



Application

H07ZZ-F halogen-free flexible cables are designed for use as power and control cables in both indoor and outdoor environments. They are ideal for applications where fire safety, low smoke emission, and the absence of toxic fumes are critical to protecting life and equipment. These cables can withstand medium mechanical stresses and are commonly used for temporary power supplies, mobile power units, and UPS installations.

Characteristics

Voltage Rating 450/750v (1kV AC or DC using for fixed installations)

AC test Voltage 2,5 kV

Temperature rating Flexing -5°C to +70°C / Fixed -20°C to +90°C

Short-circuit Temp 250°C (Max. 5 sec)

Min. bending radius EN 50565-1 Tab. 3

Current Carrying Capacities VDE 0298-4 Tab.13,
IEC 60364-5-52 Tab. B.52.12 & Tab. C.52.1

Construction

Conductor

Electrolytic annealed, class 5 stranded plain copper wires

Separator

A suitable tape may be applied over the conductor

Insulation

El8 type cross-linked elastomeric compound (EN 50363-5)

Inner Sheath

EM8 or EM10 type elastomer compound. If outer sheath thickness is greater than 2,4 mm

Outer sheath

EM8 type cross-linked elastomeric compound (EN 50363-6)

Core Identification

1-core: Black

2-core: Blue + Brown

3G-core: Blue + Brown + Green/Yellow

4G-core: Brown + Black + Grey + Green/Yellow

5G-core: Brown + Black + Grey + Blue + Green/Yellow

6 cores and above: Green/Yellow + Black with printing Numbers



Sheath Colour

Black

Standards

Construction EN 50525-3-21, VDE 0285-3-21, IEC 60245-4

General Requirements EN 50525-1, VDE 0285-525-1, IEC 60245-1

Guide to Use EN 50565-1/2, VDE 0298-565-1

Electrical Tests EN 50395, IEC60245-2

Non-electrical Tests EN 50396, IEC60245-2

Conductor Resistance IEC 60228, VDE 0295

Halogen Content EN 50363-5/6, EN 60574-1

Flame Retardant IEC 60332-1-2, VDE 0482-332-1-2, IEC 60332-3-24

Oil Resistant EN 60811-404, VDE 0473-811-404

Regulatory Compliance



RESPONSIBLY
PRODUCED
COPPER

The Copper Mark Partnership

- IEWC promotes sustainable practices by our suppliers
- Copper Mark promotes seven of 17 UN Global Sustainability Goals
- Copper Mark recipients cover
- 20% of global copper production

Cross Section (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)	Min. Bending Radius (free movement) (mm)	Max. Resistance of Conductors at 20°C (ohm / km)
1x1.5	6.2	56	25	13.30
1x2.5	6.80	71	27	7.98
1x4	7.70	97	31	4.95
1x6	8.40	123	34	3.30
1x10	10.30	191	41	1.91
1x16	11.50	260	46	1.21
1x25	14.20	388	71	0.78
1x35	15.50	502	78	0.554
1x50	17.80	680	89	0.386
1x70	21.0	927	121	0.272
1x95	22.50	1185	135	0.206
1x120	24.60	1470	148	0.161
1x150	26.80	1797	161	0.129
1x185	29.50	2167	177	0.106
1x240	33.00	2833	198	0.0801
1x300	36.00	3442	216	0.0641
1x400	41.30	4459	248	0.0486
1x500	44.60	5748	268	0.0384
1x630	47.80	7178	287	0.0287
2x1	8.40	100	34	19.50
2x1.5	9.40	128	38	13.30
2x2.5	11.00	181	44	7.98
2x4	12.60	248	63	4.95
2x6	14.00	318	70	3.30
2x10	19.60	601	98	1.91
2x16	22.00	799	132	1.21
2x25	26.80	1184	161	0.78
3x1	9.10	121	36	19.50
3x1.5	10.10	153	40	13.30
3x2.5	11.80	217	47	7.98
3x4	13.50	300	68	4.95

