DCE 特卡爾電纜有限公司
DCE Delta Cable Engineering Limited

Draka

PowerBranch®

Prefabricated Riser Mains for Power Supply System of High-rise Building

- Ready fit on -site
- Water Proof
- Save Space
- Save Cost
- Widely Accepted in Hong Kong

Since 1999

The Right Choice

- Main cable and branch cable are both manufactured by Draka Cable.
- Cables and joints are manufactured and approved in accordance with BASEC / BASEC CAD certification requirements.
- DCE Delta Cable Engineering Limited has been awarded with BASEC PCR and ISO 9001 Quality Management System certification.
- Cost saving achieved by more effective installation methods better than conventional bus-bar wiring.
- Compact in size with advantage in cable shaft space saving.
- Long lasting maintenance-free and waterproof characteristcis.
- Customized branch joint design for different cable dimensions.
- Optional cable and joint compound shealth with low smoke or fire resistant offers excellent protection.
- Numerous job references since 1999 recording our products being supplied in majority portion to various high-rise residential and commercial buildings.

正 確 選 擇

- 主電纜及分枝電纜皆由 DRAKA CABLE 生產。
- 電纜及接頭的生產及核準皆依據BASEC / BASEC CAD認証要求。
- 特卡爾電纜有限公司已獲得BASEC PCR及ISO 9001質量管理系統認證。
- 比傳統母線排安裝更俱效益的安裝方法以節省成本。
- 緊緻的尺寸俱有節省電纜槽使用空間的優勢。
- 長期免維修及防水特性。
- 客製化支線接頭設計以應對不同電纜尺寸。
- 可選擇俱低煙或耐火的電纜及接頭絕緣層以提供更佳保
- 我們所供應的產品自1999年開始已記存了大量工程參考個案，主要用於各種高層住宅及商業樓宇內。

Approval

BASEC BS 7889

BASEC BS 8573

BASEC BA1110

BASEC PCR

ISO 9001

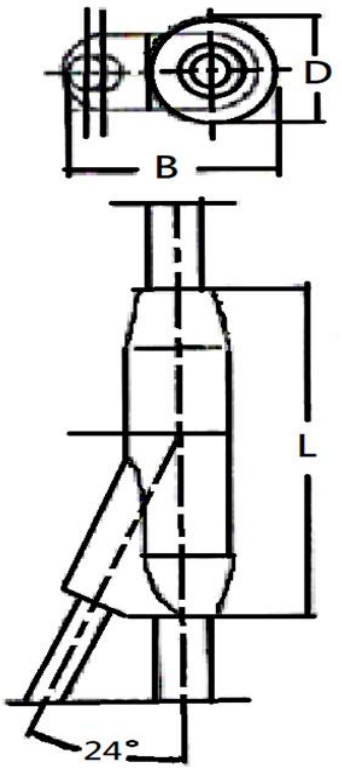
權 威 認 証

The Technical Details

Standard XLPE/PVC single core copper cables to BS 7889

主電纜	分支電纜	Dimension(mm)		
Main Cables (mm2)	Range of Branches (mm2)	L	D	B
50	16 to 35	130	35	59
50	50	158	42	73
70	16 to 25	130	35	59
70	35 to 70	158	42	73
95	16 to 50	158	42	73
95	70 to 95	190	52	86
120	16 to 25	158	42	73
120	35 to 120	190	52	86
150	16 to 120	190	52	86
185	16 to 95	190	52	86
185	120	219	66	104
240	16 to 35	190	52	86
240	50 to 150	219	66	104
300	16 to 150	219	66	104
300	185	253	78	117
400	16 to 50	219	66	104
400	70 to 185	253	78	117
500	16 to 185	253	78	117
630	16 to 120	253	78	117
630	150 to 185	300	90	138
800	35 to 185	300	90	138
1000	50 to 185	300	90	138

