RZ1-K XLPE LSZH Flexible Cable

APPLICATION

For installation where fire, smoke emission and toxic fumes create a potential threat to life and equipment. A flexible power and control cable designed for fixed applications.
Manufactured with flexible conductors in order to facilitate installations with sinuous courses.

CHARACTERISTICS

Voltage Rating Uo/U
0.6/1kV
Temperature Rating
-15°C to +90°C
Minimum Bending Radius
5 x overall diameter

STANDARDS

IEC 60502-1, EN 60228
Flame Retardant according to IEC/EN 60332-1-2, IEC/EN 60332-3-24
Low Smoke Zero Halogen according to IEC/EN 60754-1/2, IEC/EN 61034-1/2

THE CABLE LAB®

AN ISO/IEC 17025 AND IECEE CBTL ACCREDITED FACILITY
Our world-class testing facility assures the quality and compliance of this cable
through a continuous and rigorous testing regime.

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.

CONSTRUCTION

Conductor
Class 5 flexible copper conductor

Insulation
XLPE (Cross-Linked Polyethylene)

Sheath
LSZH (Low Smoke Zero Halogen)

Core Identification
3 core: Green/Yellow Blue Brown
4 core: Green/Yellow Brown Black Grey
5 core: Green/Yellow Blue Brown Black Grey
7 core: Black with White numbers

Sheath Colour
Green
Black available on request

DIMENSIONS

NO. OF CORE	NOMINAL CROSS SECTIONAL AREA	NOMINAL THICKNESS OF INSULATION	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT
	mm	mm	mm	kg/km
1	2.5	0.7	5.2	45
1	4	0.7	5.8	61
1	6	0.7	6.23	80
1	10	0.7	7.25	120
1	16	0.7	8.3	174
1	25	0.9	9.95	258
1	35	0.9	11.15	349
1	50	1.0	12.75	484
1	70	1.1	14.8	676
1	95	1.1	16.9	885
1	120	1.2	18.9	1124
1	150	1.4	20.95	1393
1	185	1.6	23.9	1655
1	240	1.7	26.2	2214
1	300	1.8	28.3	2697
1	400	2.0	31.4	3389
1	500	2.2	37.4	4776
1	630	2.4	42.7	6276
2	1.5	0.7	8.2	94
2	2.5	0.7	9.2	122
2	4	0.7	10.3	165
2	6	0.7	11.3	216
2	10	0.7	13.2	319
2	16	0.7	16.4	503
3+E	1.5	0.7	8.6	108
3+E	2.5	0.7	9.5	144
3+E	4	0.7	10.7	198
3+E	6	0.7	12	263
3+E	10	0.7	13.8	405
3	16	0.7	17.3	638
3	25	0.9	20.9	938
3	35	0.9	23.5	1255
3	50	1.0	31.5	1730
3	70	1.1	35.7	2422
4+E	1.5	0.7	9.3	129
4+E	2.5	0.7	10.3	175
4+E	4	0.7	11.7	243
4+E	6	0.7	13	328
4+E	10	0.7	15.2	498
4	16	0.7	19.7	783
4	25	0.9	23.2	1168

ELECTRICAL CHARACTERISTICS

NO. OF CORE	NOMINAL CROSS SECTIONAL AREA	NOMINAL THICKNESS OF INSULATION	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT
	mm	mm	mm	kg/km
4	35	0.9	26.2	1573
4	50	1.0	31.2	2178
4	70	1.1	34.80	3055
4	95	1.1	39.70	3985
4	120	1.2	44.6	5086
4	150	1.4	49.80	6294
4	185	1.6	54.90	7534
4	240	1.7	62.30	10034
5	1.5	0.7	12.0	150
5	2.5	0.7	13.15	204
5	4	0.7	14.5	286
5	6	0.7	16.10	387
5	10	0.7	18.1	598
5	16	0.7	21.3	931
5	25	0.9	25.4	1407
5	35	0.9	28.4	1091
5	50	1.0	34.3	2654
8	1.5	0.7	13.1	282.1
10	1.5	0.7	15.3	366.1
12	1.5	0.7	16	406.7
16	1.5	0.7	17.2	508.1

