

HXCMK 6/10 (12) kV 1-core

Medium voltage cable

6/10 (12) kV



DryRex

Application

Medium-voltage cable for fixed installations outdoors. May be buried directly in soil. Installations must be in accordance with national regulations and rules of installations. The cable is not CPR-classified.

Design

Standards	HD 620 10 F, SFS 5636
Conductor	Circular stranded copper, EN/IEC 60228 class 2
Conductor screen	Semiconducting cross-linked polyethylene XLPE
Insulation	Cross-linked polyethylene XLPE
Insulation screen	Semiconducting cross-linked polyethylene XLPE
Inner covering	Semiconducting tape
Inner covering	Semiconducting tape
Metal screen	Layer of helically wound copper wires with a counter helix copper tape
Oversheath	UV-protected PVC compound, Black

Temperature limits

Max. conductor temperature °C	90
Max. cond. temp. short circuit max. 5 s °C	250
Min. cable temperature during operation °C	-50
Min. cable temperature during handling °C	-20
Min. cable temperature during transport °C	-40

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Technical information	1x35/16	1x95/35	1x150/25	1x185/35	1x240/25	1x240/35	1x300/35	1x400/35
Product code	1188164	1701987	1188236	1188237	1188338	1188238	1188239	1188240
Nominal cross-sectional area of conductor mm ²	35	95	150	185	240	240	300	400
Nominal diameter of conductor mm	6,9	11,6	14,2	16,0	18,4	18,4	20,6	23,2
Nominal thickness of conductor screen mm	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5
Nominal thickness of insulation mm	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,4
Nominal diameter over the insulation without insulation screen mm	14,1	18,8	22,0	23,2	25,6	25,6	27,8	30,3
Nominal thickness of insulation screen mm	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5
Nominal size of metal screen mm ²	16	35	25	35	25	35	35	35
Nominal diameter over metal screen mm	0	0	0	0	0	0	0	0
Nominal thickness of oversheath mm	1,6	1,8	1,9	1,9	2,0	2,0	2,1	2,2
Nominal cable diameter mm	20,880	26,240	29,640	31,380	33,440	33,980	36,380	38,590
Nominal cable weight kg/km	747,877	1529,792	2020,434	2440,861	2950,673	3029,069	3615,819	4611,889
Nominal weight of copper kg/m	0,451	1,105	1,495	1,894	2,335	2,408	2,923	3,822
Maximum forces during installation when pulling by								
Max. pulling force by pulling-eye kN	3,5	9,5	15,0	18,5	20,0	20,0	20,0	20,0
Max. pulling force by pulling-stocking kN	0,7	1,9	3,0	3,7	4,8	4,8	6,0	8,0
Minimum bending radii								
During handling and installation, cable cm	31	39	44	47	50	51	55	58
In final installation, cable cm	22	28	31	33	35	36	38	41
Minimum bending radii								
During handling and installation, cable m	0,31	0,39	0,45	0,47	0,50	0,51	0,55	0,58
In final installation, cable m	0,22	0,28	0,31	0,33	0,35	0,36	0,38	0,41
DC resistance								
Max. DC resistance of conductor at 20 °C Ω/km	0,524	0,193	0,124	0,0991	0,0754	0,0754	0,0601	0,0470
Maximum DC resistance at 20 °C, metal screen Ω/km	1,2	0,6	0,8	0,6	0,8	0,6	0,6	0,6
AC resistance of phase conductor, screen circuit closed								
Conductor temperature 40 °C Ω/km	0,5653	0,2087	0,1347	0,1082	0,0831	0,0831	0,0671	0,0537
Conductor temperature 65 °C Ω/km	0,6168	0,2276	0,1468	0,1178	0,0904	0,0903	0,0728	0,0581
Conductor temperature 70 °C Ω/km	0,6271	0,2314	0,1492	0,1197	0,0918	0,0918	0,0740	0,0590
Conductor temperature 90 °C Ω/km	0,6683	0,2466	0,1589	0,1274	0,0977	0,0976	0,0786	0,0625
Inductance per phase								
In flat formation, free space between cables equal to one cable diam	0,59	0,53	0,52	0,50	0,49	0,49	0,48	0,47
In trefoil formation, cables touching each other mH/km	0,41	0,35	0,33	0,32	0,30	0,31	0,30	0,29

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Technical information	1x35/16	1x95/35	1x150/25	1x185/35	1x240/25	1x240/35	1x300/35	1x400/35
Electrical values								
Calculated operation capacitance $\mu\text{F}/\text{km}$	0,21	0,31	0,35	0,40	0,44	0,44	0,49	0,55
Calculated charging current with main voltage A/km	0,4	0,6	0,6	0,7	0,8	0,8	0,9	1,0
Calculated earth fault current with main voltage A/km	1,1	1,7	1,9	2,2	2,4	2,4	2,7	3,0
Current ratings								
Cables in the ground (15 °C and 1,0 K.m/W), Installation depth 0,7 m								
Flat, conductor 65 °C, open screen A	195	330	425	475	545	545	620	720
Flat, conductor 65 °C, closed screen A	185	315	385	425	485	485	530	590
Flat, conductor 90 °C, open screen A	225	390	500	560	640	640	730	850
Flat, conductor 90 °C, closed screen A	220	370	455	500	570	570	625	695
Trefoil, conductor 65 °C, open screen A	175	295	385	435	500	500	570	645
Trefoil, conductor 65 °C, closed screen A	175	295	380	425	485	485	545	625
Trefoil, conductor 90 °C, open screen A	205	350	455	510	590	590	670	760
Trefoil, conductor 90 °C, closed screen A	205	350	450	500	570	570	640	735
Maximum thermal short circuit current during 1 s								
Phase (initial 90 °C, final 250 °C) kA	5,0	13,5	21,4	26,4	34,2	34,2	42,8	57,1
Metal screen (initial 80 °C, final 250 °C) kA	2,3	4,7	3,4	4,7	3,4	4,7	4,7	4,7