with respect to National / International / Company Standards

Dimensional check of product on shopfloor.

Check of process parameters at various manufacturing stages with respect to laid down in-plant process specifications.

QHSE POLICY

We Abu Dhabi Cable factory “ADCABLE” as a manufacturer of Wires & Low Voltage Cable Constantly Aim to produce Quality Products as per BS Standard to the Customer Satisfaction.

Abu Dhabi Cable “ADCABLE” is Committed to:

- 1. Achieve effective realization of ADCABLE Mission, Vision and Quality Objectives.*
- 2. Comply with all applicable legal (statutory and regulatory) and other requirements and issues related to the context of Organization.*
- 3. Implement Continual Improvement Program and enhance the Performance of the QHSE Management System.*
- 4. Prevent ill health injuries and support the staff wellbeing.*
- 5. Prevent pollution minimizing the environmental impact of our operations and making the most efficient use of natural resources & energy.*
- 6. Integrate Risk assessment fundamentals for all business process of quality, health safety and environment.*
- 7. Communicate with all the interested parties and made available to public.*

BUILDING WIRES



SOLID AND STRANDED ANNEALED BARE COPPER CONDUCTORS

Technical Specification

ASTM B-49-92

- B1 Hard Drawn Copper Wire
- B2 Medium Hard Drawn Copper Wire
- B3 Soft or annealed copper wire
- B 19 Wire combination unilay stranded soft copper wires
- B8 Concentric lay stranded hard medium - hard or soft copper conductor

Description of Bare Copper Conductor : (CONCENTRICALLY STRANDED)

Electrical grade Solid /stranded annealed bare copper conductor Circular or circular compacted as per IEC 60228 class 1 & 2.

Applications:

Solid & Stranded bare copper conductor are suitable for overhead transmission and distribution application. Stranded conductor of class II how greater flexibility Suitable for uninsulated hook up jumpers and ground electrical contribution soft drawn copper is unilay construction.

Conductor			Overall Diameter Approx	Conductor	
Cross Sectional area	Number of Wires x Dia	Class of Conductor		Conductor Resistance at 20°C	Stranded Packing Length
mm ²	mm		mm	Ω/Km	
1.5 *	1 x 1.38	1	1.38	12.1	In Meter
1.5	7 x 0.53	2	1.59	12.1	In Meter
2.5 *	1 x 1.78	1	1.78	7.41	In Meter
2.5	7 x 0.67	2	2.01	7.41	In Meter
4 *	1 x 2.25	1	2.24	4.61	In Meter
4	7 x 0.85	2	2.55	4.61	In Meter
6 *	1 x 2.76	1	2.76	3.08	In Meter
6	7 x 1.04	2	3.12	3.08	In Meter
10 *	1 x 3.57	1	3.57	1.83	In Meter
10	7 x 1.35	2	4.05	1.83	In Meter
16	7 x 1.71	2	5.10	1.15	In Meter
25	7 x 2.14	2	6.42	0.727	In Meter
35	7 x 2.52	2	7.56	0.524	In Meter
35	19 x 1.53	2	7.65	0.524	In Meter
50	19 x 1.78	2	8.90	0.387	In Meter
70	19 x 2.14	2	10.70	0.268	In Meter
95	19 x 2.52	2	12.60	0.193	In Meter
120	19 x 2.84	2	14.20	0.153	In Meter
150	19 x 3.17	2	15.75	0.124	In Meter
185	37 x 2.52	2	17.65	0.0991	In Meter
240	37 x 2.88	2	20.25	0.0754	In Meter
300	37 x 3.21	2	22.68	0.0601	In Meter
400	61 x 2.85	2	25.65	0.0470	In Meter
500	61 x 3.20	2	28.80	0.0366	In Meter
630	61 x 3.62	2	32.58	0.0283	In Meter

* Solid Copper

PVC INSULATED NON SHEATHED SINGLE CORE CABLE VOLTAGE RATING: 450/750 V

- ➔ Type HO7V-U, HO7V-R
- ➔ Specification BS EN 50525-2-31
- ➔ Construction Solid or stranded plain annealed copper conductor Class 1 and 2 as per IEC 60228 PVC Insulated. Type TI-1 to BS EN 50363 - 3
- ➔ Application These cables are intended for drawing into trucking and conduit inside appliances and switchgear generally.
- ➔ Packing Hot shrink packing, card board spools, for size from 1.5 mm² to 16 mm² In Plywood reels/for wooden drums size from 25 mm² to 630 mm²
- ➔ Colours Red, black, green, blue, brown, yellow-green, yellow or customer requirement.
- ➔ Optional Heat Resistant 85° C / 90° C / 105° C

Conductor Nominal Cross sectional area	Radial thickness of Insulation	Overall Diameter Max.	Approximate weight of Cable
mm ²	mm	mm	
1.5 *	0.7	3.2	19
1.5	0.7	3.3	20
2.5 *	0.8	3.9	32
2.5	0.8	4.0	33
4.0 *	0.8	4.4	46
4.0	0.8	4.6	57
6.0 *	0.8	5.0	65
6.0	0.8	5.2	67
10 *	1.0	6.4	110
10	1.0	6.7	112
16	1.0	7.8	166
25	1.2	9.7	265
35	1.2	10.9	363
50	1.4	12.8	489
70	1.4	14.6	702
95	1.6	17.1	900
120	1.6	18.8	1100
150	1.8	20.9	1395
185	2.0	23.3	1720
240	2.2	26.6	2250
300	2.4	29.6	2820
400	2.6	33.2	3600
630	2.8	41.1	5810

*Solid Copper

PVC INSULATED NON SHEATHED SINGLE CORE FLEXIBLE CABLES

VOLTAGE RATING : 300/500 V (Size up to & including 1 mm²)

VOLTAGE RATING : 450/750 V (Size above 1 mm² To 35 mm²)

- ➔ Type HO7V2 - K, HO5V2 - K
- ➔ Specification BS EN 50525-2-31
- ➔ Construction Plain annealed copper conductor class 5 as per IEC 60228
- ➔ Insulation PVC type: Heat Resistant 85° C, 90°C, 105°C
- ➔ Application These cables are intended for drawing into trucking and conduit inside appliances and switchgear.
- ➔ Colours As per customer's requirement.

Conductor Nominal cross sectional area	Radial thickness of Insulation	Overall Diameter Max.	Approximate weight of cable
mm ²	mm	mm	Kg/km
0.50	0.6	2.5	11
0.75	0.6	2.7	14
1.0	0.6	2.8	17
1.5	0.7	3.4	21
2.5	0.8	4.1	32
4.0	0.8	4.8	47
6.0	0.8	5.3	67
10	1.0	6.8	115
16	1.0	8.1	180
25	1.2	10.2	285
35	1.2	11.7	380

PVC INSULATED NON SHEATHED SINGLE CORE FLEXIBLE CABLES

VOLTAGE RATING : 450/750 V

SI.NO.	Sizes	Voltage Rating
1	1C x 0.50 mm ² to 1.0 mm ²	300/500 V
2	1C x 1.50 mm ² to 240 mm ²	450/750 V

- ➔ Type HO5V-K, HO7V-K
- ➔ Specification BS EN 50525-2-31
- ➔ Construction Plain annealed copper conductor class 5
- ➔ Application For installations in channels with cover and for fixed protected installation in or on lighting fittings and inside appliances, with gear and controller.
- ➔ Insulation (PVC TI - 1) as per BS EN 50363 - 3
- ➔ Packing Hot shrink packing or cardboard spools for sizes from 0.5 mm² to 6 mm² in plywood reels /wooden drums for sizes 10 mm² and 240 mm²
- ➔ Packing Length 100 Yards, 100 Meters, or longer length on request.

