

TITANEX® PREMIUM

450/750V up to 0.6/1kV

Max. conductor temperature in service:
 (mobile installation) 60°C
 (fixed protected installation) 90°C
 (short-circuit 250°C)

Use

TITANEX® PREMIUM is a new H07RN-F cable with a wide variety of properties. It is zero halogen and recommended for use in the case of fire risk. It also includes the properties of H07RN8-F cables for resistance to submersion (AD8), H07BN4-F cables for operating temperature (90°C), and H07BB-F cables for use in extreme cold conditions (down to -50°C).

Classification for use

- Use up to 1000V for fixed installations or power supply of motors
- Resistance to submersion: AD8
- Presence of corrosive or polluting substances: AF3
- Resistance to impacts: AG2
- Zero halogen (LSOH)
- Flame retardant (NF C 32070 C2; IEC 60332-1)
- Frequent bending: good
- Oil resistance: good
- Low temperature use limit: -50°C (static), -40°C (dynamic)

Recommendations for use

The insulation and sheathing combinations result in excellent flexibility and good robustness, therefore the product is recommended for use in power cables for port cranes, mobile machines on public building sites, professional portable tools, refrigerating installations, long-term heavy-duty applications in port areas, on ships, offshore platforms...
 Further applications include all public-facing facilities as well as buildings containing electronic equipment, central control rooms, airports, railway stations, road tunnels, lighting equipment, etc.

Description

1. Conductor

Flexible bare copper, class 5.

2. Insulation

Special crosslinked elastomer

3. Outer sheath

Crosslinked elastomer with high mechanical properties

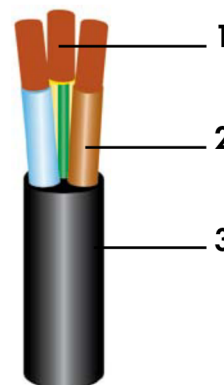
Installation

This cable is designed for open air operation. In the event it should be buried, it should be mechanically protected in a duct or trough.

Bending radius

Dynamic use: 6-8 times the outer cable diameter.

Static use: 3 times the outer cable diameter if less than or equal to 12mm, 4 times if the diameter is more than 12mm.



Marking

USE<HAR>H07RN-F

nbr X (or G) S

X = without green/yellow

G = with green/yellow

S = cross-section in mm²

metric numbered marking

Conductor marking/color code

- 1 conductor = black
- 2 conductors = brown + blue
- 3 conductors = green/yellow + blue + brown (G)
- 4 conductors = green/yellow + brown + black + grey
- 5 conductors = green/yellow + blue + brown + black + grey
- >5 conductors = 1 green/yellow + all others black (numbered)

Standards

International

IEC 60245-4 type 66

Europe CENELEC

HD 22-4

National (France)

NF C 32-102-4



- 50° + 85°C



EN 50267



AD8



Good
AG2



Category C2
IEC 60332-1



Very good



EN 50268-1
and 252



EN 50267-2:2
IEC 60754-2



EN 50267-2:25
IEC 60754-2

Technical specifications: TITANEX® PREMIUM

Number of conductors (mm ²)	Mobile I max (A)	Fixed protected I max (A)	ΔU (cos φ 0,8) V/A.km	Max. diameter	Weight (kg/km)
1 x 1.5	19.5	24	23.3	7.1	50
1 x 2.5	27	33	14.0	7.9	66
1 x 4	36	45	8.7	9.0	94
1 x 6	48	58	5.9	9.8	109
1 x 10	63	80	3.4	11.9	182
1 x 16	85	107	2.2	13.4	256
1 x 25	110	135	1.4	15.8	369
1 x 35	137	169	1.04	17.9	482
1 x 50	167	207	0.75	20.6	662
1 x 70	216	268	0.56	23.3	895
1 x 95	264	328	0.44	26.0	1160
1 x 120	308	383	0.36	28.6	1430
1 x 150	356	444	0.31	31.4	1740
1 x 185	409	510	0.28	34.4	2160
1 x 240	485	607	0.23	38.3	2730
1 x 300	561	703	0.20	41.9	3480
1 x 400	656	823	0.18	46.8	4510
2 x 1.5	22	26	27.0	11.0	111
2 x 2.5	30	36	16.2	13.1	161
2 x 4	40	49	10.1	15.1	238
2 x 6	51	63	6.7	16.8	279
2 x 10	70	86	3.8	22.6	538
2 x 16	94	115	2.5	25.7	744
2 x 25	119	149	1.68	30.7	1074
3 G 1.5	22	26	27.0	11.9	134
3 G 2.5	30	36	16.2	14.0	195
3 G 4	40	49	10.1	16.2	290
3 G 6	51	63	7.0	18.0	346
3 G 10	70	86	4.0	24.2	663
3 G 16	94	115	2.5	27.6	924
3 G 25	119	149	1.7	33.0	1345
3 G 35	148	185	1.21	37.1	1760
3 G 50	180	225	0.87	42.9	2390
3 G 70	232	289	0.64	48.3	3110
3 G 95	282	352	0.50	54.0	4170

