

BRANCH CABLING

High quality, speed, efficiency, flexibility and costs are the prime considerations of today's construction projects.

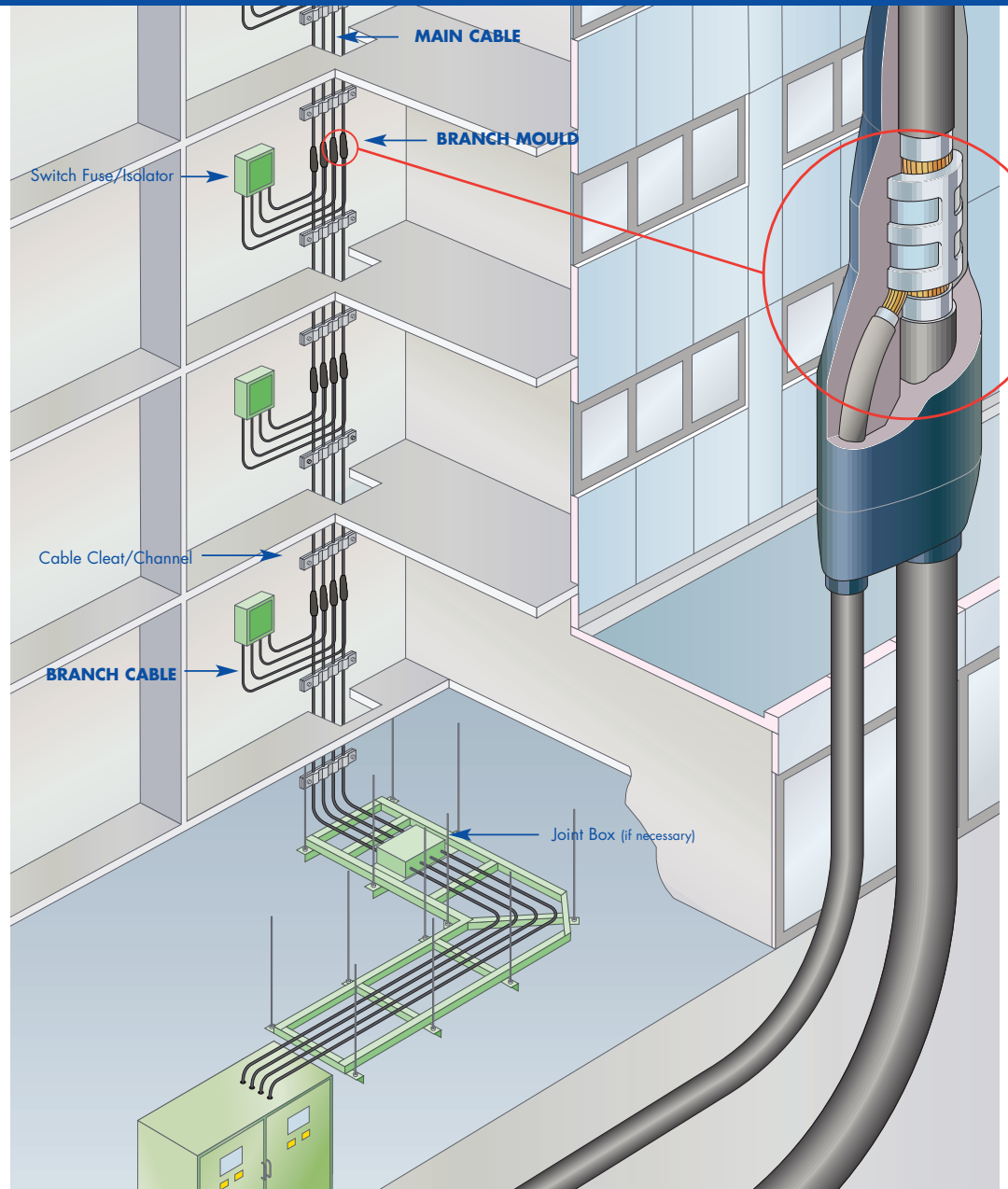
The present practices for sub main distribution in risers, hotels, tunnels etc. involve the bolting together of truncated sections. Such methods dictate multiple logistic issues and the creation of regular joints.

