ASCENT H07RN-F

Heavy-duty flexible power cable

Application

The H07RN-F is a heavy-duty, flexible rubber cable designed for use in tough mechanical conditions. It is suitable for both indoor and outdoor applications, including in dry, damp, or wet environments. This cable is widely used in industrial settings, construction sites, workshops, and agricultural facilities, and is ideal for supplying power to portable tools and equipment, mobile power supplies, generators, and temporary lighting systems.

Characteristics

Voltage Rating 450/750v
Temperature rating -40/+90 °C
Min. bending radius see manufacturers datasheet

Standards

EN50525-2-21, AS/NZS5000.1, IEC60502-1,
Flame Retardant IEC60332-1-2
Water resistant AD7 version (submersible to 200m)

Construction

Conductor
Bare copper-conductor, class 5 IEC 60228 or AS/NZS 1125
Insulation
EPR type at least EI7 according to EN50363-1 R-EP-90 according to AS/NZS 3808
Outer sheath
CPE Compound ,EM7, IEC50363-2-1GP-90-CPE according to AS/NZS 3808

Regulatory Compliance

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 Number

Sheath Colour

Black

THE COPPER MARK | 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

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Size (mm^2)	Bare Copper		Insulation		Filler	Jacket			
	Conductor Structure ±0.01	Max. Conductor DC Resistance at 20°C ≤Ω/KM	Nominal Thickness	Thinnest Point		Nominal Thickness	Thinnest Point	Jacket Diameter	Tolerance
mm^2	Ω/km	A	A	mm	kg/km	kg/km			
1x1.5	30/0.237	13.3	1	0.8	-	1.40	1.09	6.4	±0.5
1x2.5	49/0.238	7.98	1	0.8	-	1.40	1.09	6.8	±0.5
1x4	56/0.284	4.95	1	0.8	-	1.50	1.18	7.7	±0.5
1x6	84/0.284	3.3	1	0.8	-	1.60	1.26	8.5	±0.5
1x10	73/0.4	1.91	1.2	0.98	-	1.80	1.43	10.3	±0.5
1x16	116/0.4	1.21	1.2	0.98	-	1.9	1.52	11.7	±0.6
1x25	177/0.4	0.78	1.4	1.16	-	2	1.60	13.5	±0.6
1x35	252/0.4	0.554	1.4	1.16	-	2.2	1.77	15.2	±0.8
1x50	362/0.4	0.386	1.6	1.34	-	2.4	1.94	17.4	±0.8
1x70	515/0.4	0.272	1.6	1.34	-	2.6	2.11	19.6	±0.8
1x95	680/0.4	0.206	1.8	1.52	-	2.8	2.28	22.1	±1.1
1x120	868/0.4	0.161	1.8	1.52	-	3	2.45	24.5	±1.2
1x150	1087/0.4	0.129	2	1.7	-	3.2	2.62	26.6	±1.2
1x185	1326/0.4	0.106	2.2	1.88	-	3.5	2.79	29.0	±1.5
1x240	1745/0.4	0.0801	2.4	2.06	-	3.5	2.88	32.4	±1.5
1x300	1405/0.5/	0.0641	2.6	2.24	-	3.6	2.96	35.5	±1.5
1x630	3111/0.5	0.0287	3	2.6	-	4.1	3.39	49.6	±2.5
2x1.0	32/0.190	19.5	1	0.8	-	1.8	1.43	10.2	±0.5
2x1.5	30/0.237	13.3	1	0.8	-	1.8	1.43	10.8	±0.5
2x2.5	49/0.238	7.98	1	0.8	-	1.8	1.43	11.6	±0.5
2x4	56/0.284	4.95	1	0.8	-	1.8	1.43	12.9	±0.7
2x6	84/0.284	3.3	1	0.8	-	2.0	1.60	14.4	±0.7
2x10	73/0.4	1.91	1.2	0.98	-	3.1	2.54	19.7	±1.0
2x16	116/0.4	1.21	1.2	0.98	-	3.3	2.71	21.7	±1.0
2x25	177/0.4	0.78	1.4	1.16	-	3.6	2.96	26.0	±1.2
2x35	252/0.4	0.554	1.4	1.16	-	3.8	3.13	28.9	±1.5
2x50	362/0.4	0.386	1.6	1.34	Rubber strip	4.2	3.47	33.1	±1.7
2x70	515/0.4	0.272	1.6	1.34	Rubber strip	4.6	3.81	38.0	±2.0
2x95	680/0.4	0.206	1.8	1.52	Rubber strip	5	4.15	42.5	±2.0
3x1.0	32/0.190	19.5	1	0.8	-	1.8	1.43	10.7	±0.5
3x1.5	30/0.237	13.3	1	0.8	-	1.8	1.43	11.4	±0.5
3x2.5	49/0.238	7.98	1	0.8	-	1.9	1.52	13.9	±0.7
3x4	56/0.284	3.3	1	0.8	-	1.9	1.52	15.4	±0.8

