

H07RN-F

CPR Eca



Class 5 flexible copper conductor.
Elastomeric mixture Insulation in EI4 quality.
Polychloroprene sheath, EM2.

STANDARDS

CEI EN 50525-2-21 CEI 20-107/2-21 CEI 20-19/4
(CENELEC HD 22.4 S4) BS 7919:2001 NF C 32-102-4 VDE
0282-4
EN 50575:2014 + EN 50575/A1:2016 EN 60332-1-2 EN
60811 403/504/505/506 EN 50396

Accordingly to the standards BT 2014/35/UE- 2011/65/EU (RoHS 3)

COMMON FEATURES

This cable is suitable for dry, humid or wet environments in open air, in workshops with an explosive atmosphere. When used for connections they're subjected to medium/severe mechanical stress. It can be used even in fixed laying like floors and temporary construction site set offs. CPR Compliant 305/2011 EU
Special Features in addition to the features of the H07RN_F:
-Insulation tested up to +90°C includes the characteristics of the H07BN4-F cables and the H07BB-F cables. Low Temperature Resistant (-40°C dynamic -50°C static).
-AD8 water resistance 10 bar such as the H07RN8-F.
-OZONE RESISTANT (Test A) and (Test B). UV Resistant. AG2 Shock Resistant. Excellent resistance to mineral oils, fats, AF3, and atmospheric agents AK2. Resistance to alternate bending of sections $\leq 4 \text{ mm}^2$: for at least 100000 cycles

Minimum bending radius per D cable diameter (in mm):

Fixed installation $D < 8 = 3D$ $D < 12 = 3D$ $D < 20 = 4D$ $D > 20 = 4D$
Free Movement $D < 8 = 4D$ $D < 12 = 4D$ $D < 20 = 5D$ $D > 20 = 6D$

Maximum pulling stress: 15 N/mm² section of copper dynamic applications, for fixed 50 N/mm²

100mt. rings in thermoplastic film or drums to agree.

ENERGY TRANSMISSION RUBBER INSULATED CABLES
WITH SPECIAL SHEATH SUITED FOR FIXED LAY, MOBILE
LINK AND MECHANICAL SERVICE HEAVY TOO

Nominal voltage U0: 450 V

Nominal voltage U: 750 V

Test voltage: 2500 V

Maximum voltage Um: 1000V Installazioni Fisse / for fixed and protected installation

Maximum operating temperature: +60°C(+90°C)

Maximum short circuit temperature: +200°C(+250°C)

Minimum installation and laying temperature: -25°C(-40°C)

Min. operating temperature (without mechanical shocks): -40°C(-50°C)

Minimum installation and laying temperature: -25°C(-40°C)

CORE COLOURS

Single core: black

Two cores: blue-brown

Three cores: Brown - Black - Gray (o Y/G, Blue and Brown)

Four cores: blue-brown-black-gray (or Y/G instead blue)

Five cores: Y/G-blue-brown-black-gray (black no Y/G)

Multicores: black with numbers and Y/G

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Cores number	Cross section	Approx conductor diameter	Insulation medium thickness	Approx external production diameter	Approx cable weight	Electric resistance at 20°C	Mobile service Current carrying capacities at 60°C conductor temp	Current rating for fixed installation at 85°C of conductor temp.open air
(N°)	(mm²)	(mm)	(mm)	(mm)	(kg/km)	(Ohm/km)	(A)	(A)
Single core								
1x	1.5	1.6	0.8	5.9	50	13.3	16	23
1x	2.5	2	0.9	6.50	65	7.98	25	32
1x	4	2.6	1.0	7.4	89	4.95	30	43
1x	6	3.4	1.0	8.10	115	3.30	38	56
1x	10	4.4	1.2	10.4	190	1.91	53	77
1x	16	5.7	1.2	11.62	259	1.21	71	102
1x	25	6.9	1.4	13.74	375	0.780	94	136
1x	35	8.1	1.4	15.35	492	0.554	117	168
1x	50	9.8	1.6	17.68	675	0.386	148	203
1x	70	11.6	1.6	20.00	908	0.272	185	254
1x	95	13.3	1.8	22.12	1171	0.206	222	299
1x	120	15.1	1.8	24.54	1445	0.161	260	363
1x	150	16.8	2.0	26.87	1783	0.129	300	416
1x	185	18.6	2.2	28.89	2125	0.106	341	475
1x	240	21.4	2.4	32.62	2733	0.0801	407	559
1x	300	23.9	2.6	36.46	3348	0.0641	468	637
1x	400	27.5	2.8	39.6	4800	0.0486	553	722
1x	500	35.0	3.0	45.5	5800	0.0384	620	833
1x	630	39.0	3.0	49.5	6800	0.0287	742	888
Two cores								
2x	1	1.3	0.8	8.4	90	19.5	10	18
2x	1.5	1.6	0.8	9.10	109	13.3	18	23
2x	2.5	2	0.9	10.80	158	7.98	27	32
2x	4	2.6	1.0	12.40	217	4.95	34	43
2x	6	3.4	1.0	13.80	282	3.30	43	56
2x	10	4.4	1.2	19.37	539	1.91	60	77
2x	16	5.7	1.2	21.76	722	1.21	79	102
2x	25	6.9	1.4	25.93	1043	0.780	105	136
2x	35	8.1	1.4	28.77	1169	0.554	129	168
2x	50	9.8	1.6	33.1	1606	0.386	150	203
2x	70	11.6	1.6	37.8	2140	0.272	185	254
2x	95	13.3	1.8	42.4	2806	0.206	216	299
Three cores								
3G	1	1.3	0.8	9.07	110	19.5	10	18

