مصنع أبـوظبـي للكيبلات

Abu Dhabi Cable Factory

FIRE RESISTANT CABLE

علامة الجـودة الإمـاراتيـة
Emirates Quality Mark

GCAS CERTIFIED QMS AIAO-BAR ★★★★★ ACCREDITED
AN ISO 9001:2015 CERTIFIED CO.
CERT. NO: ME/06/1066

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.

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

DEKRA Certification B.V.

drs. G.J. Zoetbrood
Managing Director

H.R.M. Barends
Certification Manager

DEKRA Certification B.V. Utrechtseweg 310, 6812 AR Arnhem P.O. Box 5185, 6802 ED Arnhem, The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Company registration 09085396

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/SWA/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.

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

DEKRA Certification B.V.

drs. G.J. Zoetbrood
Managing Director

H.R.M. Barends
Certification Manager

DEKRA Certification B.V. Utrechtseweg 310, 6812 AR Arnhem P.O. Box 5185, 6802 ED Arnhem, The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Company registration 09085396

TEST CERTIFICATE

Issued to:	Abu Dhabi Cable Factory Sector No. M-43, Plot 19.20.21 Back side of Moodern 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/SWA/LSF 4x16 mm²
Ratings:	600/1000 V
Manufactured by:	Abu Dhabi Cable Factory Sector No. M-43, Plot 19.20.21 Back side of Moodern 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.

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

DEKRA Certification B.V.

drs. G.J. Zoetbrood
Managing Director

H.R.M. Barends
Certification Manager

DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem, The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Company registration 09085396

TEST CERTIFICATE

Issued to:	Abu Dhabi Cable Factory Sector No. M-43, Plot 19.20.21 Back side of Moodern 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/SWA/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 Moodern 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.

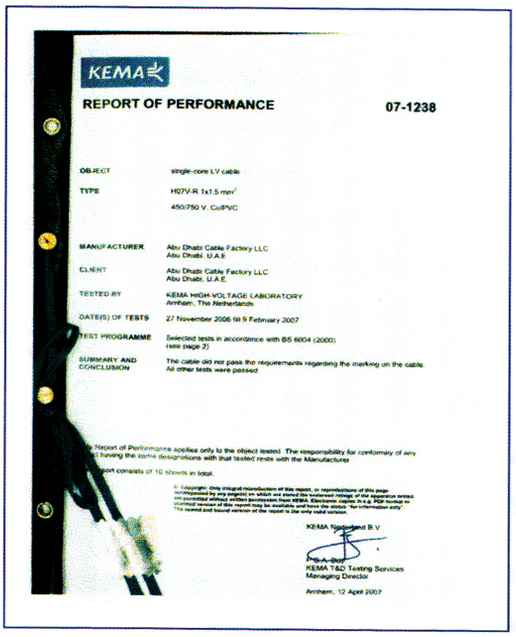
Arnhem, 22 November 2013 **Number: 2165483.01**

DEKRA Certification B.V.

drs. G.J. Zoetbrood
Managing Director

H.R.M. Barends
Certification Manager

DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem, The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Company registration 09085396



KEMA

REPORT OF PERFORMANCE **07-1238**

OBJECT	single-core LV cable
TYPE	H07V-R 1x1.5 mm² 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 Arnhem, The Netherlands
DATE(S) OF TESTS	27 November 2006 till 5 February 2007
TEST PROGRAMME	Selected tests in accordance with BS 6004 (2000) (see page 2)
SUMMARY AND CONCLUSION	The cable did not pass the requirements regarding the marking on the cable. All other tests were passed.

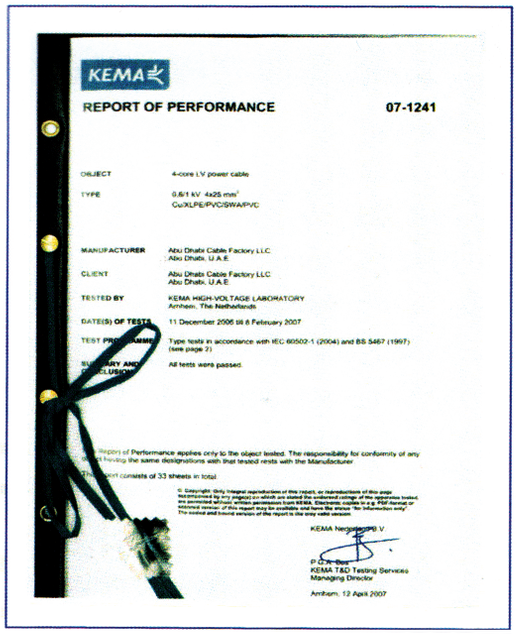
...Report of Performance applies only to the object tested. The responsibility for conformity of any ... having the same designations with that tested rests with the Manufacturer.

...port consists of 16 sheets in total.

KEMA Nederland B.V.

P.O.A. Bos
KEMA T&D Testing Services
Managing Director

Arnhem, 12 April 2007



KEMA

REPORT OF PERFORMANCE **07-1241**

OBJECT	4-core LV power cable
TYPE	0.6/1 kV 4x25 mm² Cu/XLPE/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 Arnhem, The Netherlands
DATE(S) OF TESTS	11 December 2006 till 6 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.

