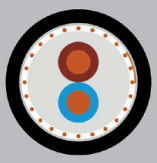
Prysmian Group

PRYSMIAN Draka

Power cables

MCMK 3-core

1 kV power cable with PVC insulated copper conductors



Application

For fixed installation indoors, outdoors and underground as well as in building structures, e.g. directly in concrete. Not for installations subject to severe electrical interference (see MCCMK).

Standards

SFS 4880, HD 603-3F S1, IEC 60502-1, IEC 60332-1

Certificate/approval

CE, EEI, FI, S

Rated voltage

U_0/U = 0,6/1 kV, U_m = 1,2 kV

Temperature range

Highest permissible conductor temperature:
- in continuous operation . . . . . 70˚C
- in a short circuit (duration up to 5 s) . . . . . 160˚C

Lowest recommended temperature during laying. . . –15˚C

Construction

Conductor . . . . . annealed copper;
1,5–6 mm² – solid;
10 mm² – stranded, round (RM)
Insulation. . . . . lead-free PVC
Laying up. . . . . phase conductor and neutral conductor stranded together
Filling . . . . . filling compound
PE conductor . . . . concentric layer of copper wires and an open helix of parallel copper wires
Sheath . . . . . black, lead-free PVC compound

Identification of cores

Colour marking. . . blue, brown
According to HD 308 S2:2002.

Marking

Manufacturer, product name, FI-mark, year and week of manufacture, meter marking.

Basic cable data			MCMK	MCMK	MCMK	MCMK
			2x1,5/1,5 1 kV	2x2,5/2,5 1 kV	2x6/6 1 kV	2x10/10 RM 1 kV
EAN code		64 100+	06 021 22-2	06 021 23-9	06 021 25-3	06 021 26-0
Construction data						
External cable diameter (1)		mm	11,5	12,5	16,5	19
Weight (1)	copper	kg/km	41	66	159	268
	cable	kg/km	165	200	370	550
Delivery data						
Standard delivery length		m	1000	1000	500	500
Drum			K8	K8	K8	K9
Total weight (1)	cable + drum	kg	210	225	220	320
Mechanical data (2)						
Minimum permissible bending radius during laying		m	0,14	0,15	0,19	0,23
Minimum permissible bending radius at final installation (3)		m	0,09	0,10	0,13	0,16
Maximum permissible pulling force, pulling by phase conductors		kN	0,15	0,25	0,60	1,00
Electrical data (2)						
Maximum DC resistance of	conductor 20˚C	Ω/km	12,1	7,41	3,08	1,83
Maximum AC resistance of	conductor 70˚C	Ω/km	14,5	8,87	3,69	2,19
Maximum DC resistance of	PE conductor 20˚C	Ω/km	12,1	7,41	3,08	1,83
Inductance (1)		mH/km	0,34	0,32	0,30	0,28
Operating capacitance (1)		µF/km	0,25	0,30	0,35	0,40
Current ratings (2)						
In ground	conductor 70˚C	A	26	35	57	77
In air	conductor 70˚C	A	14	20	33	62
Short circuit currents (2)						
Maximum permissible short circuit current for 1 second	phase and neutral conductor (4)	kA	0,18	0,30	0,70	1,1
	PE conductor (5)	kA	0,24	0,42	1,0	1,7

1) Approximate value.
2) See the basic assumptions at general information of products.
3) Final installation with careful single bending.
4) Initial temperature of conductor before short circuit 70˚C, final temperature of conductor after short circuit 160˚C.
5) Initial temperature of PE conductor before short circuit 60˚C, final temperature of PE conductor after short circuit 160˚C.

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