Nominal Cross Section Area of the Conductor	Radial Thickness of Insulation	Overall Dia Max.	Conductor Resistance at 20°C Max	Insulation Resistance at 70°C Min	Approximate weight of cable
mm ²	mm	mm	Ω/km	MΩ.km	Kg/km
0.5	0.6	2.5	39.0	0.013	11
0.75	0.6	2.7	26.0	0.011	14
1.0	0.6	2.8	19.5	0.010	17
1.5	0.7	3.4	13.3	0.010	21
2.5	0.8	4.1	7.98	0.0095	32
4.0	0.8	4.8	4.95	0.0078	47
6.0	0.8	5.3	3.30	0.0068	67
10	1.0	6.8	1.91	0.0065	115
16	1.0	8.1	1.21	0.0053	180
25	1.2	10.2	0.780	0.0050	285
35	1.2	11.7	0.554	0.0043	380
50	1.4	13.9	0.386	0.0042	500
70	1.4	16.0	0.272	0.0036	710
95	1.6	18.2	0.206	0.0036	980
120	1.6	20.2	0.161	0.0032	1200
150	1.8	22.5	0.129	0.0032	1450
185	2.0	24.9	0.106	0.0032	1800
240	2.2	28.4	0.0801	0.0031	2370

PVC INSULATED NON SHEATHED SINGLE CORE FLEXIBLE CABLES

VOLTAGE RATING : 600/1000 V

<ul style="list-style-type: none"> ➔ Type ➔ Specification ➔ Construction ➔ Insulation Type ➔ Application ➔ Colours 	<p>CK-7</p> <p>BS : 6231</p> <p>Plain annealed copper conductor class 5</p> <p>PVC Heat Resisting 85°C, 90°C, 105°C as per BS : 7655</p> <p>These cables are intended for use in switchgear and control panel wiring.</p> <p>As per customer's requirements.</p>
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Conductor Nominal cross sectional area	Radial thickness of Insulation	Overall Diameter Max.	Approximate weight of cable
mm ²	mm	mm	Kg/km
0.50	0.8	3.0	11
0.75	0.8	3.1	14
1.0	0.8	3.3	17
1.5	0.8	3.6	21
2.5	0.8	4.1	32
4.0	0.8	4.8	47
6.0	0.8	5.3	67
10	1.0	7.2	115
16	1.0	9.0	180
25	1.2	11.5	285
35	1.2	12.5	380
50	1.4	15.4	500
70	1.4	17.5	710
95	1.6	19.2	980
120	1.6	21.2	1200
150	1.8	23.9	1450
185	2.0	25.9	1800
240	2.2	28.9	2370

PVC INSULATED NON SHEATHED TWISTED TWIN 300/500 V Type: HO5V-K AS PER BS EN 50525-2-31

Nominal Cross Sectional Area of conductor	Class of Conductor	Radial Thickness of Insulation	Mean Overall dimension (Upper Limit)	Insulation Resistance at 70°C Min.
mm ²		mm	mm	m Ω km
0.50	5	0.6	2.50	0.013
0.75	5	0.6	2.70	0.011
1.0	5	0.6	2.80	0.010

Note - The cord may be available in twisted form

PVC INSULATED PVC SHEATHED PARALLEL TWIN 300/300 V Type: HO3VVH2-F AS PER BS EN 50525-2-11

Nominal Cross Sectional Area of conductor	Class of Conductor	Radial Thickness of Insulation	Radial Thickness of Sheath	Mean Overall dimension (Upper Limit)	Insulation Resistance at 70°C Min.
mm ²		mm	mm	mm	m Ω km
0.50	5	0.5	0.6	3.7 x 5.9	0.011
0.75	5	0.5	0.6	3.8 x 6.3	0.010

PVC INSULATED & PVC SHEATHED 70°C FLEXIBLE CABLE VOLTAGE RATING : 300/500 V

➔	Conductor	Annealed Copper Conductor Class 5 as per IEC : 60228
➔	Specification	BS EN 50525-2-11 Or BS 6004
➔	Application	Household Appliances, Washing Machine, Refrigerators, etc.
➔	Insulation	TI-2
➔	Sheath	TM-2
➔	Colour of Sheath	White/Black

Nominal Cross Sectional Area of Conductor	Radial Thickness of Insulation	Radial Thickness of Sheath	Overall Diameter Max.	Maximum conductor Resistance at 20°C	Insulation Resistance at 70°C Minimum	Approx weight of cable
mm ²	mm	mm	mm	Ω/km	MΩ.km	Kg/Km

2 CORE FLEXIBLE CABLES : HO5VV-F2

0.75	0.6	0.8	7.2	26.0	0.011	55
1.0	0.6	0.8	7.5	19.5	0.010	67
1.5	0.7	0.8	8.6	13.3	0.010	79
2.5	0.8	1.0	10.6	7.98	0.0095	128
4.0	0.8	1.1	12.1	4.95	0.0078	146

3 CORE FLEXIBLE CABLES : HO5VV-F3

0.75	0.6	0.8	7.6	26.0	0.011	72
1.0	0.6	0.8	8.0	19.5	0.010	84
1.5	0.7	0.9	9.4	13.3	0.010	121
2.5	0.8	1.1	11.4	7.98	0.0095	182
4.0	0.8	1.2	13.1	4.95	0.0078	242

4 CORE FLEXIBLE CABLES: HO5VV-F 4

0.75	0.6	0.8	8.3	26.0	0.011	96
1.0	0.6	0.9	9.0	19.5	0.010	110
1.5	0.7	1.0	10.5	13.3	0.010	140
2.5	0.8	1.1	12.5	7.98	0.0095	205
4.0	0.8	1.2	14.3	4.95	0.0078	320

5 CORE FLEXIBLE CABLES: HO5VV-F 5

0.75	0.6	0.9	9.3	26.0	0.011	110
1.0	0.6	0.9	9.8	19.5	0.010	130
1.5	0.7	1.1	11.6	13.3	0.010	195
2.5	0.8	1.2	13.9	7.98	0.0095	290
4.0	0.8	1.4	16.1	4.95	0.0078	380

PVC INSULATED AND PVC SHEATHED HEAT RESISTANCE FLEXIBLE CABLE

VOLTAGE RATING : 300/500 V

<ul style="list-style-type: none"> ➔ ➔ ➔ ➔ ➔ ➔ ➔ 	<p>Type HO5V₂V₂-F</p> <p>Specification BS EN 50525-2-11</p> <p>Conductor Annealed Copper Conductor Class 5 as per IEC : 60228</p> <p>Application Household Appliances, Washing Machine, Refrigerators, etc.</p> <p>Insulation TI-3</p> <p>Sheath TM-3</p> <p>Colour of Sheath White/Black</p>
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Nominal Cross Sectional Area of Conductor	Radial Thickness of Insulation	Radial Thickness of Sheath	Overall Diameter Max.	Conductor Resistance at 20°C Max.	Insulation resistance at 90°C Min.	Approx weight of cable
mm ²	mm	mm	mm	Ω/km	MΩ.km	Kg/Km

2 CORE FLEXIBLE CABLES

0.75	0.6	0.8	7.2	26.0	0.011	55
1.0	0.6	0.8	7.5	19.5	0.010	67
1.5	0.7	0.8	8.6	13.3	0.010	79
2.5	0.8	1.0	10.6	7.98	0.0095	128
4.0	0.8	1.1	12.1	4.95	0.0078	146

3 CORE FLEXIBLE CABLES

0.75	0.6	0.8	7.6	26.0	0.011	72
1.0	0.6	0.8	8.0	19.5	0.010	84
1.5	0.7	0.9	9.4	13.3	0.010	121
2.5	0.8	1.1	11.4	7.98	0.0095	182
4.0	0.8	1.2	13.1	4.95	0.0078	242

4 CORE FLEXIBLE CABLES

0.75	0.6	0.8	8.3	26.0	0.011	96
1.0	0.6	0.9	9.0	19.5	0.010	110
1.5	0.7	1.0	10.5	13.3	0.010	140
2.5	0.8	1.1	12.5	7.98	0.0095	205
4.0	0.8	1.2	14.3	4.95	0.0078	320

5 CORE FLEXIBLE CABLES

0.75	0.6	0.9	9.3	26.0	0.011	110
1.0	0.6	0.9	9.8	19.5	0.010	130
1.5	0.7	1.1	11.6	13.3	0.010	195
2.5	0.8	1.2	13.9	7.98	0.0095	290
4.0	0.8	1.4	16.1	4.95	0.0078	380

PVC INSULATED AND PVC SHEATHED SINGLE CORE, FLAT TWO AND THREE CORE CABLE VOLTAGE RATING : 300/500 V

- ➔ PVC Type TI-1 for Insulation and TM-1 for Sheath
- ➔ Specification BS 6004
- ➔ Conductor Solid or Stranded copper Class 1 or 2 as per IEC 60228
- ➔ Application Mainly for domestic and industrial wiring where there is little risk of mechanical damage.

Nominal Cross Sectional Area of Conductor	Class of Conductor	Radial Thickness of Insulation	Radial Thickness of Sheath	Overall Diameter		Approximate Cable Weight
				Lower Limit	Upper Limit	
mm ²		mm	mm	mm		Kg./Km.