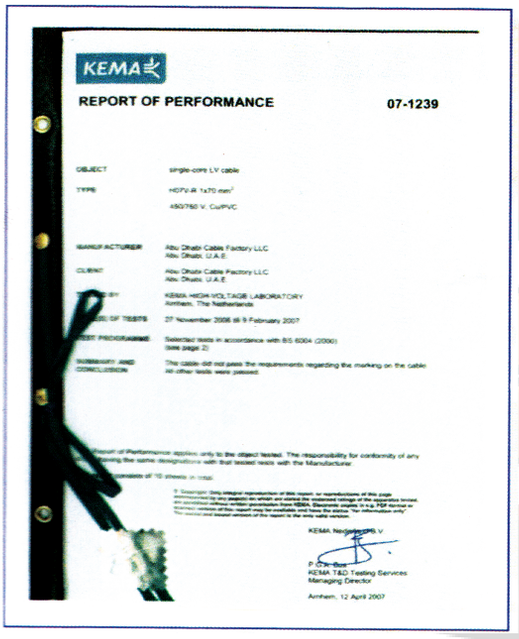
...Report of Performance applies only to the object tested. The responsibility for conformity of any ... having the same designations with that tested rests with the Manufacturer.

...port consists of 33 sheets in total.

KEMA Nederland B.V.

P.O.A. Bos
KEMA T&D Testing Services
Managing Director

Arnhem, 12 April 2007



KEMA

REPORT OF PERFORMANCE **07-1239**

OBJECT	single-core LV cable
TYPE	H07V-R 1x70 mm² 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 Arnhem, The Netherlands
DATE(S) OF TESTS	27 November 2006 till 9 February 2007
TEST PROGRAMME	Selected tests in accordance with BS 6004 (2000) (see page 2)
SUMMARY AND CONCLUSION	The cable did not pass the requirements regarding the marking on the cable. All other tests were passed.

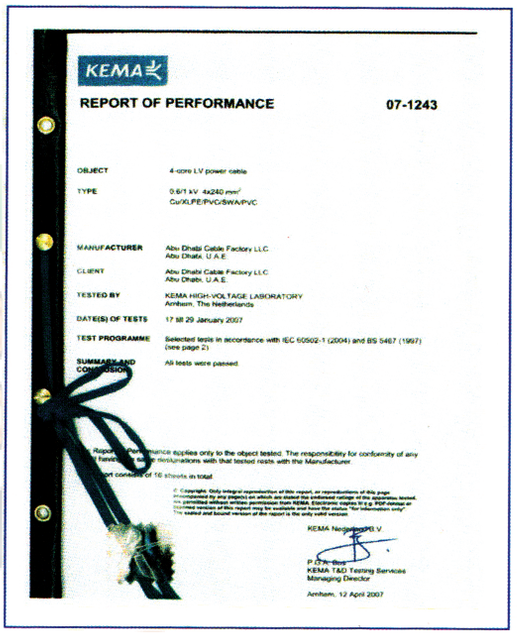
...Report of Performance applies only to the object tested. The responsibility for conformity of any ... having the same designations with that tested rests with the Manufacturer.

...sheets in total.

KEMA Nederland B.V.

P.O.A. Bos
KEMA T&D Testing Services
Managing Director

Arnhem, 12 April 2007



KEMA

REPORT OF PERFORMANCE **07-1243**

OBJECT	4-core LV power cable
TYPE	0.6/1 kV 4x240 mm² Cu/XLPE/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 Arnhem, The Netherlands
DATE(S) OF TESTS	17 till 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.

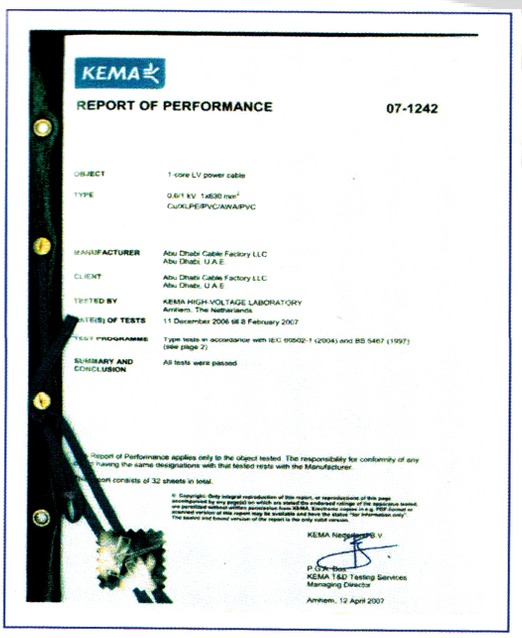
...Report of Performance applies only to the object tested. The responsibility for conformity of any ... having the same designations with that tested rests with the Manufacturer.

...port consists of 16 sheets in total.

KEMA Nederland B.V.

P.O.A. Bos
KEMA T&D Testing Services
Managing Director

Arnhem, 12 April 2007



KEMA

REPORT OF PERFORMANCE **07-1242**

OBJECT	1-core LV power cable
TYPE	0.6/1 kV 1x630 mm² Cu/XLPE/PVC/AWA/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 Arnhem, The Netherlands
DATE(S) OF TESTS	11 December 2006 till 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.

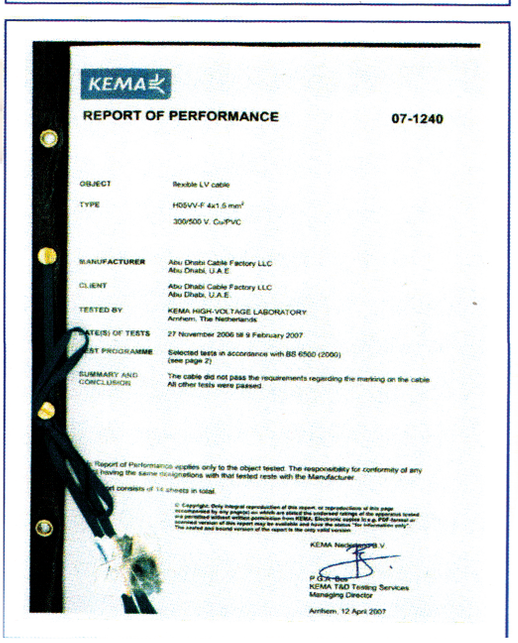
...Report of Performance applies only to the object tested. The responsibility for conformity of any ... having the same designations with that tested rests with the Manufacturer.

