

CONFLEX ELECTRIC CABLE

300/500V Flexible Control Cables

● Applications

WW Cables' CONFLEX PVC Flexible Control Cables are manufactured for use as control and connecting cables in machine tools, machinery production lines, conveyer belts, air-conditioning, and in all general production lines. The cables can be installed in dry, moist and wet indoor area and handling apparatus for low mechanical stress (ensuring the free-movement without tensile stress or forced movements).

The copper braiding screened EMC control cable is suitable for installation in the internal electric circuits and the environment where the protection from electromagnetic interferences is required.

● Standard references

IEC 60228	- Conductors of insulated cables
VDE 0245	- Flexible PVC-insulated control cable
VDE 0295	- Conductors of cables, wires and flexible cords for power installation
VDE0293	- Core identification for cables and flexible cords used in power installation
AS/NZS 1125	- Conductor in insulated electric cables and flexible cords
AS/NZS 3808	- Insulating and sheathing materials for electric cables

● Configurations

	Unscreened Control Cable	EMC Control Cable
Conductor:	plain annealed copper, class 5 fine wires stranded	plain annealed copper, class 5 fine wires stranded
Insulation:	flame retardant polyvinyl chloride PVC V75	flame retardant polyvinyl chloride PVC V75
Filler:	non-hygroscopic material	non-hygroscopic material
Bedding:	flame retardant polyvinyl chloride PVC V75	flame retardant polyvinyl chloride PVC V75
Screen:	-	tinned annealed copper braid (82%)
Sheath:	flame retardant polyvinyl chloride PVC V75	flame retardant polyvinyl chloride PVC V75
Sheath identification	Grey	Transparent

- Also available with PUR or Low Smoke & Halogen Free sheath.

Core identification: Phase core: Black core with white numbering, Earth: Green/Yellow

● Technical data:

Rated voltage:	300 / 500V
Test voltage:	1500V rms between conductors, between conductors and screen 4000V rms spark test
Conductor operating temp:	Static: -25°C ~ 75°C Flexing: -5°C ~ 70°C During installation: -5°C ~ 70°C
Short circuit temp:	140°C for 5 sec
Minimum bending radius:	Flexing - 7.5xcable O.D Static - 5xcable O.D

Nominal Area mm ²	Max. wires Dia. Fine-wire strand mm	Conductor Diameter mm	Core Diameter mm	Conductor d.c. resistance at 20°C Ω / km	Specific insulation Resistance G Ω .cm	Current carrying Capacity A
0.5	0.20	0.85	1.8	39.0	>20	8
0.75	0.20	1.16	1.9	26.0	>20	11
1	0.20	1.34	2.3	19.5	>20	13
1.5	0.25	1.64	2.6	13.3	>20	16
2.5	0.25	2.12	3.1	7.98	>20	23

-- Further conductor types and stranding configuration on request.

-- Current rating is calculated based on ambient air temperature at 25°C.

-- 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.



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● Unscreened PVC flexible control cable