ONE CORE - 6181 Y

1.0	1	0.6	0.80	3.7	4.5	27
1.5	1	0.7	0.80	4.2	5.0	35
2.5	1	0.8	0.80	4.8	5.7	50
4.0	2	0.8	0.90	5.5	6.7	70
6.0	2	0.8	0.90	6.0	7.3	90
10	2	1.0	0.90	7.3	8.8	138
16	2	1.0	1.00	8.4	10.1	200
25	2	1.2	1.10	10.0	12.1	300
35	2	1.2	1.10	11.1	13.5	395

TWO CORE - 6192 Y

1.0	1	0.6	0.9	3.9 x 6.1	4.8 x 7.4	55
1.5	1	0.7	0.9	4.4 x 7.0	5.3 x 8.5	72
2.5	1	0.8	1.0	5.1 x 8.4	6.2 x 10.1	106
4.0	2	0.8	1.0	5.7 x 9.5	6.9 x 11.5	165
6.0	2	0.8	1.1	6.4 x 10.8	7.8 x 13.0	225
10	2	1.0	1.2	7.9 x 13.4	9.5 x 16.2	335
16	2	1.0	1.3	8.9 x 15.4	10.8 x 18.6	490

THREE CORE - 6193 Y

1.0	1	0.6	0.9	3.9 x 8.4	4.8 x 10.1	78
1.5	1	0.7	0.9	4.4 x 9.6	5.3 x 11.7	102
2.5	1	0.8	1.0	5.1 x 11.6	6.2 x 14.0	150
4.0	2	0.8	1.1	5.9 x 13.5	7.1 x 16.3	240
6.0	2	0.8	1.1	6.4 x 15.1	7.8 x 18.2	321
10	2	1.0	1.2	7.9 x 19.0	9.5 x 23.0	515
16	2	1.0	1.3	8.9 x 21.8	10.8 x 26.3	730

PVC INSULATED AND PVC SHEATH TWO CORE AND THREE CORE CABLE WITH CIRCUIT PROTECTIVE CONDUCTOR (CPC) VOLTAGE RATING : 300/500 V

- ➡ PVC Type TI-1 for Insulation and TM-1 for Sheath
- ➡ Specification BS 6004
- ➡ Conductor Solid or stranded copper class 1 or 2 as per IEC 60228
- ➡ Application Mainly for domestic and industrial wiring where there is little risk of mechanical damage

Nominal Cross Sectional Area of Conductor	Class of Conductor	Radial Thickness of Insulation	Radial Thickness of Sheath	Overall Diameter		CIRCUIT PROTECTING Conductor Sectional Area	Class of CPC	Approximate Cable Weight
				Lower Limit	Upper Limit			
mm ²		mm	mm	mm		mm ²		Kg/Km

TWO CORE 6242 Y

1.0	1	0.6	0.9	3.9 x 7.2	4.8 x 8.7	1.0	1	70
1.5	1	0.7	0.9	4.4 x 8.1	5.3 x 9.7	1.0	1	87
2.5	1	0.8	1.0	5.1 x 9.6	6.2 x 11.7	1.5	1	130
4.0	2	0.8	1.0	5.7 x 10.8	6.9 x 13.1	1.5	1	190
6.0	2	0.8	1.1	6.4 x 12.4	7.8 x 15.0	2.5	1	260
10	2	1.0	1.2	7.9 x 15.6	9.5 x 18.9	4.0	2	425
16	2	1.0	1.3	8.9 x 18.1	10.8 x 21.9	6.0	2	590

THREE CORE 6243 Y

1.0	1	0.6	0.9	3.9 x 9.4	4.8 x 11.4	1.0	1	82
1.5	1	0.7	0.9	4.4 x 10.7	5.3 x 12.9	1.0	1	108
2.5	1	0.8	1.0	5.1 x 12.6	6.2 x 15.3	1.5	1	156
4.0	2	0.8	1.1	5.9 x 14.8	7.1 x 17.9	1.5	1	230
6.0	2	0.8	1.1	6.4 x 16.8	7.8 x 20.2	2.5	1	315
10	2	1.0	1.2	7.9 x 21.3	9.5 x 25.7	4.0	2	510
16	2	1.0	1.3	8.9 x 24.6	10.8 x 29.7	6.0	2	710

THERMOSETTING INSULATED NON SHEATHED SINGLE CORE CABLES VOLTAGE RATING : 300/500 V

- ➔ Type HO5Z-K and HO5Z-U,
- ➔ Specification BS EN 50525-3-41
- ➔ Application For installations in channels with cover and for fixed protected installation in or on lighting fittings and inside appliances, with gear and controller
- ➔ Insulation LSZH/EI-5
- ➔ Packing Hot shrink packing or cardboard spools for sizes from 0.5 mm² to 1.0mm²
- ➔ Packing Length 100 Yards, 100 Meters, or longer length on request.

Nominal Cross Section Area of the Conductor	Class of Conductor	Radial Thickness of Insulation	Overall Dia Max.	Conductor Resistance at 20°C Max.	Insulation resistance at 90°C Minimum	Approximate weight of cable
mm ²		mm	mm	Ω/km	MΩ.km	Kg/km
0.50	5	0.6	2.6	39.0	0.013	11
0.75	5	0.6	2.8	26.0	0.011	14
1.0	5	0.6	2.9	19.5	0.010	17
0.5	1	0.6	2.4	36.0	0.015	10
0.75	1	0.6	2.6	24.5	0.012	12
1.0	1	0.6	2.8	18.1	0.011	15

THERMOSETTING INSULATED NON SHEATHED SINGLE CORE WIRES VOLTAGE RATING: 450/750 V

- ➔ **Type** (HO7Z-U, HO7Z-R)
- ➔ **Specification** BS EN 50525-3-41
- ➔ **Construction** Solid or stranded plain annealed copper conductor Class 1 and 2 IEC 60228
Thermosetting EI-5 Insulated. BS EN 50363-5
- ➔ **Application** These cables are intended for drawing into trunking and conduit they may also be used inside fixed protected installation and used where smoke and toxic emission would pasca major hazard in the event of fire
- ➔ **Packing** Hot shrink packing, card board spools, for size from 1.5 mm² to 16 mm² In Plywood reels/for wooden drums size from 25 mm² to 630 mm²
- ➔ **Colours** Red, black, green, blue, brown, yellow-green, yellow or customer requirement

Conductor Nominal Cross sectional area	Radial Thickness of Insulation	Overall Diameter Max.	Approximate weight of Cable
mm ²	mm	mm	Kg/km
1.5 *	0.7	3.3	19
1.5	0.7	3.4	20
2.5 *	0.8	4.0	32
2.5	0.8	4.1	33
4.0 *	0.8	4.6	46
4.0	0.8	4.7	57
6.0 *	0.8	5.2	65
6.0	0.8	5.4	67
10 *	1.0	6.6	110
10	1.0	7.0	112
16	1.0	8.0	170
25	1.2	10.1	265
35	1.2	11.3	363
50	1.4	13.2	489
70	1.4	15.1	702
95	1.6	17.6	900
120	1.6	19.4	1100
150	1.8	21.6	1395
185	2.0	24.1	1720
240	2.2	27.5	2250
300	2.4	30.6	2820
400	2.6	34.3	3600
630	2.8	42.5	5810

* Solid Conductor



THERMOPLASTIC INSULATED NON SHEATHED SINGLE CORE WIRES VOLTAGE RATING: 450/750 V

- ➔ TYPE (HO7Z1-U, HO7Z1-R)
- ➔ Specification BS EN 50525-3-31
- ➔ Construction Solid or stranded plain annealed copper conductor Class 1 and 2 IEC 60228
Thermoplastic type TI/7 Insulated. BS EN 50363-7
- ➔ Application These cables are intended for drawing into trunking and conduit they may also be used inside fixed protected installation and used where smoke and toxic emission would pasca major hazard in the event of fire
- ➔ Packing Hot shrink packing, card board spools, for size from 1.5 mm² to 16 mm² In Plywood reels/for wooden drums size from 25 mm² to 630 mm²
- ➔ Colours Red, black, green, blue, brown, yellow-green, yellow or customer requirement

Conductor Nominal Cross sectional area	Redial Thickness of Insulation	Overall Diameter Max.	Approximate weight of Cable
mm ²	mm	mm	Kg/km
1.5 *	0.7	3.0	19
1.5	0.7	3.1	20
2.5 *	0.8	3.7	32
2.5	0.8	3.8	33
4.0 *	0.8	4.2	46
4.0	0.8	4.4	57
6.0 *	0.8	4.8	65
6.0	0.8	5.0	67
10 *	1.0	6.2	110
10	1.0	6.5	112
16	1.0	7.6	170
25	1.2	9.5	265
35	1.2	10.7	363
50	1.4	12.6	489
70	1.4	14.4	702
95	1.6	16.9	900
120	1.6	18.6	1100
150	1.8	20.7	1395
185	2.0	23.1	1720
240	2.2	26.4	2250
300	2.4	29.4	2820
400	2.6	33.0	3600
630	2.8	40.9	5810