Modular Wiring Systems has introduced Branch Cabling to their product portfolio to eliminate the extra time that is demanded by such traditional methods.

Multiple component parts are replaced in most instances by a single cable drum. The factory controlled and tested installation is completed with just one simple placement.

Branch Cabling is suitable for many applications including:

- Risers - Sub main distribution for commercial, industrial and leisure
- Linear - Sub main distribution for leisure and residential
- Linear - Lighting/small power distribution for tunnels, highways, bridges etc.



Branch Joints - the key to the system

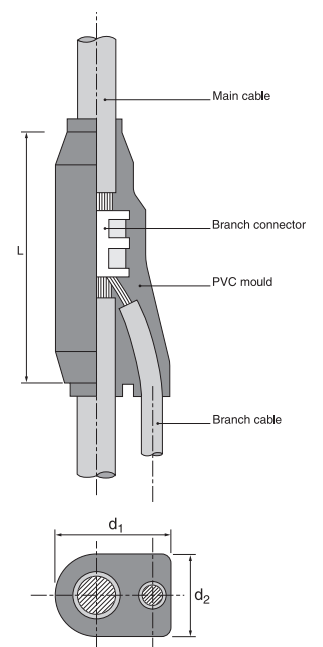
Branch joints employ the latest H.V connection technology. The assembly is then overmoulded; the cable sheath and over-moulding process bond to achieve an airtight and waterproof assembly.

Typically, a single Branch Cable is provided per branch with an option of up to three further cables, if required.

Electrical and physical properties of the branch joint and head support are tested prior to despatch.

Branch Cables should be sized to cater for future flexibility and optimum load/capacity requirements.

If additional supplies are required after installation, these are 'tapped off' the switched fuse isolator.



Branch mould dimensions

Main Cable m ²	Branch Cable m ² *	Dimensions (m)		
		d1	d2	L
35	16 - 25	44	41	105
50	16 - 35	50	44	105
70	16 - 50	50	44	105
95	16 - 50	57	50	115
120	16 - 95	69	64	140
150	16 - 120	77	64	150
185	16 - 120	77	64	150
240	16 - 185	77	64	150
300	16 - 185	62	39	122
400	16 - 240	73	47	137
500	16 - 240	73	47	137
530	16 - 240	79	52	137
800	16 - 240	79	52	137
1000	16 - 240	94	78	170

These dimensions are subject to minor modification.

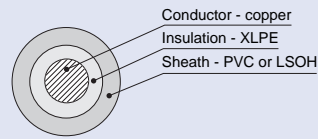
Vertically Suspended Branch Cabling

Each Branch Cable is terminated with a waterproof compound and end cap reinforced with heat shrinkable tube.

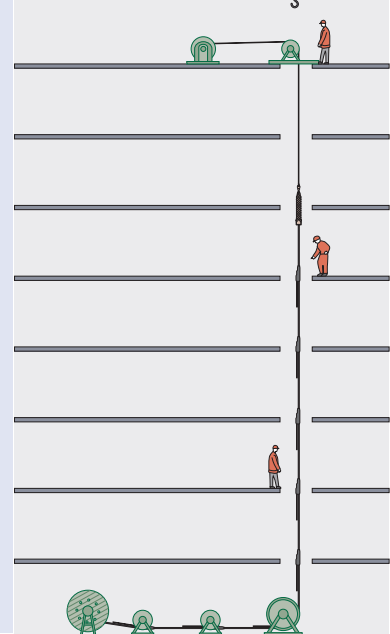
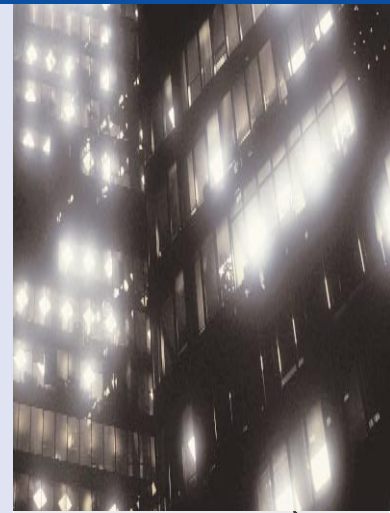
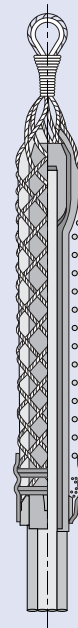
A unique steel constructed cable grip is employed to support each Branch Cable during and after the installation process.

