SAUDI CABLE COMPANY POWER CABLE DIVISION

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BUILDING WIRES

Saudi Cable Company شركة الكابلات السعودية

1. Solid Copper Conductor
2. PVC Insulation

1. Stranded Copper Conductor
2. PVC Insulation

DESCRIPTION

Single core cables with solid or stranded copper conductors, PVC insulated, rated 450/750 V conforming to SASO:55 specification.

CONSTRUCTION

Conductor
Plain annealed circular copper conforming to IEC:228, class 1 and 2 (also available in aluminium conductors sizes 16 to 630 mm^2).

Insulation
PVC type 5 to BS:6746 rated 85°C, (PVC type 1 to BS:6746 rated 70°C also available).

APPLICATION

Typical applications include building wiring, equipment wiring, switching and distribution installations in conduits above or under plaster.

FEATURES

Insulation adheres tightly to conductors yet strips easily, leaving conductor clean. PVC insulation has good electrical properties.

TO ORDER
Order by catalogue number, quantity and packaging required.

Example
CJA1-10A 2000 meters in 100m coils.

Note: if 70°C rated PVC insulation is desired, change the second letter to 'D' in the catalogue number.

Example
The catalogue number for 25 mm^2, copper conductor with white coloured PVC insulation rated 70°C will be CDA1-10W.

Note: In the interests of product improvement, SCC reserve the right to alter cable specifications.

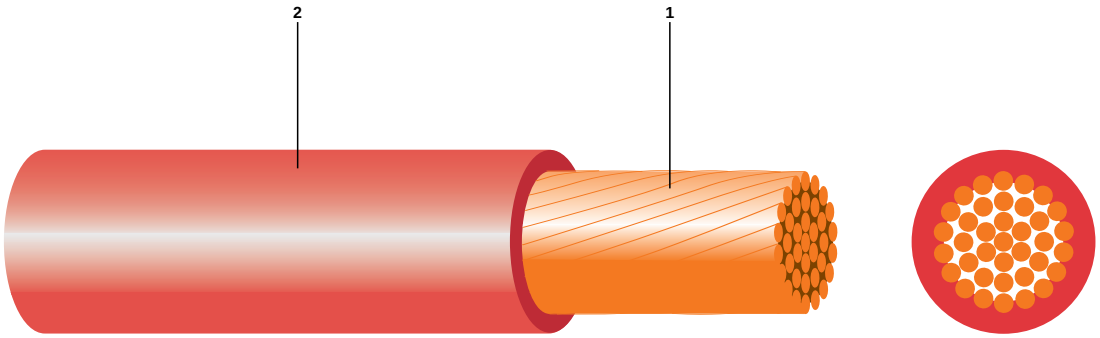
DIMENSIONS AND WEIGHTS

	Conductor		Insulation		Packaging		
Catalogue number	Cross sectional area Nominal m m^2	Minimum number of wires	Thickness Nominal m m	Overall diameter Approx m m	Net weight Approx kg/km	B-Box, S-Spool C-Coil, D-Drum m	
AJA1-04*	1.5 re	1	0.7	3.0	19	50/100	B/S
CJA1-04*	1.5 rm	7	0.7	3.2	19	50/100	B/S
AJA1-05*	2.5 re	1	0.8	3.6	30	50/100	B/S
CJA1-05*	2.5 rm	7	0.8	3.8	31	50/100	B/S
AJA1-06*	4 re	1	0.8	4.1	47	50/100	B/S
CJA1-06*	4 rm	7	0.8	4.3	48	50/100	B/S
AJA1-07*	6 re	1	0.8	4.6	66	50/100	B/S
CJA1-07*	6 rm	7	0.8	4.9	67	50/100	B/S
AJA1-08*	10 re	1	1.0	5.9	110	50/100	C
CJA1-08*	10 rm	7	1.0	6.3	113	50/100	C
CJA1-09*	16 rm	7	1.0	7.3	171	50/100	C
CJA1-10*	25 rm	7	1.2	9.0	268	50/100	C
CJA1-11*	35 rm	7	1.2	10.1	361	1000/2000	D
CJA1-14*	50 rm	19	1.4	12.0	483	1000/2000	D
CJA1-16*	70 rm	19	1.4	13.8	680	1000/2000	D
CJA1-17*	95 rm	19	1.6	16.0	941	1000/2000	D
CJA1-19*	120 rm	37	1.6	17.6	1164	1000	D
CJA1-21*	150 rm	37	1.8	19.7	1400	1000	D
CJA1-22*	185 rm	37	2.0	22.0	1800	1000	D
CJA1-24*	240 rm	61	2.2	25.0	2380	1000	D
CJA1-26*	300 rm	61	2.4	27.7	2970	500	D
CJA1-27*	400 rm	61	2.6	31.3	3790	500	D