* Solid Conductor



THERMOPLASTIC INSULATED SHEATHED MULTI CORE FLEXIBLE CABLES
VOLTAGE RATING: 300/500 V

➔ TYPE	H05Z1Z1-F
➔ Specification	BS EN 50525-3-11
➔ Conductor	Annealed copper conductor Class 5 IEC 60228
➔ Insulation	Thermoplastic type TI/6 Insulated. BS EN 50363-7
➔ Sheath	Thermoplastic type TM/7 sheathed. BS EN 50363-8
➔ Colours of sheath	White

Nominal cross-sectional area of conductor mm ²	Thickness of insulation mm	Thickness of sheath mm	Mean overall dimensions		Minimum insulation resistance at 70°C MΩ.km
			Lower limit mm	Upper limit mm	
2 CORE FLEXIBLE CABLES					
0.75	0.60	0.80	5.70	7.20	0.011
1	0.60	0.80	5.90	7.50	0.010
1.5	0.70	0.80	6.80	8.60	0.010
2.5	0.80	1.0	8.40	10.60	0.0095
4	0.80	1.10	9.70	12.10	0.0078
3 CORE FLEXIBLE CABLES					
0.75	0.60	0.80	6.0	7.60	0.011
1	0.60	0.80	6.30	8.0	0.010
1.5	0.70	0.90	7.40	9.40	0.010
2.5	0.80	1.10	9.20	11.40	0.0095
4	0.80	1.20	10.5	13.1	0.0078
4 CORE FLEXIBLE CABLES					
0.75	0.60	0.80	6.60	8.30	0.011
1	0.60	0.90	7.10	9.0	0.010
1.5	0.70	1.0	8.40	10.50	0.010
2.5	0.80	1.10	10.10	12.50	0.0095
4	0.80	1.20	11.50	14.30	0.0078
5 CORE FLEXIBLE CABLES					
0.75	0.60	0.90	7.40	9.30	0.011
1	0.60	0.90	7.80	9.80	0.010
1.5	0.70	1.10	9.30	11.60	0.010
2.5	0.80	1.20	11.20	13.90	0.0095
4	0.80	1.40	13.0	16.10	0.0078







THERMOSETTING INSULATED NON SHEATHED SINGLE CORE FLEXIBLE CABLES VOLTAGE RATING : 450/750 V

- ➔ Type HO7Z-K
- ➔ Specification BS EN 50525-3-41
- ➔ Construction Plain annealed copper conductor class 5 as per IEC 60228
- ➔ Insulation Thermosetting Compound (EI 5)
- ➔ Application These cables are intended for drawing into trucking and conduit inside appliances and switchgear.
- ➔ Colours As per customer's requirement.

Conductor Nominal cross sectional area	Radial thickness of Insulation	Overall Dia Max.	Approximate weight of cable
mm ²	mm	mm	Kg/Km
1.5	0.7	3.5	21
2.5	0.8	4.3	32
4.0	0.8	4.9	47
6.0	0.8	5.5	67
10	1.0	7.1	115
16	1.0	8.4	180
25	1.2	10.6	285
35	1.2	12.1	380
50	1.4	14.4	500
70	1.4	16.6	710
95	1.6	18.8	980
120	1.6	20.9	1200
150	1.8	23.3	1450
185	2.0	25.8	1800
240	2.2	29.4	2370

THERMOSETTING INSULATED AND SHEATHED SINGLE CORE CABLES

VOLTAGE RATING : 450/750 V

	Conductor	Plain annealed copper conductor class 1 & 2 as per IEC 60228
	Specification	BS 7211
	Insulation	Type GP8 / E1 5
	Sheath	LTS - 4
	Colours	As per BS 7211
	CODE	6181 B

Conductor Nominal cross sectional Area mm ²	Class of Conductor	Radial thickness of Insulation mm	Radial thickness of sheath mm	Overall Diameter Max. mm	Max. DC Resistance at 20°C Ω/Km	Insulation Resistance at 90°C Min. MΩ.km
1	1	0.7	0.8	4.8	18.1	0.011
	2	0.7	0.8	4.9		0.011
1.5	1	0.7	0.8	5.0	12.1	0.011
	2	0.7	0.8	5.2		0.010
2.5	1	0.7	0.8	5.5	7.41	0.0092
	2	0.7	0.8	5.6		0.0084
4	1	0.7	0.9	6.3	4.61	0.0077
	2	0.7	0.9	6.4		0.0070
6	1	0.7	0.9	6.8	3.08	0.0065
	2	0.7	0.9	7.1		0.0059
10	2	0.7	0.9	8.1	1.83	0.0047
16	2	0.7	0.9	9.2	1.15	0.0039
25	2	0.9	1.0	11.4	0.727	0.0039
35	2	0.9	1.1	12.8	0.524	0.0034

THERMOSETTING INSULATED AND SHEATHED FLAT TWO AND THREE CORE CABLES WITH CIRCUIT PROTECTIVE CONDUCTOR (CPC) VOLTAGE RATING : 300/500 V

- ➔ Conductor Solid or Stranded copper Class 1 & 2 as per IEC 60228
- ➔ Insulation EI-5 as per BS 7655 for Insulation and LTS-2 for Sheath
- ➔ Specification BS 7211
- ➔ Application Mainly for domestic and industrial wiring where there is little risk of mechanical damage.

Nominal Cross Sectional Area of Conductor	Class of Conductor	Radial Thickness of Insulation	Radial Thickness of Sheath	Overall Diameter		CPC Cross Sectional Area	Class of CPC	Insulation Resistance at 90°C Min.
				Lower Limit	Upper Limit			
mm ²		mm	mm	mm		mm ²		MΩ .km

TWO CORE WITH CPC 6242 B

1.0	1	0.7	0.9	4.1 X 7.6	5.0 x 9.2	1.0	1	0.011
1.0	2	0.7	0.9	4.2 x 7.8	5.1 x 9.4	1.0	1	0.011
1.5	1	0.7	0.9	4.4 x 8.1	5.3 x 9.7	1.0	1	0.011
1.5	2	0.7	0.9	4.5 x 8.3	5.4 x 10.0	1.0	1	0.011
2.5	1	0.7	1.0	4.9 x 9.3	6.0 x 11.2	1.5	1	0.0092
2.5	2	0.7	1.0	5.0 x 9.5	6.1 x 11.4	1.5	1	0.0084
4.0	2	0.7	1.0	5.5 x 10.4	6.7 x 12.6	1.5	1	0.0070
6.0	2	0.7	1.1	6.2 x 12.0	7.5 x 14.6	2.5	1	0.0059
10	2	0.7	1.2	7.3 x 14.3	8.8 x 17.5	4.0	2	0.0047
16	2	0.7	1.3	8.4 x 17.0	10.1 x 20.5	6.0	2	0.0039

THREE CORE WITH CPC 6243 B

1.0	1	0.7	0.9	4.1 x 10	5.1 x 12.1	1.0	1	0.011
1.5	1	0.7	0.9	4.4 x 10.7	5.3 x 12.9	1.0	1	0.011
2.5	1	0.7	1.0	4.9 x 12.0	6.0 x 14.6	1.5	1	0.0092
4.0	2	0.7	1.0	5.5 x 14.0	6.7 x 16.9	1.5	1	0.0070
6.0	2	0.7	1.1	6.2 x 16.2	7.5 x 19.5	2.5	1	0.0059
10	2	0.7	1.2	7.3 x 19.5	8.8 x 23.6	4.0	2	0.0047
16	2	0.7	1.3	8.4 x 22.8	10.1 x 27.6	6.0	2	0.0039

THERMOSETTING INSULATED AND SHEATHED CABLES VOLTAGE RATING : 450/750 V

<ul style="list-style-type: none"> ➔ Conductor ➔ Specification ➔ Insulation ➔ Sheath ➔ Colour of Sheath 	<p>Annealed Copper Conductor Class 2 as per IEC : 60228 Thermosetting Insulated and Sheathed</p> <p>BS 7211</p> <p>GP-8 OR EI-5</p> <p>LTS-4 as per BS 7655</p> <p>White/Black or as per requirement</p>
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Conductor Nominal Cross Sectional Area	Radial Thickness of Insulation	Radial Thickness of Inner Covering	Radial Thickness of Sheath	Overall Diameter Max.	Insulation Resistance of conductor at 90°C Min.	Approx weight of cable
mm ²	mm	mm	mm	mm	MΩ .km	Kg/Km

2 CORE CABLES 6182 B

1.0	0.7	0.4	1.2	9.70	0.011	105
1.5	0.7	0.4	1.2	10.3	0.01	130
2.5	0.7	0.4	1.2	11.3	0.0084	165
4.0	0.7	0.4	1.2	12.4	0.007	215
6.0	0.7	0.4	1.2	13.7	0.0059	280
10	0.7	0.6	1.4	16.7	0.0047	412
16	0.7	0.6	1.4	18.8	0.0039	550
25	0.9	0.8	1.4	23.2	0.0039	750
35	0.9	0.8	1.6	26.0	0.0034	1000