Each Branch Cable is easily supported with recognised fixing methods such as those employed with PVC/SWA/PVC cables.

Branch Cabling Specification



Cable Grip



Typically only three people required

Ambient Temperature: 30°C

IEC Standard Pub. 502

Current rating A	Conductor			Thickness of insulation mm	Thickness of sheath mm	Approximate overall diameter mm	Approximate weight kg/km	AC test voltage kv/5min	Maximum conductor resistance (20°C) Ω/km	Voltage drop x10 ⁻³ mV/A/M
	Nominal sectional area mm ²	Shape	Diameter mm							
74	10		3.7	0.7	1.4	8.0	150	3.5	1.83	2.0
99	16		4.7	0.7	1.4	9.5	215	3.5	1.15	1.3
130	25		6.9	0.9	1.4	11.5	310	3.5	0.727	0.84
161	35		7.0	0.9	1.4	12.0	410	3.5	0.524	0.63
209	50		8.5	1.0	1.4	14.0	570	3.5	0.387	0.49
268	70		10.1	1.1	1.4	16.0	770	3.5	0.268	0.36
326	95		11.7	1.1	1.6	18.0	1,030	3.5	0.193	0.29
379	120	Compact	13.2	1.2	1.6	20.0	1,280	3.5	0.158	0.24
436	150	round	14.7	1.4	1.6	22.0	1,590	3.5	0.124	0.21
500	186	shape	16.4	1.6	1.6	24.0	1,950	3.5	0.0991	0.19
590	240		18.6	1.7	1.7	27.0	2,490	3.5	0.0754	0.16
681	300		20.8	1.8	1.8	30.0	3,140	3.5	0.0601	0.15
793	400		24.1	2.0	1.8	34.0	4,140	3.5	0.0470	0.131
904	500		26.9	2.2	2.0	37.0	5,140	3.5	0.0366	0.120
1,033	630		30.2	2.4	2.2	41.0	6,140	3.5	0.0283	0.111
1,179	800		34.8	2.6	2.3	46.0	8,450	3.5	0.0221	0.104
1,323	1000		39.0	2.8	2.4	51.0	10,600	3.5	0.0176	0.0984

These cables are manufactured according to IEC standard 502 - BS5467, 5468 and 6622: Extruded Solid Dielectric Insulated Power Cables for Rated Voltages from 1 kv up to 30 kv, and authorised by Lloyd's Register of Shipping Type Approval Certificate - No. 4/10012.

Branch Cabling provides many advantages over traditional methods including:

Reduced costs

- Material
- Labour
- Construction programmes

Product Integrity

- With one single joint free assembly that is produced in a stringent quality factory controlled environment, the physical and electrical properties of Branch Cabling are factory tested and guaranteed

Nil maintenance requirements

- Branch Cabling is an entirely sealed joint-free assembly. After initial installation and testing, therefore, no further access or maintenance is required.

Reduced space

- Using the risers, trenches, etc. purely for pulling, laying and so on, expensive floor space can be maximised and fire barriers simplified.

Airtight and watertight sealing

- Completely sealed, the cables can be installed in many environments, solving problems often associated with moisture ingress during the construction phase

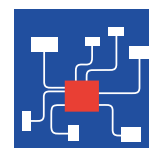
Flexibility

- Offset risers easily accommodated
- Up to four sub branches can be mounted on each single branch
- Branch cables can be sized to reflect the future capacity requirements
- Over sized neutrals or earths can be easily accommodated

To assist in providing you with a quotation or when you are ordering Branch Cabling, please submit the following:

- Schematic drawings - length of main cable, Branch Cable, and distances between branch joints
- Distribution format - 1ph or 3ph
- Cable material specification - XLPE/PVC or XLPE/LSOH
- Main and Branch Cable - conductor sizes
- Head support - with or without
- Laying method - to be pulled from the ground floor up or lowered from the top floor down
- Drum - optimum drum size and gross weight. Consideration should be given to site access, handling etc if known. Alternatively, drum size and weight can be advised on receipt and/or developed to suit site conditions.

"Connections to Energize Your Ideas"



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