re - circular solid conductor rm - circular stranded conductor

*Please add the letter shown below for colour desired: A - Black, C -Blue, D - Brown, W - White, N - Orange, G - Green, H - Grey, R - Red, Y - Yellow, J - Green/Yellow (Green/Yellow available for sizes up to and including 120 mm^2).

1. Stranded Copper Conductor
2. XLPE Insulation



DESCRIPTION

Single core cables with stranded copper conductors, XLPE insulated, rated 600 V, conforming to UL:44 (similar to XHHW cable).

CONSTRUCTION

Conductor
Plain annealed circular copper conforming to IEC:228, class 1 and 2.

Insulation
XLPE (cross-linked polyethylene) rated 90°C.

APPLICATION

Typical applications include building wiring, equipment wiring, switching and distribution installations in conduits above or under plaster.

FEATURES

Insulation adheres tightly to conductors yet strips easily, leaving conductor clean. XLPE insulation has good electrical properties and resistance to moisture, oil and most chemicals.

TO ORDER
Order by catalogue number, quantity and packaging required.

Example
CNA1-10A 2000 meters in 100m coils.

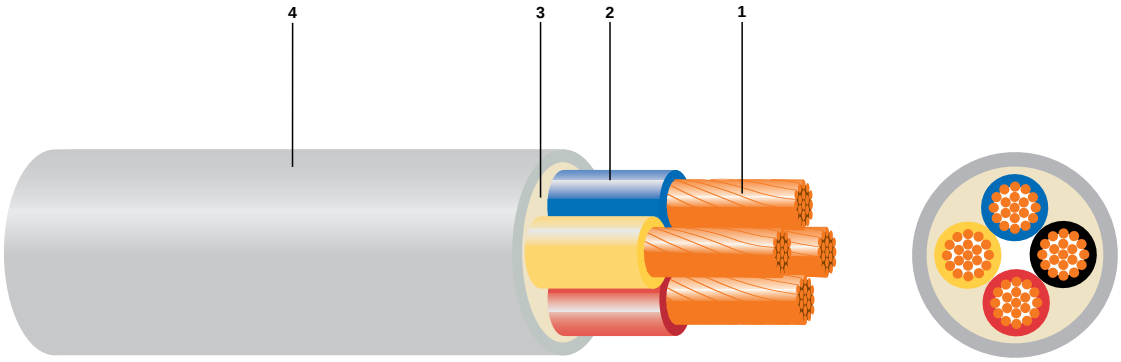
Note: In the interests of product improvement, SCC reserve the right to alter cable specifications.

DIMENSIONS AND WEIGHTS

	Conductor		Insulation		Packaging	
Catalogue number	Cross sectional area Nominal m m^2	Minimum number of wires	Thickness Nominal m m	Overall diameter Approx m m	Net weight Approx kg/km	B-Box, S-Spool C-Coil, D-Drum m
CNA1-04A*	1.5	7	0.8	3.3	20	100 B/S
CNA1-05A*	2.5	7	0.8	3.7	30	100 B/S
CNA1-06A*	4	7	0.8	4.2	45	100 B/S
CNA1-07A*	6	7	0.8	4.8	65	100 B/S
CNA1-08A*	10	7	1.1	6.4	105	100 C
CNA1-09A*	16	7	1.1	7.5	165	100 C
CNA1-10A*	25	7	1.1	8.8	250	100 C
CNA1-11A*	35	7	1.1	9.9	340	100 D
CNA1-14A*	50	19	1.4	12.0	465	100 D
CNA1-16A*	70	19	1.4	13.8	655	100 D
CNA1-17A*	95	19	1.4	15.6	895	100 D
CNA1-19A*	120	37	1.7	17.8	1135	100 D
CNA1-21A*	150	37	1.7	19.3	1385	100 D
CNA1-22A*	185	37	1.7	21.2	1720	100 D
CNA1-24A*	240	61	1.7	23.8	2235	100 D
CNA1-26A*	300	61	2.0	26.9	2820	500 D
CNA1-27A*	400	61	2.0	29.9	3575	500 D
CNA1-28A*	500	61	2.0	33.2	4560	500 D
CNA1-30A*	630	61	2.4	38.0	5900	500 D

*Please add the letter shown below for colour desired: A - Black, C -Blue, D - Brown, W - White, N - Orange, G - Green, H - Grey, R - Red, Y - Yellow.