3 CORE CABLES 6183 B

1.0	0.7	0.4	1.2	10.2	0.011	125
1.5	0.7	0.4	1.2	10.9	0.010	140
2.5	0.7	0.4	1.2	11.9	0.0084	200
4.0	0.7	0.4	1.2	13.1	0.0070	275
6.0	0.7	0.4	1.4	15.0	0.0059	360
10	0.7	0.6	1.4	17.7	0.0047	510
16	0.7	0.6	1.4	19.9	0.0039	720
25	0.9	0.8	1.4	24.6	0.0039	1110
35	0.9	0.8	1.6	27.6	0.0034	1450

4 CORE CABLES 6184 B

1.0	0.7	0.4	1.2	11.0	0.011	150
1.5	0.7	0.4	1.2	11.7	0.010	170
2.5	0.7	0.4	1.2	12.8	0.0084	230
4.0	0.7	0.4	1.2	14.2	0.0070	320
6.0	0.7	0.6	1.4	16.7	0.0059	500
10	0.7	0.6	1.4	19.2	0.0047	650
16	0.7	0.6	1.4	21.8	0.0039	950
25	0.9	0.8	1.6	27.5	0.0039	1500
35	0.9	1.0	1.6	30.7	0.0034	2000

5 CORE CABLES 6185 B

1.0	0.7	0.4	1.2	11.9	0.011	180
1.5	0.7	0.4	1.2	12.6	0.010	210
2.5	0.7	0.4	1.2	13.9	0.0084	280
4.0	0.7	0.6	1.4	16.4	0.0070	430
6.0	0.7	0.6	1.4	18.1	0.0059	560
10	0.7	0.6	1.4	20.9	0.0047	800
16	0.7	0.8	1.4	24.2	0.0039	1120
25	0.9	1.0	1.6	30.5	0.0039	1750
35	0.9	1.0	1.6	33.6	0.0034	2300

BELL CABLE

<p>➔ Application</p> <p>➔ Construction</p>	<p>Bell wiring, alarms and other indicators.</p>
<p>Conductor</p> <p>Insulation</p> <p>Sheath</p>	<p>Plain annealed copper conductor class 1 solid Or class 5 flexible as per IEC - 60228</p> <p>PVC Compound type TI-1 or TM-1 as per BS 7655</p> <p>PVC compound type TM-2 or T-6 as per BS 7655</p> <p>The sheath shall fit closely but not adhere to the cores</p>

<p>➔ Laying up</p> <p>A) Parallel twin cores</p> <p>B) Twisted cores</p>	<p>Two plain annealed copper conductors laid parallel and covered with PVC insulation. The insulation shall be provided with a groove on each side between the conductor to facilitate separation of the cores.</p> <p>Two plain annealed copper conductor class 1 or 5 PVC Insulated are twisted together.</p>
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<p>➔ Conductor</p> <p>➔ Insulation</p> <p>➔ Application</p>	<p>Solid Plain Copper Clad Steel (Copper Weld) OR Hard Drawn Copper</p> <p>High Density Solid Polyethylene or PVM.</p> <p>Telephone drop wires are used for external connection between the distribution box and the subscriber's premises.</p>
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TECHNICAL DATA

Number of cores	Conductor Details		Radial Insulation Thickness	Approximate Overall Dia	Approximate Weight
	No. x Dia	Maximum Conductor Resistance at 20°C			
No	No. x mm	Ohms / km	mm	mm	Kg/Km
2	1 x 0.8	37	1.1	2.6 x 5.7	20
2	1 x 0.9	28	1.1	2.7 x 5.9	24
2	1 x 1.0	24	1.1	3.0 x 6.5	30

JUMPER WIRE

NOMINAL WIRE DATA

Solid Copper Conductor PVC Insulation

Colour OF PAIRS	NUMBER OF PAIRS	CONDUCTOR DIA mm	OVERALL DIA mm	WEIGHT KG/KM	STANDARD LENGTH MTRS
Blue - White	2	0.5	2.2	4	500
Red - White					
Black - Red	3	0.5	2.4	5	500
Yellow - White	4	0.5	2.7	6	500

- ➔ Twinning Two Insulated Wires are twisted together
- ➔ Installation Used for main distribution frames and cabinets.

ELECTRICAL AND TRANSMISSION CHARACTERISTICS

Conductor Resistance (Ohms/km)	
Average maximum	92
Individual maximum	96
Resistance Unbalance (%)	
Average maximum	0.75
Individual maximum	2.5
Insulation Resistance (M ohms/Km)	
PVC Insulation Minimum	5,000
Dielectric strength (DC Volt for 1 minute)	
Nominal	1,500

TYPE UF SPRINKLER IRRIGATION CONTROL WIRE American Standard

- ➔ Conductor Solid or stranded, soft bare copper conductor, extra-heavy thickness of special polyvinylchloride insulation according to UL 493 RATED 600 V
- ➔ Specification Copper conductor meet requirements of ASTM B-3, B-8.
- ➔ Colours Standard Colours are black, white, red, blue, green, orange, yellow, additional colours are available on request.
- ➔ Application Single conductor Type UF is especially for direct use in institutional and commercial sprinkler and irrigation system-golf courses, estates highway and ground covers, public parks, plantations, farms.
- ➔ Packing Standard packages are long length or 500 feet, 1250 feet, 2500 feet, in plywood, cardboard spools or coils

Size (AWG)	Number of Strands x Dia mm	Radial thickness of Insulation mm	Overall Diameter Max. mm	Approximate weight of cable Kg/Km
18	1 x 1.02	1.2	3.42	19
16	1 x 1.29	1.2	3.68	25
14	1 x 1.63	1.6	4.83	41
12	1 x 2.05	1.6	5.25	55
10	1 X 2.59	1.6	5.79	76

Current Rating (Amps)

Single -Core Cables with XLPE or LSZH Insulation, with or without PVC or LSZH Outer sheathed
450/750 or 600/1000V

(CU/LSZH ,CU/XLPE/LSZH, CU/LSZH/LSZH Cables)

Conductor operating Temperature : 90⁰ C

Ambient Temperature : 30⁰ C

Table - 1

conductor cross - sectional area	Reference Method 4 (enclosed in conduit in thermally insulating wall etc)		Refernce method 3 (enclosed in conduit on a wall or in trunking etc)		Reference method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray, horizontal or vertical)		Reference Method 12 (Free Air)		
	2 Cables single-phase a.c. or d.c.	3 or 4 cable 3-phase a.c.	2 Cables single-phase a.c. or d.c.	3 or 4 cable 3-phase a.c.	2 Cables single-phase a.c. or d.c. or flat and touching	3 or 4 Cables 3-phase a.c. flat and touching trefoil	2 Cables single-phase a.c. or d.c. or flat and touching	3 or 4 Cables 3-phase a.c. flat and touching trefoil	horizontal flat spaced	vertical flat	Trefoil
									2 Cables single-phase a.c. or d.c. or 3cables three phase	2 Cables single-phase a.c. or d.c. or 3 cables	3 Cables trefoil 3-phase a.c.
1	2	3	4	5	6	7	8	9	10	11	12
mm ²	A	A	A	A	A	A	A	A	A	A	A
1.5	18	17	22	19	25	23	-	-	-	-	-
2.5	24	23	30	26	34	31	-	-	-	-	-
4	33	30	40	35	46	41	-	-	-	-	-
6	43	39	51	45	59	54	-	-	-	-	-
10	58	53	71	63	81	74	-	-	-	-	-
16	76	70	95	85	109	99	-	-	-	-	-
25	100	91	126	111	143	130	158	140	183	163	138
35	125	111	156	138	176	161	195	176	226	203	171
50	149	135	189	168	228	209	293	215	274	246	209
70	189	170	240	214	293	268	308	279	351	318	270
95	228	205	290	259	355	326	375	341	426	389	330
120	263	235	336	299	413	379	436	398	495	453	385
150	300	270	375	328	476	436	505	461	570	524	445
185	341	306	426	370	545	500	579	530	651	600	511
240	400	358	500	433	644	590	686	630	769	711	606
300	459	410	573	493	743	681	794	730	886	824	701
400	-	-	684	584	868	793	915	849	1065	994	820
500	-	-	783	666	990	904	1044	973	1228	1150	936
630	-	-	900	764	1130	1033	1191	1115	1423	1338	1069

Note : For Rating factor of ambient temperature other than 30⁰ C please refer to Table 11
For Rating factor of ground temperature other than 15⁰ C please refer to Table 12

Voltage Drop

Single -Core Cables with XLPE or LSZH Insulation, with or without PVC or LSZH Outer sheathed
 450/750 or 600/1000V
 (CU/LSZH ,CU/XLPE/LSZH or CU/LSZH/LSZH Cables)

