

DESIGN

Conductor

Electrolytic annealed copper conductor class 5 (flexible) according to EN 60228 and IEC 60228).

Insulation

Thermosetting rubber insulation type E17 according to EN 50363-1.

The standard identification according to HD 308 and HD 186 is the following:

1x	Natural
2x	Blue, Brown
3G	Blue, Brown & Green/Yellow
3x	Brown, Black & Grey
4G	Brown, Black, Grey & Green/Yellow
4x	Brown, Black, Grey & Blue
5G	Brown, Black, Grey, Blue & Green/Yellow
6+	Black Number & Green/Yellow

Outer Sheath

Thermosetting flexible rubber outer sheath type EM2 according to EN 50363-2-1, Black.



APPLICATIONS

H07RN-F rubber cables are designed to supply power to low voltage appliances including electric motors and submersible pumps in deep water installations, as well as many other electrical equipment. Thanks to its extraordinary flexibility and mechanical strength, the H07RN-F cable is ideal for power transmission in both fixed installation or mobile service. The use nominal voltage up to 1000V is accepted in fixed protected assemblies. H07RN-F cables are designed to power all types of electrical equipment including motors and submersible pumps in deep water installation (AD8). Cable for submersible pumps in drinkable water according to AS/NZS 4020. Deep wells, drinkable water, AWQC. Installation conditions: open aire, subersible pumps cable.

- Industrial use
- Mobile use
- Robotics
- Windmilss
- Temporary site installations

© CHARACTERISTICS

Electrical Performance	450/750 V
Maximum Service Temperature	90°C
Maximum Short-Circuit Temperature	250°C (Max. 5s)
Minimum Service Temperature	-40°C (Fixed and protected), 25°C (Mobile use)
Flame non-propagation	EN 60332-1 / IEC 60332-1
CPR	Eca according to EN 50575
Minimum Bending Radius	<12mm. 3x Outer Diameter, >12mm. 4x Outer Diameter
Impact Resistance	AG2 Medium Severity
Chemical & Oil Resistance	Excellent
Grease & Mineral Oils Resistance	Excellent
Water Resistance	AD8
Standards & Approvals	EN 50525-2-21, IEC 60092-353, IEC 60245, HAR, AENOR, DNV, RoHS, CE

© SHORT-CIRCUIT CURRENT-CARRYING CAPACITIES

Time (s)	0.1	0.2	0.3	0.5	1	1.5	2	2.5	3
A/mm²	452	320	261	202	143	117	101	90	83

© CORRECTION FACTORS TEMPERATURE

Air Temp (°C)	30	35	40	45	50	55
Mobile Service	1	0.91	0.82	0.71	0.58	0.41
Fixed Installation	1	0.96	0.91	0.87	0.82	0.76

© DIMENSIONS

Part Numbers	Cross Section (mm²)	Diameter (mm)	Weight (Kg/Km)	Fixed Inst. (A)¹	Mobile Service (A)²	Voltage Drop (V/A – Km)³
HD-001	1x1.5	5.9	45	28	16	30.7
HD-002	1x2.5	6.5	60	39	25	18.4
HD-003	1x4.0	7.4	85	53	34	11.4
HD-004	1x6.0	8.1	110	68	43	7.63
HD-005	1x10	9.9	175	93	60	4.42
HD-006	1x16	11.2	240	124	79	2.80
HD-007	1x25	13.0	345	161	104	1.80
HD-008	1x35	14.6	460	200	129	1.28
HD-009	1x50	17.0	635	242	162	0.893
HD-010	1x70	19.1	845	310	202	0.629
HD-011	1x95	21.4	1100	377	240	0.476
HD-012	1x120	23.3	1375	437	280	0.372
HD-013	1x150	25.8	1695	504	321	0.298
HD-014	1x185	28.1	20445	575	363	0.245
HD-015	1x240	31.3	2635	679	433	0.185
HD-016	1x300	34.4	3275	783	497	0.148
HD-017	1x400	39.0	4270	940	586	0.112
HD-018	1x500	41.9	5370	1083	670	0.0888
HD-019	1x630	47.8	6960	1254	784	0.0664

