

**H07ZZ-F**

CPR Cca-s1b,d1,a1

Model Product: 272-273 - 20260304

**general**  
**CAVI** s.p.a.

Class 5 flexible copper conductor.  
Elastomeric mixture Insulation in EI8 quality.  
LSZH Cross-linked sheath, EM8.

**STANDARDS**

CEI EN 50525-3-21 CEI 20-107/3-21  
EN 50575:2014 + EN 50575/A1:2016

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

**COMMON FEATURES**

Locations where a low level of emission of smoke and corrosive gases are required in case of fire or burning; use in industrial and agricultural workshops, building sites, for heavy duty applications and supplying industrial and agricultural machines and appliances where cables are subject to medium mechanical stresses (e.g. heating plates, inspection lamps, electric tools such as drills, circular saws, and domestic electric tools) use in dry, humid or moist rooms; fixed installations e.g. on rough-cast in temporary buildings and huts for accommodation purposes. 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. In addition the cables are especially suitable for use as connection to machine tools.

Special Features in addition to those of H07ZZ\_F: Water exposure conditions AD6

**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/mm<sup>2</sup> section of copper dynamic applications, for fixed 50 N/mm<sup>2</sup>

**PACKING**

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

CABLES OF RATED VOLTAGES UP TO AND INCLUDING 450/750V SINGLE AND MULTICORES FLEXIBLE CABLE WITH L.S.O.H.

Nominal voltage U<sub>0</sub>: 450 V

Nominal voltage U: 750 V

Test voltage: 2500 V

Maximum voltage U<sub>m</sub>: 1000V Installazioni Fisse / for fixed and protected installation

Maximum operating temperature: +90°C

Maximum short circuit temperature: +250°C

Minimum installation and laying temperature: -5°C

Min. operating temperature (without mechanical shocks): -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

**SHEATH COLOUR**

Black

**INK MARKING**

GENERAL CAVI -Cca-s1b,d1,a1- IEMMEQU <HAR> - H07ZZ-F - year

**NOTE**

UV resistant



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Cores number (N°)	Cross section (mm <sup>2</sup> )	Approx conductor diameter (mm)	Insulation medium thickness (mm)	External diameter		Approx cable weight (kg/km)	Electric resistance at 20°C (Ohm/km)	Mobile service Current carrying capacities (A)	Current carrying capacities in Air Fixed (A)
				Minimum (mm)	maximum (mm)				
Single core									
1x	4	2.6	1.0	7.2	9.0	89	4.95	30	45
1x	6	3.4	1.0	7.9	9.8	115	3.30	38	58
1x	10	4.4	1.2	9.5	11.9	190	1.91	53	80
1x	16	5.7	1.2	10.8	13.4	259	1.21	71	107
1x	25	6.9	1.4	12.7	15.8	375	0.780	94	135
1x	35	8.1	1.4	14.3	17.9	492	0.554	117	169
1x	50	9.8	1.6	16.5	20.6	675	0.386	148	207
1x	70	11.6	1.6	18.6	23.3	908	0.272	185	268
1x	95	13.3	1.8	20.8	26.0	1171	0.206	222	328
1x	120	15.1	1.8	22.8	28.6	1445	0.161	260	383
1x	150	16.8	2.0	25.3	31.4	1783	0.129	300	444
1x	185	18.6	2.2	27.6	34.4	2125	0.106	341	510
1x	240	21.4	2.4	30.6	38.3	2733	0.0801	407	607
1x	300	23.9	2.6	33.5	41.9	3348	0.0641	468	703
1x	400	27.5	2.8	37.4	46.8	4800	0.0486	533	823
1x	500	35.0	3.0	41.3	52.0	5800	0.0384	634	946
1x	630	39.0	3.0	45.5	57	6800	0.0287	742	1088
Two cores									
2X	1	1.3	0.8	7.7	10.0	90	19.5	10	19
2x	1.5	1.6	0.8	8.5	11.0	109	13.3	18	27
2x	2.5	2	0.9	10.2	13.1	158	7.98	27	37
2x	4	2.6	1.0	11.8	15.1	217	4.95	34	50
2x	6	3.4	1.0	13.1	16.8	282	3.30	43	64
2x	10	4.4	1.2	17.7	22.6	539	1.91	60	88
2x	16	5.7	1.2	20.2	25.7	722	1.21	79	119
2x	25	6.9	1.4	24.3	30.7	1043	0.780	105	161
Three cores									
3G	1	1.3	0.8	8.3	10.7	110	19.5	10	18
3G	1.5	1.6	0.8	9.2	11.9	134	13.3	16	24
3G	2.5	2.0	0.9	10.9	14.0	196	7.98	25	33
3G	4	2.6	1.0	12.7	16.2	271	4.95	29	45
3G	6	3.4	1.0	14.1	18.0	355	3.3	36	58
3G	10	4.4	1.2	19.1	24.2	674	1.91	51	80
3G	16	5.7	1.2	21.8	27.6	913	1.21	67	107
3G	25	6.9	1.4	26.1	33.0	1324	0.78	89	141