Conductor operating Temperature : 90° C
 Ambient Temperature : 30° C

Table -2

Size of conductor	2 cables d.c	2 Cables, single-phase a.c															
		Reference method 3 and 4 enclosed in conduit etc. in or on a			Reference method 1 and 11 (clipped direct or on trays touching)			Reference method 3 and 4 enclosed in conduit etc.in or on a wall			Reference method 1, 11 and 12(in trefoil)			Reference method 1 and 11 (flat & touching)			
1	2	3			4			5			6			7			
mm ²	m V/A/m	m V/A/m			m V/A/m			m V/A/m			m V/A/m			m V/A/m			
1.5	31	31			27			27			27			27			
2.5	19	19			16			16			16			16			
4	12	12			10			10			10			10			
6	7.8	7.9			6.8			6.8			6.8			6.8			
10	4.7	4.7			4.7			4.0			4.0			4.0			
16	2.9	2.9			2.9			2.5			2.5			2.5			
		r	x	z	r	x	z	r	x	X	Z	r	x	z	r	x	z
25	1.85	1.85	0.31	1.9	1.85	0.19	1.85	1.6		0.27	1.65	1.6	0.165	1.6	1.6	0.19	1.6
35	1.35	1.35	0.29	1.35	1.35	0.180	1.35	1.15		0.25	1.15	1.15	0.155	1.15	1.15	0.18	1.15
50	0.99	1.0	0.29	1.05	0.99	0.180	1.0	0.87		0.25	0.90	0.86	0.155	0.87	0.86	0.18	0.87
70	0.68	0.70	0.28	0.75	0.68	0.175	0.71	0.6		0.24	0.65	0.59	0.15	0.61	0.59	0.175	0.62
95	0.49	0.51	0.27	0.58	0.49	0.170	0.52	0.44		0.23	0.50	0.43	0.145	0.45	0.43	0.17	0.46
120	0.39	0.41	0.26	0.48	0.39	0.165	0.43	0.35		0.23	0.42	0.34	0.14	0.37	0.34	0.165	0.38
150	0.32	0.33	0.26	0.43	0.32	0.165	0.36	0.29		0.23	0.37	0.28	0.14	0.31	0.28	0.165	0.32
185	0.25	0.27	0.26	0.37	0.26	0.165	0.30	0.23		0.23	0.32	0.22	0.14	0.26	0.22	0.165	0.28
240	0.19	0.21	0.26	0.33	0.20	0.16	0.25	0.185		0.22	0.29	0.17	0.14	0.22	0.17	0.165	0.24
300	0.155	0.175	0.25	0.31	0.16	0.16	0.22	0.15		0.22	0.27	0.14	0.14	0.195	0.135	0.16	0.21
400	0.12	0.14	0.25	0.29	0.13	0.155	0.20	0.125		0.22	0.25	0.11	0.135	0.175	0.11	0.16	0.195
500	0.093	0.12	0.25	0.28	0.105	0.155	0.185	0.10		0.22	0.24	0.09	0.135	0.16	0.088	0.16	0.18
630	0.072	0.10	0.25	0.27	0.086	0.155	0.175	0.088		0.21	0.23	0.074	0.135	0.15	0.071	0.16	0.17

Note : r = conductor resistance at operating temperature , x = reactance , z = impedance

Current Rating (Amps)

Single core Cables with PVC Insulation, with or without sheath 450/750 or 600/1000V
[CU/PVC or CU/PVC/PVC Cables]

Conductor operating Temperature : 70° C
Ambient Temperature : 30° C

Table - 3

conductor cross - sectional area	Reference Method 4 (enclosed in conduit in thermally insulating wall etc)		Refernce method 3 (enclosed in conduit on a wall or in trunking etc)		Reference method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray, horizontal or vertical)		Reference Method 12 (Free Air)		
	2 Cables single-phase a.c. or d.c.	3 or 4 cable 3-phase a.c.	2 Cables single-phase a.c. or d.c.	3 or 4 cable 3-phase a.c.	2 Cables single-phase a.c. or d.c. or flat and touching	3 or 4 Cables 3-phase a.c. flat and touching trefoil	2 Cables single-phase a.c. or d.c. or flat and touching	3 or 4 Cables 3-phase a.c. flat and touching trefoil	horizontal flat spaced	vertica l flat	Trefoil
									2 Cables single-phase a.c. or d.c. or 3cables three phase	2 Cables single-phase a.c. or	3 Cables trefoil 3-phase a.c.
1	2	3	4	5	6	7	8	9	10	11	12
mm ²	A	A	A	A	A	A	A	A	A	A	A
BS-6004											
1	11	10.5	13.5	12	15.5	14					
1.5	14.5	13.5	17.5	15.5	20	18	-	-	-	-	-
2.5	19.5	18	24	21	27	25	-	-	-	-	-
4	26	24	32	28	37	33	-	-	-	-	-
6	34	31	41	36	47	43	-	-	-	-	-
10	46	42	57	50	65	59	-	-	-	-	-
16	61	56	76	68	87	79	-	-	-	-	-
25	80	73	101	89	114	104	126	112	146	130	110
35	99	89	125	110	141	129	156	141	181	162	137
BS - 6346											
50	119	108	151	134	182	167	191	172	219	197	167
70	151	136	192	171	234	214	246	223	281	254	216
95	182	164	232	207	284	261	300	273	341	311	264
120	210	188	269	239	330	303	349	318	396	362	308
150	240	216	300	262	381	349	404	369	456	419	356
185	273	245	341	296	436	400	463	424	521	480	409
240	320	286	400	346	515	472	549	504	615	569	485
300	367	328	458	394	594	545	635	584	709	659	561
400	-	-	546	467	694	634	732	679	852	795	656
500	-	-	626	533	792	723	835	778	982	920	749
630	-	-	720	611	904	826	953	892	1138	1070	855

Note : For rating factor of air ambient temperature other than 30° C please refer to table 9

Voltage Drop

Single core Cables with PVC Insulation, with or without sheath 450/750 or 600/1000V
[CU/PVC or CU/PVC/PVC Cables]

Conductor operating Temperature : 70° C
Ambient Temperature : 30° C

Table - 4

Conductor cross-sectional area	2 cables d.c	2 Cables Single Phase a.c									3 or 4 cables three-phase a.c											
		Reference Method conduit etc. in or on a wall	Reference Method 1 & 11 (clipped direct or on trays touching)			Reference Method 12 (space)			Reference Method 3 & 4 enclosed in conduit. in or on a wall			Reference Method 1, 11 & 12 (in trefoil)			Reference Method 1 & 11 (flat touching)			Reference Method 12 (flat space)				
1	2	3			4			5			6			7			8			9		
mm ²	m V/A/m	m V/A/m			m V/A/m			m V/A/m			m V/A/m			m V/A/m			m V/A/m			m V/A/m		
1	44	44			44			44			38			38			38			38		
1.5	29	29			29			29			25			25			25			25		
2.5	18	18			18			18			15			15			15			15		
4	11	11			11			11			9.5			9.5			9.5			9.5		
6	7.3	7.3			7.3			7.3			6.4			6.4			6.4			6.4		
10	4.4	4.4			4.4			4.4			3.8			3.8			3.8			3.8		
16	2.8	2.8			2.8			2.8			2.4			2.4			2.4			2.4		
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
25	1.75	1.8	0.33	1.8	1.75	0.2	1.75	1.75	0.29	1.8	1.5	0.29	1.55	1.5	0.175	1.5	1.5	0.25	1.55	1.5	0.32	1.55
35	1.25	1.3	0.31	1.3	1.25	0.195	1.25	1.25	0.28	1.3	1.1	0.27	1.1	1.1	0.17	1.1	1.1	0.24	1.1	1.1	0.32	1.15
50	0.93	0.95	0.3	1.0	0.93	0.19	0.95	0.93	0.28	0.97	0.81	0.26	0.85	0.8	0.165	0.82	0.8	0.24	0.84	0.8	0.32	0.86
70	0.63	0.65	0.29	0.72	0.63	0.185	0.66	0.63	0.27	0.69	0.56	0.25	0.61	0.55	0.16	0.57	0.55	0.24	0.6	0.55	0.31	0.63
95	0.46	0.49	0.28	0.56	0.47	0.18	0.50	0.47	0.27	0.54	0.42	0.24	0.48	0.41	0.155	0.43	0.41	0.23	0.47	0.4	0.31	0.51
120	0.36	0.39	0.27	0.47	0.37	0.175	0.41	0.37	0.26	0.45	0.33	0.23	0.41	0.32	0.15	0.36	0.32	0.23	0.4	0.32	0.30	0.44
150	0.29	0.31	0.27	0.41	0.3	0.175	0.34	0.29	0.26	0.39	0.27	0.23	0.36	0.26	0.15	0.3	0.26	0.23	0.34	0.26	0.30	0.4
185	0.23	0.25	0.27	0.37	0.24	0.17	0.29	0.24	0.26	0.35	0.22	0.23	0.32	0.21	0.145	0.26	0.21	0.22	0.31	0.21	0.30	0.36
240	0.18	0.195	0.26	0.33	0.185	0.165	0.25	0.185	0.25	0.31	0.17	0.23	0.29	0.16	0.145	0.22	0.16	0.22	0.27	0.16	0.29	0.34
300	0.145	0.16	0.26	0.31	0.15	0.165	0.22	0.15	0.25	0.29	0.14	0.23	0.27	0.13	0.14	0.19	0.13	0.22	0.25	0.13	0.29	0.32
400	0.105	0.13	0.26	0.29	0.12	0.16	0.20	0.115	0.25	0.27	0.12	0.22	0.25	0.105	0.14	0.175	0.105	0.21	0.24	0.1	0.29	0.31
500	0.086	0.11	0.26	0.28	0.098	0.155	0.185	0.093	0.24	0.26	0.10	0.22	0.25	0.086	0.135	0.16	0.086	0.21	0.23	0.081	0.29	0.3
630	0.068	0.094	0.25	0.27	0.081	0.155	0.175	0.076	0.24	0.25	0.08	0.22	0.24	0.072	0.135	0.15	0.072	0.21	0.22	0.066	0.28	0.29