1. Stranded Copper Conductor
2. PVC Insulation
3. Extruded Filling
4. PVC Sheath



DESCRIPTION

Circular multi-core cable with solid or stranded copper conductor, PVC insulated and PVC sheathed. Cables are rated 300/500 V, conform to SASO:55 specification and similar to BS:6004-1984 specification.

CONSTRUCTION

Conductor
Plain annealed circular copper conforming to IEC:228 class 1 and 2.

Insulation
PVC type 5 to BS:6746 rated 85°C, (PVC type 1 to BS:6746 rated 70°C also available).

Assembly
Two, three or four insulated cores are laid up, filled with non-hygroscopic material and covered with an additional layer of extruded thermoplastic material which may be an integral part of the filling.

Sheath
PVC type ST2 to IEC:502, colour grey (black on request).

Colours for core identification
Two cores - red and black
Three cores - red, yellow and blue
Four cores - red, yellow, blue and black

APPLICATION

Typical applications include fixed wiring, concealed in conduits or exposed on insulators, and in switching panels and distribution boards. These cables may be used in wet or dry locations and in outdoor applications.

TO ORDER
Order by catalogue number, quantity required, number or lengths and packaging.

Example
CGH2-08H 10km (5x2000m) on wooden reels.

Note: If 70°C rated PVC insulation is desired, change the second letter in the catalogue number to 'B'.

Example
For the above cable with 70°C rated PVC insulation the catalogue number will be CBH2-08H.

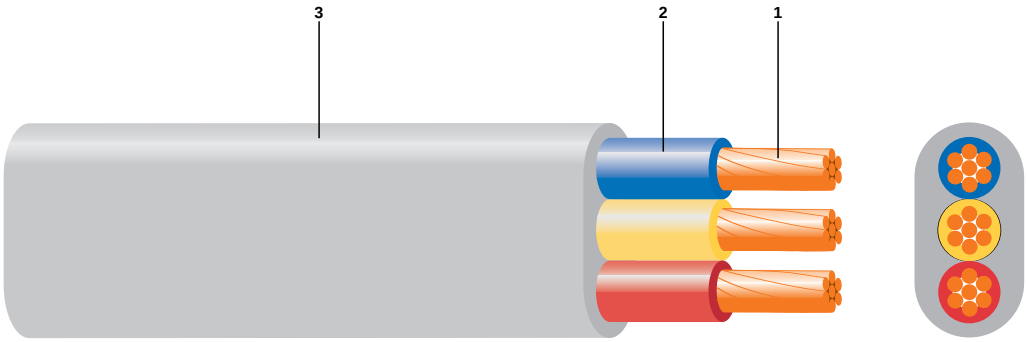
Note: In the interests of product improvement, SCC reserve the right to alter cable specifications.

