

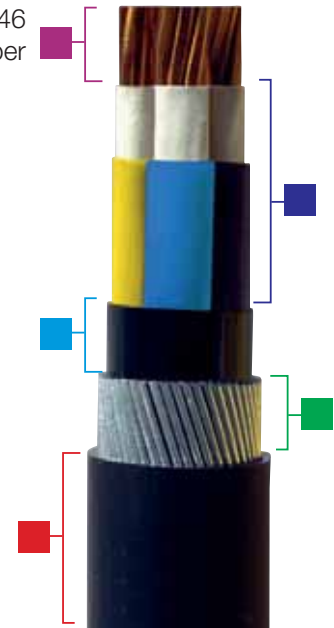


DUCAB FLAMBICC 4

Ducab FlamBICC 4 cables are multi-core armoured cables designed as per BS 7846 with steel wire armour construction to meet category F2 fire test (C-W-Z test as per BS 6387).

CONSTRUCTION

- **Conductor:** Plain annealed Copper, stranded class 2 conductor to BS EN 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



CHARACTERISTICS

General:	Ducab FlamBICC 4 are armoured cables designed as per BS 7846 to meet C-W-Z fire test as per BS 6387.
Approvals:	LPCB and BASEC approved for 2, 3 and 4 core cable designs
Voltage grade:	600 / 1000 V
Fire resistance:	C-W-Z test as per BS 6387
Flame propagation:	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 & BS EN 50267
Low smoke emission:	As per IEC 61034 & BS EN 50268
Cable operating temperature:	Maximum 90°C
Short circuit temperature	Maximum 250°C
Bending radius:	6 x Cable diameter for circular and 8 x Cable diameter for sector shaped cables

CORE IDENTIFICATIONS

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



2 Core Cables

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

Nominal conductor area	Approximate Diameter			Approximate cable weight	Maximum conductor resistance at 20°C	Maximum armour resistance at 20°C	Current rating on perforated cable trays / free air	Voltage drop (1 ϕ AC)
	Under armour	Over armour	Overall diameter					
mm ²	mm	mm	mm	kg/km	Ohm/km	Ohm/km	Amp	mV/A/m
600/1000 V Copper power and control cables								
1.5*	8.7	10.5	12.4	315	12.1	10.2	29	31
2.5*	9.9	11.7	13.8	385	7.41	8.8	39	19
4*	11.1	12.9	15.0	460	4.61	7.9	52	12
6*	12.1	13.9	16.0	535	3.08	7.0	66	7.9
10*	13.9	15.7	18.0	690	1.83	6.0	90	4.7
16*	15.7	18.2	20.5	920	1.15	3.7	115	2.9
25*	19.7	22.2	24.7	1270	0.727	3.7	152	1.9
35*	21.9	25.1	27.8	1720	0.524	2.6	188	1.35
50	19.5	22.6	25.4	1810	0.387	2.3	228	1
70	22.1	25.2	28.2	2305	0.268	2.0	291	0.69
95	24.5	28.4	31.6	3105	0.193	1.4	354	0.52
120	29.1	33.0	36.4	3820	0.153	1.3	410	0.42
150	31.1	35.0	38.6	4475	0.124	1.2	472	0.35
185	33.4	38.3	42.2	5675	0.0991	0.82	539	0.29
240	38.0	42.9	47.0	7090	0.0754	0.73	636	0.24
300	43.0	47.8	52.2	8570	0.0601	0.67	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



3 Core Cables

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

Nominal conductor area	Approximate Diameter			Approximate cable weight	Maximum conductor resistance at 20°C	Maximum armour resistance at 20°C	Current rating on perforated cable trays / free air	Voltage drop (3φ AC)
	Under armour	Over armour	Overall diameter					
mm ²	mm	mm	mm	kg/km	Ohm/km	Ohm/km	Amp	mV/A/m
600/1000 V Copper power and control cables								
1.5*	9.2	11.0	12.9	345	12.1	9.5	25	27
2.5*	10.5	12.3	14.4	425	7.41	8.2	33	16
4*	11.8	13.6	15.7	515	4.61	7.5	44	10
6*	12.9	14.7	16.8	610	3.08	6.7	56	6.8
10*	14.8	17.3	19.6	910	1.83	4.0	78	4.0
16*	16.8	19.3	21.8	1110	1.15	3.5	99	2.5
25*	21.1	24.3	27.0	1720	0.727	2.5	131	1.65
35*	23.5	26.7	29.6	2105	0.524	2.3	162	1.15
50	24.9	28.0	30.8	2480	0.387	2.0	197	0.87
70	26.9	30.0	33.0	3145	0.268	1.8	251	0.60
95	30.6	34.5	37.9	4310	0.193	1.3	304	0.45
120	33.9	37.8	41.4	5170	0.153	1.2	353	0.37
150	37.8	42.7	46.5	6555	0.124	0.78	406	0.30
185	42.2	47.1	51.0	7915	0.0991	0.71	463	0.26
240	46.4	51.3	55.6	9815	0.0754	0.63	546	0.21
300	52.8	57.6	62.1	12030	0.0601	0.58	628	0.185
400	58.0	62.8	67.7	14740	0.0470	0.52	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



