

CONFLEX ELECTRIC CABLE

CONFLEX - 0.6/1kV Flexible VSD/EMC Cables

● Applications

WW VSD/EMC cables are manufactured for use where electrical interference distorts signal transmission in electric motors.

● Standard compliance

AS/NZS 5000.1 - Part 1: For working voltages up to and including 0.6/1 (1.2) kV
 AS/NZS 1125 - Conductors in insulated electric cables, cords and conductors
 AS/NZS 3808 - Insulating and sheathing materials for electric cables

● Configuration

	Series 1	Series 2
Conductor:	plain annealed copper, class 5 fine wires stranded	plain annealed copper, class 5 fine wires stranded
Insulation:	flame retardant polyvinyl chloride PVC V75	cross-linked polyethylene (XLPE)
Filler:	non-hygroscopic material	non-hygroscopic material
Bedding:	flame retardant polyvinyl chloride PVC V75	thermoplastic elastomer (TPE)
Screen:	tinned annealed copper braid	plain annealed copper braid
Sheath:	flame retardant polyvinyl chloride PVC V75	thermoplastic elastomer (TPE)
Sheath identification	Transparent	Black – Ultraviolet radiation stabilised

● Core identification

To AS/NZS 5000.1: 3 cores + earth (4G): Red, White, Blue + Green/Yellow
 4 cores + earth (5G): Red, White, Blue, Black + Green/Yellow
 To VDE 0293 (optional): 3 cores + earth (4G): Brown, Black, Grey + Green/Yellow
 4 cores + earth (5G): Brown, Black, Grey, Blue + Green/Yellow

● Conductor d.c and a.c characteristics:

Nominal Area mm ²	Max. wires Dia. Fine-wire strand mm	d.c resist. at 20°C Ω / km	a.c resist. at 75°C Ω / km	a.c resist. at 90°C Ω / km	3-Phase(75°C) Voltage Drop mV/A.m	3-Phase(90°C) Voltage Drop mV/A.m	Reactance	
							Series 1 cable Ω/km	Series 2 cable Ω/km
1.5	0.25	13.3	16.2	17.0	28.0	29.4	0.118	0.118
2.5	0.25	7.98	9.7	10.2	16.8	17.6	0.112	0.112
4	0.30	4.95	6.02	6.31	10.4	10.9	0.108	0.108
6	0.30	3.30	4.01	4.21	6.95	7.29	0.104	0.104
10	0.40	1.91	2.41	2.52	4.17	4.38	0.0982	0.102
16	0.40	1.21	1.47	1.54	2.55	2.68	0.0937	0.0970
25	0.40	0.780	0.889	0.932	1.55	1.62	0.0895	0.0921
35	0.40	0.554	0.652	0.684	1.14	1.19	-	0.0895
50	0.40	0.386	0.490	0.513	0.862	0.902	-	0.0893
70	0.50	0.272	0.325	0.340	0.581	0.608	-	0.0859

--Further conductor types and stranding configuration on request.
 --Single phase voltage drop is multiplying the three phase values by 1.155.
 --Please refer to AS/NZS 3008 for details

● Current carrying capacity

Lay in air: Ambient air temperature 40°C
 Other conditions: Balance load, in flexible installation.

Nominal Phase CSA mm ²	2 core and Earth				3 core and earth, 4 core and earth			
	Protected from sun		Exposed to sun		Protected from sun		Exposed to sun	
	V75 A	XLPE A	V75 A	XLPE A	V75 A	XLPE A	V75 A	XLPE A
6	44	54	34	43	38	46	29	37
10	60	74	46	58	52	63	39	50
16	81	99	60	77	70	85	51	66
25	110	135	80	105	95	115	68	88
35	135	165	95	125	115	140	81	105
50	160	195	110	145	140	165	96	125
70	205	250	140	185	175	215	120	155