...port consists of 32 sheets in total.

KEMA Nederland B.V.

P.O.A. Bos
KEMA T&D Testing Services
Managing Director

Arnhem, 12 April 2007



KEMA

REPORT OF PERFORMANCE **07-1240**

OBJECT	flexible LV cable
TYPE	H05VV-F 4x1.5 mm² 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 Arnhem, The Netherlands
DATE(S) OF TESTS	27 November 2006 till 9 February 2007
TEST PROGRAMME	Selected tests in accordance with BS 6500 (2000) (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.

...port consists of 16 sheets in total.

KEMA Nederland B.V.

P.O.A. Bos
KEMA T&D Testing Services
Managing Director

Arnhem, 12 April 2007

GCAS

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.

AIAO-BAR ★★★★★ QMS ACCREDITED

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

GCAS

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.

Making Challenges into Prosperity

GCAS

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.

AIAO-BAR ★★★★★ EMS ACCREDITED

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

GCAS

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.

Making Challenges into Prosperity

GCAS

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.

AIAO-BAR
OHSAS
ACCREDITED

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

GCAS Representative

United Arab Emirates

هـيـئـة الإمـــارات للمـواصـــفات والمـقـــاييس
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

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.

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

ص.ب 2166 أبو ظبـى الإمـارات العـربية المتحـدة
P.O.BOX 2166, Abu Dhabi - United Arab Emirates
هاتف Tel.: +971 2 4032700
فاكس Fax: +971 2 6715999

ص.ب 48666 دبى ،الإمـارات العـربية المتحـدة
P.O.BOX 48666, Dubaii - United Arab Emirates
هاتف Tel.: +971 4 2944434
فاكس Fax: +971 4 2944428

600-565554

مصنع أبوظبي للكيبلات
Abu Dhabi Cable Factory

ADCABLE
FR CABLE

Our Vision

To satisfy our valued customers, our people and society at large, as well as condribute 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.

مصنع أبوظبي للكيبلات
Abu Dhabi Cable Factory

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.*

INTRODUCTION

FR cables are special fire resistant cables designed to survive and operate during fire conditions. In order to suit different application requirements ADCABLE offers FR cables in the following range.

- Single core Fire Resistant cables with XL-LSZH insulation as per BSEN 50525-3-41 / BS 6387
- Single Core Fire Resistant cables with insulation and Sheath as per BS 6387
- Fire resistant screened cable are designed as per BS 7629
- Multi-core armoured cables designed as per BS 7846 & BS 6387 with steel wire armour construction.

ADCABLE range of FR cable is a highly sophisticated product for use in special application. There are various areas of application for Fire Resistant cables, which include:

ADCABLE range of FR cable is a highly sophisticated product for use in special application. There are various areas of application for Fire Resistant cables, which include:

- Areas where people will remain in occupation for short time eg. schools, shopping malls, mass transit systems like metro stations etc.
- Services where circuit integrity is very important under fire conditions eg. Special equipment in hospital.
- Essential safety circuit eg. fire detection, fire alarm, voice alarm etc.
- Power supply to equipment used in fire-fighting eg. sprinkler pumps
- In large buildings where fire strategy involves evacuation of occupants in phased manner.

FR CABLE

BSEN 50525-3-41/ BS 6387

Single core fire resistant cables for use in emergency safety circuits to maintain circuit integrity under fire conditions

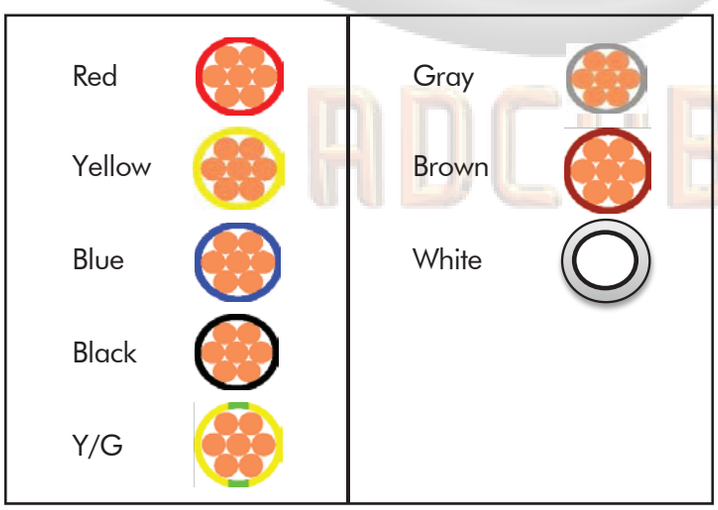
CONSTRUCTION

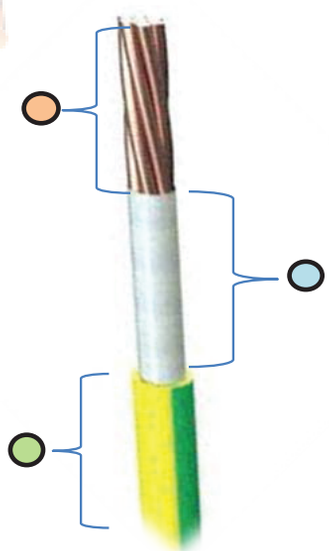
- Copper conductor: Plain annealed stranded class 2 conductor to IEC 60228
- Primary Insulation: Mica Glass tape
- Secondary Insulation: Extruded XL-LSZH compound

