FMC603 Control cables

- For twistable applications requirements
- PVC outer jacket
- Flame-retardant

Dynamic Information

Min. bending radius	Moving in cable carriers	7.5 x d
	Fexible moving	6 x d
	Fixed installation	4 x d
Temperature	Moving in cable carriers	+5°C to +70°C
	Fexible moving	-5°C to +70°C
	Fixed installation	-15°C to +70°C
v max.	Unsupported	3 m/s
	Gliding	2 m/s
a max.	20 m/s^2	
Travel distance	Unsupported travels and up to 50 m for gliding applications	
Torsion	±90°/m	

Cable structure

Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).	
Conductor insulation	Mechanically high-quality TPE mixture.	
Conductor construction	Number of conductors < 12: Conductors cabled in a layer with short pitch length.	
	Number of conductors ≥ 12: Conductors combined in bundles and stranded together around a high-tensile strength core, using short pitch directions for a low-torsion cable structure.	
Color code	Cross -sectional < 0.5 mm^2: Color code in accordance with DIN 47100	
	Cross -sectional ≥ 0.5 mm^2: Black cores with white numbers, one green-yellow core.	
Outer jacket	Low-adhesion mixture on the basis of PVC, adapted to suit the requirements in cable carriers (following DIN EN 50363-10-2). Color: Grey RAL 7001	

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Electrical Information

Nominal voltage	U_0/U: 300/500 V（following VDE0298-3）
Test voltage	2000 V（following EN50395）

Properties and approvals

Flame resistance	According to IEC 60332-1-2、VW-1、FT1
REACH	Accordding to the regulation (EC) No. 1907/2006 (REACH)
EAC	Certificate No. KG 417/043.CN.02.00249
Lead-free	Following 2015/863/EU (RoHS-II Tested by SGS)
Cleanroom	Following ISO 14644-1
CE	Following 2014/35/EU
UL	Following UL2570，600V，80℃

Guaranteed service life

Double strokes	5 million times		7.5 million times		10 million times	
Temperature, from/to [℃]	< 10 m	≥ 10 m	< 10 m	≥ 10 m	< 10 m	≥ 10 m
	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+5/+15	10	12.5	11	13.5	12	14.5
+15/+60	7.5	10	8.5	11	9.5	12
+60/+70	10	12.5	11	13.5	12	14.5

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Part No.	Number of cores and conductor nominal cross-section [mm]	Outer diameter [mm]	Copper index [kg/km]	Weight [kg/km]
FMC603.02.03	3×0.25	5	9	26
FMC603.02.04	4×0.25	5.5	11	35
FMC603.02.06	6×0.25	6	16	48
FMC603.02.07	7×0.25	6.5	19	56
FMC603.02.12	12×0.25	8.5	33	96
FMC603.02.18	18×0.25	10	46	123
FMC603.02.20	20×0.25	10.5	51	145
FMC603.02.25	25×0.25	11.5	66	164
FMC603.02.30	30×0.25	12.5	75	188
FMC603.03.02	2×0.34	5	8	27
FMC603.03.05	5×0.34	6	18	42
FMC603.05.02	2×0.5	5.5	11	38
FMC603.05.03	3G0.5	5.5	16	40
FMC603.05.04	4G0.5	6	21	47
FMC603.05.05	5G0.5	6.5	26	56
FMC603.05.07	7G0.5	7.5	37	76
FMC603.05.12	12G0.5	10	63	140
FMC603.05.18	18G0.5	12	94	192
FMC603.05.25	25G0.5	13.5	129	259
FMC603.07.02	2×0.75	6	16	48
FMC603.07.03	3G0.75	6	23	50
FMC603.07.04	4G0.75	6.5	31	60
FMC603.07.05	5G0.75	7	38	70
FMC603.07.07	7G0.75	8	54	96
FMC603.07.12	12G0.75	11	91	175
FMC603.07.18	18G0.75	13.5	134	248
FMC603.07.25	25G0.75	16	186	346
FMC603.07.36	36G0.75	19	293	531
FMC603.07.42	42G0.75	21	341	608
FMC603.10.02	2×1.0	6	21	55
FMC603.10.03	3G1.0	6.5	31	61
FMC603.10.04	4G1.0	7	41	74
FMC603.10.05	5G1.0	7.5	50	87
FMC603.10.07	7G1.0	9	71	118
FMC603.10.12	12G1.0	12.5	120	228

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Part No.	Number of cores and conductor nominal cross-section [mm]	Outer diameter [mm]	Copper index [kg/km]	Weight [kg/km]
FMC603.10.18	18G1.0	15	179	308
FMC603.10.25	25G1.0	17.5	248	410
FMC603.15.02	2×1.5	6.5	31	71
FMC603.15.03	3G1.5	7	46	76
FMC603.15.04	4G1.5	8	61	93
FMC603.15.05	5G1.5	8.5	75	111
FMC603.15.07 ⑦)	7G1.5	10.5	105	166
FMC603.15.12	12G1.5	13	179	288
FMC603.15.18	18G1.5	17	268	438
FMC603.15.25	25G1.5	19.5	371	563
FMC603.15.36	36G1.5	23	579	887
FMC603.25.03	3G2.5	8.5	75	118
FMC603.25.04	4G2.5	9.5	100	149
FMC603.25.07 ⑦)	7G2.5	12	174	250
FMC603.25.12	12G2.5	16.5	297	445
FMC603.40.03	3G4.0	10	119	209
FMC603.40.05	5G4.0	12	198	294
FMC603.60.04	4G6.0	13	237	392
FMC603.60.05	5G6.0	14	299	471

⑦) When using the cables with "7G1.5mm²" and "7G2.5mm²" minimum bend radius must be 17.5xd with gliding travel distance ≥ 5m.

Note: The outer diameters are reference values.
G: With green-yellow earth core
x: Without earth core

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