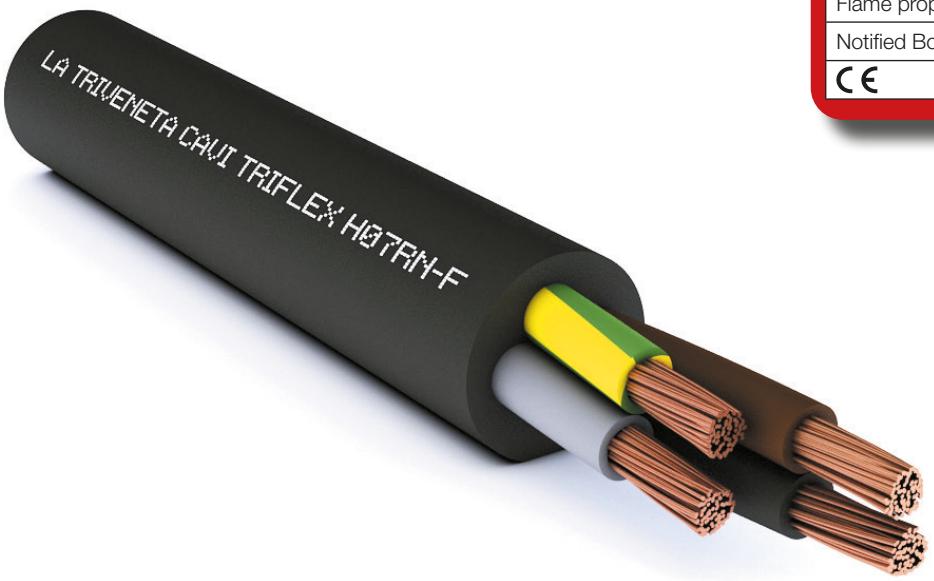
TRIFLEX H07RN-F

Structure and electrical, physical, mechanical requirements:	EN 50525-2-21
Low Voltage Directive:	2014/35/EU
RoHS Directive:	2011/65/EU

REACTION TO FIRE

CPR COMPLIANT
REGULATION 305/2011/EU

Standard:	EN 50575:2014+A1:2016
Class:	E_{ca}
Classification:	EN 13501-6
Flame propagation:	EN 60332-1-2
Notified Body:	0051 - IMQ
CE	2017



Description

- Conductor: class 5, flexible, plain copper wire
- Insulation: rubber compound, EI4 quality
- Sheath: polychloroprene or equivalent synthetic elastomer, water resistence (AD6)
- Colour: black

Functional characteristics

- Rated voltage Uo/U: 450/750 V a.c. (for fixed and protected installation 0,6/1 kV a.c.)
- Max. operating temperature: 60°C (*)
- Min. operating temperature: -40°C (without mechanical shocks)
- Max. short circuit temperature: 200°C

(*) In the case of fixed protected installation, the cable can be used up to 85°C.

Special features

Good flexibility and mechanical resistance to abrasion, shocks, crushing and lacerations.
Good resistance to atmospheric agents, grease and mineral oils. UV-resistant.

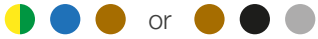
Installation conditions

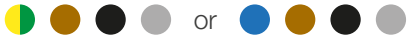
- Minimum installation temperature: -25°C
- Recommended minimum bending radius: 6 times the cable diameter for mobile use, 4 times for static use
- Recommended maximum tensile stress: 15 N/mm^2 of the cross-section of the copper for mobile use, 50 N/mm^2 for static use.

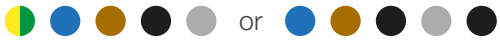
Colours of the cores

SINGLE-CORE 

TWO-CORE 

THREE-CORE 

FOUR-CORE 

FIVE-CORE 

The cores in multiple cables for signal and control are black, numbered, with or without GREEN/YELLOW

Marking

LTC IEMMEQU ◄HAR► TRIFLEX H07RN-F [form.] Eca 450/750V - Fixed and Protected 600/1000V [order number] [year] Made in Italy (CE logo) [metric]

Use and installation method

Reference Guide EN 50565:
For mobile laying: indoor use, outdoor use and in industrial and agricultural workshops.
For supplying industrial and agricultural machines and appliances subject to medium mechanical stresses (e.g. heating plates, inspection lamps, electric tools such as drills, circular saws and domestic electric tools).
For fixed laying: it can be used in temporary buildings or huts in building sites. Suitable for connections of constructive elements of lifting appliances and machines. Suitable for use in dry, humid or moist rooms (AD6).
If used in protected installations such as tubes or similar closed systems, voltages up to 1000V in a.c. or 750V in d.c. to ground are allowed.

Reference Construction Products Regulation 305/2011 EU and Standard EN 50575:
The cable is suitable for the supply of electricity in buildings and other civil engineering works.