Permissible current rating is measured for an ambient temperature of 30°C, in open air and for continuous duty operation, as per CEI 60364-5-52 standard. For use in fixed protected installations, this should be seen as the maximum current rating (as per HD 22.12 standard; cable at 90°C).

Note : For cables with 1, 4 or 5 conductors, current rating is measured for installations with 3 loaded conductors.

For cables with 2 or 3 conductors, current rating is measured for installations with 2 loaded conductors.

For other temperatures, please refer to correction factors.

Correction for ambient temperature: mobile installations

Ambient temperature (°C)	10	15	20	25	30	35	40	45	50	55
Correction factor	1.29	1.22	1.15	1.07	1	0.93	0.82	0.71	0.58	0.41

Technical specifications: TITANEX® PREMIUM

Number of conductors (mm ²)	Mobile I max (A)	Fixed protected I max (A)	$\Delta U (\cos \varphi 0,8)$ V/A.km	Max. diameter	Weight (kg/km)
4 G 1.5	18.5	23	23.3	13.1	165
4 G 2.5	25	32	14.0	15.5	245
4 G 4	34	42	8.72	18.0	357
4 G 6	43	54	5.84	20.0	443
4 G 10	60	75	3.42	26.5	818
4 G 16	80	100	2.20	30.1	1150
4 G 25	101	127	1.44	36.6	1700
4 G 35	126	158	1.04	41.1	2180
4 G 50	153	192	0.75	47.5	3030
4 G 70	196	246	0.56	54.0	3990
4 G 95	238	298	0.44	61.0	5360
4 G 120	276	346	0.36	66.0	6500
4 G 150	319	399	0.31	73.0	7990
5 G 1.5	18.5	23	23.3	14.4	238
5 G 2.5	25	32	14.0	17.0	297
5 G 4	34	42	8.72	19.9	453
5 G 6	43	54	5.84	22.2	557
5 G 10	60	75	3.43	29.1	1001
5 G 16	80	100	2.20	33.3	1430
5 G 25	101	127	1.44	40.4	2096
5 G 35	126	158	1.04	45.1	2690
5 G 50	153	192	0.75	53.0	3840
5 G 70	196	246	0.56	60.0	4996
5 G 95	238	298	0.44	67.0	6465
7 G 1.5	14	18	23.3	18.7	349
7 G 2.5	16	19	14.0	22.0	487
12 G 1.5	9	11	23.3	22.4	510
12 G 2.5	11	15	14.0	26.2	702
18 G 1.5	8	10	23.3	26.3	730
18 G 2.5	10	12	14.0	30.9	1018
36 G 1.5	6	7	23.3	35.2	1325
36 G 2.5	8	10	14.0	39.1	1879

Permissible current rating is measured for an ambient temperature of 30°C, in open air and for continuous duty operation, as per CEI 60364-5-52 standard. For use in fixed protected installations, this should be seen as the maximum current rating (as per HD 22. 12 standard; cable at 90°C).

Note : For cables with 1, 4 or 5 conductors, current rating is measured for installations with 3 loaded conductors.

For cables with 2 or 3 conductors, current rating is measured for installations with 2 loaded conductors.

For other temperatures, please refer to correction factors.

Correction for ambient temperature: fixed protected installations

Ambient temperature (°C)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
Correction factor	1.22	1.19	1.15	1.12	1.08	1.04	1	0.96	0.91	0.87	0.82	0.76	0.71	0.65	0.58	0.50	0.41	0.29



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