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Part Numbers	Cross Section (mm ²)	Diameter (mm)	Weight (Kg/Km)	Fixed Inst. (A) ¹	Mobile Service (A) ²	Voltage Drop (V/A – Km) ³
HD-020	2x1.0	7.7	75	21	10	45.1
HD-021	2x1.5	8.5	100	26	16	30.7
HD-022	2x2.5	10.1	145	36	25	18.4
HD-023	2x4.0	11.8	200	49	34	11.4
HD-024	2x6.0	12.7	250	63	43	7.63
HD-025	2x10	17.7	485	86	60	4.42
HD-026	2x16	20.2	670	115	79	2.80
HD-027	2x25	24.5	995	149	105	1.80
HD-028	2x35	26.3	1240	185	130	1.28
HD-029	2x50	31.9	1765	225	165	0.893
HD-030	2x70	36.0	2335	289	205	0.629

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Part Numbers	Cross Section (mm ²)	Diameter (mm)	Weight (Kg/Km)	Fixed Inst. (A) ¹	Mobile Service (A) ²	Voltage Drop (V/A – Km) ³
HD-031	3G1.0	8.3	95	21	10	45.1
HD-032	3G1.5	9.3	125	26	16	30.7
HD-033	3G2.5	11.1	185	36	25	18.4
HD-034	3G4.0	12.7	260	49	35	11.4
HD-035	3G6.0	14.3	335	63	44	7.63
HD-036	3G10	19.6	630	86	62	4.42
HD-037	3G16	21.8	855	115	82	2.80
HD-038	3G25	26.1	1250	149	109	1.80
HD-039	3G35	29.4	1650	185	135	1.28
HD-040	3G50	33.7	2235	225	169	0.893
HD-041	3G70	38.3	2970	289	211	0.629
HD-042	3G95	44.0	3930	352	250	0.476
HD-043	3G120	47.5	4815	410	292	0.372
HD-044	3G150	52.0	5900	473	335	0.298
HD-045	3G185	57.7	7165	542	378	0.245

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Part Numbers	Cross Section	Diameter	Weight	Fixed Inst.	Mobile Service	Voltage Drop
	(mm ²)	(mm)	(Kg/Km)	(A) ¹	(A) ²	(V/A – Km) ³
HD-046	4G1.0	9.2	120	21	10	45.1
HD-047	4G1.5	10.4	160	26	16	30.7
HD-048	4G2.5	12.1	225	36	20	18.4
HD-049	4G4.0	14.0	320	49	30	11.4
HD-050	4G6.0	15.7	425	63	37	7.63
HD-051	4G10	21.4	775	86	52	4.42
HD-052	4G16	24.6	1080	115	69	2.80
HD-053	4G25	29.5	1610	149	92	1.80
HD-054	4G35	32.7	2100	185	114	1.28
HD-055	4G50	37.7	2865	225	143	0.893
HD-056	4G70	42.3	3795	289	178	0.629
HD-057	4G95	48.4	4995	352	210	0.476
HD-058	4G120	53.0	6110	410	246	0.372
HD-059	4G150	58.0	7565	473	282	0.298
HD-060	4G185	64.0	9180	542	319	0.245
HD-061	4G240	72.0	11940	641	377	0.185

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Part Numbers	Cross Section	Diameter	Weight	Fixed Inst.	Mobile Service	Voltage Drop
	(mm ²)	(mm)	(Kg/Km)	(A) ¹	(A) ²	(V/A – Km) ³
HD-062	5G1.0	9.9	145	21	10	45.1
HD-063	5G1.5	11.3	185	26	16	30.7
HD-064	5G2.5	13.5	280	36	20	18.4
HD-065	5G4.0	15.6	395	49	30	11.4
HD-066	5G6.0	17.7	530	63	38	7.63
HD-067	5G10	23.9	945	86	54	4.42
HD-068	5G16	27.0	1320	115	71	2.80
HD-069	5G25	32.5	1960	149	94	1.80
HD-070	5G35	35.8	2545	185	114	1.28
HD-071	5G50	41.9	3535	225	143	0.893
HD-072	5G70	47.2	4680	289	178	0.629
HD-073	5G95	53.5	6090	352	210	0.476
HD-074	5G120	58.0	7455	410	246	0.372
HD-075	5G150	65.1	9300	473	282	0.298
HD-076	5G185	71.4	11240	542	319	0.245

¹ Reference method F for single-core and method E for multicore cables according to IEC60364-5-52 in open air at 30°C ambient temperature. It is supposed a single-phase circuit.

² One cable in open air at 30°C ambient temperature according to EN 50565. For cables having 4 or 5 cores, it is supposed a three-phase circuit. For the rest of the cables it is supposed a single-phase circuit.

³ At 60°C conductor temperature, cos φ=1 and single-phase circuit.

** The product and information presented in this document are for calculation only and subject to technical progress.

Outer diameters are approximately **