

PROTOFLEX-EMV-FC

VSD UV Stabilised Flexible Cable



APPLICATION

Especially for frequency converter controlled AC drives. For fixed installation and occasional free flexing indoors in dry, damp and wet conditions as well as outdoor for medium mechanical stress. For areas with explosion hazard. Not suitable for the installation

OPERATING TEMPERATURE

- Minimum permissible ambient temperature - 40°C
- Maximum permissible conductor temperature 90°C
- Minimum permissible short circuit temperature 250°C
- Minimum ambient temperature for optimum fully flexible operation -5°C

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	1.1	1.05	1	0.94	0.88	0.81	0.73	0.65	0.57	0.47	0.34

MINIMUM BENDING RADII

The following minimum recommended bending radius should be observed to ensure operating reliability where d = cable O.D.

	>12mm	12-20mm	<20mm
For Fixed installations	5 x d	7.5 x d	10 x d
When freely flexing	10 x d	15 x d	20 x d

DESIGN

Electromagnetic compatibility is the ability of electrical or electronic equipment to function normally in its electromagnetic environment without unduly affecting it. The Siemens PROTOFLEX -EMV screened power cable consists of finely stranded copper conductors with Cross-Linked Polyethylene (XLPE) insulation covered with a tinned copper braided screen and a PVC orange, transparent sheath. For cross section which is greater than 16mm², the earth conduction is divided into 3 cores. The overall tinned copper braid screen is specifically designed for Optimum Electromagnetic Compatibility (EMC) taking into account the degree of coverage, braid fan angle, and wire gauge with results in a low transfer resistance. The screen offers a low DC resistance affording protection from low frequency interference such as AC harmonics.

The cable is in accordance with AS 1125 for the conductors and AS 3147 for the sheath.

CORE COLOUR IDENTIFICATION

4 core - Brown, Blue, Black, Green/Yellow

VOLTAGE RATING

- Rated AC Voltage: U_o/U = 600/1000 V
- Rated DC Voltage: = 900/1800 V
- AC test Voltage: = 5 kV

Part No.	Number of Cores x Conductor Size	Approx. No of Strands x Max. Strand Diameter	Approx. Diameter Over Screen	Max Outer Diameter	Net Weight	Current Carrying Capacity
						Unenclosed
						Touching a surface
						A
						kg/km
						mm
						mm
						mm ²
5DE6 600	4 x 1.5	28 x 0.25	9.0	11.0	149	21
5DE6 601	4 x 2.5	46 x 0.25	10.0	12.5	204	27
5DE6 602	4 x 4	51 x .30	12.5	15.5	321	37
5DE6 603	4 x 6	77 x 0.30	14.0	17.5	419	48
5DE6 604	4 x 10	78 x 0.39	16.5	19.5	600	67
5DE6 605	3 x 16 + 3 x 2.5/3	126 x 0.39	18.5	22.5	800	90
5DE6 606	3 x 25 + 3 x 4/3	196 x 0.39	22.0	26.0	1150	119
5DE6 607	3 x 35 + 3 x 16/3	271 x 0.39	25.0	29.5	1550	147
5DE6 608	3 x 50 + 3 x 25/3	388 x 0.39	29.5	35.0	2250	184
5DE6 610	3 x 70 + 3 x 35/3	553 x 0.39	32.5	38.5	2890	228
5DE6 611	3 x 95 + 3 x 50/3	729 x 0.39	38.0	44.0	3820	274
5DE6 612	3 x 120 + 3 x 50/3	932 x 0.39	41.5	48.0	4630	320
5DE6 613	3 x 150 + 3 x 70/3	1166 x 0.39	46.0	53.0	5880	368
5DE6 614	3 x 185 + 3 x 95/3	1425 x 0.39	50.5	57.5	7190	420
5DE6 615	3 x 240 + 3 x 120/3	1887 x 0.39	53.5	66.0	9540	498
5DE6 614	3 x 300 + 3 x 150/3	2350 x 0.39	62.5	73.0	11560	576