



# Draka



## Firetuf FTP – Fire Resistant Armoured Power Cable

Firetuf FTP is the original Draka fire resistant armoured cable and meets the requirements of the construction standard BS7846 with classification F2. The advanced Draka OHLS® characteristics are retained in FTP with halogen free and low smoke properties and also the flame retardant performance that minimises the spread of fire along the cable. FTP holds third party certification by BASEC and LPCB.



### Construction

<b>Manufacturing standard:</b>	BS 7846	
<b>Conductors:</b>	Stranded plain annealed copper wire (class 2) to BS EN 60228	
<b>Insulation:</b>	Mica-glass fire resistant tapes, covered by an extruded layer of XLPE	
<b>Binder:</b>	Polyester tape	
<b>Bedding:</b>	Zero Halogen, Low Smoke (OHLS)	
<b>Armour:</b>	Galvanised Steel Wire Armour	
<b>Sheath:</b>	Zero Halogen, Low Smoke (OHLS)	
<b>Core colours:</b>	Harmonised	Non-Harmonised/Middle East
	Two core: Brown and Blue	Red and Black
	Three core: Brown, Black and Grey	Red, Yellow and Blue
	Four core: Brown, Black, Grey and Blue	Black, Red, Yellow and Blue
<b>Sheath colour:</b>	Black (Other colours available on request)	

### Physical Characteristics

<b>Voltage rating (Uo/U):</b>	600/1000V.
<b>Operating temp:</b>	-25°C to +90°C (the cable should not be installed when either the ambient or cable temperature is below 0°C)
<b>Min, bending radius:</b>	8 x overall diameter
<b>Current rating:</b>	Refer to tables 4E4A & 4E4B in BS7671 or ERA 69-30 Part V

Note: In the event of a fire, the increase in impedance may require consideration to the installation of larger conductor sizes, to accommodate motor starting loads and the performance of protective conductors

### Performance characteristics

<b>Circuit integrity:</b>	BS 6387 categories C, W & Z BS 7846 F2
<b>Smoke emission:</b>	BS EN 61034-2
<b>Acid gas emission:</b>	BS EN 50267-2-1
<b>Flame propagation:</b>	BS EN 60332-1-2 BS EN 60332-3-24





# Draka



## 2 Core 2FTP2H

Nominal area of conductor	Armour wire diameter	Approx. diameter under armour	Approx. overall diameter	Approx. cable weight	Maximum conductor resistance		Nominal area of armour	Maximum armour resistance at 20°C
					DC at 20°C Ω/km	AC at 90°C Ω/km		
mm <sup>2</sup>	mm	mm	mm	kg/km			mm <sup>2</sup>	Ω/km
1.5*	0.9	8.8	12.9	340	12.1	15.428	15	10.2
2.5*	0.9	9.8	14.1	400	7.41	9.448	17	8.8
4*	0.9	10.7	15.0	465	4.61	5.878	19	7.9
6*	0.9	12.0	16.3	555	3.08	3.927	22	7
10*	0.9	14.2	18.8	750	1.83	2.333	26	6
16*	1.25	15.5	20.7	1015	1.15	1.466	42	3.7
25*	1.25	19.1	24.5	1415	0.727	0.926	42	3.7
35*	1.6	21.4	27.7	1895	0.524	0.6685	60	2.6
50	1.6	21.1	27.7	1955	0.387	0.494	68	2.3
70	1.6	24.1	31.0	2515	0.268	0.3412	80	2
95	2.0	25.3	32.8	3225	0.193	0.2471	113	1.4
120	2.0	28.9	36.4	3900	0.153	0.1964	125	1.3
150	2.0	31.2	39.1	4575	0.124	0.1597	138	1.2
185	2.5	34.7	43.9	5890	0.0991	0.1284	191	0.82
240	2.5	39.4	48.7	7275	0.0754	0.0989	215	0.73
300	2.5	43.8	53.4	8825	0.0601	0.0801	235	0.67
400	2.5	48.6	58.5	10725	0.047	0.0641	265	0.59