CONDUCTORS

Class 5 Flexible Copper Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM DIAMETER OF WIRES IN CONDUCTOR mm	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km
		Plain Wires
2.5	0.26	7.98
4	0.31	4.95
6	0.31	3.3
10	0.41	1.91
16	0.41	1.21
25	0.41	0.78
35	0.41	0.554
50	0.41	0.386
70	0.51	0.272
95	0.51	0.206
120	0.51	0.161
150	0.51	0.129
185	0.51	0.1
240	0.51	0.0801
300	0.51	0.064
400	0.51	0.0486
500	0.61	0.038
630	0.61	0.0287

ELECTRICAL CHARACTERISTICS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	CURRENT CARRYING CAPACITY Amps		MAXIMUM DC RESISTANCE AT 20oC Amps
		In Air at 40°C	In Earth at 35°C	
RZ1-K LSZH Cable - 1 Core				
1	2.5	29	36	17.624
1	4	38	46	10.932
1	6	49	58	7.288
1	10	68	77	4.218
1	16	91	100	2.672
1	25	116	128	1.723
1	35	144	154	1.224
1	50	175	183	0.852
1	70	224	224	0.601
1	95	271	256	0.455
1	120	314	302	0.356
1	150	363	342	0.285
1	185	415	383	0.234
1	240	490	442	0.177
1	300	563	500	0.142
1	400	823	464	0.108
1	500	946	525	0.085
1	630	1088	596	0.064
RZ1-K LSZH Cable - 2 Core				
2	1.5	24	27	29.374
2	2.5	33	36	17.624
2	4	45	46	10.932
2	6	57	58	7.288
2	10	79	77	4.218
2	16	105	100	2.672
RZ1-K LSZH Cable - 3 Core Including Earth				
3	2.5	33	36	17.624
3	4	45	46	10.932
3	6	57	58	7.288
3	10	79	77	4.218
3	16	105	100	2.622
RZ1-K LSZH Cable - 3 Core				
3	16	87	82	2.672
3	25	110	106	1.723
3	35	137	129	1.224
3	50	167	152	0.852
3	70	246	178	0.603
RZ1-K LSZH Cable - 4 Core Including Earth				
4	1.5	20	23	29.374
4	2.5	26	30	17.624
4	4	36	38	10.932
4	6	46	48	7.288
4	10	65	64	4.218
RZ1-K LSZH Cable - 4 Core				
4	16	87	82	2.672
4	25	110	106	1.723

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	CURRENT CARRYING CAPACITY Amps		MAXIMUM DC RESISTANCE AT 20oC Amps
		In Air at 40°C	In Earth at 35°C	
RZ1-K Cable - 4 Core				
4	35	137	129	1.224
4	50	167	152	0.852
4	70	246	178	0.603
4	95	298	211	0.457
4	120	346	240	0.357
4	150	399	271	0.286
4	185	456	304	0.235
4	240	538	351	0.178
RZ1-K Cable - 5 Core Including Earth				
5	1.5	20	23	29.374
5	2.5	26	30	17.624
5	4	36	38	10.932
5	6	46	48	7.288
5	10	65	64	4.218
5	16	87	82	2.672
5	25	110	106	1.723
5	35	137	129	1.224
5	50	167	152	0.852
RZ1-K Cable - 8 Core				
8	1.5	14	16	12.1
RZ1-K Cable - 10 Core				
10	1.5	14	16	12.1
RZ1-K Cable - 12 Core				
12	1.5	14	16	12.1
RZ1-K Cable - 16Core				
16	1.5	14	16	12.1

SHORT CIRCUIT CURRENT CARRYING CAPACITIES

The maximimum short-circuit current that a cable can withstand depends on the time of reaction of the protection elements installed in the line. The maximum current-carrying capacity in a short-circuit accident, for a specific type of cable, is the result of multiplying the cross-section of the cable for the values shown in the table below.

TIME s	0.1	0.2	0.3	0.5	1.0	1.5	2.0	2.5	3.0
Amps/mm2	452	320	261	202	143	117	101	90	83