DIMENSIONS AND WEIGHTS

	Conductor		Insulation	Outer Sheath		Packaging		
Catalogue number	Cross sectional area Nominal m m^2	Minimum number of wires	Thickness Nominal m m	Thickness Nominal m m	Overall diameter Approx m m	Net weight Approx kg/km	C - Coil D - Drum	Length m
2 Core								
AGH2-03H	1 re	1	0.6	1.2	8.4	88	C	100
AGH2-04H	1.5 re	1	0.7	1.2	9.3	114	C	100
AGH2-05H	2.5 re	1	0.8	1.2	10.5	150	C	100
AGH2-06H	4 re	1	0.8	1.2	11.4	202	C	100
AGH2-07H	6 re	1	0.8	1.2	12.4	260	C	100
CGH2-07H	6 rm	7	0.8	1.2	13.0	274	C	100
AGH2-08H	10 re	1	1.0	1.4	15.5	416	D	1000/2000
CGH2-08H	10 rm	7	1.0	1.4	16.4	437	D	1000/2000
CGH2-09H	16 rm	7	1.0	1.4	18.5	604	D	1000/2000
CGH2-10H	25 rm	7	1.2	1.4	21.9	897	D	1000
CGH2-11H	35 rm	7	1.2	1.6	24.4	1049	D	1000
CGH2-12H	35 rm	19	1.2	1.6	24.7	1186	D	1000
3 Core								
AGH3-03H	1 re	1	0.6	1.2	8.7	102	C	50/100
AGH3-04H	1.5 re	1	0.7	1.2	9.3	133	C	50/100
AGH3-05H	2.5 re	1	0.8	1.2	11.0	183	C	50/100
AGH3-06H	4 re	1	0.8	1.2	12.0	246	C	50/100
AGH3-07H	6 re	1	0.8	1.4	13.6	335	C	50/100
CGH3-07H	6 rm	7	0.8	1.4	14.3	352	C	50/100
AGH3-08H	10 re	1	1.0	1.4	16.4	514	D	1000/2000
CGH3-08H	10 rm	7	1.0	1.4	17.3	534	D	1000/2000
CGH3-09H	16 rm	7	1.0	1.4	19.6	758	D	1000/2000
CGH3-10H	25 rm	7	1.2	1.6	23.7	1156	D	1000
CGH3-11H	35 rm	7	1.2	1.6	26.0	1502	D	1000
CGH3-12H	35 rm	19	1.2	1.6	26.4	1501	D	1000
4 Core								
AGH4-03H	1 re	1	0.6	1.2	9.4	120	C	50/100
AGH4-04H	1.5 re	1	0.7	1.2	10.5	158	C	50/100
AGH4-05H	2.5 re	1	0.8	1.2	11.9	224	C	50/100
AGH4-06H	4 re	1	0.8	1.4	13.6	312	C	50/100
AGH4-07H	6 re	1	0.8	1.4	14.8	411	C	50/100
CGH4-07H	6 rm	7	0.8	1.4	15.5	428	C	50/100
AGH4-08H	10 re	1	1.0	1.4	18.0	638	D	1000/2000
CGH4-08H	10 rm	7	1.0	1.4	19.0	666	D	1000/2000
CGH4-09H	16 rm	7	1.0	1.4	21.5	944	D	1000
CGH4-10H	25 rm	7	1.2	1.6	26.0	1445	D	1000
CGH4-12H	35 rm	19	1.2	1.6	28.9	1880	D	1000

re - circular solid conductor rm - circular stranded conductor

1. Stranded Copper Conductor
2. PVC Insulation
3. PVC Sheath



DESCRIPTION

Flat twin and flat three core cables with solid or stranded copper conductors, PVC insulated and PVC sheathed, are rated 300/500 V, conform to SASO:55 specification and similar to BS:6004-1984 specification.

CONSTRUCTION

Conductor
Plain annealed circular copper conforming to IEC:228, class 1 and 2.

Insulation
PVC type 5 to BS:6746 rated 85°C, (PVC type 1 to BS:6746 rated 70°C also available).

Assembly
Two or three insulated conductors are laid parallel with or without a bare copper conductor for earth continuity.

Sheath
PVC type ST2 to IEC:502, colour grey (black on request).

Colours for core identification
Two core - red and black
Three core - red, yellow and blue

APPLICATION

These cables are suitable for operation at voltages up to and including 300 V_{rms} to earth and 500 V_{rms} between conductors. Typical applications include indoor and outdoor wiring of residential and commercial buildings, warehouses and shops.

TO ORDER
Order by catalogue number, quantity required, number of lengths and packaging.

Example
CGF2-09H 5 km (5x1000m) on wooden reels

Note: If 70°C rated PVC insulation is desired, change the second letter in the catalogue number to 'B'.

Example
For the above cable with 70°C rated PVC insulation, the catalogue number will be CBF2-09H

Note: In the interests of product improvement, SCC reserve the right to alter cable specifications.

