

450/750V & 600/1000V Mica+LSOH insulated Fire Resistant Single Core Cable Cu/FR/LSOH to BS 8592+BS 6387 CWZ

07mZ1-R (CU/MGT+LSZH 450/750V Class 2)

1mZ1-R (CU/MGT+LSZH 600/1000V Class 2)



Application

This cable is used in fire extinguishing systems, sprinklers, control panels, and exit lights in high-rise buildings, hotels, hospitals, sub-ways, and public facilities.

Specification

Basic design to BS 8592, BS EN 50525-3-31, BS 8434-2: 2003+AZ: 2009, EN 50200: 2015 PH120 and Annex E

Fire Performance

Circuit Integrity	IEC 60331-21; BS 6387 CWZ
Flame Retardance (Single Vertical Wire Test)	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; BS EN 50265-2-1*;
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24;
Halogen Free	IEC 60754-1; EN 50267-2-1; BS 6425-1*
No Corrosive Gas Emission	IEC 60754-1; EN 50267-2-1; BS 6425-1*
Minimum Smoke Emission	IEC 61034-1&2; EN 61034 -1&2; EN 50268-1&2*

Low Voltage 450/750 V & 600/1000 V

Conductor: Plain annealed copper wire, stranded according to IEC 60228 class 2.

Fire barrier: Mica glass tape.

Insulation: Halogen-free, cross-linked insulating thermosetting compounds Type E15 complying BS EN 50363-5, Thermoplastic LSZH compound type T17 UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option.

Core Identification:

Insulation Colour: Red, blue, Brown, Grey, Y/G, Black (other colours upon request)

Fire Resistant Cables to BS 6387 CWZ & BS 7846

Temperature range during operation (fixed state): -0°C – +90°C

Temperature range during installation (mobile state): -0°C – +50°C

Minimum bending radius: 6×Overall Diameter

Insulation resistance: 20MΩ · km (at 20°C)

Short circuit temperature: 250°C



Cable Parameter

Conductor		07mZ1-R			1mZ1-R		
Nominal Cross-Sectional area	No./Nomina Diameter of Strands	Nominal Insulation Thickness	Nominal Overall Diameter	Approx. Weight	Nominal Insulation Thickness	Nominal Overall Diameter	Approx. Weight
mm ²	No./mm	mm	mm	kg/km	mm	mm	kg/km
1.5	7/0.52	0.7	3.9	28	0.8	4.1	30
2.5	7/0.67	0.8	4.5	42	0.8	4.5	42
4	7/0.85	0.8	5.0	52	1.0	5.4	63
6	7/1.04	0.8	5.6	72	1.0	6.0	85
10	7/1.35	1.0	7.2	120	1.0	7.2	120
16	7/1.70	1.0	8.2	180	1.0	8.2	180
25	7/2.14	1.2	10.0	275	1.2	10.0	275
35	7/2.52	1.2	11.2	370	1.2	11.2	370
50	19/1.78	1.4	12.8	500	1.4	12.8	500
70	19/2.14	1.4	14.6	700	1.4	14.6	700
95	19/2.52	1.6	16.9	980	1.6	16.9	980
120	37/2.03	1.6	18.5	1207	1.6	18.5	1207
150	37/2.25	1.8	20.4	1471	1.8	20.4	1471
185	37/2.52	2.0	22.7	1850	2.0	22.7	1850
240	61/2.25	2.2	25.7	2393	2.2	25.7	2393
300	61/2.52	2.4	28.5	2988	2.4	28.8	2988
400	61/2.85	2.6	32.0	3822	2.6	32.0	3822

Fire Resistant Cables to BS 6387 CWZ & BS 7846

Current-Carrying Capacities (amp)

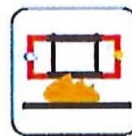
Conductor cross-sectional area	Reference Method A (enclosed in conduit in thermally cross-sectional area insulating wall etc)		Reference Method B (enclosed in conduit on a wall or in trunking etc)		Reference Method C (clipped direct)		Reference Method F (in free air or on a perforated cable tray, horizontal or vertical etc) Touching			Reference Method G (in free air) Spaced by one cable diameter	
	2 cables, phase single-a.d.or	3 or 4 cables, phase three	2 cables, single-a.c.or d.c pase	3 or 4 cables, phase there	2 cables, single phase a.c.or dc.flat and touching	3 or 4 cables, three-phase a.c. flat and touching or trefon	2 cables, single-phase a.c. or d.c. flat	3 cables, three-phase a.c. flat	3 cables, three-phase a.c. trefoil	2 cables, single-phase a.c. or d.c. or 3 cables three-phase a.c. flat	
										Horizontal	Vertical
1 mm ²	2 A	3 A	4 A	5 A	6 A	7 A	8 A	9 A	10 A	11 A	12 A
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	606	514	743	681	783	736	703	902	833
400	—	—	383	584	868	793	940	868	823	1085	1008



Rated Voltage



Standard



IEC 60331-05 6387
NF C32-070-2 3(CRI)
Circuit Integrity



IIF C32-070-2 2(C1)
IEC60332-3-24/EI150266-2-4
Reduced Fire Propagation



NF C32-070-2 1(C2)
IEC60332-1-2/EN50265-2-1
Flame Retardancy



NES 02-713/NF C 20-454
Low Toxicity



IEC60754-2
EI150267-2-2/3
NF C 32-074
Low Corrosivity



IEC 61034-102
EI150268-1&2/NF C32-07
Low Smoke Emission



IEC60754-1
EN50267-2-1
Halogen Free



DIN 4102-12
Functional Integrity