## 3 Core 2FTP3H

Nominal area of conductor	Armour wire diameter	Approx. diameter under armour	Approx. overall diameter	Approx. cable weight	Maximum conductor resistance		Nominal area of armour	Maximum armour resistance at 20°C
					DC at 20°C Ω/km	AC at 90°C Ω/km		
mm <sup>2</sup>	mm	mm	mm	kg/km			mm <sup>2</sup>	Ω/km
1.5*	0.9	9.3	13.4	365	12.1	15.428	16	9.5
2.5*	0.9	10.4	14.7	440	7.41	9.448	19	8.2
4*	0.9	11.4	15.7	515	4.61	5.878	20	7.5
6*	0.9	12.8	17.1	630	3.08	3.927	23	6.7
10*	1.25	15.2	20.4	985	1.83	2.333	39	4
16*	1.25	16.5	21.9	1200	1.15	1.466	45	3.5
25*	1.6	20.6	26.9	1855	0.727	0.926	62	2.5
35*	1.6	22.9	29.4	2265	0.524	0.6685	68	2.3
50	1.6	23.6	30.3	2525	0.387	0.494	78	2
70	1.6	26.8	33.7	3280	0.268	0.3412	90	1.8
95	2.0	30.0	37.6	4360	0.193	0.2471	128	1.3
120	2.0	33.1	40.9	5230	0.153	0.1964	141	1.2
150	2.5	37.0	46.0	6650	0.124	0.1597	201	0.78
185	2.5	40.8	49.9	7920	0.0991	0.1284	220	0.71
240	2.5	45.6	55.2	9950	0.0754	0.0989	250	0.63
300	2.5	50.5	60.3	12020	0.0601	0.0801	269	0.58
400	2.5	56.3	66.4	14805	0.047	0.0641	304	0.52

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Group





# Draka

# FTP

## FIRETUF®

### 4 Core 2FTP4H

Nominal area of conductor mm <sup>2</sup>	Armour wire diameter mm	Approx. diameter under armour mm	Approx. overall diameter mm	Approx. cable weight kg/km	Maximum conductor resistance		Nominal area of armour mm <sup>2</sup>	Maximum armour resistance at 20°C Ω/km
					DC at 20°C Ω/km	AC at 90°C Ω/km		
1.5*	0.9	10.4	14.5	420	12.1	15.428	17	8.8
2.5*	0.9	11.6	15.9	510	7.41	9.448	20	7.7
4*	0.9	12.7	17.1	605	4.61	5.878	22	6.8
6*	1.25	14.3	19.5	860	3.08	3.927	36	4.3
10*	1.25	16.7	21.9	1135	1.83	2.333	42	3.7
16*	1.25	18.2	23.6	1415	1.15	1.466	50	3.1
25*	1.6	22.8	29.0	2190	0.727	0.926	70	2.3
35*	1.6	25.3	31.8	2700	0.524	0.6685	78	2
50	1.6	27.0	33.9	3145	0.387	0.494	90	1.8
70	2.0	30.3	38.0	4295	0.268	0.3412	131	1.2
95	2.0	33.8	41.7	5455	0.193	0.2471	147	1.1
120	2.5	37.8	46.8	7010	0.153	0.1964	206	0.76
150	2.5	41.9	51.1	8335	0.124	0.1597	230	0.68
185	2.5	46.7	56.3	10095	0.0991	0.1284	255	0.61
240	2.5	52.2	61.9	12655	0.0754	0.0989	289	0.54
300	2.5	57.3	67.3	15320	0.0601	0.0801	319	0.49
400	3.15	64.2	76.0	19810	0.047	0.0641	452	0.35



DrakaFTP0616

\*Circular conductors, all others are shaped conductors

Prysmian Group,  
Chickenhall Lane,  
Eastleigh,  
SO50 6YU

Sales Telephone  
01332 345431

[www.drakauk.com](http://www.drakauk.com)

A brand of the

# Prysmian Group

## Certificate of Product Approval

Licensee:  
**Draka UK Ltd**

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

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

Standard:  
BS 7846:2015

Description:  
Armoured fire resistant power cables

Details:  
Resistance to fire - Category F2.

Materials:  
Insulation GP 8, Sheath LTS 1

Brand Name:  
FTP

Origin Mark:  
DRAKA UK (B)

### Permissible Approval Marks:

**BASEC**



BASEC name

BASEC roundel

Signed for and on behalf of the British Approvals Service for Cables

*Tony Lioveri*

Date: 17/11/2020

Date of original issue: 06/10/2012

Check BASEC website to verify validity.