CHARACTERISTICS

General	FR CABLE cables are designed for laying in conduit or in cable trunking where fire resistance is of paramount importance
Voltage Grade	600/1000 V
Fire Resistance	C-W-Z test as per BS 6387 for small size and IEC 60331-21 for Large size which can not fit in a conduit cable comply 60331-21 fire test at increased temp. of 950 ° C which is higher than that spacified by the standard
Acid gas emission	Less than 0.5% when tested to IEC 60754
Low smoke emission	As per IEC 61034
Cable Operating temperature	Maximum 90°C
Short circuit temperature	Maximum 250°C
Bending radius	6 x Cable diameter

CORE IDENTIFICATIONS





TECHNICAL DATA

BSEN 50525-3-41/BS 6387

Technical data for ADCABLE Fire Resistant Single Core Cable with stranded copper conductor 600/1000 V

Nominal conductor area	Thickness of insulation	Approximate overall diameter	Maximum conductor resistance at 20 °C	Current Rating (1Φ AC)	Current Rating (3Φ AC)	Voltage Drop (1Φ AC)	Voltage Drop (3Φ AC)
mm²	mm	mm	Ohm/km	Amp	Amp	mV/A/m	mV/A/m
1.5	0.8	3.20	12.1	23	20	31.0	27
2.5	0.9	3.80	7.41	31	28	19.0	16
4	0.9	4.35	4.61	42	37	12.0	10
6	0.9	4.92	3.08	54	48	7.86	6.81
10	1.1	6.00	1.83	75	66	4.67	4.05
16	1.2	7.00	1.15	100	88	2.94	2.55
25	1.4	8.60	0.727	133	117	1.86	1.61
35	1.4	9.50	0.524	164	144	1.35	1.17
50	1.6	11.10	0.387	198	175	1.00	0.87
70	1.6	12.60	0.268	253	222	0.70	0.61
95	1.8	15.30	0.193	306	269	0.52	0.45
120	1.8	16.10	0.153	354	312	0.42	0.37
150	2.0	18.00	0.124	393	342	0.36	0.31
185	2.2	20.00	0.0991	449	384	0.30	0.26
240	2.4	22.70	0.0754	528	450	0.25	0.22
300	2.6	25.30	0.0601	603	514	0.22	0.19
400	2.8	27.90	0.0470	683	584	0.20	0.17

Current rating based on installation "enclosed in conduit on a wall or in trunking" in line with BS 7671 (IEE Wiring Regulations)

Laying condition: 30°C ambient temperature & 90°C operating temperature. For other ambient temperatures appropriate rating factors should be applied.

TEMPERATURE RATING FACTORS

Ambient Temperature in°C	35	40	45	50	55	60
Rating factor	0.96	0.91	0.87	0.82	0.76	0.71

CORRECTION FACTOR FOR GROUPING

No. of Tables in a group	4	5	6	7	8	9
Rating factor	0.65	0.6	0.57	0.54	0.52	50

FR CABLE

BS 6387

Single core fire resistant cables with insulation and sheath

Copper Conductor	:	Plain annealed stranded class 2 conductor to IEC 60228
Primary Insulation	:	Mica Glass tape
Secondary Insulation	:	Extruded XLPE/XL-LSZH compound
Outer Sheath	:	LSZH compound

CHARACTERISTICS

General	FR CABLE cables are designed for laying in conduit or on trays where fire resistance is of paramount importance
Voltage Grade	600/1000 V
Fire Resistance	C-W-Z test as per BS 6387 for small size and IEC 60331-21 for Large size which can not fit in a conduit cable comply 60331-21 fire test at increased temp. of 950 ° C which is higher than that spacified by the standard
Acid gas emission	Less than 0.5% when tested to IEC 60754
Low smoke emission	As per IEC 61034
Cable Operating temperature	Maximum 90°C
Short circuit temperature	Maximum 250°C
Bending radius	6 x Cable diameter

CORE IDENTIFICATIONS

STANDARD :	SHEATH COLOUR :
Black (Other colours as per request)	Black (Other colours as per request)

TECHNICAL DATA

BS 6387

Technical data for ADCABLE fire resistance Single Core Sheathed Cables with stranded copper conductors 600/1000 V

Nominal conductor area	Insulation thickness	Outer sheath thickness	Approximate overall diameter	Maximum conductor resistance at 20 C	Current rating (1Φ AC) Clipped direct	Current rating (3Φ AC) In Air	Voltage Drop (1Φ AC)	Voltage Drop (3Φ AC) In trefoil
mm²	mm	mm	mm	Ohm/km	Amp	Amp	m/V/A/m	m/V/A/m
1.5	0.60	1.10	4.80	12.1	25	-	31.0	27
2.5	0.70	1.10	5.60	7.41	34	-	19.0	16
4	0.70	1.10	6.15	4.61	46	-	12.0	10
6	0.70	1.10	6.70	3.08	59	-	7.86	6.81
10	0.70	1.10	7.40	1.83	81	-	4.67	4.05
16	0.70	1.10	8.20	1.15	109	-	2.94	2.55
25	0.90	1.10	9.80	0.727	143	135	1.86	1.61
35	0.90	1.10	10.70	0.524	176	169	1.35	1.17
50	1.00	1.10	12.10	0.387	228	207	1.00	0.87
70	1.10	1.10	13.80	0.268	293	268	0.70	0.61
95	1.10	1.10	16.10	0.193	355	328	0.52	0.45
120	1.20	1.10	17.10	0.153	413	383	0.42	0.37
150	1.40	1.20	19.20	0.124	476	444	0.36	0.31
185	1.60	1.20	21.20	0.0991	545	510	0.30	0.26
240	1.70	1.20	23.70	0.0754	644	607	0.25	0.22
300	1.80	1.20	26.10	0.0601	743	703	0.22	0.19
400	2.00	1.20	31.00	0.047	868	823	0.20	0.17
500	-	-	34.60	0.0366	990	946	0.18	0.16
630	-	-	39.40	0.0283	1130	1088	0.17	0.15

Current rating based on installation "enclosed in conduit on a wall or in trunking" in line with BS 7671 (IEE Wiring Regulations)

Laying condition: 30°C ambient temperature & 90°C operating temperature. For other ambient temperatures appropriate rating factors should be applied.