DIMENSIONS AND WEIGHTS

Catalogue number	Conductor: Cross sectional area Nominal mm²	Conductor: Minimum number of wires	Conductor: Earth cont. cond. no.xmm	Insulation: Thickness Nominal mm	Outer Sheath: Thickness Nominal mm	Outer Sheath: Overall dimensions Approx mm x mm	Packaging: Net weight Approx kg/km	Packaging: C-Coil D-Drum	Packaging: Length m
2 Core (without earth continuity conductor)									
AGF2-04H	1.5 re	1	-	0.7	0.9	8.4x5.4	62	C	50/100
AGF2-05H	2.5 re	1	-	0.8	1.0	9.8x6.2	94	C	50/100
CGF2-06H	4 rm	7	-	0.8	1.0	11.5x7.2	142	C	50/100
CGF2-07H	6 rm	7	-	0.8	1.1	13.0x8.0	194	C	50/100
CGF2-08H	10 rm	7	-	1.0	1.2	16.0x9.6	310	C	50/100
CGF2-09H	16 rm	7	-	1.0	1.3	18.5x11.0	450	D	1000/2000
3 Core (without earth continuity conductor)									
AGF3-04H	1.5 re	1	-	0.7	0.9	11.5x5.4	90	C	50/100
AGF3-05H	2.5 re	1	-	0.8	1.0	13.5x6.2	137	C	50/100
CGF3-06H	4 rm	7	-	0.8	1.1	16.5x7.4	216	C	50/100
CGF3-07H	6 rm	7	-	0.8	1.1	18.0x8.0	287	C	50/100
CGF3-08H	10 rm	7	-	1.0	1.2	22.5x9.6	461	D	1000/2000
CGF3-09H	16 rm	7	-	1.0	1.3	26.5x11.0	672	D	1000/2000
2 Core (with earth continuity conductor)									
AGG2-04H	1.5 re	1	1x1.13	0.7	0.9	9.6x5.4	77	C	50/100
AGG2-05H	2.5 re	1	1x1.13	0.8	1.0	11.0x6.2	110	C	50/100
CGG2-06H	4 rm	7	1x1.38	0.8	1.0	13.0x7.2	166	C	50/100
CGG2-07H	6 rm	7	1x1.78	0.8	1.1	15.0x8.0	231	C	50/100
CGG2-08H	10 rm	7	7x0.84	1.0	1.2	19.0x9.6	371	D	1000/2000
CGG2-09H	16 rm	7	7x1.02	1.0	1.3	22.0x11.0	538	D	1000/2000
3 Core (with earth continuity conductor)									
AGG3-04H	1.5 re	1	1x1.13	0.7	0.9	12.5x5.4	105	C	50/100
AGG3-05H	2.5 re	1	1x1.13	0.8	1.0	14.5x6.2	153	C	50/100
CGG3-06H	4 rm	7	1x1.38	0.8	1.1	18.0x7.4	250	C	50/100
CGG3-07H	6 rm	7	1x1.78	0.8	1.1	20.0x8.0	325	C	50/100
CGG3-08H	10 rm	7	7x0.84	1.0	1.2	25.5x9.6	522	D	1000/2000
CGG3-09H	16 rm	7	7x1.02	1.0	1.3	29.5x11.0	760	D	1000/2000

re - circular solid conductor rm - circular stranded conductor

BUILDING WIRES

ELECTRICAL CHARACTERISTICS

CURRENT CARRYING CAPACITY

Conductor	Conductor resistance			Current carrying capacity		
				In air		
Cross sectional area	DC at 20°C	AC at 85°C in flat formation 	AC at 85°C in trefoil formation 	Free 	Free 	In pipes 
Nominal m m^2	Maximum ohm/km	Approx ohm/km	Approx ohm/km	Approx amps	Approx amps	Approx amps
1.5	12.1	14.5	14.5	17	14	14
2.5	7.41	8.87	8.87	23	20	18
4	4.61	5.52	5.52	31	26	24
6	3.08	3.69	3.69	40	34	30
10	1.83	2.19	2.19	57	48	42
16	1.15	1.38	1.38	76	65	55
25	0.727	0.87	0.87	102	87	72
35	0.524	0.627	0.628	127	108	89
50	0.387	0.463	0.464	157	133	108
70	0.268	0.321	0.322	201	170	136
95	0.193	0.232	0.233	252	213	169
120	0.153	0.184	0.186	295	249	195
150	0.124	0.15	0.151	340	287	223
185	0.0991	0.12	0.122	395	333	256
240	0.0754	0.0924	0.095	474	397	303
300	0.0601	0.0746	0.0779	550	458	346
400	0.047	0.0596	0.0637	644	531	397
500	0.0366	0.048	0.0529	752	610	452
630	0.0283	0.039	0.0449	888	705	513

Note: inner diameter of pipe is assumed to be 1.5 x diameter over cable assembly.

