

PVC Control Cabels

Flexible



APPLICATION

PVC control cables are specially suitable for use as flexible control cables.

- Fans and air-conditioning systems
- Machine tools
- Production and processing machines
- Industrial robots

DESIGN

PVC control cables consist of finely stranded copper conductors with V75 PVC insulation. The high grade PVC sheath is resistant to oil, grease and chemicals.

Designed for moderate mechanical loading, in dry, damp and wet areas and in hazardous areas. Outdoor use is possible, provided that the cables are protected from direct sunlight and are permanently installed.

SPECIAL FEATURES

**Suitable for use
in hazardous areas
Voltages**

Burning behavior in accordance with DIN
VDE 0472 Part 804, Test B (IEC 332-1)
300/500 V Rated voltage
318/550 V Highest permissible operating voltage
- 3 phase and single phase operation
- in DC operation
2 kV Test voltage
VDE Reg. No. 7042
Based on DIN VDE 0281-13

**Certifi cation
Standards**

TECHNICAL INFORMATION

Cable construction is based on DIN VDE 0281-13

- Finely-stranded bare copper conductors according to VDE 0295 Class 5
- Insulation of special polyvinyl chloride (PVC)
- PVC inner sheath over laid-up cores in shielded versions
- Grey PVC outer sheath, largely resistant to oil and chemicals

CONTINUOUS TENSILE LOAD

The maximum allowable tensile stress for operation of cables with mobile equipment is 15 N per mm².
The maximum allowable tensile stress is 50 N mm² for fixed installations.

PERMISSIBLE TEMPERATURE

At conductor:	free-flexing	+5°C to + 70°C
	fixed	- 40°C to + 70°C
Bending radii:	fixed	4 d
	free-flexing	7.5 d
d= outer diameter of cable		

CURRENT CARRYING CAPACITY

The current carrying capacities are based on a continuous operating temperature of 40°C. At other temperatures these values must be converted using the following factors

°C	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Factor	1.26	1.20	1.15	1.12	1.05	1.00	0.94	0.88	0.81	0.73	0.65	0.57	0.47	0.34

VOLTAGE RATING

- Rated voltage:: U_0/U = 300/500V
- AC test voltage: = 2kV

*The cable is designated 300/500V in accordance with VDE/IEC and meets the Australian standard for the stated voltage rating AS 1125, AS 3147.

CORE COLOUR IDENTIFICATION

All control cores are black, sequentially numbered and include a green/yellow earth core.

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Selection and ordering data

No. of cores x Conductor cross-section mm ²	Part No.	Approx. No. of strands x Max. strand diameter mm	Cable overall diameter mm	Unenclosed Touching  A
2 x 0.5	CF2X0.5	16 x 0.21	4.8	8
3 x 0.5	CF3G0.5	16 x 0.21	5.1	8
4 x 0.5	CF4G0.5	16 x 0.21	5.6	8
5 x 0.5	CF5G0.5	16 x 0.21	6.2	8
7 x 0.5	CF7G0.5	16 x 0.21	6.8	8
12 x 0.5	CF12G0.5	16 x 0.21	9.2	8
18 x 0.5	CF18G0.5	16 x 0.21	10.8	8
25 x 0.5	CF25G0.5	16 x 0.21	13.1	8
34 x 0.5	CF34G0.5	16 x 0.21	14.2	8
40 x 0.5	CF40G0.5	16 x 0.21	16.1	8
50 x 0.5	CF50G0.5	16 x 0.21	17.7	8

No. of cores x Conductor cross-section mm ²	Part No.	Approx. No. of strands x Max. strand diameter mm	Cable overall diameter mm	Unenclosed Touching  A
2 x 0.75	CF2X0.75	24 x 0.21	5.2	10
3 x 0.75	CF3G0.75	24 x 0.21	5.6	10
4 x 0.75	CF4G0.75	24 x 0.21	6.2	10
5 x 0.75	CF5G0.75	24 x 0.21	6.8	10
7 x 0.75	CF7G0.75	24 x 0.21	7.5	10
9 x 0.75	CF9G0.75	24 x 0.21	9.8	10
12 x 0.75	CF12G0.75	24 x 0.21	10.0	10
18 x 0.75	CF18G0.75	24 x 0.21	12.0	10
25 x 0.75	CF25G0.75	24 x 0.21	14.5	10
34 x 0.75	CF34G0.75	24 x 0.21	16.5	10
41 x 0.75	CF41G0.75	24 x 0.21	17.9	10

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Selection and ordering data

No. of cores x Conductor cross-section mm ²	Part No.	Approx. No. of strands x Max. strand diameter mm	Cable overall diameter mm	Unenclosed Touching  A
2 x 1.0	CF2x1	32 x 0.21	5.7	13
3 x 1.0	CF3G1	32 x 0.21	6.1	13
4 x 1.0	CF4G1	32 x 0.21	6.7	13
5 x 1.0	CF5G1	32 x 0.21	7.4	13
7 x 1.0	CF7G1	32 x 0.21	8.3	13
12 x 1.0	CF12G1	32 x 0.21	10.9	13
18 x 1.0	CF18G1	32 x 0.21	13.1	13
25 x 1.0	CF25G1	32 x 0.21	15.9	13
34 x 1.0	CF34G1	32 x 0.21	18.1	13
41 x 1.0	CF41G1	32 x 0.21	19.6	13
50 x 1.0	CF50G1	32 x 0.21	21.5	13

No. of cores x Conductor cross-section mm ²	Part No.	Approx. No. of strands x Max. strand diameter mm	Cable overall diameter mm	Unenclosed Touching  A
2 x 1.5	CF2x1.5	28 x 0.26	6.3	16
3 x 1.5	CF3G1.5	28 x 0.26	6.7	16
4 x 1.5	CF4G1.5	28 x 0.26	7.4	16
5 x 1.5	CF5G1.5	28 x 0.26	8.3	16
7 x 1.5	CF7G1.5	28 x 0.26	9.1	16
9 x 1.5	CF9G1.5	28 x 0.26	11.5	16
12 x 1.5	CF12G1.5	28 x 0.26	12.1	16
18 x 1.5	CF18G1.5	28 x 0.26	14.5	16
25 x 1.5	CF25G1.5	28 x 0.26	17.7	16
34 x 1.5	CF34G1.5	28 x 0.26	19.9	16
42 x 1.5	CF42G1.5	28 x 0.26	21.6	16

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Selection and ordering data

No. of cores x Conductor cross-section mm ²	Part No.	Approx. No. of strands x Max. strand diameter mm	Cable overall diameter mm	Unenclosed Touching A
2 x 2.5	CF2x2.5	48 x 0.26	7.7	23
3 x 2.5	CF3G2.5	48 x 0.26	8.3	23
4 x 2.5	CF4G2.5	48 x 0.26	9.2	23
5 x 2.5	CF5G2.5	48 x 0.26	10.1	23
7 x 2.5	CF7G2.5	48 x 0.26	11.2	23
12 x 2.5	CF12G2.5	48 x 0.26	15.2	23
18 x 2.5	CF18G2.5	48 x 0.26	18.1	23
25 x 2.5	CF25G2.5	48 x 0.26	22.1	23
4 x 4	CF4G4	56 x 0.30	11.0	34
5 x 4	CF5G4	56 x 0.30	12.1	34
7 x 4	CF7G4	56 x 0.30	13.3	34
4 x 6	CF4G6	84 x 0.30	13	44
5 x 6	CF5G6	84 x 0.30	14.5	44
7 x 6	CF7G6	84 x 0.30	16	44
7 x 10	CF7G10	80 xx .40	20.6	61