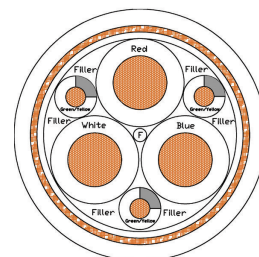
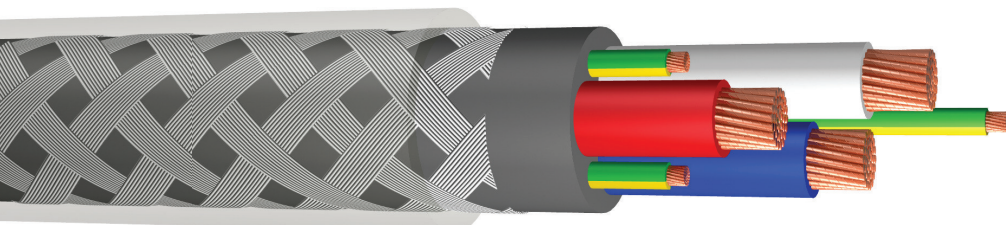
Current rating for flexible cord: 1.5mm² - 15A, 2.5mm² - 20A, 4mm² - 25A, based on ambient air temperature 25°C.



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● **Series 1, Flexible stranded copper conductor, PVC insulation, bedding and sheath, tinned copper braid screened**



Voltage Ranges:	600V / 1000V
Test voltage:	2500V rms between conductors, between conductors and screen.
Conductor operating temp:	- 25°C ~ 75°C
Short circuit temp:	140°C for 5 sec
Minimum bending radius:	7.5xcable O.D
Maximum pulling tension:	20N/mm ² x total cross-sectional area of phase conductor

--The maximum conductor temperatures specified are based on the properties of the insulation material but in practice may need to be derated to take account of joints and terminations and environmental conditions.

--The cables should not be flexed when either the ambient or cable temperature is below 0°C

--Thermoplastic PVC V75 insulation is subject to deformation at temperature above 70°C.

Product Code	No. of Core	Phase Cond. Area (mm ²)	Core Dia (mm)	Earth Cond. Area (mm ²)	Core Dia (mm)	Over Bedding Dia (mm)	Cable Dia. (mm)	Approx. Weight (kg/km)
9315	2C+E	1.5	3.2	1.5	3.2	8.9	13.08	220
9325	2C+E	2.5	3.7	2.5	3.7	10.0	14.94	272
9400	3C+E	1.0	2.9	1.0	2.7	9.1	13.62	205
9401	3C+E	1.5	3.2	1.5	3.0	9.8	14.48	238
9402	3C+E	2.5	3.7	2.5	3.5	11.0	15.85	299
9404	3C+E	4	4.7	4	4.7	13.3	16.86	417
9406	3C+3E	6	5.3	1.5	3.0	13.4	18.58	478
9410	3C+3E	10	6.2	1.5	3.0	15.5	19.07	636
9416	3C+3E	16	7.4	2.5	3.5	18.4	22.10	908
9425	3C+3E	25	9.1	4	4.7	22.3	29.12	1357
9435	3C+3E	35	10.3	6	5.3	25.3	32.71	1794
9450	3C+3E	50	12.3	10	6.2	29.5	37.67	2480
9470	3C+3E	70	14.0	10	6.2	33.5	42.75	3323
9501	4C+E	1.5	3.2	1.5	3.0	10.1	14.89	239
9502	4C+E	2.5	3.7	2.5	3.5	11.5	16.47	309
9504	4C+E	4	4.7	2.5	3.5	12.4	17.49	415
9506	4C+E	6	5.3	2.5	3.5	13.6	18.92	516
9511	4C+E	10	6.2	4	4.7	16.1	21.87	753
9516	4C+E	16	7.4	6	5.3	18.7	24.89	1054
9526	4C+E	25	9.1	6	5.3	22.2	29.03	1499
9535	4C+E	35	10.3	10	6.2	25.2	32.51	1987
9551	4C+E	50	12.3	16	7.4	29.6	37.80	2766
9570	4C+E	70	14.0	25	9.1	34.0	43.37	3877

