

FMC605 Control cables



- PVC outer jacket
- UV-resistance
- Flame-retardant
- Oil-resistant



Dynamic Information

	Min. bending radius	Moving in cable carriers	6.8 x d
		Flexible moving	5 x d
		Fixed installation	4 x d
	Temperature	Moving in cable carriers	+5°C to +70°C
		Flexible moving	-5°C to +70°C
		Fixed installation	-15°C to +70°C
	v max.	Unsupported	10 m/s
		Gliding	5 m/s
	a max.	80 m/s ²	
	Travel distance	Unsupported travels and up to 100 m for gliding applications	
	Torsion	±90°/m	










Cable structure

	Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).
	Conductor insulation	Cross-sectional ≤ 0.5 mm ² : Mechanically high-quality TPE mixture.
		Cross-sectional ≥ 0.75 mm ² : Mechanically high-quality PVC 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: Green RAL 6005

Electrical Information

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

Properties and approvals

 UV-resistance	Medium
 Oil resistance	Oil-resistant (following IEC60811-404, tested by SGS), bio-oil-resistant (following VDMA24568, tested by SGS)
 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°C

Guaranteed service life

Double strokes	5 million times		7.5 million times		10 million times	
	< 10 m	≥ 10 m	< 10 m	≥ 10 m	< 10 m	≥ 10 m
Temperature, from/to [°C]	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	7.5	10	8.5	11	9.5	12
+15/+60	6.8	7.5	7.8	8.5	8.8	9.5
+60/+70	7.5	10	8.5	11	9.5	12

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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]
FMC605.02.36	36×0.25	15	99	209
FMC605.03.15	15×0.34	11	55	113
FMC605.03.18	18×0.34	12	67	143
FMC605.03.25	25×0.34	14	92	194
FMC605.05.02	2×0.5	6	11	38
FMC605.05.03	3G0.5	6	16	41
FMC605.05.04	4G0.5	6.5	21	47
FMC605.05.05	5G0.5	7	25	59
FMC605.05.07	7G0.5	8	36	78
FMC605.07.03	3G0.75	6.5	23	54
FMC605.07.04	4G0.75	7	32	67
FMC605.07.05	5G0.75	7.5	39	82
FMC605.07.07	7G0.75	9	56	115
FMC605.07.12	12G0.75	12.5	91	189
FMC605.07.18	18G0.75	15	134	269
FMC605.07.25	25G0.75	17.5	190	384
FMC605.07.36	36G0.75	22	267	587
FMC605.07.42	42G0.75	23.5	313	745
FMC605.10.03	3G1.0	6.5	31	56
FMC605.10.04	4G1.0	7	41	78
FMC605.10.05	5G1.0	8	50	94
FMC605.10.07	7G1.0	9.5	74	130
FMC605.10.12	12G1.0	13	119	227
FMC605.10.18	18G1.0	16.5	179	306
FMC605.10.25	25G1.0	19.5	248	487
FMC605.15.03	3G1.5	7.5	46	74
FMC605.15.04	4G1.5	8	61	105
FMC605.15.05	5G1.5	9	75	127
FMC605.15.07 ^{⑦)}	7G1.5	10.5	105	180
FMC605.15.12	12G1.5	15	179	264
FMC605.15.18	18G1.5	19.5	267	478
FMC605.15.25	25G1.5	21.5	371	645
FMC605.15.36	36G1.5	26.5	529	960
FMC605.25.04	4G2.5	10	96	170
FMC605.25.05	5G2.5	11	120	200
FMC605.25.07 ^{⑦)}	7G2.5	13	169	279
FMC605.25.12	12G2.5	18.5	284	480
FMC605.25.18	18G2.5	23.5	427	765
FMC605.25.25	25G2.5	27.5	591	1054

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