技 術 資 料



The Technical Details 技術資料

Conductor size	Approx. overall diameter	Approx. weight
導體	外徑(約為)	重量
mm2	mm	kg/km
16	9.4	207
25	11.1	310
35	12.2	408
50	12.9	508
70	14.8	713
95	16.6	968
120	18.2	1,205
150	20.3	1,478
185	22.4	1,824
240	25.1	2,379
300	27.7	2,991
400	31.5	3,832
500	35	4,832
630	39.4	6,212
800	44.3	7,947
1000	49.7	10,231

Data for Design 設計參數

TABLE 4E1A - SINGLE CORE 90°C THERMOSETTING INSULATED CABLES, UNARMOURED, WITH OR WITHOUT SHEATH (COPPER CONDUCTORS)

Current-Carrying Capacity (amperes): Ambient temperature: 30°C

Conductor operating temperature: 90°C

Conductor cross-sectional area	Reference Method B (enclosed in conduit on a wall or in trunking etc.)		Reference Method C (clipped direct)		Reference Method F (in free air or on a perforated cable tray, horizontal or vertical etc) touching			Reference Method G (in free air) Spaced by one cable diameter	
	2 cables, single-phase A.C or D.C	3 or 4 cables, three-phase A.C	2 cables, single-phase A.C or D.C flat & touching	3 or 4 cables, three-phase A.C flat & touching or trefoil	2 cables, single-phase A.C or D.C flat	3 cables, three-phase A.C flat	3 cables, three-phase A.C trefoil	2 cables, single-phase A.C or D.C or 3 cables three-phase A.C flat	
								Horizontal	Vertical
mm2	A	A	A	A	A	A	A	A	A
1	17	15	19	17.5	-	-	-	-	-
1.5	23	20	25	23	-	-	-	-	-
2.5	31	28	34	31	-	-	-	-	-
4	42	37	46	41	-	-	-	-	-
6	54	48	59	54	-	-	-	-	-
10	75	66	81	74	-	-	-	-	-
16	100	88	109	99	-	-	-	-	-
25	133	117	143	130	161	141	135	182	161
35	164	144	176	161	200	176	169	226	201
50	198	175	228	209	242	216	207	275	246
70	253	222	293	268	310	279	268	353	318
95	306	269	355	326	377	342	328	430	389
120	354	312	413	379	437	400	383	500	454
150	393	342	476	436	504	464	444	577	527
185	449	384	545	500	575	533	510	661	605
240	528	450	644	590	679	634	607	781	719
300	603	514	743	681	783	736	703	902	833
400	683	584	868	793	940	868	823	1085	1008
500	783	666	990	904	1083	998	946	1253	1169
630	900	764	1130	1033	1254	1151	1088	1454	1362
800	-	-	1288	1179	1358	1275	1214	1581	1485
1000	-	-	1443	1323	1520	1436	1349	1775	1671

Simple offer requisition

簡 單 詢 價 ， 設 計 資 料

Customer only have to provide:

- Length of main cable and each branch cables with separation arrangements.
- Types of cable with conductor size of cable.
- Packing and delivery requirements.

客人只需要提供:

- 主電纜及分支纜的長度及分段距離。
- 電纜的種類及導體的大小。
- 包裝及運送安排。

info@dcecable.com

General Installation Guidelines

一 般 安 裝 指 示

- The drum should rotate freely on a spindle raised on jacks, positioned with the correct direction of lay facing the riser opening.
- Drum battens should be removed with care, avoiding damage to the cable.
- Strength of the winch and pulling bond should be confirmed before commencing installation
- Pulling should be carried out slowly(4~5 m/min or less). The pull should be monitored continuously and stopped immediately there is any indication of snagging, in order to avoid damage to the cable.
- The main cable is to be fixed to the fabric of the building by suitable support brackets along its length . Encapsulated joints shall not be subject to any mechanical stress.
- The end cap should be inspected during installation and should be replaced if there is any evidence of damage .