CURRENT CARRYING CAPACITY

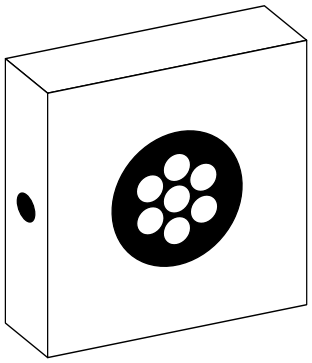
Conductor	Conductor resistance			Current carrying capacity		
				In air		
Cross sectional area	DC at 20°C	AC at 70°C in flat formation 	AC at 70°C in trefoil formation 	Free 	Free 	In pipes 
Nominal m m^2	Maximum ohm/km	Approx ohm/km	Approx ohm/km	Approx amps	Approx amps	Approx amps
1.5	12.1	15.2	15.2	21	18	16
2.5	7.41	9.3	9.3	29	24	22
4	4.6	5.79	5.79	39	33	28
6	3.08	3.87	3.87	50	42	36
10	1.83	2.3	2.3	71	60	50
16	1.15	1.44	1.44	96	81	66
25	0.727	0.913	0.913	128	109	87
35	0.524	0.658	0.658	159	135	107
50	0.387	0.486	0.486	197	167	130
70	0.268	0.337	0.338	252	213	164
95	0.193	0.243	0.244	315	267	203
120	0.153	0.193	0.194	369	312	235
150	0.124	0.157	0.159	424	359	268
185	0.0991	0.126	0.128	494	417	310
240	0.0754	0.0967	0.0993	592	497	366
300	0.0601	0.078	0.0812	688	575	420
400	0.047	0.0623	0.0662	805	667	482
500	0.0366	0.05	0.0547	940	768	550
630	0.0283	0.0413	0.0463	1113	888	627

Note: inner diameter of pipe is assumed to be 1.5 x diameter over cable assembly.

BUILDING WIRES

PACKAGING OPTIONS

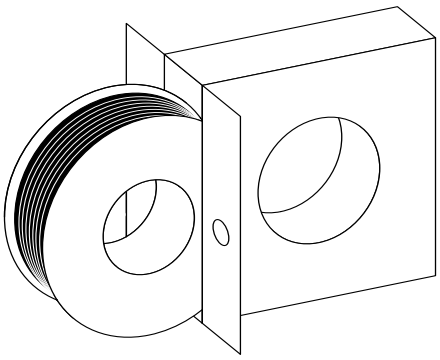
SCC building wires are supplied in several packaging types to suit a range of different project applications. These include spools, coils and drums as well as easy-pull cable reel dispensers to reduce the time and cost of installation on site. Some cables are offered in a choice of packaging allowing you to select the most appropriate option to suit your individual requirements. Standard packaging and packaging options are indicated by a letter code in the product specifications tables. However, please note that alternative packaging can also be supplied on request. Please contact our technical department for details.



Packaging Code B

Coil in carton box.

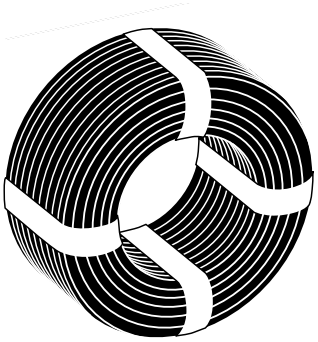
Single core 1.5mm^2 to 6mm^2.



Packaging Code S

Superior easypull package - a spool within a box.

Single core 1.5mm^2 to 6mm^2.

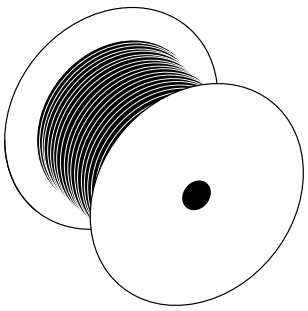


Packaging Code C

Coils (spooless plastic wrapped).

Single core 10mm^2 to 25mm^2.

Flat twin, flat three and multicore.



Packaging Code D

Single core 10mm^2 to 25mm^2.

Flat twin, flat three and multicore building wires.