TEMPERATURE RATING FACTORS

Ambient Temperature in °C	35	40	45	50	55	60
Rating factor	0.96	0.91	0.87	0.82	0.76	0.71

FR CABLE BS 7629

These are pliable Fire Resistant Screened Cable having low emission of smoke and corrosive gases when affected by fire which are designed to meet fire resistant test of BSEN 50200 : 2000

CONSTRUCTION

Copper conductor : Plain annealed copper conductor complyingwith IEC 60228 ,class1 or class 2

Primary Insulation : Special insulation to meet fire resistance characteristics

Screen : Laminated Aluminium Tape screen contact with full size tinned annealed Copper circuit protective conductor

Sheath : Robust LSZH (LSHF/LSOH) Sheath

CHARACTERISTICS

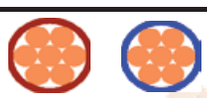
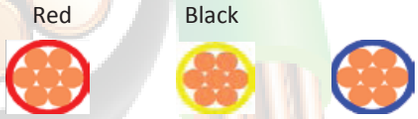
General	These cables are screened cables designed as per BS 7629 for application requiring standard Fire Resistance
Voltage Grade	300/500 V
Acid gas emission	Less than 0.5% when tested to IEC 60754
Low smoke emission	As per IEC 61034
Cable Operating temperature	Maximum 90°C
Short circuit temperature	Maximum 250°C
Colour	White and red sheath are standard ,other colour available on request.
Packing	100 mtrs reels and other packing and length available on request
key application	The use of cable with standars fire resistance is recommended for general use for fire detection,voice alarm ,addressable systemand emegency lighting

TECHNICAL DATA

BS 7629

300/500 V

No. of core	conductor area	No. of wire	Nominal diameter of conductor / wire	Thickness of insulation	Outer sheath Thickness	Approximate overall diameter	Maximum conductor resistance at 20 °C	maximum conductor resistance at 70 °C	approx capacitance (adjacent core)	approx capacitance (core to screen)
	mm²		mm	mm	mm	mm	Ohm/km	Ohm/km	(pf/k.m)	(pf/k.m)
2	1	1	1.13	0.6	0.9	6.50	18.1	21.7	85	170
2	1.5	1	1.37	0.7	0.9	7.35	12.1	14.5	95	180
2	2.5	7	0.67	0.8	1	9.00	7.41	8.8	100	190
2	4	7	0.85	0.8	1	10.20	4.61	5.5	100	190
3	1	1	1.13	0.6	0.9	6.80	18.1	21.7	85	170
3	1.5	1	1.37	0.7	0.9	7.80	12.1	14.5	95	180
3	2.5	7	0.67	0.8	1	9.55	7.41	8.8	100	190
4	1	1	1.13	0.6	0.9	7.45	18.1	21.7	85	170
4	1.5	1	1.37	0.7	1	8.70	12.1	14.5	95	180
4	2.5	7	0.67	0.8	1.1	10.70	7.41	8.8	100	190

	CORE IDENTIFICATION NEW	CORE IDENTIFICATION OLD
2 Core	 Brown Blue	 Red Black
3 Core	 Brown Black Grey	 Red Yellow Blue
4 Core	 Blue Brown Black Grey	 Red Yellow Blue Black

FR CABLE

BS 7846 /6387

FR CABLE cables are multi-core armoured cables designed as per BS 7846 with steel wire armour construction.

Conductor	Plain annealed Copper, stranded class 2 conductor to IEC 60228
Dual Insulation	Special grade of Mica Glass tape + XLPE
Bedding	LSZH
Armour	Galvanised steel wire armoured
Outer Sheath	Robust LSZH sheath with Black colour as standard, other colours upon request

General	FR CABLE are armoured cables designed as per BS 7846 to meet C-W-Z fire test as per BS 6387
Voltage Grade	600 / 1000 V
Fire Resistance	C-W-Z test as per BS 6387
Flame propogation	BS EN / IEC 60332-1 and BS EN / IEC 60332-3 Categories A, B & C
Acid gas emission	Less than 0.5% when tested to IEC 60754
Low smoke emission	As per IEC 61034
Cable operating temperature	Maximum 90°C
Short circuit temperature	Maximum 250°C
Bending redius	6 x Cable diameter for circular and 8 x Cable diameter for sector shaped cables

CORE IDENTIFICATION

STANDARD	ALTERNATIVE*
Red Black	Blue Brown
Red Yellow Blue	Blue Black Gray
Red Yellow Blue Black	Blue Brown Black Gray

Technical Data of 2 Core Cables

Fire resistant cables. Two Core Armoured Cables 600/1000 V Grade with stranded copper conductors (BS 7846 & BS 6387)