Note : r = conductor resistance at operating temperature
x = reactance
z = impedance

Current Rating (Amps)

Multi-Core Cables with XLPE or LSZH Insulation PVC or LSZH Outersheath 300/500V or 600/1000V
[CU/XLPE/LSZH, CU/LSZH/LSZH Cables]

Conductor operating Temperature : 90 °C

Ambient Temperature : 30 °C

Table - 5

conductor cross - sectional area	Reference Method 4 (enclosed in conduit in insulating wall etc)	Referrence method 3 (enclosed in conduit on a wall or ceiling or in trunking etc)		Reference mathod 1 (clipped direct)		Reference Method 11 (on a perforated cable tray, horizontal or vertical) Or Reference Method 13 (Free Air)	
	one 3- core cable or one 4-core cable 3-phase a.c.	one 2- core cable single phase a.c. or d.c.	one 3- core cable or one 4- core cable 3-phase a.c.	one 2- core cable single phase a.c. or d.c.	one 3- core cable or one 4- core cable 3-phase a.c.	one 2- core cable single phase a.c. or d.c.	one 3- core cable or one 4- core cable 3-phase a.c.
1	2	3	4	5	6	7	8
mm ²	A	A	A	A	A	A	A
1.5	16.5	22	19.5	24	22	26	23
2.5	22	30	26	33	30	36	32
4	30	40	35	45	40	49	42
6	38	51	44	58	52	63	54
10	51	69	60	80	71	86	75
16	68	91	80	107	96	115	100
25	89	119	105	138	119	149	127
35	109	146	128	171	147	185	158
50	130	175	154	209	179	225	192
70	164	221	194	269	229	289	246
95	197	265	233	328	278	352	298
120	227	305	268	382	322	410	346
150	259	334	300	441	371	473	399
185	295	384	340	506	424	542	456
240	346	459	398	599	500	641	538
300	396	532	455	693	576	741	621
400	-	625	536	803	667	865	741

Note : For Rating factor of ambient temerature other than 30 °C please refer to Table 11
For Rating factor of ground temerature other than 15 °C please refer to Table 12

Voltage Drop

[CU/XLPE/LSZH, CU/LSZH/LSZH Cables]

Multi-Core Cables with XLPE or LSZH Insulation PVC or LSZH Outersheath 300/500V or 600/1000V

Conductor operating Temperature : 90 °C

Ambient Temperature : 30 °C

Table - 6

conductor cross-sectional area	2 core cables d.c.	2 core cables single -phase a.c.			3 Core or 4 core cables 3-phase a.c.		
1	2	3			4		
mm ²	m V/A/m	m V/A/m			m V/A/m		
1.5	31	31			27		
2.5	19	19			16		
4	12	12			10		
6	7.9	7.9			6.8		
10	4.7	4.7			4		
16	2.9	2.9			2.5		
		r	x	z	r	x	z
25	1.85	1.85	0.16	1.9	1.6	0.14	1.65
35	1.35	1.35	0.155	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.0	0.86	0.135	0.87
70	0.67	0.67	0.15	0.69	0.59	0.13	0.6
95	0.49	0.50	0.15	0.52	0.43	0.13	0.45
120	0.39	0.40	0.145	0.42	0.34	0.13	0.37
150	0.31	0.32	0.145	0.35	0.28	0.125	0.3
185	0.25	0.26	0.145	0.29	0.22	0.125	0.26
240	0.195	0.20	0.14	0.24	0.175	0.125	0.21
300	0.155	0.16	0.14	0.21	0.14	0.12	0.185
400	0.12	0.13	0.14	0.19	0.115	0.12	0.165

Note : r = conductor resistance at operating temperature

x = reactance

z = impedance

CURRENT RATING (Amps)

Multi core cables with PVC Insulation and PVC Outer sheathed 600/1000V
(CU/PVC/PVC Cables)

Conductor operating Temperature : 70 °C

Ambient Temperature : 30 °C

Table - 7

conductor cross - sectional area	Reference method 4 (enclosed in an insulated wall etc)		Reference Method 3 (enclosed in conduit on a wall or ceiling or in trucking)		Reference method 1 (clipped direct)		Reference method 11 (on perforated cable tray) or Reference Method 13 (free air)	
	One 2-core cable single phase a.c or d.c.	One 3-core cable or 4-core cable 3-phase a.c.	One 2-core cable single - phase a.c or d.c	One 3-core cable or 4-core cable 3-phase a.c.	One 2-core cable single - phase a.c or d.c	One 3-core cable or 4-core cable 3-phase a.c.	One 2-core cable single - phase a.c or d.c	One 3-core cable or 4-core cable 3-phase a.c.
1	2	3	4	5	6	7	8	9
mm ²	A	A	A	A	A	A	A	A
1	11	10	13	11.5	15	13.5	17	14.5
1.5	14	13	16.5	15	19.5	17.5	22	18.5
2.5	18.5	17.5	23	20	27	24	30	25
4	25	23	30	27	36	32	40	34
6	32	29	38	34	46	41	51	43
10	43	39	52	46	63	57	70	60
16	57	52	69	62	85	76	94	80
25	75	68	90	80	112	96	119	101
35	92	83	111	99	138	119	148	126
50	110	99	133	118	168	144	180	153
70	139	125	168	149	213	184	232	196
95	167	150	201	179	258	223	282	238
120	192	172	232	206	299	259	328	276
150	219	196	258	225	344	299	379	319
185	248	223	294	255	392	341	434	364
240	291	261	344	297	461	403	514	430
300	334	298	394	339	530	464	593	497
400	-	-	470	402	634	557	715	597

Note : For Rating factor of ambient temperature other than 30 °C please refer to Table 09

VOLTAGE DROP

Multi core Unarmoured cables with PVC Insulation and PVC Outer sheathed 600/1000V
(CU/PVC/PVC Cables)

Conductor operating Temperature : 70° C

Ambient Temperature : 30° C

Table - 8

conductor cross - sectional area	2 core cables a.c	2 core cables single -phase a.c			3 or 4 cables,3-phase a.c		
	2	3			4		
mm ²	m V/A/m	m V/A/m			m V/A/m		
1	44	44			38		
1.5	29	29			25		
2.5	18	18			15		
4	11	11			9.5		
6	7.3	7.3			6.4		
10	4.4	4.4			3.8		
16	2.8	2.8			2.4		
		r	x	z	r	x	z
25	1.75	1.75	0.17	1.75	1.5	0.145	1.5
35	1.25	1.25	0.165	1.25	1.1	0.145	1.1
50	0.93	0.93	0.165	0.94	0.80	0.14	0.81
70	0.63	0.63	0.16	0.65	0.55	0.14	0.57
95	0.46	0.47	0.155	0.50	0.41	0.135	0.43
120	0.36	0.38	0.155	0.41	0.33	0.135	0.35
150	0.29	0.30	0.155	0.34	0.26	0.13	0.29
185	0.23	0.25	0.15	0.29	0.21	0.13	0.25
240	0.18	0.19	0.15	0.24	0.165	0.13	0.21
300	0.145	0.155	0.145	0.21	0.135	0.13	0.185
400	0.105	0.115	0.145	0.185	0.10	0.125	0.16

Note : r = conductor resistance at operating temperature

x = reactance

z = impedance

Temperature Rating Factors

Table 9 : Rating factor for other air temperature (PVC Insulated)