4 Core Cables

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

Nominal conductor area	Approximate Diameter			Approximate cable weight	Maximum conductor resistance at 20°C	Maximum armour resistance at 20°C	Current rating on perforated cable trays / free air	Voltage drop (3 ϕ AC)
	Under armour	Over armour	Overall diameter					
mm ²	mm	mm	mm	kg/km	Ohm/km	Ohm/km	Amp	mV/A/m
600/1000 V Copper power and control cables								
1.5*	10.1	11.9	13.8	390	12.1	8.8	25	27
2.5*	11.5	13.3	15.4	480	7.41	7.7	33	16
4*	13.0	14.8	16.9	590	4.61	6.8	44	10
6*	14.2	16.7	19.0	825	3.08	4.3	56	6.8
10*	16.4	18.9	21.2	1065	1.83	3.7	78	4.0
16*	18.6	21.1	23.6	1335	1.15	3.1	99	2.5
25*	23.4	26.6	29.3	2070	0.727	2.3	131	1.65
35*	26.1	29.3	32.2	2550	0.524	2.0	162	1.15
50	26.5	29.6	32.6	3015	0.387	1.8	197	0.87
70	30.7	34.6	38.0	4240	0.268	1.2	251	0.60
95	34.5	38.4	42.0	5420	0.193	1.1	304	0.45
120	38.1	43.0	46.8	6935	0.153	0.76	353	0.37
150	42.8	47.7	51.6	8270	0.124	0.68	406	0.30
185	47.2	52.1	56.4	10000	0.0991	0.61	463	0.26
240	52.5	57.3	61.8	12485	0.0754	0.54	546	0.21
300	58.2	63.0	67.9	15175	0.0601	0.49	628	0.185
400	66.5	72.6	78.0	19800	0.0470	0.35	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

Multicore Cables

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

Number of cores	Nominal conductor area	Approximate Diameter			Approximate cable weight	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)
		Under armour	Over armour	Overall diameter						
	mm ²	mm	mm	mm	kg/km	Ohm/km	Ohm/km	Amp	Amp	mV/A/m
600/1000 V Copper power and control cables										
7	1.5	12.0	13.7	15.9	485	12.1	7.5	19	29	27
12		15.8	18.3	20.6	820	12.1	4.0	16	29	27
19		18.6	21.1	23.6	1060	12.1	3.5	14	29	27
27		22.4	25.6	28.3	1525	12.1	2.3	12	29	27
37		25.2	28.4	31.1	1840	12.1	2.0	11	29	27
48		29.0	32.2	35.1	2240	12.1	1.8	10	29	27
7	2.5	13.8	15.5	17.7	610	7.41	6.3	25	39	16
12		18.3	20.8	23.3	1040	7.41	3.5	21	39	16
19		21.6	24.8	27.5	1525	7.41	2.3	18	39	16
27		26.1	29.3	32.2	1980	7.41	1.9	17	39	16
37		29.4	32.6	35.5	2425	7.41	1.7	15	39	16
48		33.9	37.9	41.1	3260	7.41	1.2	14	39	16
7	4	15.6	18.0	20.3	885	4.61	4.0	33	52	10
12		20.8	24.0	26.5	1450	4.61	2.3	28	52	10
19		24.6	27.8	30.5	1940	4.61	2.0	24	52	10
27		29.8	33.0	36.0	2560	4.61	1.7	22	52	10
37		33.6	37.6	40.8	3445	4.61	1.2	19	52	10
48		38.8	42.8	46.2	4240	4.61	1.0	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