Product Code	No. of Core	Nominal Area mm ²	Cable Diameter mm	Cable Weight kg/km
7303	3C	0.5	5.2	40.5
7308	4C	0.5	5.6	48.0
9550	4C+E	0.5	6.1	56.9
2605	5C+E	0.5	6.8	69.5
9750	6C+E	0.5	6.8	76.5
2805	7C+E	0.5	8.3	94.1
2905	8C+E	0.5	8.3	101.1
1005	9C+E	0.5	8.7	112.2
1250	11C+E	0.5	9.6	135.3
1405	13C+E	0.5	9.6	149.4
1605	15C+E	0.5	10.2	170.4
1850	17C+E	0.5	11.6	201.0
2005	19C+E	0.5	11.6	215.0
2105	20C+E	0.5	11.6	222.1
2550	24C+E	0.5	13.1	270.1
3005	29C+E	0.5	13.1	305.2
3205	31C+E	0.5	14.6	342.6
3405	33C+E	0.5	14.6	356.6
3605	35C+E	0.5	16.7	405.1
4005	39C+E	0.5	16.7	433.2
2275	2C	0.75	5.6	36.9
7301	2C	0.75	5.6	36.9
2375	2C+E	0.75	5.6	46.8
7304	3C	0.75	5.6	46.8
7309	4C	0.75	6.2	61.1
9575	4C+E	0.75	7.0	76.3
2607	5C+E	0.75	7.7	92.5
9775	6C+E	0.75	7.7	102.3
2807	7C+E	0.75	9.8	132.2
2907	8C+E	0.75	9.8	142.1
1007	9C+E	0.75	10.3	157.8
1275	11C+E	0.75	11.4	190.2
1475	13C+E	0.75	11.4	210.0
1675	15C+E	0.75	12.1	239.5
1875	17C+E	0.75	13.8	282.5
2075	19C+E	0.75	13.8	302.3
2175	20C+E	0.75	13.8	312.2
2575	24C+E	0.75	15.5	379.7
3075	29C+E	0.75	15.5	429.1
3275	31C+E	0.75	17.3	481.6
3475	33C+E	0.75	17.3	501.4
3675	35C+E	0.75	19.2	542.1
2310	2C+E	1.0	6.1	57.9
7305	3C	1.0	6.1	57.9
7310	4C	1.0	6.8	75.7
9510	4C+E	1.0	7.6	94.4
7312	7C	1.0	8.5	126.9
9710	6C+E	1.0	8.5	126.9
1210	11C+E	1.0	12.4	235.2
1810	17C+E	1.0	15.0	349.5

Product Code	No. of Core	Nominal Area mm ²	Cable Diameter mm	Cable Weight kg/km
2510	24C+E	1.0	16.9	448.5
3610	35C+E	1.0	21.6	694.1
2315	2C+E	1.5	7.3	79.3
7306	3C	1.5	7.3	79.3
2415	3C+E	1.5	7.9	103.6
7311	4C	1.5	7.9	103.6
9515	4C+E	1.5	8.6	129.4
2615	5C+E	1.5	9.5	156.7
9715	6C+E	1.5	9.5	174.2
2815	7C+E	1.5	11.9	222.8
2915	8C+E	1.5	11.9	240.4
1014	9C+E	1.5	12.4	266.9
1215	11C+E	1.5	13.5	321.6
1415	13C+E	1.5	13.5	356.7
1615	15C+E	1.5	14.3	406.9
1815	17C+E	1.5	15.2	478.1
1915	19C+E	1.5	15.9	513.2
2115	20C+E	1.5	15.9	530.7
2515	24C+E	1.5	17.6	644.3
3014	29C+E	1.5	17.6	732.0
3215	31C+E	1.5	19.5	817.9
3415	33C+E	1.5	19.5	853.0
3615	35C+E	1.5	22.0	967.7
3915	39C+E	1.5	22.0	1037.9
4916	49C+E	1.5	23.2	1256.7
7302	2C	2.5	8.9	101.6
2325	2C+E	2.5	8.9	130.6
7307	3C	2.5	8.9	130.6
2452	3C+E	2.5	9.7	170.7
9525	4C+E	2.5	11.0	213.1
2625	5C+E	2.5	12.0	258.0
2726	6C+E	2.5	12.0	287.0
2825	7C+E	2.5	14.7	366.8
2925	8C+E	2.5	14.7	395.8
1024	9C+E	2.5	15.3	439.4
1224	11C+E	2.5	16.7	529.6
1425	13C+E	2.5	16.7	587.5
1625	15C+E	2.5	17.7	670.2
1824	17C+E	2.5	19.8	787.2
1925	19C+E	2.5	19.8	845.2
2125	20C+E	2.5	19.8	874.2
2526	24C+E	2.5	22.0	1061.1
2925	29C+E	2.5	22.0	1206.0
3225	31C+E	2.5	24.3	1347.0
3425	33C+E	2.5	24.3	1405.0
3625	35C+E	2.5	27.6	1593.2
3925	39C+E	2.5	27.6	1709.2
4125	40C+E	2.5	27.6	1738.2
4925	49C+E	2.5	29.2	2070.0