Ambient Temp.	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C
Rating Factors	1.03	1.00	0.94	0.87	0.79	0.71	0.61	0.50	0.35	-

Table 10 : Rating factor for other ground temperature (PVC Insulated)

Ambient Temp.	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
Rating Factors	1.04	1.00	0.95	0.90	0.85	0.80	0.74	0.67	0.60

Table 11 : Rating factor for other ambient air temperature (XLPE or LSZH Insulated)

Ambient Temp.	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
Rating Factors	1.04	1.00	0.95	0.90	0.85	0.79	0.73	0.67

Table 12 : Rating factor for other ground temperature (XLPE or LSZH Insulated)

Ambient Temp.	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
Rating Factors	1.00	0.97	0.93	0.89	0.86	0.82	0.77	0.73

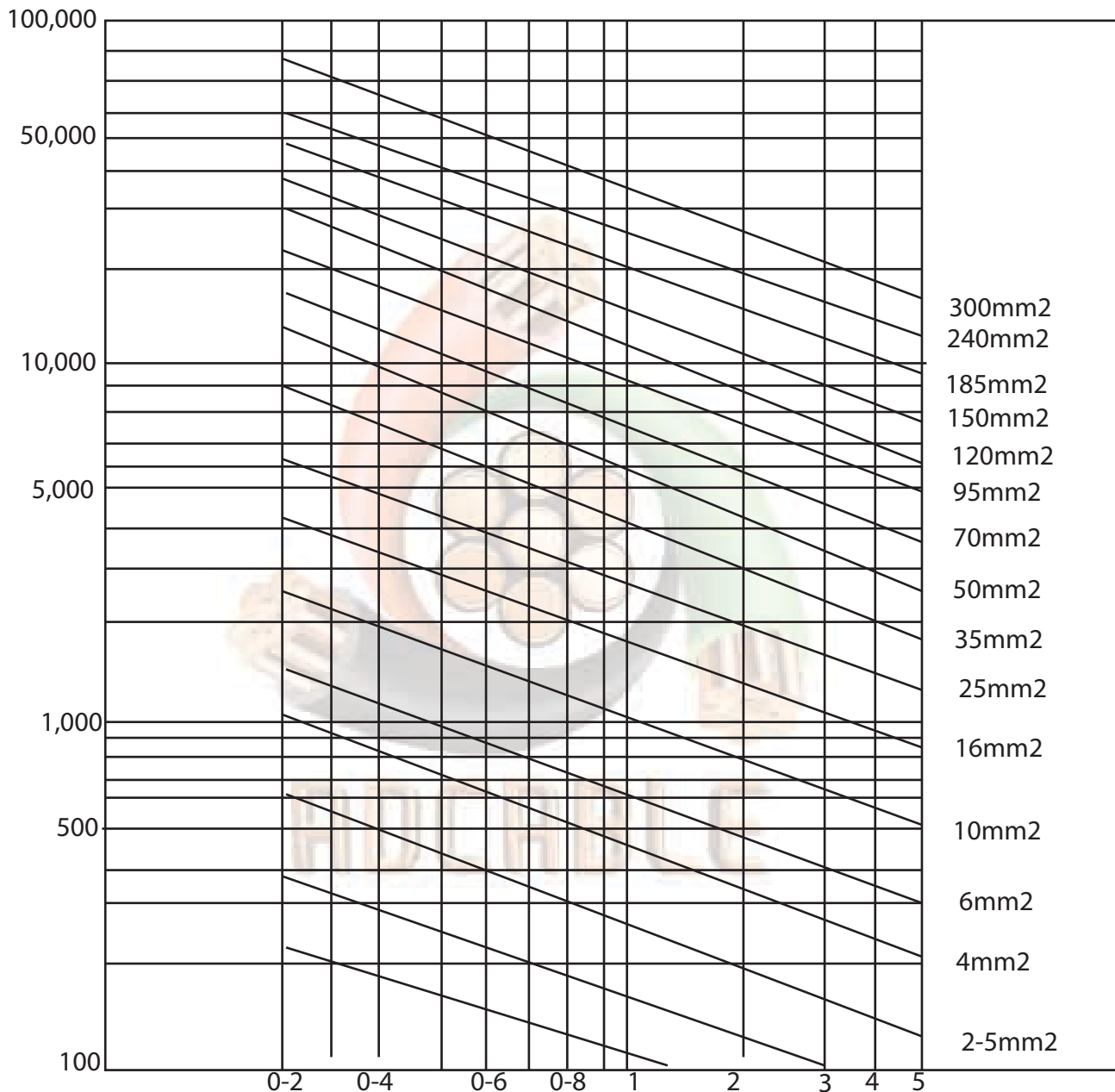
SHORT CIRCUIT RATINGS

XLPE Insulated copper cables.

The value of fault current given in the graph are based on the cable being fully loaded at the start of the short circuit (conductor temperature 90°C and a final conductor temperature of 250°C). It should be ensured that the accessories associated with the cable are also capable of operation at these values of fault current and temperature.

PVC Insulated copper cables.

The value of fault current given in the graph are based on the cable being fully loaded at the start of the short circuit (conductor temperature 70°C and a final conductor temperature of 160°C).



Duration of Short Circuit in Seconds

Duration of Short Circuit in Seconds

ABU DHABI CABLE FACTORY

P.O. Box 30331

Sector No. M-43, Plot 19, 20, 21, 22

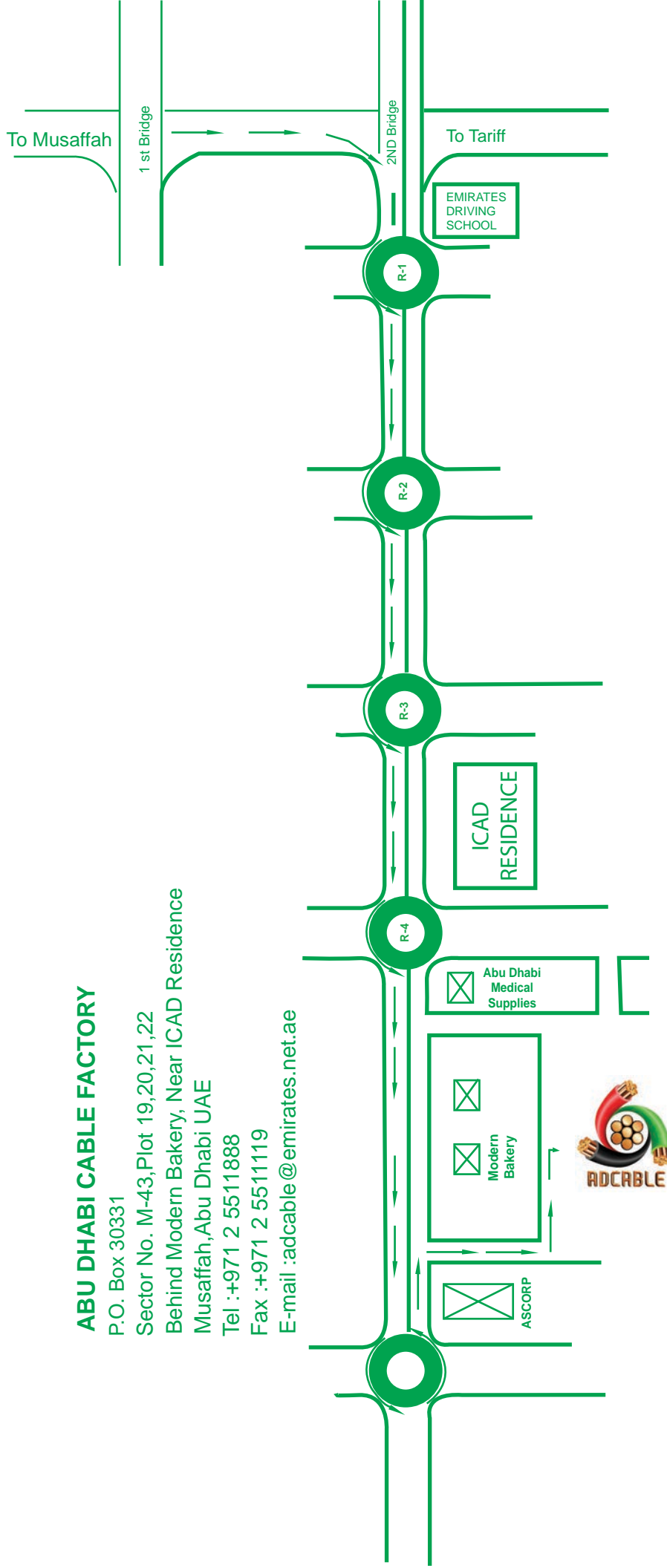
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