Prysmian Group

PRYSMIAN Draka

Afumex®

MCCMK™-HF EMC-Line

Low smoke halogen-free EMC-screen-protected 1 kV power cable

RATED VOLTAGE

Uo/U = 0,6/1 kV, Um = 1,2 kV

APPLICATION

EMC-protected cable for fixed installation indoors, outdoors and underground; as well as in building structures e.g. directly in concrete (but not in sliding joints).

Highest permissible conductor temperature:

• continuous operation	90 °C
• short circuit (duration up to 5 s)	250 °C

Lowest recommended temperature during laying: -15 °C

CONSTRUCTION

Conductor	2,5-6 mm²: solid annealed copper wire 10-35 mm²: stranded annealed copper wire 50-240 mm²: sector shaped annealed copper wire
Insulation	PEX compound
Laying up	Insulated conductors stranded together
PE-conductor	Lapped copper tape and copper wires
Outer sheath	Black halogen-free compound

IDENTIFICATION OF CORES

Colours of inner cores:

3-cores	Brown, black, grey
4-cores	Blue, brown, black, grey

STANDARDS

HD 604-5D

IEC 60502-1

IEC / 60332-1-2

IEC / EN 60332-3

IEC / EN 61034

EN 50267

CERTIFICATES, APPROVALS

CE

The cable does not contain any substances on the REACH/SVHC -list.

All substances of the cable meet the requirements of RoHS directive.

CUSTOMS CODE

8544 49 91

MCCMK™-HF EMC-Line 3½-cores

PROPERTIES

PRODUCT NAME			MCCMK-HF 3x25/16 RM 1 kV EMC-Line	MCCMK-HF 3x35/16 RM 1 kV EMC-Line	MCCMK-HF 3x50/25 AN 1 kV EMC-Line	MCCMK-HF 3x70/35 AN 1 kV EMC-Line	MCCMK-HF 3x95/50 AN 1 kV EMC-Line	MCCMK-HF 3x120/70 AN 1 kV EMC-Line	MCCMK-HF 3x150/70 AN 1 kV EMC-Line	MCCMK-HF 3x185/95 AN 1 kV EMC-Line	MCCMK-HF 3x240/120 AN 1 kV EMC-Line
STK-code			0600230	0600231	0600236	0600233	0600234	0600235	0600238	0600237	0600239
CONSTRUCTION DATA (1)											
Diameter over cable		mm	23	26	27	31	35	38	42	47	51
Weight	cable	kg/km	1100	1400	1900	2600	3500	4300	5200	6500	8400
DELIVERY DATA											
Standard delivery lenght		m	500	500	500	500	500	500	500	500	500
Standard delivery drum			K11	K11	K11	K12	K14	K16	K16	K20	K22
MECHANICAL DATA (2)											
Minimum permissible bending radius during laying		m	0,28	0,32	0,33	0,38	0,42	0,46	0,51	0,57	0,62
Minimum permissible bending radius at final installation (3)		m	0,19	0,21	0,22	0,25	0,28	0,31	0,34	0,38	0,41
Maximum permissible pulling force with a pulling grip		kN	1,1	1,5	2,2	3,1	4,2	5,4	6,7	8,3	8,5
Maximum permissible pulling force with a pulling eye		kN	3,8	5,3	7,5	10,5	14,3	18	20,0	20,0	20,0
ELECTRICAL DATA (2)											
Maximum DC resistance of phase conductor	conductor 20°C	Ω/km	0,727	0,524	0,387	0,268	0,193	0,153	0,124	0,0991	0,0754
AC resistance of phase and neutral conductor (1)	conductor 70°C	Ω/km	0,87	0,63	0,47	0,32	0,23	0,19	0,15	0,12	0,097
Maximum DC resistance of PE conductor	conductor 20°C	Ω/km	1,15	1,15	0,727	0,524	0,387	0,268	0,268	0,193	0,153
Inductance (1)		mH/km	0,26	0,26	0,26	0,25	0,25	0,24	0,24	0,24	0,23
Operating capacitance (1)		µF/km	0,35	0,35	0,40	0,40	0,45	0,45	0,50	0,50	0,55
CURRENT RATINGS (2)											
In ground	conductor 70°C	A	130	160	190	240	285	325	370	420	480
In free air	conductor 90°C	A	135	165	200	250	310	360	410	470	560
SHORT CIRCUIT CURRENTS (2)											
Maximum permissible short circuit current for one second	phase conductor (4) PE-conductor (5)	kA kA	3,5 2,4	5,0 2,4	7,1 4,0	10,0 5,2	13,5 6,7	17,1 9,6	21,3 9,6	26,4 12,0	34,2 14,8

(1) Approximate value.
(2) See the basic assumptions at general information of products.
(3) Final installation with careful single bending into final position.
(4) Initial temperature of conductor before short circuit 90°C, final temperature of conductor after short circuit 250°C.
(5) Initial temperature of PE conductor before short circuit 85°C, final temperature of PE conductor after short circuit maximum 250°C.

