

H07Z-R LSZH Cable



APPLICATION

Suitable for use in conduit and for fixed, protected installation. For installations where fire, smoke emission and toxic fume create a potential risk to life and equipment.

CHARACTERISTICS

Voltage Rating U_0/U

450/750V

Operating Temperature

Fixed: -20°C to +90°C

Minimum installation temperature: 0°C

Minimum Bending Radius

6 x overall diameter

STANDARDS

EN 50525-3-41, EN 60228

Flame Retardant according to IEC/EN 60332-1-2

Halogen Free according to IEC/EN 61034-1/2, IEC/EN 60754-1/2

CONSTRUCTION

Conductor

Class 2 stranded copper conductor

Insulation

LSZH (Low Smoke Zero Halogen)

Insulation Colour

Red Black Blue Yellow Orange White

Green/Yellow Grey Brown Violet Pink

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMENT

Guowang Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustainable development.

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA	NOMINAL THICKNESS OF INSULATION	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT
mm ²	mm	mm	kg/km
1.5	0.7	3.4	22
2.5	0.8	4.1	35
4	0.8	4.7	50
6	0.8	5.4	72
10	1	6.8	121
16	1	8	182
25	1.2	9.8	285
35	1.2	11	390
50	1.4	13.2	510
70	1.4	15.1	710
95	1.6	17	980
120	1.6	19	1220
150	1.8	21	1500
185	2	23.5	1910
240	2.2	26.5	2490
300	2.4	29.5	3100
400	2.6	33.5	3950
500	2.8	37	5000
630	2.8	41	6350

COLOUR CODES

COLOUR	Black	Blue	Grey	Green/Yellow	Orange	Red	Pink	Yellow	Violet	Brown	White
CODE	BK	BL	GR	GY	OR	RD	PK	YW	VI	BR	WH

CONDUCTORS

NOMINAL CROSS SECTIONAL AREA	MINIMUM NO. OF WIRES IN CONDUCTOR mm						MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km
	Circular		Circular Compacted		Shaped		Annealed Copper Conductor
	Cu	Al	Cu	Al	Cu	Al	Plain Wires
mm ²							
1.5	7	-	6	-	-	-	12.1
2.5	7	-	6	-	-	-	7.41
4	7	-	6	-	-	-	4.61
6	7	-	6	-	-	-	3.08
10	7	7	6	6	-	-	1.83
16	7	7	6	6	-	-	1.15
25	7	7	6	6	6	6	0.727
35	7	7	6	6	6	6	0.524
50	19	19	6	6	6	6	0.387
70	19	19	12	12	12	12	0.268
95	19	19	15	15	15	15	0.193
120	37	37	18	15	18	15	0.153
150	37	37	18	15	18	15	0.124
185	37	37	30	30	30	30	0.0991
240	37	37	34	30	34	30	0.0754
300	61	61	34	30	34	30	0.0601
400	61	61	53	53	53	53	0.047
500	61	61	53	53	53	53	0.0366
600	91	91	53	53	53	53	0.0283

Ambient temperature: 30°C

Conductor operating temperature: 90°C

ELECTRICAL CHARACTERISTICS

Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA	REFERENCE METHOD A (ENCLOSED IN CONDUIT IN THERMALLY INSULATING WALL ETC) Amps		REFERENCE METHOD B (ENCLOSED IN CONDUIT IN WALL OR IN 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 1 x OD Amps	
mm ²	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	3 or 4 Cables Three-Phase AC	2 Cables Single-Phase AC or DC	3 Cables Three-Phase AC flat	3 Cables Three-Phase AC trefoil	Horizontal	Vertical
1.5	19	17	23	20	25	23	-	-	-	-	-
2.5	26	23	31	28	34	31	-	-	-	-	-
4	35	31	42	37	46	41	-	-	-	-	-
6	45	40	54	48	59	54	-	-	-	-	-
10	61	54	75	66	81	74	-	-	-	-	-
16	81	73	100	88	109	99	-	-	-	-	-
25	106	95	133	117	143	130	161	141	135	182	161
35	131	117	164	144	176	161	200	176	169	226	201
50	158	141	198	175	228	209	242	216	207	275	246
70	200	179	253	222	293	268	310	279	268	353	318
95	241	216	306	269	355	326	377	342	328	430	389
120	278	249	354	312	413	379	437	400	383	500	454
150	318	285	393	342	476	436	504	464	444	577	527
185	362	324	449	384	545	500	575	533	510	661	605
240	424	380	528	450	644	590	679	634	607	781	719
300	486	435	603	514	743	681	783	736	703	902	833
400	-	-	683	584	868	793	940	868	823	1085	1008
500	-	-	783	666	990	904	1083	998	946	1253	1169
630	-	-	900	764	1130	1033	1254	1151	1088	1454	1362