Nominal conductor area	Thickness of insulation	Thickness of extreded bedding	Nominal armour wire diameter	Thickness of Outer Sheath	Approximate Overall Diameter	Maximum conductor resistance at 20°C	Maximum armour resistance at 20 °C	Standered Packing length	Drum Size	Current rating on perforated cable trays/free air	Voltage drop (1Φ AC)
mm²	mm	mm	mm	mm	mm	Ohm/km	Ohm/km	Meter		Amp	mV/A/m
1.5*	0.6	0.8	0.9	1.3	11.52	12.1	10.20	1000	D-8	29	31
2.5*	0.7	0.8	0.9	1.4	13.02	7.41	8.80	1000	D-9	39	19
4*	0.7	0.8	0.9	1.4	14.1	4.61	7.90	1000	D-10	52	12
6*	0.7	0.8	0.9	1.4	15.2	3.08	7.00	1000	D-10	66	7.9
10*	0.7	0.8	0.9	1.5	16.8	1.83	6.00	1000	D-11	90	4.7
16*	0.7	0.8	1.25	1.5	19.3	1.15	3.70	1000	D-12	115	2.9
25	0.9	0.8	1.25	1.6	18.85	0.727	3.70	1000	D-12	152	1.9
35	0.9	1.0	1.6	1.7	21.64	0.524	2.60	1000	D-12	188	1.35
50	1.0	1.0	1.6	1.8	24.08	0.387	2.30	1000	D-12	228	1.00
70	1.1	1.0	1.6	1.9	26.75	0.268	2.00	1000	D-16	291	0.69
95	1.1	1.2	2.0	2.0	30.35	0.193	1.40	1000	D-18	354	0.52
120	1.2	1.2	2.0	2.1	32.90	0.153	1.30	500	D-18	410	0.42
150	1.4	1.2	2.0	2.2	35.95	0.124	1.20	500	D-19	472	0.35
185	1.6	1.4	2.5	2.4	40.70	0.0991	0.82	500	D-18	539	0.29
240	1.7	1.4	2.5	2.5	44.35	0.0754	0.73	500	D-18	636	0.24
300	1.8	1.6	2.5	2.6	48.22	0.0601	0.67	500	D-18	732	0.21

* Circular conductors, all others are sector shaped
- Installation conditions for above rating:
- Ambient Air Temperature 30°C
- Conductor operating temperature 90°C

Technical Data of 3 Core Cables

Fire resistant cables. Three Core Armoured Cables 600/1000 V Grade with stranded copper conductors (BS 7846 & BS 6387)

Nominal conductor area	Thickness of insulation	Thickness of extruded bedding	Nominal armour wire diameter	Thickness of sheath	Approximate Overall Diameter	Maximum conductor resistance at 20°C	Maximum armour resistance at 20°C	Standered Packing length	Drum Size	Current rating on perforated cable trays/free air	Voltage drop (3Φ AC)
mm²	mm	mm	mm	mm	mm	Ohm/km	Ohm/km	Meter		Amp	mV/A/m
1.5*	0.6	0.8	0.9	1.3	11.96	12.1	9.50	1000	D-9	25	27.0
2.5*	0.7	0.8	0.9	1.4	13.56	7.41	8.20	1000	D-9	33	16.0
4*	0.7	0.8	0.9	1.4	14.73	4.61	7.50	1000	D-9	44	10.0
6*	0.7	0.8	0.9	1.4	15.96	3.08	6.70	1000	D-10	56	6.80
10*	0.7	0.8	1.25	1.5	18.3	1.83	4.00	1000	D-11	78	4.00
16*	0.7	0.8	1.25	1.6	20.5	1.15	3.50	1000	D-11	99	2.50
25	0.9	1.0	1.6	1.7	22.7	0.727	2.50	1000	D-14	131	1.65
35	0.9	1.0	1.6	1.8	24.8	0.524	2.30	1000	D-14	162	1.15
50	1.0	1.0	1.6	1.8	27.6	0.387	2.00	1000	D-16	197	0.87
70	1.1	1.0	1.6	1.9	30.9	0.268	1.80	1000	D-18	251	0.60
95	1.1	1.2	2.0	2.1	35.35	0.193	1.30	1000	D-19	304	0.45
120	1.2	1.2	2.0	2.2	38.45	0.153	1.20	1000	D-20	353	0.37
150	1.4	1.4	2.5	2.3	43.55	0.124	0.78	500	D-18	406	0.30
185	1.6	1.4	2.5	2.4	47.4	0.0991	0.71	500	D-18	463	0.26
240	1.7	1.4	2.5	2.6	52.1	0.0754	0.63	500	D-20	546	0.21
300	1.8	1.6	2.5	2.7	56.9	0.0601	0.58	500	D-21	628	0.185
400	2.0	1.6	2.5	2.9	63.65	0.047	0.52	500	D-22	728	0.165

* Circular conductors, all others are sector shaped

- Installation conditions for above rating:
- Ambient Air Temperature 30°C
- Conductor operating temperature 90°C

Technical Data of 4 Core Cables

Fire resistant cables. Four Core Armoured Cables 600/1000 V Grade with stranded copper conductors (BS 7846 & BS 6387)

Nominal conductor area	Thickness of Insulation	Thickness of extruded bedding	Nominal armour wire diameter	Thikness of sheath	Approximate Overall Diameter	Maximum conductor resistance at 20°C	Maximum armour resistance at 20°C	Standered Packing length	Drum Size	Current rating on perforated cable trays/free air	Voltage drop (3Φ AC)
mm²	mm	mm	mm	mm	mm	Ohm/km	Ohm/km	Meter		Amp	mV/A/m
1.5*	0.60	0.8	0.90	1.3	12.67	12.1	8.8	1000	D-9	25	27
2.5*	0.70	0.8	0.90	1.4	14.45	7.41	7.7	1000	D-9	33	16
4*	0.70	0.8	0.90	1.4	15.75	4.61	6.8	1000	D-10	44	10
6*	0.70	0.8	1.25	1.5	18.00	3.08	4.3	1000	D-10	56	6.8
10*	0.70	0.8	1.25	1.5	19.70	1.83	3.7	1000	D-11	78	4.0
16*	0.70	0.8	1.25	1.6	22.00	1.15	3.1	1000	D-12	99	2.50
25	0.90	1.0	1.60	1.7	25.50	0.727	2.3	1000	D-16	131	1.65
35	0.90	1.0	1.60	1.8	27.70	0.524	2	1000	D-16	162	1.15
50	1.00	1.0	1.60	1.9	30.90	0.387	1.8	1000	D-18	197	0.87
70	1.10	1.2	2.00	2.1	37.25	0.268	1.2	1000	D-19	251	0.60
95	1.10	1.2	2.00	2.2	41.05	0.193	1.1	500	D-18	304	0.45
120	1.20	1.4	2.50	2.3	46.20	0.153	0.76	500	D-18	353	0.37
150	1.40	1.4	2.50	2.4	50.70	0.124	0.68	500	D-20	406	0.30
185	1.60	1.4	2.50	2.6	55.50	0.0991	0.61	500	D-20	463	0.26
240	1.70	1.6	2.50	2.7	60.00	0.0754	0.54	500	D-22	546	0.21
300	1.80	1.6	2.50	2.9	67.00	0.0601	0.49	500	D-24	628	0.185
400	2.00	1.8	3.15	3.2	76.40	0.047	0.35	500	D-24	728	0.165