Page 1 of 2

BASEC, Presley House, Presley Way, Milton Keynes, MK8 0ES,  
Registered in England No. 1150237, Tel: +44(0)1908267300  
Email: mail@basec.org.uk, Web: www.basec.org.uk



Expiry date:  
**11/08/2023**

Type(s) and Range(s) of Approval

Table / Clause	Code Designation	Conductor Class	Range of Cores	Min Nominal Size -sqmm	Max Nominal Size - sqmm
4	N/A	Class 2	2	1.5	70
5	N/A	Class 2	3	1.5	70
6	N/A	Class 2	4	1.5	70
7	N/A	Class 2	5	1.5	10
8	N/A	Class 2	7	1.5	4
8	N/A	Class 2	12	1.5	4
8	N/A	Class 2	19	1.5	4
8	N/A	Class 2	27	1.5	4
8	N/A	Class 2	37	1.5	4

Signed for and on behalf of the British Approvals Service for Cables

*Tony Lioveri* Date: 17/11/2020

Date of original issue: 06/10/2012

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Page 2 of 2

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Registered in England No. 1150237, Tel: +44(0)1908267300  
Email: mail@basec.org.uk, Web: www.basec.org.uk



Expiry date:  
**11/08/2023**



## Certificate of Product Approval

Licensee:  
**Draka UK Ltd**

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

Factory:  
Oak Road

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

Standard:  
BS 7846:2015

Description:  
Armoured fire resistant power cables

Details:  
Resistance to fire - Category F2.

Materials:  
Insulation GP 8, Sheath LTS 1

Brand Name:  
FTP, FIRETUF POWER

Origin Mark:  
DRAKA UK (W)

### Permissible Approval Marks:

**BASEC**



BASEC name

BASEC roundel

Signed for and on behalf of the British Approvals Service for Cables

*Tony Lioveri*

Date: 13/01/2021

Date of original issue: 06/10/2012

Check BASEC website to verify validity.

Page 1 of 2

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Registered in England No. 1150237, Tel: +44(0)1908267300

Email: mail@basec.org.uk, Web: www.basec.org.uk



Expiry date:  
**11/08/2023**





Type(s) and Range(s) of Approval

Table / Clause	Code Designation	Conductor Class	Range of Cores	Min Nominal Size -sqmm	Max Nominal Size -sqmm
4	N/A	Class 2	2	50	400
5	N/A	Class 2	3	50	400
6	N/A	Class 2	4	50	400

Signed for and on behalf of the British Approvals Service for Cables

*Tony Lioveri*

Date: 13/01/2021

Date of original issue: 06/10/2012

Check BASEC website to verify validity.

Page 2 of 2

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Registered in England No. 1150237, Tel: +44(0)1908267300  
Email: mail@basec.org.uk, Web: www.basec.org.uk



Expiry date:  
**11/08/2023**

## Certificate of Product Approval

Certificate Number: 1134e

Issue: 03

### DRAKA UK LIMITED

Chickenhall Lane  
Bishopstoke  
Eastleigh  
Hants  
SO50 6YU  
United Kingdom



is authorised to use the LPCB mark in association with the product(s) listed in this certificate and appendix having complied with the requirements of the standard(s) detailed below:

#### Product(s)

Cable Types as listed below:  
FTP  
See Certificate Appendix for details

#### Standard(s) (see Appendix for details)

BS 6387:2013 CWZ  
EN 61034-2:2005+A1:2013  
EN 60754-1:2014

This Certificate is maintained and held in force through regular surveillance activities and subject to the corresponding ISO 9001 Certificate being maintained.

*Damien Ward*

Signed for LPCB

Damien Ward  
Certification Scheme Manager

26 September 2016  
Date of Issue

01 March 2013  
Date of First issue



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## Appendix to Certificate No: 1134e DRAKA UK LIMITED

Issue: 03

Product name				LPCB Ref. No.
FTP				1134e/02
Nominal area of conductor (mm <sup>2</sup> )	Core Construction	BS 6387	EN 61034-2	EN 60754-1 (outer covering)
1.5	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCI
2.5	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCI
4.0	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCI
6.0	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCI
10	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCI
16	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCI
25	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCI
35	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCI
50	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCI
70	2, & 3 <sup>(1)</sup>	CWZ	>60%	<0.5% HCI

### Uo/U 600/1000 V

#### Notes:

1. Stranded conductors only.
2. Testing of the FTP range with diameters greater than 20mm were successfully carried out in accordance with Clause 17.6.2 and Annex I of BS 7846:2015.

This Certificate is maintained and held in force through regular surveillance activities and subject to the corresponding ISO 9001 Certificate being maintained.

*Damien Ward*

Signed for LPCB

Damien Ward  
Certification Scheme Manager

26 September 2016  
Date of Issue

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Date of First issue



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bre

## Certificate of Product Approval

Certificate Number: 1134f

Issue: 03

### DRAKA UK LIMITED

Chickenhall Lane  
Bishopstoke  
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Hants  
SO50 6YU  
United Kingdom



is authorised to use the LPCB mark in association with the product(s) listed in this certificate and appendix having complied with the requirements of the standard(s) detailed below:

#### Product(s)

Cable Types as listed below:  
FTP  
See Certificate Appendix for details

#### Standard(s) (see Appendix for details)

BS 6387:2013 CWZ  
EN 61034-2:2005+A1:2013  
EN 60754-1:2014

This Certificate is maintained and held in force through regular surveillance activities and subject to the corresponding ISO 9001 Certificate being maintained.