Ambient temperature: 30°C

Conductor operating temperature: 90°C

VOLTAGE DROP

NOMINAL CROSS SECTIONAL AREA	2 CABLES DC	2 CABLES SINGLE-PHASE AC mV/A/m									REFERENCE METHODS C, F AND G mV/A/m											
		Reference Methods A and B enclosed in conduit or trunking)			Reference Methods C, F and G (clipped direct, on tray or in free air)						Reference Methods A and B enclosed in conduit or trunking)	Reference Methods C, F and G (clipped direct, on tray or in free air)										
					Cables Touching			Cables Spaced*				Cables touching, Trefoil			Cables touching, Flat			Cables spaced*, Flat				
mm2	mV/A /m																					
1.5	31	31			31			31			27			27			27			27		
2.5	19	19			19			19			16			16			16			16		
4	12	12			12			12			10			10			10			10		
6	7.9	7.9			7.9			7.9			6.8			6.8			6.8			6.8		
10	4.7	4.7			4.7			4.7			4			4			4			4		
16	2.9	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	1.85	1.85	0.31	1.90	1.85	0.19	1.85	1.85	0.28	1.85	1.60	0.27	1.65	1.60	0.165	1.60	1.60	0.19	1.60	1.60	0.27	1.65
35	1.35	1.35	0.29	1.35	1.35	0.18	1.35	1.35	0.27	1.35	1.15	0.25	1.15	1.15	0.155	1.15	1.15	0.18	1.15	1.15	0.26	1.20
50	0.99	1.00	0.29	1.05	0.99	0.18	1.00	0.99	0.27	1.00	0.87	0.25	0.90	0.86	0.155	0.87	0.86	0.18	0.87	0.86	0.26	0.89
70	0.68	0.70	0.28	0.75	0.68	0.175	0.71	0.68	0.26	0.73	0.60	0.24	0.65	0.59	0.15	0.61	0.59	0.175	0.62	0.59	0.25	0.65
95	0.49	0.51	0.27	0.58	0.49	0.17	0.52	0.49	0.26	0.56	0.44	0.23	0.50	0.43	0.145	0.45	0.43	0.17	0.46	0.43	0.25	0.49
120	0.39	0.41	0.26	0.48	0.39	0.165	0.43	0.39	0.25	0.47	0.35	0.23	0.42	0.34	0.14	0.37	0.34	0.165	0.38	0.34	0.24	0.42
150	0.32	0.33	0.26	0.43	0.32	0.165	0.36	0.32	0.25	0.41	0.29	0.23	0.37	0.28	0.14	0.31	0.28	0.165	0.32	0.28	0.24	0.37
185	0.25	0.27	0.26	0.37	0.26	0.165	0.30	0.25	0.25	0.36	0.23	0.23	0.32	0.22	0.14	0.26	0.22	0.165	0.28	0.22	0.24	0.33
240	0.19	0.21	0.26	0.33	0.20	0.16	0.25	0.195	0.25	0.31	0.185	0.22	0.29	0.17	0.14	0.22	0.17	0.165	0.24	0.17	0.24	0.29
300	0.155	0.175	0.25	0.31	0.16	0.16	0.22	0.155	0.25	0.29	0.15	0.22	0.27	0.14	0.14	0.195	0.135	0.16	0.21	0.135	0.24	0.27
400	0.12	0.14	0.25	0.29	0.13	0.155	0.20	0.125	0.24	0.27	0.125	0.22	0.25	0.11	0.135	0.175	0.11	0.16	0.195	0.11	0.24	0.26
500	0.093	0.12	0.25	0.28	0.105	0.155	0.185	0.098	0.24	0.26	0.10	0.22	0.24	0.09	0.135	0.16	0.088	0.16	0.18	0.085	0.24	0.25
630	0.072	0.10	0.25	0.27	0.086	0.155	0.175	0.078	0.24	0.25	0.088	0.21	0.23	0.074	0.135	0.15	0.071	0.16	0.17	0.068	0.23	0.24

Conductor operating temperature: 90°C
r = Resistive Component
x = Reactive Component
z = Impedance Value

DE-RATING FACTORS

For Ambient Air Temperatures other than 30°C

AMBIENT TEMPERATURE	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C
DE-RATING FACTOR	1.00	0.96	0.91	0.87	0.82	0.76	0.71	0.65	0.58