

H07Z-K LSZH Wire



Dimensions

H07Z-K

No of Cores x Nominal Cross Sectional Area # x mm ²	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Weight kg/Km
1 x 1.50	0.7	2.9	20
1 x 2.50	0.8	3.5	31
1 x 4.00	0.8	4.1	46
1 x 6.00	0.8	4.8	65
1 x 10.00	1.0	6.0	108
1 x 16.00	1.0	7.2	167
1 x 25.00	1.2	8.8	258
1 x 35.00	1.2	9.7	341
1 x 70.00	1.4	13.3	680

Standards

BS7211 Table 3 & 4b, CENELEC HD22.9, BS EN 50525-3-41, IEC 60332-3-24, IEC 60754-1 & 2 BS EN 50267-2-1 & 2, BS EN / IEC 61034-1

Technical Data

Conductor

Class 5 flexible plain copper conductor to BS EN 60228:2005 (previously BS6360)

Insulation

LSZH (Low Smoke Zero Halogen) Type EI5 thermosetting insulation

Insulation Colour

Black, Blue, Green/Yellow, Red, Yellow, White, Violet, Brown, Grey, Orange, Pink

Voltage Rating

6701B (H07Z-K) 1.5mm² and above: 450/750V

Temperature Rating

0°C to +90°C

Minimum Bending Radius

Up to 35mm²: 3 x overall diameter
50mm² and above: 4 x overall diameter

Conductors

Class 5 flexible Copper Conductors for Single Core and Multi-Core cables

Nominal Cross Sectional Area mm ²	Maximum Diameter of Wires in Conductor mm	Maximum Resistance of Conductor at 20°C
		Plain Wires ohms/km
0.50	0.21	39.0000
0.75	0.21	26.0000
1.00	0.21	19.5000
1.50	0.26	13.3000
2.50	0.26	7.9800
4.00	0.31	4.9500
6.00	0.31	3.3000
10.00	0.41	1.9100
16.00	0.41	1.2100
25.00	0.41	0.7800
35.00	0.41	0.5540
50.00	0.41	0.3860
70.00	0.51	0.2720
95.00	0.51	0.2060
120.00	0.51	0.1610

Electrical Characteristics

Current Carrying Capacity (amperes)

Conductor Cross Sectional Area mm ²	Reference Method A (enclosed in conduit in thermally insulating wall etc.) Amps		Reference Method B (enclosed in conduit on a wall or in a trunking etc) Amps		Reference Method C (clipped direct) Amps		Reference Method F (in free air or on a perforated cable tray etc horizontal or vertical etc) touching Amps			Reference Method G (in free air) Spaced by one cable diameter Amps	
	2 Cables Single Phase AC or DC	3 or 4 Cables Three Phase AC	2 Cables Single Phase AC or DC	3 or 4 Cables Three Phase AC	2 Cables Single Phase AC or DC flat or touching	3 or 4 Cables Three Phase AC flat and touching or trefoil	2 Cables Single Phase AC or DC flat	3 Cables Three Phase AC flat	3 Cables Three Phase AC trefoil	2 Cables Single Phase AC or DC or 3 Cables Three Phase AC flat	
										Horizontal	Vertical
1	2	3	4	5	6	7	8	9	10	11	12
1.0	14	13	17	15	19	17.5	-	-	-	-	-
1.5	19	17	23	20	25	23.0	-	-	-	-	-
2.5	26	23	31	28	34	31.0	-	-	-	-	-
4.0	35	31	42	37	46	41.0	-	-	-	-	-
6.0	45	40	54	48	59	54.0	-	-	-	-	-
10.0	61	54	75	66	81	74.0	-	-	-	-	-
16.0	81	73	100	88	109	99.0	-	-	-	-	-
25.0	106	95	133	117	143	130.0	161	141	135	182	161
35.0	131	117	164	144	176	161.0	200	176	169	226	201
50.0	158	141	198	175	228	209.0	242	216	207	275	246
70.0	200	179	253	222	293	268.0	310	279	268	353	318
95.0	241	216	306	269	355	326.0	377	342	328	430	389
120.0	278	249	354	312	413	379.0	437	400	383	500	454