Single-core

Formation	Approx. conductor Ø	Average insulation thickness	Average sheath thickness	Max. external Ø	Max. electrical resistance at 20°C	Approx. cable weight	Mobile installation in open air, ambient temperature 30 °C	Fixed and protected installation in open air, ambient temperature 30°C	Voltage drop
n° x mm^2	mm	mm	mm	mm	Ω/km	kg/km	A	A	V/A·Km
1 x 1,5	1,5	0,8	1,4	7,1	13,3	50	16	23	26,5
1 x 2,5	2,0	0,9	1,4	7,9	7,98	65	20	31	16,0
1 x 4	2,5	1,0	1,5	9,0	4,95	89	30	43	9,93
1 x 6	3,0	1,0	1,6	9,8	3,30	120	38	55	6,63
1 x 10	4,0	1,2	1,8	11,9	1,91	180	53	76	3,87
1 x 16	5,0	1,2	1,9	13,4	1,21	250	71	102	2,47
1 x 25	6,2	1,4	2,0	15,8	0,780	350	94	129	1,61
1 x 35	7,4	1,4	2,2	17,9	0,554	470	117	161	1,17
1 x 50	8,9	1,6	2,4	20,6	0,386	650	148	198	0,844
1 x 70	10,5	1,6	2,6	23,3	0,272	870	185	256	0,609
1 x 95	12,2	1,8	2,8	26,0	0,206	1120	222	314	0,484
1 x 120	13,8	1,8	3,0	28,6	0,161	1400	260	366	0,388
1 x 150	15,4	2,0	3,2	31,4	0,129	1425	300	425	0,325
1 x 185	16,9	2,2	3,4	34,4	0,106	2090	341	488	0,279
1 x 240	19,5	2,4	3,5	38,3	0,0801	2660	407	581	0,221
1 x 300	21,6	2,6	3,6	41,9	0,0641	3280	468	673	0,184
1 x 400	24,8	2,8	3,8	46,8	0,0486	4230	553	787	0,159
1 x 500	28,5	3,0	4,0	52,0	0,0384	5230	620	905	0,137
1 x 630	32,8	3,0	4,1	57,0	0,0287	6780	742	1041	0,122

N.B. Permissible current rating values are according to:
- three-phase circuit

Two-core

Formation	Approx. conductor Ø	Average insulation thickness	Average sheath thickness	Max. external Ø	Max. electrical resistance at 20°C	Approx. cable weight	Mobile installation in open air, ambient temperature 30 °C	Fixed and protected installation in open air, ambient temperature 30°C	Voltage drop
n° x mm^2	mm	mm	mm	mm	Ω/km	kg/km	A	A	V/A·Km
2 x 1	1,3	0,8	1,3	10,0	19,5	97	10	18	45,2
2 x 1,5	1,5	0,8	1,5	11,0	13,3	120	18	23	30,6
2 x 2,5	2,0	0,9	1,7	13,1	7,98	170	27	32	18,4
2 x 4	2,5	1,0	1,8	15,1	4,95	230	34	43	11,4
2 x 6	3,0	1,0	2,0	16,8	3,30	300	43	56	7,63
2 x 10	4,0	1,2	3,1	22,6	1,91	520	60	77	4,44
2 x 16	5,0	1,2	3,3	25,7	1,21	720	79	102	2,84
2 x 25	6,2	1,4	3,6	30,7	0,780	1030	105	136	1,85
2 x 35	7,3	1,4	3,7	34,3	0,554	1290	129	168	1,34

N.B. Permissible current rating values are according to:
- two-phase circuit for two-core cables

Three-core

Formation (*)	Approx. conductor Ø	Average insulation thickness	Average sheath thickness	Max. external Ø	Max. electrical resistance at 20°C	Approx. cable weight	Mobile installation in open air, ambient temperature 30 °C	Fixed and protected installation in open air, ambient temperature 30°C	Voltage drop
n° x mm^2	mm	mm	mm	mm	Ω/km	kg/km	A	A	V/A·Km
3G1	1,3	0,8	1,4	10,7	19,5	120	10	18	45,2
3G1,5	1,5	0,8	1,6	11,9	13,3	145	16	23	30,6
3G2,5	2,0	0,9	1,8	14,0	7,98	205	25	32	18,4
3G4	2,5	1,0	1,9	16,2	4,95	280	29	43	11,4
3G6	3,0	1,0	2,1	18,0	3,30	375	36	56	7,63
3G10	4,0	1,2	3,3	24,2	1,91	645	51	77	4,44
3G16	5,0	1,2	3,5	27,6	1,21	890	67	102	2,84
3G25	6,2	1,4	3,8	33,0	0,780	1280	89	136	1,85
3G35	7,4	1,4	4,1	37,1	0,554	1660	110	168	1,34
3G50	8,9	1,6	4,5	42,9	0,386	2300	138	203	0,962
3G70	10,5	1,6	4,8	48,3	0,272	3060	172	254	0,691
3G95	12,2	1,8	5,3	54,0	0,206	3945	204	299	0,546
3G120	13,8	1,8	5,6	60,0	0,161	4905	238	363	0,438
3G150	15,4	2,0	6,0	66,0	0,129	6060	273	416	0,366
3G185	16,9	2,2	6,4	72,0	0,106	7330	309	475	0,220
3G240	19,5	2,4	7,1	82,0	0,0801	9500	365	559	0,210
3G300	21,6	2,6	7,7	90,0	0,0641	11750	450	637	0,180