* Circular conductors, all others are sector shaped

- Installation conditions for above rating:
- Ambient Air Temperature 30°C
- Conductor operating temperature 90°C

Technical Data of 5 Core Cables

Fire resistant cables. Five Core Armoured Cables 600/1000 V Grade with stranded copper conductors(BS 7846 & BS 6387)

Nominal conductor area	Thickness of Insulation	Thickness of extruded bedding	Nominal armour wire diameter	Thikness of sheath	Approximate Overall Diameter	Maximum conductor resistance at 20°C	Maximum armour resistance at 20°C	Standered Packing length	Drum Size	Current rating on perforated cable trays/free air	Voltage drop (3Φ A
mm²	mm	mm	mm	mm	mm	Ohm/km	Ohm/km	Meter		Amp	mV/A
1.5	0.60	0.80	0.90	1.40	13.70	12.1	8.2	1000	D-10	25	27
2.5	0.70	0.80	0.90	1.40	15.35	7.41	6.8	1000	D-10	33	16
4	0.70	0.80	0.90	1.50	17.05	4.61	6.2	1000	D-11	44	10
6	0.70	0.80	1.25	1.50	19.30	3.08	3.9	1000	D-12	56	6.8
10	0.70	0.80	1.25	1.60	21.30	1.83	3.4	1000	D-12	78	4.0
16	0.70	1.00	1.60	1.70	25.00	1.15	2.2	1000	D-16	99	2.50
25	0.90	1.00	1.60	1.80	29.30	0.727	1.8	1000	D-18	131	1.65
35	0.90	1.00	1.60	1.90	31.90	0.524	1.6	1000	D-18	162	1.15
50	1.00	1.20	2.00	2.00	37.00	0.387	1.1	1000	D-20	197	0.87
70	1.10	1.20	2.00	2.20	42.00	0.268	0.94	500	D-18	251	0.60

- All are Circular conductors
- Installation conditions for above rating:
- Ambient Air Temperature 30°C
- Conductor operating temperature 90°C

Technical Data For Multi Core Cables

Fire resistant cables. Armoured Auxiliary Cables 600/1000 V Grade with stranded copper conductors (BS 7846 & BS 6387)

Number of Cores	Nominal Conductor area	Thickness of insulation	Thickness of extruded bedding	Nominal armour wire diameter	Thickness of sheath	Approximate Overall Diameter	Maximum conductor resistance at 20°C	Maximum armour resistance at 20°C	Current rating on perforated cable trays/free air (Multi circuit operation)	Current rating on perforated cable trays/free air (Single circuit operation)	Voltage drop (3Φ AC)
	mm²	mm	mm	mm	mm	mm	ohm/km	ohm/km	Amp	Amp	Amp
600/1000 V Copper power and control cables											
7	1.5	0.60	0.80	0.90	1.40	15	12.1	7.50	19	29	27
12		0.60	0.80	1.25	1.50	19	12.1	4.00	16	29	27
19		0.60	0.80	1.25	1.60	22	12.1	3.50	14	29	27
27		0.60	1.00	1.60	1.70	26	12.1	2.30	12	29	27
37		0.60	1.00	1.60	1.70	28	12.1	2.00	11	29	27
48		0.60	1.00	1.60	1.80	32	12.1	1.80	10	29	27
7	2.5	0.70	0.80	0.90	1.40	16.5	7.41	6.30	25	39	16
12		0.70	0.80	1.25	1.60	22	7.41	3.50	21	39	16
19		0.70	1.00	1.60	1.70	26	7.41	2.30	18	39	16
27		0.70	1.00	1.60	1.80	30	7.41	1.90	17	39	16
37		0.70	1.00	1.60	1.80	33	7.41	1.70	15	39	16
48		0.70	1.20	2.00	2.00	39	7.41	1.20	14	39	16
7	4	0.70	0.80	1.25	1.50	19	4.61	4.00	33	52	10
12		0.70	1.00	1.60	1.60	25.5	4.61	2.30	28	52	10
19		0.70	1.00	1.60	1.70	29	4.61	2.00	24	52	10
27		0.70	1.00	1.60	1.90	34	4.61	1.70	22	52	10
37		0.70	1.20	2.00	2.00	39	4.61	1.20	19	52	10
48		0.70	1.20	2.00	2.10	44	4.61	1.00	17	52	10

* Multi circuit means all conductors are loaded equally and operating in close vicinity

- Installation conditions for above rating:
- Ambient Air Temperature 30°C
- Conductor operating temperature 90°C