Ambient temperature: 30°C

Conductor operating temperature: 90°C

Part Number List

Nominal Cross Sectional Area (mm ²)	Black	Blue	Green	Grey	Green/Yellow	Orange	Red	Pink	Yellow	Violet	Brown	White
1.5	770-027	770-028	770-029	770-030	770-031	770-032	770-033	770-034	770-035	770-036	770-037	770-038
2.5	770-040	770-041	770-042	770-043	770-044	770-045	770-046	770-047	770-048	770-049	770-050	770-051
4	770-053	770-054	770-055	770-056	770-057	770-058	770-059	770-060	770-061	770-062	770-063	770-064
6	770-066	770-067	770-068	770-069	770-070	770-071	770-072	770-073	770-074	770-075	770-076	770-077
10	770-079	770-080	770-081	770-082	770-083	770-084	770-085	770-086	770-087	770-088	770-089	770-090
16	770-092	770-093	770-094	770-095	770-096	770-097	770-098	770-099	770-100	770-101	770-102	770-103
25	770-105	770-106	770-107	770-108	770-109	770-110	770-111	770-112	770-113	770-114	770-115	770-116
35	770-118	770-119	770-120	770-121	770-122	770-123	770-124	770-125	770-126	770-127	770-128	770-129
70	770-131	770-132	770-133	770-134	770-135	770-136	770-137	770-138	770-139	770-140	770-141	770-142

Voltage Drop (per ampere per metre)

Conductor Cross Sectional Area mm ²	2 Cables DC mV/A/m	2 Cables Single Phase AC mV/A/m									3 or 4 Cables Three Phase AC mV/A/m											
		Reference Methods A & B (enclosed in conduit or trunking)	Reference Methods C, F & G (clipped direct, on tray or in free air)						Reference Methods A & B (enclosed in conduit or tunking)	Reference Methods C, F & G (clipped direct, on tray or in free air)												
			Cable Touching			Cable Spaced*				Cable Touching Trefoil			Cable Touching Flat			Cable Spaced* Flat						
1	2	3			4			5			6			7			8			9		
1.0	46.000	46.0			46.0			46.0			40.0			40.0			40.0			40.0		
1.5	31.000	31.0			31.0			31.0			27.0			27.0			27.0			27.0		
2.5	19.000	19.0			19.0			19.0			16.0			16.0			16.0			16.0		
4.0	12.000	12.0			12.0			12.0			10.0			10.0			10.0			10.0		
6.0	7.900	7.9			7.9			7.9			6.8			6.8			6.8			6.8		
10.0	4.700	4.7			4.7			4.7			4.0			4.0			4.0			4.0		
16.0	2.900	2.9			2.9			2.9			2.5			2.5			2.5			2.5		
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
25.0	1.850	1.850	0.31	1.90	1.850	0.190	1.85	1.850	0.28	1.85	1.600	0.27	1.65	1.600	0.165	1.600	0.600	0.190	1.60	1.600	0.27	1.65
35.0	1.350	1.350	0.29	1.35	1.350	0.180	1.35	1.350	0.27	1.35	1.150	0.25	1.15	1.150	0.155	1.150	0.150	0.180	1.15	1.150	0.26	1.20
50.0	0.990	1.000	0.29	1.05	0.990	0.180	1.00	0.990	0.27	1.00	0.870	0.25	0.90	0.860	0.155	0.870	0.860	0.180	0.87	0.860	0.26	0.89
70.0	0.680	0.700	0.28	0.75	0.680	0.175	0.71	0.680	0.26	0.73	0.600	0.24	0.65	0.590	0.150	0.610	0.590	0.175	0.62	0.590	0.25	0.65
95.0	0.490	0.510	0.27	0.58	0.490	0.170	0.52	0.490	0.26	0.56	0.440	0.23	0.50	0.430	0.145	0.450	0.430	0.170	0.46	0.430	0.25	0.49
120.0	0.390	0.410	0.26	0.48	0.390	0.165	0.43	0.390	0.25	0.47	0.350	0.23	0.42	0.340	0.140	0.370	0.340	0.165	0.38	0.340	0.24	0.42