

6491B/H07Z-U 6491B/H07Z-R

450/750V

BS EN 50525-3-41

Single core non-sheathed cables with low emission of smoke and corrosive gases

APPLICATIONS

Single core, non-sheathed cables are suitable particularly for situations in which low emission of smoke and corrosive gases is required in the case of burning. Single core, non-sheathed cables are intended for installation in surface mounted or embedded conduits, or similar closed systems. Suitable for fixed protected installation in, or on, lighting and control gear for voltages up to 1000 V a.c. or, up to 750V d.c. to earth

Standard length cable packing

50 m or 100 m in rings or on spools, or 500 m on drums. Other forms of packing and delivery are available on request.

CONSTRUCTION

Conductors:

annealed copper conductor class 1 solid (H07Z-U), class 2 stranded (H07Z-R) acc. to EN 60228

Insulation:

special thermosetting low smoke zero halogen compound type EI5 acc. to EN 50363-5

Colour of insulation:

green/yellow, blue, black, brown, grey, orange, pink, red, turquoise, violet, white



CHARACTERISTICS

Maximum conductor operating temperature:	+90°C
Lowest ambient temperature for fixed installation:	-40°C
Lowest installation temperature:	-5°C
Maximum short-circuit conductor temperature:	+250°C
Test voltage:	2500V
Flame propagation	EN 60332-1-2, EN 60332-3-24
Smoke emission:	EN 61034-2
Corrosive and acid gas emission of insulation:	BS EN 60754-2, pH ≥ 4,3 & conductivity ≤ 10 μSmm ⁻¹ BS EN 60754-1, HCL ≤ 0,5%

Approvals

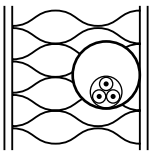
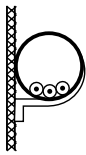
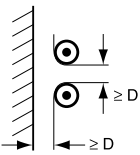
BASEC

Technical and Electrical Characteristics

Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	Minimum insulation resistance at temperature 90°C
n × mm²	mm	kg/km	Ω/km	MΩ.km
H07Z-U				
1,5	2,8	19	12,1	0,011
2,5	3,3	30	7,41	0,010
4	3,8	45	4,61	0,0085
6	4,3	63	3,08	0,0070
10	5,5	105	1,83	0,0070
H07Z-R				
1,5	3,0	21	12,1	0,010
2,5	3,6	32	7,41	0,0090
4	4,1	47	4,61	0,0077
6	4,7	67	3,08	0,0065
10	6,0	111	1,83	0,0065
16	7,0	168	1,15	0,0050
25	8,7	263	0,727	0,0050
35	9,8	356	0,524	0,0043
50	11,6	478	0,387	0,0043
70	13,3	674	0,268	0,0035
95	15,6	932	0,193	0,0035
120	17,2	1155	0,153	0,0032
150	18,4	1421	0,124	0,0032
185	20,3	1774	0,0991	0,0032
240	23,2	2307	0,0754	0,0032
300	25,4	2886	0,0601	0,0030

Current ratings acc. to IEC 60364-5-523

Permissible operating temperature at conductor: 90°C; ambient temperature: 30°C

Cross-sectional area of conductor					
	Single core cables in insulating tubes, in a thermally insulated walls		Single core cables in insulating tubes on a wall		In open air *
Number of loaded cores	2	3	2	3	1
Cross-section, mm ²	Current ratings in Ampere (A)				
1,5	19	17	23	20	24
2,5	26	23	31	28	32
4	35	31	42	37	42
6	45	40	54	48	54
10	61	54	75	66	73
16	81	73	100	88	98
25	106	95	133	117	129
35	131	117	164	144	158
50	158	141	198	175	198
70	200	179	253	222	245
95	241	216	306	269	292
120	278	249	354	312	344
150	318	285	-	-	391
185	362	324	-	-	448
240	424	380	-	-	528
300	486	435	-	-	608

* Current rating acc. to VDE 0298-4, ambient temperature: 30°C

Convention factors for deviating ambient temperature

Ambient Temperature, °C	10	15	20	25	35	40	45	50	55	60	65
Conversion factors	1,15	1,12	1,08	1,04	0,96	0,91	0,87	0,82	0,76	0,71	0,65

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