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(N°)	(mm²)	(mm)	(mm)	(mm)	(kg/km)	(Ohm/km)	(A)	(A)
3G	1.5	1.6	0.8	10.18	134	13.3	16	23
3G	2.5	2.0	0.9	11.58	196	7.98	25	32
3G	4	2.6	1.0	13.3	271	4.95	29	43
3G	6	3.4	1.0	14.78	355	3.30	36	56
3G	10	4.4	1.2	20.73	674	1.91	51	77
3G	16	5.7	1.2	23.26	913	1.21	67	102
3G	25	6.9	1.4	27.69	1324	0.780	89	136
3G	35	8.1	1.4	30.95	1754	0.554	110	168
3G	50	9.8	1.6	35.80	2409	0.386	138	203
3G	70	11.6	1.6	40.45	3211	0.272	172	254
3G	95	13.3	1.8	45.08	4210	0.206	204	299
3G	120	15.1	1.8	49.93	5205	0.161	238	363
3G	150	16.8	2.0	54.78	6389	0.129	273	416
3G	185	18.6	2.2	58.99	7591	0.106	309	475
3G	240	21.4	2.4	67.85	9944	0.0801	365	559
3G	300	23.9	2.6	75.56	10133	0.0641	450	637
Four cores								
4G	1	1.3	0.8	10.0	136	19.5	10	16
4G	1.5	1.6	0.8	10.76	166	13.3	16	21
4G	2.5	2.0	0.9	12.73	241	7.98	20	29
4G	4	2.6	1.0	14.63	336	4.95	30	38
4G	6	3.4	1.0	16.44	449	3.30	37	50
4G	10	4.4	1.2	22.57	833	1.91	52	68
4G	16	5.7	1.2	25.36	1138	1.21	69	92
4G	25	6.9	1.4	30.75	1714	0.780	92	122
4G	35	8.1	1.4	34.23	2204	0.554	114	150
4G	50	9.8	1.6	39.56	3029	0.386	143	182
4G	70	11.6	1.6	44.89	4121	0.272	178	232
4G	95	13.3	1.8	50.36	5361	0.206	210	281
4G	120	15.1	1.8	55.33	6546	0.161	246	325
4G	150	16.8	2.0	60.87	8095	0.129	282	373
4G	185	18.6	2.2	65.70	9652	0.106	319	425
4G	240	21.4	2.4	75.70	12614	0.0801	377	500
4G	300	23.9	2.6	86.33	13890	0.0641	460	588
Five cores								

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(N°)	(mm ²)	(mm)	(mm)	(mm)	(kg/km)	(Ohm/km)	(A)	(A)
5G	1	1.3	0.8	11.0	168	19.5	10	16
5G	1.5	1.6	0.8	11.80	206	13.3	16	21
5G	2.5	2.0	0.9	13.96	297	7.98	20	29
5G	4	2.6	1.0	16.25	422	4.95	30	38
5G	6	3.4	1.0	18.07	567	3.30	38	50
5G	10	4.4	1.2	24.75	1010	1.91	54	68
5G	16	5.7	1.2	28.01	1400	1.21	71	92
5G	25	6.9	1.4	33.57	2096	0.780	94	122
5G	35	8.1	1.4	39.2	2697	0.554	114	150
5G	50	9.8	1.6	45.4	3740	0.386	143	182
5G	70	11.6	1.6	48.0	5033	0.272	178	232
5G	95	13.3	1.8	53.22	6271	0.206	210	281
Multicores								
7G	1.5	1.6	0.8	15.3	315	13.3	16	21
7G	2.5	2.0	0.9	17.9	445	7.98	20	29
7G	4	2.6	1.0	19.64	618	4.95	25	38
10G	1.5	1.6	0.8	17.9	420	13.3	16	21
12G	1.5	1.6	0.8	18.4	493	13.3	16	21
12G	2.5	2.0	0.9	22.17	702	7.98	20	29
12G	4	2.6	1.0	25.77	1004	4.95	25	38
18G	1.5	1.6	0.8	22.00	705	13.3	16	21
18G	2.5	2.0	0.9	25.95	1020	7.98	20	29
19G	1.5	1.6	0.8	22.79	710	13.3	16	21
19G	2.5	2.0	0.9	26.25	1030	7.98	20	29
24G	1.5	1.6	0.8	25.04	898	13.3	16	21
24G	2.5	2.0	0.9	29.37	1312	7.98	20	29
36G	1.5	1.6	0.8	29.3	1246	13.3	16	21
36G	2.5	2.0	0.9	35.0	1851	7.98	20	29

Current carrying capacities for unipolar cables are calculated on 3 spanned cables.

Current carrying capacities for cables are calculated on 3-4 spanned cables.

Special Bending Radius:

At the entrance to a portable device or a mobile device mechanical stress with $D < 8 = 6D$ $D < 12 = 6D$ $D < 20 = 6D$ $D > 20 = 8D$

Winding repeated $D < 8 = 6D$ $D < 12 = 6D$ $D < 20 = 6D$ $D > 20 = 8D$

Diverted to pulley $D < 8 = 8D$ $D < 12 = 8D$ $D < 20 = 8D$ $D > 20 = 8D$