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mm^2	Ω/km	A	A	mm	kg/km	kg/km			
3x6	84/0.284	3.3	1	.8	-	2.1	1.69	15.4	±0.8
3x10	73/0.4	1.91	1.2	0.98	-	3.3	2.71	21.2	±1.1
3x16	116/0.4	1.21	1.2	0.98	-	3.5	2.88	24.3	±1.2
3x25	177/0.4	0.78	1.4	1.16	-	3.8	3.13	28.4	±1.5
3x35	252/0.4	0.554	1.4	1.16	-	4.1	3.39	31.4	±1.5
3x50	362/0.4	0.386	1.6	1.34	-	4.5	3.73	36.0	±1.5
3x70	515/0.4	0.272	1.6	1.34	-	4.8	3.98	40.5	±2.0
3x95	680/0.4	0.206	1.8	1.52	-	5.3	4.41	45.4	±2.0
3x120	868/0.4	0.161	1.8	1.52	-	5.6	4.66	50.3	±2.5
3x150	1087/0.4	0.129	2	1.7	-	6	5.00	54.8	±2.5
3x185	1326/0.4	0.106	2.2	1.88	-	6.4	5.34	60.0	±3.0
3x240	1326/0.4	0.0801	2.4	2.06	-	7.1	5.94	68.0	±3.5
4x1.0	32/0.190	19.5	1	0.8	Fibre yarn	1.8	1.43	11.5	±0.6
4x1.5	30/0.237	13.3	1	0.8	Fibre yarn	1.9	1.52	12.4	±0.6
4x2.5	49/0.238	7.98	1	0.8	Fibre yarn	2	1.60	13.6	±0.8
4x4	56/0.284	4.95	1	0.8	Fibre yarn	2	1.60	15.1	±0.8
4x6	84/0.284	4.95	1	0.8	Fibre yarn	2.3	1.86	17.3	±0.9
4x10	73/0.4	1.91	1.2	0.98	Rubber strip	3.4	2.79	22.9	±1.1
4x16	116/0.4	1.21	1.2	.98	Rubber strip	3.6	2.96	25.6	±1.3
4x25	177/0.4	0.78	1.4	1.16	Rubber strip	4.1	3.39	31.1	±1.6
4x35	252/0.04	0.554	1.4	1.16	Rubber strip	4.4	3.64	34.4	±1.7
4x50	362/0.4	0.386	1.6	1.34	Rubber strip	4.8	3.98	39.9	±2
4x70	515/0.4	0.272	1.6	1.34	Rubber strip	5.2	4.32	45.1	±2.3
4x95	680/0.4	0.161	1.8	1.52	Rubber strip	5.9	4.92	51.2	±3
4x120	868/0.4	0.161	1.8	1.52	Rubber strip	6	5.00	55.8	±3
4x150	1087/0.4	0.129	2	1.7	Rubber strip	6.5	5.43	61.1	±3
4x185	1326/0.4	0.106	2.2	1.88	Rubber strip	7	5.85	66.8	±3.5
4x240	1745/0.4	0.0801	2.4	2.06	Rubber strip	7.7	6.45	76.3	±4
5x1.5	30/0.237	13.3	1	0.8	Fibre yarn	2	1.6	13.6	±0.6
5x2.5	49/0.238	7.98	1	0.8	Fibre yarn	2.1	1.69	14.9	±0.7
5x4	56/0.284	4.95	1	0.8	Fibre yarn	2.2	1.77	17.0	±0.8
5x6	84/0.284	4.95	1	0.8	Fibre yarn	2.1	1.69	14.9	±0.9
5x10	73/0.4	1.91	1.2	0.98	Rubber strip	3.6	2.96	24.9	±1.3
5x16	116/0.4	1.21	1.2	0.98	Rubber strip	3.9	3.22	28.4	±1.5

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	Conductor Structure ±0.01	Max. Conductor DC Resistance at 20°C ≤Ω/KM	Nominal Thickness	Thinnest Point		Nominal Thickness	Thinnest Point	Jacket Diameter	Tolerance
mm²	Ω/km	A	A	mm	kg/km	kg/km			
5x25	177/0.4	0.78	1.4	1.16	Rubber strip	4.4	3.64	34.2	±2.0
5x35	252/0.4	0.554	1.4	1.16	Rubber strip	4.6	3.81	38.0	±2.0
5x50	362/0.4	0.386	1.6	1.34	Rubber strip	5.2	4.32	44.1	±2.5
5x70	515/0.4	0.386	1.6	1.34	Rubber strip	5.7	4.32	44.1	±2.5
5x95	680/0.4	0.206	1.8	1.52	Rubber strip	6.3	5.26	56.3	±3.0
5x120	868/0.4	0.161	1.8	1.52	Rubber strip	6.3	5.68	67.0	±3
5x150	1087/0.4	0.129	2	1.7	Rubber strip	6.8	5.68	67.0	±4
5x185	1326/0.4	0.106	2.2	1.88	Rubber strip	7.4	6.19	73.6	±4
7x1.5	30/0.237	13.3	1	0.8	-	2.6	2.11	15.9	±0.8
12x1.5	30/0.237	13.3	1	0.8	-	2.9	2.37	20.1	±1.0
19x1.5	30/0.237	13.3	1	0.8	-	3.2	2.62	23.6	±1.2
24x1.5	30/0.237	13.3	1	0.8	Fibre yarn	7.1	5.94	68.0	±3.5
7x2.5	49/0.238	7.98	1	0.8	-	3.5	2.88	27.6	±1.5
8x2.5	49/0.238	7.98	1	0.8	Fibre yarn	2.8	2.28	17.5	±1.0
12x2.5	49/0.238	7.98	1	0.8	-	3.1	2.54	22.1	±1.5
19x2.5	49/0.238	7.98	1	0.8	-	3.5	2.88	26.1	±1.2
24x2.5	49/0.238	7.98	1	0.8	Fibre yarn	3.9	3.22	30.7	±2.0

DE-RATING FACTORS

90°C Thermosetting (Rubber) Insulated Cables

AMBIENT TEMPERATURE	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C	75°C
DE-RATING FACTOR	0.95	0.91	0.86	0.82	0.78	0.70	0.64	0.57	0.50

80°C	85°C
0.40	0.28