- 電纜應安全地放在起重工具(千斤頂)上的主軸，抬起後其能夠自如地旋轉，鋪設方向需要正確。
- 拆除包裝應小心，避免損壞電纜。
- 開始安裝前應確認絞盤和牽引力的強度。
- 牽引應緩慢進行（速度慢於 4~5 米/分鐘）。應持續監控拉力，如有異樣應立即停止拉動，以免損壞電纜。
- 主電纜將通過合適的支架，按照其高度要求，固定到建築物的上，電纜封裝接頭不應受到任何損壞。
- 安裝期間應檢查電纜外觀和表面，如果有任何損壞，必須更換。

BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Certificate No:
CAD 034
Issue No: 13

Certificate of Assessed Design

Granted to:

Prysmian Hong Kong Holding Limited

Suite 2206, 22/F, CDW Building, 388 Castle Peak Road, Tsuen Wan, Hong Kong

hereinafter called the Holder

This is to certify that the design of the product known as:

Draka Power Branch Cable System

Range:
70/16 sqmm to 1000/185 sqmm

Employing BASEC approved cables to BS 7889

As defined by:
BASEC CAD Specification BA1110:2017 Issue 5 – 28th June 2017
BASEC CAD Specification for 600/1000V prefabricated cable system consisting of a main cable with branch cables

In the opinion of the British Approvals Service for Cables, is capable of affording a degree of safety not less than that obtained by compliance with the IET Wiring Regulations (BS 7671:2018), if selected and installed in accordance with the conditions contained in the Schedule attached hereto, which forms an integral part of the certificate.

Original issue date:	23/06/2017
Current issue date:	14/12/2021

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

Tony Lioveri

Date: 14/12/2021

Contact BASEC to verify validity.

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:
23/06/2025

BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Certificate No:
CAD 034
Issue No: 13

Certificate of Assessed Design

Schedule of Conditions No.: 034/013 Issue Date: 14/12/2021
Schedule to Certificate No: CAD 034 issue 13

1 CERTIFICATION

1.1 This certificate relates to the Draka Power Branch Cable System (the System).

1.2 The Holder of this Certificate of Assessed Design is:

Prysmian Hong Kong Holding Limited
Suite 2206, 22/F, CDW Building
388 Castle Peak Road
Tsuen Wan
Hong Kong

1.2.1 The cable assembly is manufactured by:-

Wenson Corporation Limited
No. 5 & 6 Far East Industrial Estate
Xin He, Fu Hai
Bao'an District
Shenzhen
Guangdong
518103
China

1.3 In the opinion of the British Approvals Service for Cables (BASEC), the cable assembly, when manufactured and installed according to the instructions specified in the manufacturer's data sheet, is capable of affording a degree of safety not less than that obtained by compliance with the IET Wiring Regulations (BS 7671:2018).

The cable product itself shall not be described as complying with the Eighteenth edition of the IET Wiring Regulations (BS 7671:2018).

2 GENERAL CONDITIONS

2.1 This certificate relates to the design of the System that was submitted to BASEC for assessment, investigation and testing. If any aspect of the product design or materials or proposed place and method of manufacture is changed then this certificate is no longer valid.

2.2 The Holder shall submit to the British Approvals Service for Cables full details of the manner in which this Certificate is to be used, if any, in the promotion of the cable which is the subject of this Certificate, and shall obtain written consent of the British Approval Service for Cables prior to any such reference being implemented.

2.3 The Holder shall forthwith cease all reference to this Certificate, and withdraw any related documentation that may give rise to any misleading description of the product after the expiry date of the Certificate or the withdrawal thereof for any other reason.

3 PARTICULAR CONDITIONS

3.1 Description of the System

3.1.1 The System is designed and proposed to be manufactured in accordance with BASEC CAD Specification BA 1110 issue 5 dated 28th June 2017.

Contact BASEC to verify validity.