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Cross Section (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)	Min. Bending Radius (free movement) (mm)	Max. Resistance of Conductors at 20°C (ohm / km)
3x6	15.00	390	75	3.30
3x10	21.10	731	127	1.91
3x16	23.60	980	142	1.21
3x25	29.20	1483	175	0.78
3x35	31.70	1873	190	0.554
3x50	36.60	2546	220	0.386
3x70	41.30	3429	248	0.272
3x95	46.60	4413	280	0.206
3x120	50.90	5430	305	0.161
3x150	55.50	6614	333	0.129
3x185	61.30	8021	386	0.106
3x240	69.80	10627	419	0.0801
3x300	77.10	13055	463	0.0641
4x1	10.10	150	40	19.50
4x1.5	11.20	191	45	13.30
4x2.5	13.00	269	65	7.98
4x4	14.90	374	75	4.95
4x6	16.70	493	84	3.30
4x10	23.00	894	138	1.91
4x16	25.80	1211	155	1.21
4x25	32.40	1867	194	0.78
4x35	35.10	2361	211	0.554
4x50	40.50	3206	243	0.386
4x70	45.90	4352	275	0.272
4x95	51.80	5646	311	0.206
4x120	56.50	6888	339	0.161
4x150	61.80	8424	371	0.129
4x185	68.40	10231	410	0.106
4x240	77.80	13535	467	0.0801
4x300	86.00	16633	516	0.0641
5x1	11.10	182	44	19.50

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Cross Section (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)	Min. Bending Radius (free movement) (mm)	Max. Resistance of Conductors at 20°C (ohm / km)
5x1.5	12.40	235	62	13.30
5x2.5	14.40	331	72	7.98
5x4	16.70	469	84	4.95
5x6	19.00	622	95	3.30
5x10	25.30	1091	152	1.91
5x16	28.60	1496	172	1.21
5x25	25.90	2302	155	0.78
6x1.5	14.60	317	73	13.30
6x2.5	16.80	438	84	7.98
6x4	19.30	609	97	4.95
7x1.5	14.60	327	73	13.30
7x2.5	16.80	454	84	7.98
7x4	19.30	635	97	4.95
12x1.5	19.20	531	96	13.30
12x2.5	22.10	739	133	7.98
12x4	25.80	1061	155	4.95
18x1.5	22.40	742	134	13.30
18x2.5	26.00	1050	156	7.98
18x4	30.30	1507	182	4.95
24x1.5	26.20	967	157	13.30
24x2.5	30.60	1382	184	7.98
36x1.5	30.00	1344	180	13.30
36x2.5	35.20	1944	211	7.98

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Installation	<1000 V				1.8/3kV	3.6/6kV	6/10kV	<6/10kV
	In Open Air	On surface			In Open Air		On Surface	
Number of loaded conductors	1	2	3	2 or 3	1	1	3	3
Cross section (mm ²)	Current Rating In Ampere (A)							
0.5	-	3	3	-	-	-	-	-
0.75	15	6	6	12	-	-	-	-
1.00	19	10	10	15	-	-	-	-
1.50	24	16	16	18	30	32	-	-
2.50	32	25	20	26	41	43	30	-
4.00	42	32	25	34	55	56	41	-
6.00	54	40	-	44	70	71	53	-
10.0	73	63	-	61	98	99	74	-
16.0	98	-	-	82	132	133	99	105
25	129	-	-	108	176	174	131	139
35	158	-	-	135	218	215	162	172
50	198	-	-	168	276	270	202	216
70	245	-	-	207	347	338	250	265
95	292	-	-	250	416	403	301	319
120	344	-	-	292	488	473	352	371
150	391	-	-	335	566	546	404	428
185	448	-	-	382	644	622	461	488
240	528	-	-	453	775	-	-	-
300	608	-	-	523	898	-	-	-
400	726	-	-	-	-	-	-	-
500	830	-	-	-	-	-	-	-
VDE 0298-4								

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Current Carrying Capacity
60364-5-52 CEI:2021, Method G. TAB. A.52
Single Core

Cross Section (mm ²)	Current Carrying Capacity (A) Method (G)
35	226
50	275
70	353
95	430
120	500
150	577
185	661
240	781
300	902
400	1085
500	1253
630	1454

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