ABU DHABI CABLE FACTORY

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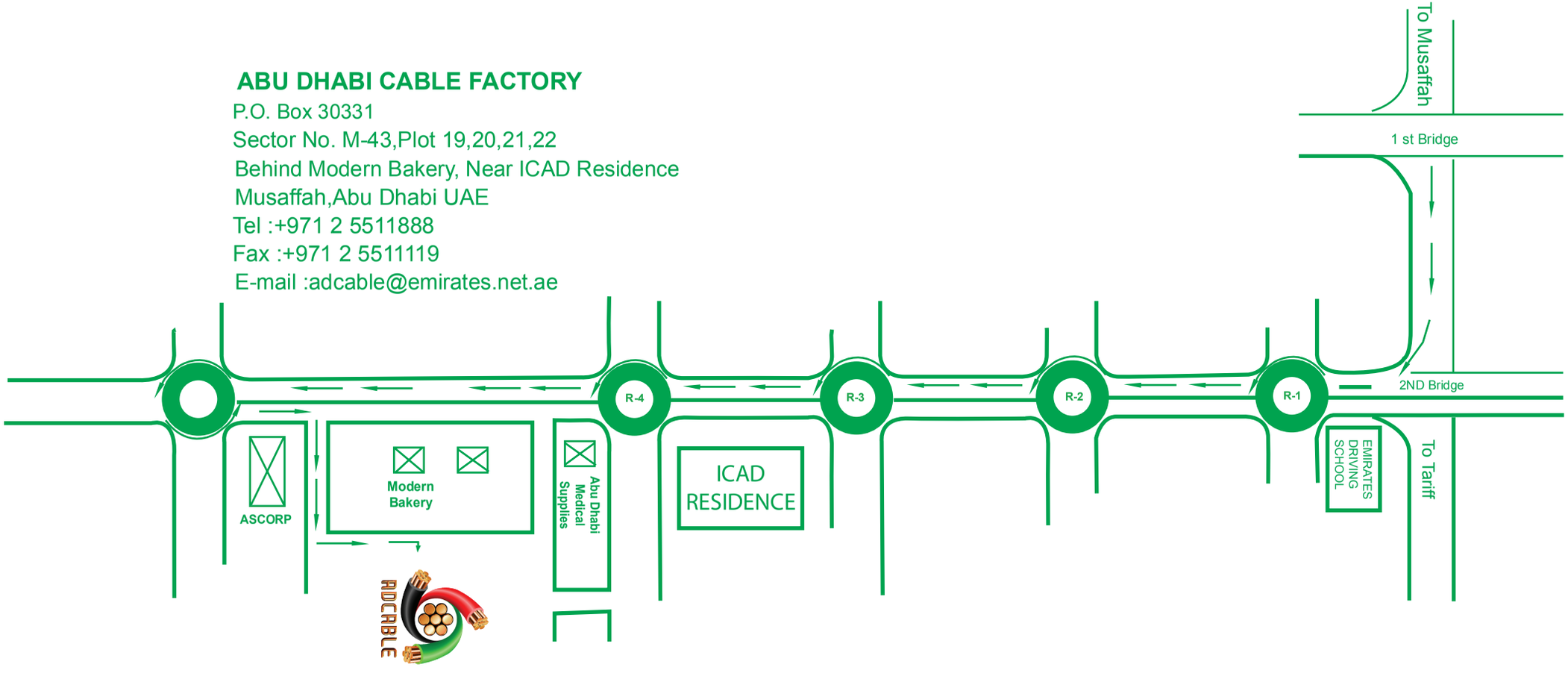

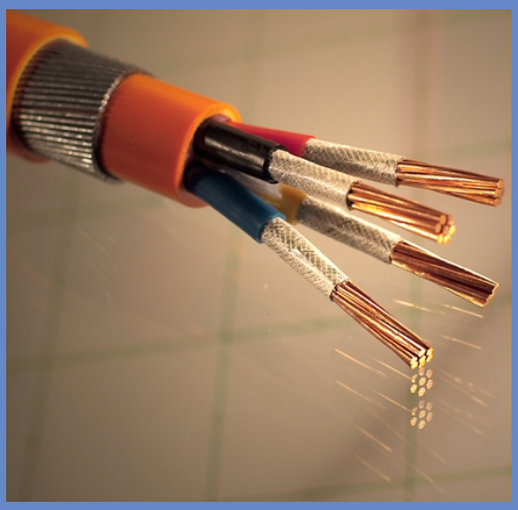
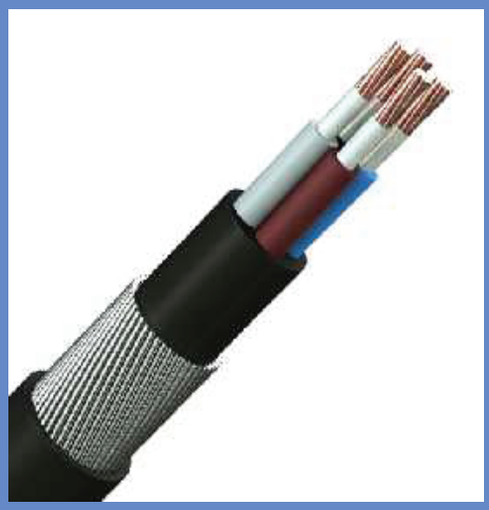
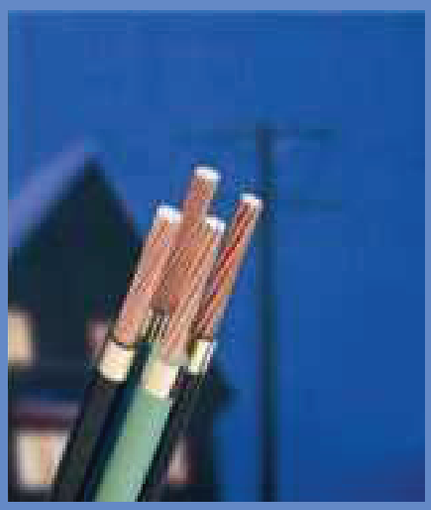

Manufacturer of:

FR SINGLE CORE CABLE

FR MULTICORE CABLE

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