

H07RN-F

CPR Eca

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

(Accordingly to the standards BT 2014/35/UE- 2011/65/EU (RoHS 2))

Standards



Flexible conductor, class 5 copper made.
Elastomeric mixture Insulation in EI4 quality.
Polychloroprene sheath, EM2.

450 V *Nominal voltage U0*
750 V *Nominal voltage U*
2500 V *Test voltage*
1000V
for fixed and *Maximum voltage Um*
protected installation

+60°C *Maximum operating temperature*
+200°C *Maximum short circuit temperature*
-40°C *Min. operating temperature (without mechanical shocks)*
-25°C *Minimum installation and use temperature*

Common features

This cable is suitable for dry, humid or wet environments (AD6) in open air, in workshops with an explosive atmosphere. When used for connections they're subjected to medium mechanical stress like equipments in industrials and agricultural workshops, great boilers, heating plates, portable lamps, electric tools like drills, circular saws and so on, electric home-tools, motors or trasportable generators in construction sites or agricultural plants and so on. It can be used even in fixed laying like floors and temporary construction site set offs..Supply of electricity and communications in buildings and other civil engineering works with the objective of limiting the generation and spread of fire and smoke.Ozone resistant OIL RESISTANT EN 60811-404.

Employment

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

Packing

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

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

Sheath colour

Black

Note

Cables can be used up to +85°C (for fixed protected installations).OZONE RESISTANT” CEI EN 60811-403(Test A) CEI EN 50396 (Test B).



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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°)	(mm ²)	(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
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



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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)
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								
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

Note

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 $D < 8 = 8D$ $D < 12 = 8D$ $D < 20 = 8D$ $D > 20 = 8D$



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