Expiry date:
23/06/2025

Certificate of Assessed Design

Schedule of Conditions No.: 034/013, Issue Date: 14/12/2021
Schedule to Certificate No: CAD 034 issue 13

3 PARTICULAR CONDITIONS (continued)

3.1.2 The single core cables comprising the System are manufactured to BS 7889 and approved under the BASEC Product Marking Scheme held by Draka Cables UK Ltd and/or Suzhou Draka Cable Co. Ltd. Details of the precise scope of the approvals held may be obtained from BASEC.

3.1.3 Each connection between the main and the branch shall employ a tinned copper "C" type connector, and shall be encapsulated in PVC.

3.1.4 Each unit is individually manufactured to customer requirements in terms of cable sizes (refer to Table 1) and intervals between branch joints.

3.2 Factory Production Control

3.2.1 The cable assembly factory will be subject to an initial and subsequent annual audit of its quality management system and procedures.

3.3 Verification and surveillance testing

3.3.1 Samples of 70mm²/16mm² and 630mm²/185mm² from across the range of approval, supplied by the manufacturer, were tested for BASEC in accordance with the tests listed in BA 1110 clauses 8 and 9 and verification is documented in EdifERA test report EDP2918001 dated May 2016 and BASEC test report J1CAD757B, held by BASEC.

Sample of 1000mm²/185mm², supplied by the manufacturer, was tested for BASEC in accordance with the tests listed in BA 1110 clauses 8 and 9 and verification is documented in RINA test report no. 2021-0282 Rev0 (Project No. EDP03080) dated March 2021 and BASEC test report N2CAD034TT757, P1CAD034TT757X & P1CAD034TT757X, held by BASEC.

3.3.2 A full type test on one sample assembly will be conducted during each re-certification. Refer to BA1110 Clause 7 in respect to sample requirements and clause 8 in respect to testing requirements.

3.3.3 A limited type test on three sample assemblies, consisting of voltage test in water, insulation resistance test and connector resistance test will be conducted annually. For sampling requirements refer to clause 7.1 for Voltage test and Insulation resistance and 7.2 for connector resistance. Connector resistance is tested before and after static loading as per BA1110 clause 8.6.

3.4 Marking

3.4.1 Cables subject to this certificate may be marked with the legend "BASEC CAD 034".

4 INSTALLATION GUIDELINES

The following installation procedures are general guidelines and good working practice which should be adopted at all times:

4.1 The drum should rotate feely on a spindle raised on jacks, positioned with the correct direction of lay facing the riser opening.

4.2 Drum battens should be removed with care, avoiding damage to the cable.

4.3 Strength of the winch and pulling bond should be confirmed before commencing installation.

4.4 Pulling should be carried out slowly (4-5 m/min or less). The pull should be monitored continuously and stopped immediately there is any indication of snagging, in order to avoid damage to the cable.

4.5 The main cable is to be fixed to the fabric of the building by suitable support brackets along its length. Encapsulated joints shall not be subject to any mechanical stress.

4.6 The end cap should be inspected during installation and should be replaced if there is any evidence of damage.

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BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Certificate No:
CAD 034
Issue No: 13

Certificate of Assessed Design

Schedule of Conditions No.: 034/013, Issue Date: 14/12/2021

Table 1:- Schedule of Tests for Cable sizes 70/16sqmm to 1000/185sqmm single core.

Test[1]	Test method	Requirement given in clause number	Category of test
Tests on components			
Evaluation of the Branch Cable	BS EN 50393	8.8	T,S
Connector resistance	BA 1110	8.6	T,S
Tensile Test for Main Conductor (Req. only if type approval does not include a tensile test)	BA 1110	8.7	T,S
Insulation			
Insulation resistance	BS EN 50393	8.4	T,S
Test on complete cable			
Heat cycling	BS EN 50393	8.6/Annex 1	T,S
Voltage withstand	BS EN 50393	8.3	T,S

[1] The order given does not imply a sequence of testing

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