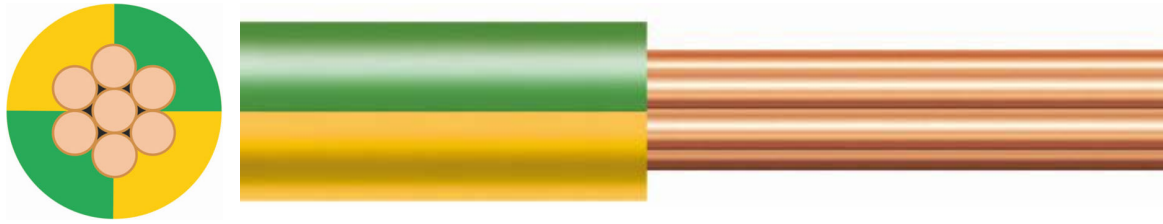


6491-B / H07Z-R SINGLE CORE CABLE



Suitable for power, lighting circuits, and building wiring, with the added capability for use as an earth wire. Engineered for conduit and fixed, protected installations, it ensures safety in environments where fire, smoke emission, and toxic fumes pose risks to life and equipment. Ideal for lighting installations, switch and control gear, and appliances, our cable features a Low Smoke Zero Halogen outer sheath, providing added protection against fire and emissions.

CONDUCTOR	Plain Copper
STRANDING	Class 2
OUTERSHEATH	LSZH
OUTERSHEATH COLOUR	Black, White, Blue, Grey, Violet, Orange, Red, Green/Yellow, Brown, Yellow
RATED VOLTAGE	450/750v
OPERATING TEMPERATURE	90°C
STANDARDS	BS EN 50525-3-41 BS EN 60228

SPECIFICATION DATA

BATT Part No	Colour	Nominal cross sectional area of conductor	Radial thickness of insulation	Approx overall diameter	Weight
45002	Green/Yellow	1.5	0.7	3.0	21
45009	Green/Yellow	2.5	0.8	3.7	34
45016	Green/Yellow	4	0.8	4.2	51
45023	Green/Yellow	6	0.8	4.8	71
45029	Green/Yellow	10	1.0	6.1	120
45035	Green/Yellow	16	1.0	7.1	180
45041	Green/Yellow	25	1.2	8.9	285
45047	Green/Yellow	35	1.2	10.1	380
45050	Green/Yellow	50	1.4	11.8	510
45053	Green/Yellow	70	1.4	13.6	715
45056	Green/Yellow	95	1.6	15.9	990
45059	Green/Yellow	120	1.6	17.5	1230
45060	Green/Yellow	150	1.8	19.4	1510
45061	Green/Yellow	185	2	21.7	1900
45062	Green/Yellow	240	2.2	24.5	2490
45136	Green/Yellow	300	2.4	27.5	3050
45161	Green/yellow	400	2.6	30.9	3900
45213	Green/Yellow	500	2.8	34.5	4880
45214	Green/Yellow	630	2.8	38.4	6210

RATING TABLES

TABLE 4E1A – Single-core 90 °C thermosetting insulated cables, non-armoured, with or without sheath (COPPER CONDUCTORS)

Ambient temperature: 30 °C
Conductor operating temperature: 90 °C

CURRENT-CARRYING CAPACITY (amperes):

Conductor cross-sectional area	Reference Method A (enclosed in conduit in thermally 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 etc horizontal or vertical etc) Touching			Reference Method G (in free air) Spaced by one cable diameter	
	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 and 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	
	2	3	4	5	6	7	8	9	10	11	12
1 (mm ²)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
1	14	13	17	15	19	17.5	-	-	-	-	-
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
800	-	-	-	-	1288	1179	1358	1275	1214	1581	1485
1000	-	-	-	-	1443	1323	1520	1436	1349	1775	1671

COPPER CONDUCTORS

NOTES:

- Where it is intended to connect the cables in this table to equipment or accessories designed to operate at a temperature lower than the maximum operating temperature of the cable, the cables should be rated at the maximum operating temperature of the equipment or accessory (see Regulation 512.1.5).
- Where it is intended to group a cable in this table with other cables, the cable should be rated at the lowest of the maximum operating temperatures of any of the cables in the group (see Regulation 512.1.5).
- For cables having flexible conductors see section 2.4 of this appendix for adjustment factors for current-carrying capacity and voltage drop.