MCCMK™-HF EMC-Line 5-cores

PROPERTIES

PRODUCT NAME			MCCMK-HF 4x2,5/2,5 1kV EMC-Line	MCCMK-HF 4x6/6 1kV EMC-Line	MCCMK-HF 4x10/10 RM 1kV EMC-Line	MCCMK-HF 4x16/16 RM 1kV EMC-Line
STK-code			0606042	0606046	0606050	0606056
CONSTRUCTION DATA (1)						
Diameter over cable		mm	13	16	20	23
Weight		kg/km	290	480	800	980
DELIVERY DATA						
Standard delivery lenght		m	500	500	500	500
Standard delivery drum			K8	K8	K9	K11
MECHANICAL DATA (2)						
Minimum permissible bending radius during laying		m	0,16	0,20	0,24	0,28
Minimum permissible bending radius at final installation (3)		m	0,11	0,13	0,16	0,19
Maximum permissible pulling force with a pulling eye		kN	0,5	1,2	2,0	3,2
ELECTRICAL DATA (2)						
Maximum DC resistance of phase conductor	conductor 20 °C	Ω/km	7,41	3,08	1,83	1,15
AC resistance of phase and neutral conductor (1)	conductor 70 °C	Ω/km	8,87	3,69	2,19	1,38
Maximum DC resistance of PE conductor	conductor 20 °C	Ω/km	7,41	3,08	1,83	1,15
Inductance (1)		mH/km	0,32	0,30	0,29	0,28
Operating capacitance		µF/km	0,25	0,26	0,27	0,28
CURRENT RATINGS (2)						
In ground	conductor 70 °C	A	35	57	77	100
In free air	conductor 90 °C	A	33	56	78	100
SHORT CIRCUIT CURRENTS (2)						
Maximum permissible short circuit current for one second	phase conductor (4) PE-conductor (5)	kA kA	0,35 0,40	0,85 0,93	1,4 1,5	2,2 2,4

(1) Approximate value.
(2) See the basic assumptions at general information of products.
(3) Final installation with careful single bending into final position.
(4) Initial temperature of conductor before short circuit 90°C, final temperature of conductor after short circuit 250°C.
(5) Initial temperature of PE conductor before short circuit 85°C, final temperature of PE conductor after short circuit maximum 250°C.

MCCMK™-HF EMC-Line 4½-cores

PROPERTIES

PRODUCT NAME			MCCMK-HF 4x25/16 RM 1kV EMC-Line	MCCMK-HF 4x35/16 RM 1kV EMC-Line	MCCMK-HF 4x50/25 AN 1kV EMC-Line	MCCMK-HF 4x70/35 AN 1kV EMC-Line	MCCMK-HF 4x95/50 AN 1kV EMC-Line	MCCMK-HF 4x120/70 AN 1kV EMC-Line	MCCMK-HF 4x150/70 AN 1kV EMC-Line	MCCMK-HF 4x185/95 AN 1kV EMC-Line	MCCMK-HF 4x240/120 AN 1kV EMC-Line
STK-code			0607644	0607641	0607640	0607642	0607643	0600451	0607647	0607645	0607646
CONSTRUCTION DATA (1)											
Diameter over cable		mm	26	29	31	34	39	43	46	53	58
Weight		kg/km	1400	1800	2300	3200	4300	5400	6600	8300	11000
DELIVERY DATA											
Standard delivery lenght		m	500	500	500	500	500	500	500	500	500
Standard delivery drum			K11	K12	K12	K14	K16	K18	K20	K22	K26
MECHANICAL DATA (2)											
Minimum permissible bending radius during laying		m	0,32	0,35	0,38	0,41	0,47	0,52	0,56	0,64	0,70
Minimum permissible bending radius at final installation (3)		m	0,21	0,24	0,25	0,28	0,32	0,35	0,37	0,43	0,47
Maximum permissible pulling force with a pulling eye		kN	5,0	7,0	10	14	19	20	20	20	20
ELECTRICAL DATA (2)											
Maximum DC resistance of phase conductor	conductor 20 °C	Ω/km	0,727	0,524	0,387	0,268	0,193	0,153	0,124	0,0991	0,0754
AC resistance of phase and neutral conductor (1)	conductor 70 °C	Ω/km	0,87	0,63	0,47	0,32	0,23	0,19	0,15	0,12	0,10
Maximum DC resistance of PE conductor	conductor 20 °C	Ω/km	1,15	1,15	0,727	0,524	0,387	0,268	0,268	0,193	0,153
Inductance (1)		mH/km	0,28	0,28	0,28	0,27	0,27	0,26	0,26	0,26	0,25
Operating capacitance		µF/km	0,30	0,32	0,35	0,40	0,42	0,44	0,46	0,49	0,52
CURRENT RATINGS (2)											
In ground	conductor 70 °C	A	130	160	190	240	285	325	370	420	480
In free air	conductor 90 °C	A	135	165	200	250	310	360	410	470	560
SHORT CIRCUIT CURRENTS (2)											
Maximum permissible short circuit current for one second	phase conductor (4) PE-conductor (5)	kA kA	3,5 2,4	5,0 2,4	7,1 4,0	10,0 5,2	13,5 6,7	17,1 9,6	21,3 9,6	26,4 12,0	34,2 14,8

(1) Approximate value.

(2) See the basic assumptions at general information of products.

(3) Final installation with careful single bending into final position.

(4) Initial temperature of conductor before short circuit 90°C, final temperature of conductor after short circuit 250°C.

(5) Initial temperature of PE conductor before short circuit 85°C, final temperature of PE conductor after short circuit maximum 250°C.