

FMC907 Control cables



- For twistable applications requirements
- PUR outer jacket
- Oil-resistant and coolant-resistant
- Flame-retardant
- PVC and halogen-free
- Notch-resistant
- Hydrolysis and microbe-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	-25°C to +80°C
		Flexible moving	-40°C to +80°C
		Fixed installation	-50°C to +80°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	±180°/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. FMC907.02.03.INI: brown, blue, black FMC907.03.04.INI: brown, blue, black, white FMC907.03.05.INI: brown, blue, black, white, green-yellow
	Outer jacket	Low-adhesion mixture on the basis of PUR, adapted to suit the requirements in cable carriers (following DIN EN 50363-10-2). Color: Grey RAL 7001

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
	Hydrolysis-resistance	High
	Cold-resistant	-50°C
	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
	Halogen-free	Following IEC60754
	REACH	According 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 UL20234, 600V, 80°C

Guaranteed service life

Temperature, from/to [°C]	Double strokes		5 million times		7.5 million times		10 million times				
			< 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]			
-25/-15	8.5		10		9.5		11		10.5		12
-15/+70	6.8		7.5		7.5		8.5		8.5		9.5
+70/+80	8.5		10		9.5		11		10.5		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]
FMC907.02.03.INI	3×0.25	5.0	9.0	29.0
FMC907.02.04	4×0.25	5.5	11.0	35.0
FMC907.02.05	5×0.25	6.0	13.0	39.0
FMC907.02.07	7×0.25	6.5	18.0	51.0
FMC907.02.12	12×0.25	9.0	32.0	78.0
FMC907.02.18	18×0.25	10.5	47.0	127.0
FMC907.02.25	25×0.25	11.5	63.0	155.0
FMC907.03.04.INI	4×0.34	6.0	16.0	39.0
FMC907.03.05.INI	5×0.34	6.0	17.0	35.0
FMC907.05.04	4G0.5	6.0	21.0	46.0
FMC907.05.05	5G0.5	6.5	26.0	53.0
FMC907.05.07	7G0.5	7.5	39.0	78.0
FMC907.05.12	12G0.5	10.0	63.0	130.0
FMC907.05.18	18G0.5	12.0	94.0	184.0
FMC907.05.25	25G0.5	14.0	129.0	243.0
FMC907.05.30	30G0.5	15.0	155.0	315.0
FMC907.07.03	3G0.75	6.5	23.0	52.0
FMC907.07.04	4G0.75	7.0	31.0	59.0
FMC907.07.05	5G0.75	7.5	38.0	71.0
FMC907.07.07	7G0.75	8.5	54.0	100.0
FMC907.07.12	12G0.75	12.0	91.0	180.0
FMC907.07.18	18G0.75	13.5	134.0	239.0
FMC907.07.20	20G0.75	14.5	149.0	269.0
FMC907.07.25	25G0.75	16.0	186.0	336.0
FMC907.07.36	36G0.75	19.0	279.0	506.0
FMC907.07.42	42G0.75	21.0	341.0	580.0
FMC907.10.02	2×1.0	6.5	21.0	51.0
FMC907.10.03	3G1.0	6.5	31.0	58.0
FMC907.10.04	4G1.0	7.0	41.0	73.0
FMC907.10.05	5G1.0	8.0	50.0	90.0
FMC907.10.07	7G1.0	9.0	71.0	120.0
FMC907.10.12	12G1.0	12.5	120.0	220.0
FMC907.10.18	18G1.0	15.0	179.0	314.0
FMC907.10.25	25G1.0	17.5	248.0	431.0
FMC907.10.42	42G1.0	22.5	433.0	699.0

FMC907

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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]
FMC907.15.03	3G1.5	7.0	46.0	71.0
FMC907.15.04	4G1.5	7.5	61.0	88.0
FMC907.15.05	5G1.5	8.0	75.0	105.0
FMC907.15.07 ^{⑦)}	7G1.5	9.5	105.0	152.0
FMC907.15.12	12G1.5	13.0	179.0	297.0
FMC907.15.18	18G1.5	17.0	268.0	405.0
FMC907.15.25	25G1.5	19.5	297.0	564.0
FMC907.15.36	36G1.5	23.5	551.0	848.0
FMC907.25.03	3G2.5	8.5	75.0	132.0
FMC907.25.04	4G2.5	9.5	95.0	167.0
FMC907.25.05	5G2.5	10.0	124.0	196.0
FMC907.25.07 ^{⑦)}	7G2.5	12.0	174.0	270.0
FMC907.25.12	12G2.5	17.0	297.0	479.0
FMC907.40.04 ^{⑧)}	4G4.0	11.5	165.0	245.0
FMC907.40.05 ^{⑧)}	5G4.0	12.0	198.0	284.0
FMC907.60.05 ^{⑧)}	5G6.0	13.5	297.0	412.0
FMC907.160.05	5G16	22.5	845.0	1098.0

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

⑧) Torsion ±90°

Note: The outer diameters are reference values.

G: With green-yellow earth core

x: Without earth core