TABLE 4E1B

VOLTAGE DROP (per ampere per metre):

Conductor operating temperature: 90°C

Conductor cross-sectional area	2 cables, DC	2 cables, single-phase AC				Reference Methods A & B (enclosed in conduit or trunking)	3 or 4 cables, three-phase AC															
		Reference Methods A & B (enclosed in conduit or trunking)		References Methods C, F & G (clipped direct, on tray or in free air)			Reference Methods A & B (enclosed in conduit or trunking)	Reference Methods C, F & G (clipped direct, on tray or in free air)														
		Cables touching		Cables spaced*				Cables touching, Trefoil			Cables touching, Flat			Cables spaced*, Flat								
1	2	3		4		5		6			7			8			9					
(mm ²)	(mV/A/m)	(mV/A/m)		(mV/A/m)		(mV/A/m)		(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)					
1	46	46		46		46		40			40			40			40					
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		4.0			4.0			4.0			4.0					
16	2.9	2.9		2.9		2.9		2.5			2.5			2.5			2.5					
25	1.85	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z			
35	1.35	1.85	0.31	1.90	1.85	0.190	1.85	1.85	0.28	1.85	1.60	0.27	1.65	1.60	0.165	1.60	1.60	0.190	1.60	1.60	0.27	1.65
50	0.99	1.35	0.29	1.35	1.35	0.180	1.35	1.35	0.27	1.35	1.15	0.25	1.15	1.15	0.155	1.15	1.15	0.180	1.15	1.15	0.26	1.20
70	0.68	1.00	0.29	1.05	0.99	0.180	1.00	0.99	0.27	1.00	0.87	0.25	0.90	0.86	0.155	0.87	0.86	0.180	0.87	0.86	0.26	0.89
95	0.49	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	0.150	0.61	0.59	0.175	0.62	0.59	0.25	0.65
120	0.39	0.51	0.27	0.58	0.49	0.170	0.52	0.49	0.26	0.56	0.44	0.23	0.50	0.43	0.145	0.45	0.43	0.170	0.46	0.43	0.25	0.49
150	0.32	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	0.140	0.37	0.34	0.165	0.38	0.34	0.24	0.42
185	0.25	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	0.140	0.31	0.28	0.165	0.32	0.28	0.24	0.37
240	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	0.140	0.26	0.22	0.165	0.28	0.22	0.24	0.33
300	0.190	0.21	0.26	0.33	0.20	0.160	0.25	0.195	0.25	0.31	0.185	0.22	0.29	0.170	0.140	0.22	0.170	0.165	0.24	0.170	0.24	0.29
400	0.155	0.175	0.25	0.31	0.160	0.160	0.22	0.155	0.25	0.29	0.150	0.22	0.27	0.140	0.140	0.195	0.135	0.160	0.21	0.135	0.24	0.27
500	0.120	0.140	0.25	0.29	0.130	0.155	0.20	0.125	0.24	0.27	0.125	0.22	0.25	0.110	0.135	0.175	0.110	0.160	0.195	0.110	0.24	0.26
630	0.093	0.120	0.25	0.28	0.105	0.155	0.185	0.098	0.24	0.26	0.100	0.22	0.24	0.090	0.135	0.160	0.088	0.160	0.180	0.085	0.24	0.25
800	0.072	0.100	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	0.150	0.071	0.160	0.170	0.068	0.23	0.24
1000	0.056	-	-	-	0.072	0.150	0.170	0.064	0.24	0.25	-	-	-	0.062	0.130	0.145	0.059	0.155	0.165	0.055	0.23	0.24
1000	0.045	-	-	-	0.063	0.150	0.165	0.054	0.24	0.24	-	-	-	0.055	0.130	0.140	0.050	0.155	0.165	0.047	0.23	0.24

NOTE: * Spacings larger than one cable diameter will result in a larger voltage drop.

The information in this datasheet is for guidance only and subject to change without liability. Images provided are representations; actual cable dimensions may vary due to manufacturing tolerances.

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