*Damien Ward*

Signed for LPCB

Damien Ward  
Certification Scheme Manager

12 October 2016  
Date of Issue

01 March 2013  
Date of First issue



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## Appendix to Certificate No: 1134f DRAKA UK LIMITED

Issue: 03

Product name				LPCB Ref. No.
FTP				1134f/01
Nominal csa of conductor (mm <sup>2</sup> )	Core Construction (excluding drain wire and earth)	BS 6387	EN 61034-2	EN 60754-1 (outer covering)
70	4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCl
95	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCl
120	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCl
150	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCl
185	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCl
240	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCl
300	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCl
400	2, 3 & 4 <sup>(1)</sup>	CWZ	>60%	<0.5% HCl

### Uo/U 600/1000V

#### Notes:

1. Stranded conductor only.
2. Testing of the FTP range with diameters greater than 20mm were successfully carried out in accordance with Clause 17.6.2 and Annex I of BS 7846:2015.

This Certificate is maintained and held in force through regular surveillance activities and subject to the corresponding ISO 9001 Certificate being maintained.

*Damien Ward*

Signed for LPCB

Damien Ward  
Certification Scheme Manager

12 October 2016  
Date of Issue

01 March 2013  
Date of First issue



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bre



消防處  
牌照及審批總區  
通風系統課

九龍尖沙咀東康莊道1號  
消防總部大廈5樓



FIRE SERVICES DEPARTMENT  
LICENSING & CERTIFICATION COMMAND

Ventilation Division  
5/F, Fire Services Headquarters Building,  
No. 1 Hong Chong Road,  
Tsim Sha Tsui East, Kowloon,  
Hong Kong

本處檔號 Our Ref: FP(LC) 317/21  
來函檔號 Your Ref: FAX/EY/16/109  
圖文傳真 Fax: 2367 3206  
電話 Tel. No.: 2733 1557

16 March 2017

Draka Cables (Hong Kong) Limited  
Units 1511-12, 15/F., LU Plaza,  
2 Wing Yip Street,  
Kwun Tong, Kowloon  
Hong Kong  
(Attn.: Mr. Eddy YU)

Dear Sir,

**“Draka UK” FTP Armoured Fire Resistant Cables**

I refer to your letter dated 9.12.2016 enclosing a set of catalogue, certificates and supplementary information submitted on 6.3.2017 with respect to the captioned cables.

We have no objection in principle to the use of Draka UK” FTP armoured fire resistant cables for fire service installations in Hong Kong subject to compliance with the Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment, 2012 Edition, relevant FSD Circular Letters and according to the following details:

Manufacturer : Draka UK Limited  
Model : FTP armoured multi-core fire resistant cables  
Construction : Armoured multi-core cable with stranded copper conductors, mica/glass tape, polyestertape, OHLS bedding, galvanised steel wires, OHLS sheathed  
Conductor Size : 1.5 to 400 mm<sup>2</sup> inclusive with 2, 3 & 4 core

/2...

- Test Certificate : Certificate No. 1134e (Issue: 03) of 26.9.2016, and 1134f (Issue: 03) of 12.10.2016 by Loss Prevention Certification Board (LPCB)
- Test Standard/Result : a) For cables with size of 1.5 to 10 mm<sup>2</sup> with 2 core and 1.5 to 6 mm<sup>2</sup> with 3 & 4 core (with overall diameter not exceeding 20 mm):  
BS 6387: 2013 (Category C, W, Z)  
b) For cables with size of 16 to 400 mm<sup>2</sup> with 2 core, 10 to 400 mm<sup>2</sup> with 3 & 4 core (with overall diameter exceeding 20 mm):  
BS 7846: 2015 (Category F2)
- Quality Assurance Scheme : The manufacturer operates a quality management system to ISO 9001:2008 certified by BASEC under Certificate No. CS1-084 of 11.8.2014.
- Remark : a) The cables shall remain LPCB listed and valid certificates shall be maintained;  
b) The cables shall bear appropriate markings of the manufacturer for identification purpose;  
c) Our previous letter of the same series dated 1.6.2015 for the same fire resistant cables is hereby superseded; and  
d) This assessment is subject to review by February 2022.

Yours faithfully,



(LAM Sui-hang)  
for Director of Fire Services

SHL/chl  
FileCode: draka uk ftp 20170316.doc