

CY CONTROL



STANDARD: Generally to BS6500 and VDE 0250

VOLTAGE RATING: 300/500V

APPLICATION:

Flexible cable for use in energy distribution, measuring or telemetry purposes where electromagnetic interference is an issue.

CY CONSTRUCTION:

Plain copper flexible Class 5 conductors to BS 6360 / VDE 0295. PVC Insulation, polyester binder tape, tinned copper wire braid and aluminium foil screen.

CORE COLOURS: Black cores in accordance to VDE 0293. Earth conductor - Green/Yellow or colour codes available.

SHEATH COLOURS: Grey PVC

MINIMUM BENDING RADIUS: 6D

MAXIMUM CONDUCTOR TEMPERATURE: 70°C

Control Flex

YY CONTROL

SY CONTROL

CY CONTROL

YY LSOH - FLEXIBLE
INSTALLATION CABLE

Elastomeric Flexibles

Flexible Cables

Equipment Wires

Structured Wiring

Fire Performance

Fixed Wiring Energy Cables

MINIMUM TEMPERATURE FOR FIXED INSTALLATIONS: 0°C

Reference number	Nominal area of conductor	Class of conductor	Maximum resistance of conductor at 20°C	Insulation thickness	Sheath thickness	Nominal Cable diameter	Approx. nett weight
2 Core	0.5	5	39.00	0.5	0.8	4.9	32
	0.75	5	26.00	0.5	0.8	5.1	40
	1.0	5	19.50	0.5	0.8	5.5	49
	1.5	5	13.30	0.6	0.8	6.1	63
	2.5	5	7.98	0.6	0.8	7.5	95
3 Core	0.5	5	39.00	0.5	0.8	5.1	41
	0.75	5	26.00	0.5	0.8	5.6	53
	1.0	5	19.50	0.5	0.8	5.5	59
	1.5	5	13.3	0.6	0.8	6.5	79
	2.5	5	7.98	0.6	0.8	7.9	123
4 Core	0.5	5	39.00	0.5	0.8	5.6	44
	0.75	5	26.00	0.5	0.8	6.0	56
	1.0	5	19.50	0.5	0.8	6.5	62
	1.5	5	13.3	0.6	0.8	7.2	97
	2.5	5	7.98	0.6	0.8	8.7	152
5 Core	0.5	5	39.00	0.5	0.8	6.3	53
	0.75	5	26.00	0.5	0.8	6.6	67
	1.0	5	19.50	0.5	0.8	6.9	80
	1.5	5	13.3	0.6	0.8	7.9	110
	2.5	5	7.98	0.6	0.8	9.7	172
7 Core	0.5	5	39.00	0.5	0.8	6.5	74
	0.75	5	26.00	0.5	0.8	7.1	96
	1.0	5	19.50	0.5	0.8	7.5	125

	1.5	5	13.3	0.6	0.8	8.8	148
12 Core	0.5	5	39.00	0.5	0.8	8.8	111
	0.75	5	26.00	0.5	0.8	9.8	149
	1.0	5	19.50	0.5	0.8	10.4	183
	1.5	5	13.3	0.6	0.8	11.7	248
18 Core	0.5	5	39.00	0.5	0.8	10.6	163
	0.75	5	26.00	0.5	0.8	11.4	212
	1.0	5	19.50	0.5	0.8	12.3	265
25 Core	0.75	5	26.00	0.5	0.8	14	296
	1.0	5	19.50	0.5	0.8	14.6	356
	1.5	5	13.3	0.6	0.8	17.1	509

Table 4D2A - Multicore 70°C thermoplastic insulated and thermoplastic sheathed cables, non-armoured (copper conductors)

Current-Carrying Capacity (amperes):
 Ambient temperature: 30°C
 Conductor operating temperature: 70°C

Conductor cross-sectional area	Reference method A (enclosed in conduit on a thermally insulated wall etc)		Reference method B (enclosed in conduit on a wall or ceiling, or in trunking)		Reference method C (clipped direct)		Reference method E (in free air or on a perforated cable tray etc; horizontal or vertical)	
	1 two-core cable*, single phase A.C. or D.C.	1 three-core cable* or 1 four-core cable, three-phase A.C.	1 two-core cable*, single phase A.C. or D.C.	1 three-core cable* or 1 four-core cable, three-phase A.C.	1 two-core cable*, single phase A.C. or D.C.	1 three-core cable* or 1 four-core cable, three-phase A.C.	1 two-core cable*, single phase A.C. or D.C.	1 three-core cable* or 1 four-core cable, three-phase A.C.
1	2	3	4	5	6	7	8	9
mm ²	A	A	A	A	A	A	A	A
1	11	10	13	11.5	15	13.5	17	14.5
1.5	14	13	16.5	15	19.5	17.5	22	18.5
2.5	18.5	17.5	23	20	27	24	30	25
4	25	23	30	27	36	32	40	34
6	32	29	38	34	46	41	51	43
10	43	39	52	46	63	57	70	60
16	57	52	69	62	85	76	94	80
25	75	68	90	80	112	96	119	101
35	92	83	111	99	138	119	148	126
50	110	99	133	118	168	144	180	153
70	139	125	168	149	213	184	232	196
95	167	150	201	179	258	223	282	238
120	192	172	232	206	299	259	328	276

Table 4F3A - flexible cords, non-armoured (copper conductors)

CURRENT CARRYING CAPACITY (amperes):
and MASS SUPPORTABLE (kg):

Conductor cross-sectional area	Current-carrying capacity		Maximum mass supportable by twin flexible cord (see Regulations 522.7.2 and 559.6.1.5)
	Single-phase A.C.	Three-phase A.C.	
1	2	3	4
mm ²	A	A	kg
0.5	3	3	2
0.75	6	6	3
1.0	10	10	5
1.25	13	-	5
1.5	16	16	5
2.5	25	20	5
4.0	32	25	5

Where cable is on a reel see the notes to Table 4F1A.

RATING FACTOR FOR AMBIENT TEMPERATURE

60°C thermoplastic or thermosetting insulated cords:

Ambient temperature	35°C	40°C	45°C	50°C	55°C
Rating Factor	0.91	0.82	0.71	0.58	0.41

90°C thermoplastic or thermosetting insulated cords:

Ambient temperature	35°C to 120°C	125°C	130°C	135°C	140°C	145°C
Rating Factor	1.0	0.96	0.85	0.74	0.60	0.42

90°C thermoplastic or thermosetting insulated cords:

Ambient temperature	35°C to 50°C	55°C	60°C	65°C	70°C
Rating Factor	1.0	0.96	0.83	0.67	0.47

Glass fibre cords:

Ambient temperature	35°C to 150°C	155°C	160°C	165°C	170°C	175°C
Rating Factor	1.0	0.92	0.82	0.71	0.57	0.40

Table 4F3B

VOLTAGE DROP (per ampere per metre)
Conductor operating temperature: 60°C*

Conductor cross-sectional area	D.C. or single-phase A.C.		Three-phase A.C.
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