(*) also available without the green/yellow
N.B. Permissible current rating values are according to:
- three-phase circuit for three-core cables

Four-core

Formation (*)	Approx. conductor Ø	Average insulation thickness	Average sheath thickness	Max. external Ø	Max. electrical resistance at 20°C	Approx. cable weight	Mobile installation in open air, ambient temperature 30 °C	Fixed and protected installation in open air, ambient temperature 30°C	Voltage drop
n° x mm^2	mm	mm	mm	mm	Ω/km	kg/km	A	A	V/A·Km
4G1	1,3	0,8	1,5	11,9	19,5	145	10	16	39,0
4G1,5	1,5	0,8	1,7	13,1	13,3	175	16	21	26,5
4G2,5	2,0	0,9	1,9	15,5	7,98	250	20	29	16,0
4G4	2,5	1,0	2,0	17,9	4,95	345	30	38	9,93
4G6	3,0	1,0	2,3	20,0	3,30	465	37	50	6,63
4G10	4,0	1,2	3,4	26,5	1,91	790	52	68	3,87
4G16	5,0	1,2	3,6	30,1	1,21	1100	69	92	2,47
4G25	6,2	1,4	4,1	36,6	0,780	1610	92	122	1,61
4G35	7,4	1,4	4,4	41,1	0,554	2090	114	150	1,17
4G50	8,9	1,6	4,8	47,5	0,386	2900	143	182	0,844
4G70	10,5	1,6	5,2	54,0	0,272	3880	178	232	0,609
4G95	12,2	1,8	5,9	61,0	0,206	5050	210	281	0,484
4G120	13,8	1,8	6,0	66,0	0,161	6230	246	325	0,388
4G150	15,4	2,0	6,5	73,0	0,129	7720	282	373	0,325
4G185	16,9	2,2	4,2	80,0	0,106	9360	319	425	0,280

(*) also available without the green/yellow
N.B. Permissible current rating values are according to:
- three-phase circuit

Five-core

Formation (*)	Approx. conductor Ø	Average insulation thickness	Average sheath thickness	Max. external Ø	Max. electrical resistance at 20°C	Approx. cable weight	Mobile installation in open air, ambient temperature 30 °C	Fixed and protected installation in open air, ambient temperature 30°C	Voltage drop
n° x mm^2	mm	mm	mm	mm	Ω/km	kg/km	A	A	V/A·Km
5G1	1,3	0,8	1,6	13,1	19,5	175	10	16	39
5G1,5	1,5	0,8	1,8	14,4	13,3	210	16	21	26,5
5G2,5	2,0	0,9	2,0	17,0	7,98	305	20	29	16,0
5G4	2,5	1,0	2,2	19,9	4,95	420	30	38	9,93
5G6	3,0	1,0	2,5	22,2	3,30	575	38	50	6,63
5G10	4,0	1,2	3,6	29,1	1,91	960	54	68	3,87
5G16	5,0	1,2	3,9	33,3	1,21	1350	71	92	2,47
5G25	6,2	1,4	4,4	40,4	0,780	1955	94	122	1,61
5G35	7,4	1,4	4,6	45,1	0,554	2520	114	150	1,17
5G50	8,9	1,6	5,2	53	0,386	3530	143	182	0,844
5G70	10,5	1,6	5,7	60	0,272	4760	178	232	0,609
5G95	12,2	1,8	6,3	67	0,206	6160	210	281	0,484

(*) also available without the green/yellow
N.B. Permissible current rating values are according to:
- three-phase circuit

Multi-core / signalling and control

Formation (*)	Approx. conductor Ø	Average insulation thickness	Average sheath thickness	Max. external Ø	Max. electrical resistance at 20°C	Approx. cable weight	Mobile installation in open air, ambient temperature 30 °C	Fixed and protected installation in open air, ambient temperature 30°C	Voltage drop
n° x mm^2	mm	mm	mm	mm	Ω/km	kg/km	A	A	V/A·Km
7G1,5	1,5	0,8	2,5	17,2	13,3	335	11	16	30,7
12G1,5	1,5	0,8	2,9	22,4	13,3	500	9	14	30,7
19G1,5	1,5	0,8	3,2	26,3	13,3	720	8	13	30,7
24G1,5	1,5	0,8	3,5	30,7	13,3	915	7	12	30,7
36G1,5	1,5	0,8	3,8	35,2	13,3	1305	5	10	30,7
7G2,5	2,0	0,9	2,7	20,0	7,98	470	15	19	18,4
12G2,5	2,0	0,9	3,1	26,2	7,98	705	12	16	18,4
19G2,5	2,0	0,9	3,5	30,9	7,98	1030	10	14	18,4
24G2,5	2,0	0,9	3,9	36,4	7,98	1320	9	13	18,4
27G2,5	2,0	0,9	4,0	37,1	7,98	1450	7	11	18,4
36G2,5	2,0	0,9	4,3	41,8	7,98	1880	7	11	18,4

(*) also available without the green/yellow
N.B. Permissible current rating values are according to:
- all conductors are charged (except for the green/yellow).