KJAAM-HF C

Instrumentation cable-HF

300 V

Application

Instrumentation cable for fixed installations indoors and outdoors. Not to be laid in soil nor directly in cast concrete. Can also be used in medical facilities where higher fire class is required. EMC shielded cable gives an excellent protection against electromagnetic disturbancies. Installations must be in accordance with national regulations and rules of installations. The cable is halogen-free and flame-retardant according to CPR-class Cca-s1,d1,a1.

Design

Standards	EN 50288-7
Reaction to fire	Cca-s1,d1,a1; EN 13501-6, EN 50575:2014+A1:2016
Conductor	Circular stranded tinned copper, EN/IEC 60228 class 2
Insulation	Polyethylene compound
Core Identification	Blue, red
Cable lay up	Insulated wires are twisted in pairs. Colours in pairs are blue and red. Pairs are marked with number tape.
Overall shield	Two aluminium tapes and earthing conductor (tinned copper, between the tapes)
Inner covering	Extruded filling compound
Individual shield	Aluminium tape and earthing conductor
Oversheath	UV-protected polyolefin compound, Grey

Temperature limits

Max. conductor temperature °C	70
Max. cond. temp. short circuit max. 5 s °C	160
Min. cable temperature during operation °C	-40
Min. cable temperature during handling °C	-10
Min. cable temperature during transport °C	-40

Additional information

Maximum DC resistance of conductor pair at 20 ºC 81,0 Ω/km (0,5 mm²)
Testing voltage 1 kV AC
Nominal mutual capacitance 80 nF/km
Maximum mutual capacitance 150 nF/km
Nominal inductance (L) 600 µH/km
Maximum inductance to resistance ratio (L/R) 25 µH/Ω

Technical information	1x(2+1)x0,5 GY	2x(2+1)x0,5 GY	4x(2+1)x0,5 GY	8x(2+1)x0,5 GY	12x(2+1)x0,5 GY	16x(2+1)x0,5 GY	24x(2+1)x0,5 GY	48x(2+1)x0,5 GY
Product code	**1147171**	**1147172**	**1147174**	**1147178**	**1147182**	**1147186**	**1147194**	**1147199**
Nominal cross-sectional area of conductor mm²	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5
Nominal diameter of conductor mm	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9
Nominal thickness of insulation mm	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4
Nominal thickness of oversheath mm	0,8	0,9	1,0	1,1	1,1	1,0	1,3	1,7
Fire load MJ/m	0,639	1,351	1,992	3,469	4,810	5,719	8,876	17,155
Fire load kWh/m	0,177	0,375	0,554	0,964	1,336	1,589	2,466	4,765
Nominal cable diameter mm	6,990	10,170	11,560	16,250	18,660	20,390	26,110	36,130
Nominal cable weight kg/km	56,325	119,580	173,372	295,976	413,083	504,408	751,027	1430,232
Nominal weight of copper kg/m	0,013	0,031	0,058	0,113	0,167	0,220	0,329	0,656
Maximum forces during installation when pulling by								
Max. pulling force by pulling-eye kN	0,0	0,1	0,2	0,4	0,6	0,8	1,2	2,4
Minimum bending radii								
Minimum bending radius, handling mm	105	153	173	244	280	306	392	542
Minimum bending radius, final bending mm	70	102	116	163	187	204	261	361
Minimum bending radii								
During handling and installation, cable cm	10	15	17	24	28	31	39	54
In final installation, cable cm	7	10	12	16	19	20	26	36
DC resistance								
Max. DC resistance of conductor at 20 °C Ω/km	37,4	37,4	37,4	37,4	37,4	37,4	37,4	37,4
Electrical values								
Minimum insulation resistance MΩ × km	1000	1000	1000	1000	1000	1000	1000	1000