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				Minimum	maximum				
(N°)	(mm²)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(Ohm/km)	(A)	(A)
3G	35	8.1	1.4	29.3	37.1	1754	0.554	110	176
3G	50	9.8	1.6	34.1	42.9	2409	0.386	138	216
3G	70	11.6	1.6	38.4	48.3	3211	0.272	172	279
3G	95	13.3	1.8	43.3	54	4210	0.206	204	342
3G	120	15.1	1.8	47.4	60	5205	0.161	238	400
3G	150	16.8	2.0	52	66	6389	0.129	273	464
3G	185	18.6	2.2	57	72	7591	0.106	309	533
3G	240	21.4	2.4	65	82	9944	0.0801	365	634
3G	300	23.9	2.6	72	90	11545	0.0641	415	736
Four cores									
4G	1	1.3	0.8	9.2	11.9	136	19.5	10	18
4G	1.5	1.6	0.8	10.2	13.1	166	13.3	16	24
4G	2.5	2.0	0.9	12.1	15.5	241	7.98	20	33
4G	4	2.6	1.0	14.0	17.9	336	4.95	30	45
4G	6	3.4	1.0	15.7	20.0	449	3.30	37	58
4G	10	4.4	1.2	20.9	26.5	833	1.91	52	80
4G	16	5.7	1.2	23.8	30.1	1138	1.21	69	107
4G	25	6.9	1.4	28.9	36.6	1714	0.780	92	141
4G	35	8.1	1.4	32.5	41.1	2204	0.554	114	176
4G	50	9.8	1.6	37.7	47.5	3029	0.386	143	216
4G	70	11.6	1.6	42.7	54	4121	0.272	178	279
4G	95	13.3	1.8	48.4	61	5361	0.206	210	342
4G	120	15.1	1.8	53	66	6546	0.161	246	400
4G	150	16.8	2.0	58	73	8095	0.129	282	464
4G	185	18.6	2.2	64	80	9652	0.106	319	533
4G	240	21.4	2.4	72	91	12614	0.0801	377	634
4G	300	23.9	2.6	80	101	17045	0.0641	430	736
Five cores									
5G	1	1.3	0.8	10.2	13.1	168	19.5	10	18
5G	1.5	1.6	0.8	11.2	14.4	206	13.3	16	24
5G	2.5	2.0	0.9	13.3	17	297	7.98	20	33
5G	4	2.6	1.0	15.6	19.9	422	4.95	30	45
5G	6	3.4	1.0	17.5	22.2	567	3.30	38	58
5G	10	4.4	1.2	22.9	29.1	1010	1.91	54	80
5G	16	5.7	1.2	26.4	33.3	1400	1.21	71	107
5G	25	6.9	1.4	32	40	2096	0.780	94	141



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				Minimum (mm)	maximum (mm)				
Multicores									
7G	1.5	1.6	0.8	13.4	17.2	315	13.3	16	24
7G	2.5	2.0	0.9	15.7	20	445	7.98	20	33
7G	4	2.6	1.0	18.2	23.2	618	4.95	25	45
10G	1.5	1.6	0.8	15.95	20.2	420	13.3	16	24
12G	1.5	1.6	0.8	17.6	22.4	493	13.3	16	24
12G	2.5	2.0	0.9	20.6	26.2	702	7.98	20	33
12G	4	2.6	1.0	24.4	30.9	1004	4.95	25	45
19G	1.5	1.6	0.8	20.7	26.3	710	13.3	16	24
19G	2.5	2.0	0.9	24.4	30.9	1030	7.98	20	33
24G	1.5	1.6	0.8	24.3	30.7	898	13.3	16	24
24G	2.5	2.0	0.9	28.8	36.4	1312	7.98	20	33
36G	1.5	1.6	0.8	27.8	35.2	1246	13.3	16	24
36G	2.5	2.0	0.9	33.2	41.8	1851	7.98	20	33

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

At the entrance to a portable device or a mobile device mechanical stress with Festoons eg. gantry crane for 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