

TOPFLAT® H05VVH6-F & H07VVH6-F

Flat cables for lifts, cranes, hoists and conveyor systems.

ACCORDING TO: HD 359 / EN 50214 / IEC 60277-6



APPLICATION

The Topflat® H05VVH6-F & H07VVH6-F is a flat cable specially designed for cranes, lifts, hoists, drum reeling and conveyor systems.

The hanging length of the cable can reach up to 35m and its pull out speed can reach up to 1,6 m/s (overlying cables is not recommended when installing).

- Industrial use.
- Mobile services.
- Bridge cranes.
- Lifts, elevators.
- Conveyors.

CONSTRUCTION

Conductor

Electrolytic annealed copper conductor class 5 (flexible) according to EN 60228 and IEC 60228.

Insulation

Flexible PVC insulation type T12, according to EN 50363-3.

The standard identification of insulated conductors according to HD 308 and EN 50334, is the following:

4 G Brown + Black + Grey + Green/yellow
6 or more Black numbered + Green/yellow

Lay-up

Insulated conductors are placed side by side in parallel arrangement forming a flat cable.

Outer sheath

Flexible PVC outer sheath type TM2 according to EN 50363-4-1. Black colour.

The ripcord allows you to gently tear the outer sheath without damaging the screen.

CHARACTERISTICS



Electrical performance

Low voltage: 300/500 V - 450/750 V

Nominal voltage:

H05VVH6-F (up to 1 mm²): 300/500 V.

H07VVH6-F (from 1,5 mm²): 450/750 V.



Thermal performance

Maximum conductor temperature: 70°C.

Maximum short circuit temperature: 160°C (maximum 5 s).

Minimum operating temperature: 0°C (mobile service).



Fire performance

Flame non-propagation according to EN 60332-1 / IEC 60332-1.

Low halogen emission. Chlorine < 15%.



Mechanical performance

Minimum bending radius on pulleys (to 20 ± 10°C):

Festooned as in gantry cranes: 10 x smaller dimension

Deflected by pulleys: 10 x smaller dimension

Free movement: 5 x smaller dimension

Impact resistance: AG2 Medium severity.



Environmental performance

Chemical & Oil resistance: Acceptable.

Water resistance: AD5 Jets.

STANDARDS / COMPLIANCE



According to:

HD 359 / EN 50214 / IEC 60277-6

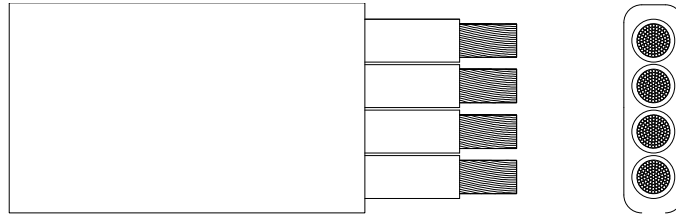


Standards and approvals

HAR / AENOR / CE/ RoHS



DIMENSIONS & ADMISSIBLE INTENSITIES



TOPFLAT® H05VVH6-F

Cross-section (mm ²)	Diameter (mm)	Weight (kg/km)	Open air (A) ¹	Voltage drop (V/A · km) ²
6 G 0,75	17 x 3,9	115	14	62,4
8 G 0,75	22 x 3,9	175	14	62,4
10 G 0,75	26 x 3,9	195	14	62,4
12 G 0,75	31 x 3,9	230	14	62,4
16 G 0,75	40 x 3,9	305	14	62,4
18 G 0,75	45 x 3,9	345	14	62,4
20 G 0,75	50 x 3,9	380	14	62,4
24 G 0,75	60 x 3,9	450	14	62,4
6 G 0,75	17 x 3,9	115	14	62,4
8 G 0,75	22 x 3,9	175	14	62,4
10 G 0,75	26 x 3,9	195	14	62,4
12 G 0,75	31 x 3,9	230	14	62,4
*16 G 0,75	40 x 3,9	305	14	62,4
18 G 0,75	45 x 3,9	345	14	62,4
20 G 0,75	50 x 3,9	380	14	62,4
24 G 0,75	60 x 3,9	450	14	62,4
4 G 1	12 x 4,1	100	14	40,5
6 G 1	18 x 4,1	140	17	46,8
8 G 1	23 x 4,1	185	17	46,8
12 G 1	33 x 4,1	270	17	46,8
16 G 1	44 x 4,1	355	17	46,8
20 G 1	55 x 4,1	440	17	46,8
24 G 1	65 x 4,1	525	17	46,8

* These cables are not covered by the reference standard, so that their marks do not carry the letter H of the Harmonized.

¹ Reference method E for multicore cables according to IEC 60364-5-52. One vertical cable with adequate ventilation in open air at 30°C ambient temperature.

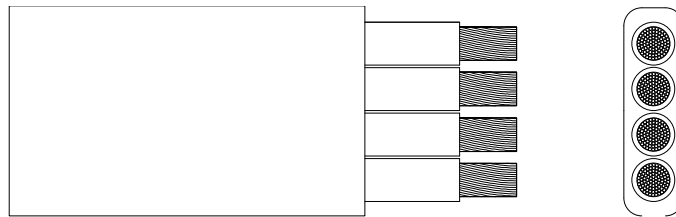
² At maximum service temperature and $\cos\phi=1$.

For cables having 4 conductors it is supposed a three-phase circuits

For cables having 6 or more conductors it is supposed a single-phase circuit where not all conductors are fully charged.

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DIMENSIONS & ADMISSIBLE INTENSITIES



TOPFLAT® H07VVH6-F

Cross-section (mm ²)	Diameter (mm)	Weight (kg/km)	Open air (A) ¹	Voltage drop (V/A · km) ²
4 G 1,5	17 x 4,9	150	18,5	27,6
6 G 1,5	22 x 4,9	215	22	31,9
8 G 1,5	27 x 4,9	270	22	31,9
10 G 1,5	34 x 4,9	335	22	31,9
12 G 1,5	39 x 4,9	395	22	31,9
*16 G 1,5	53 x 5,2	530	22	31,9
4 G 2,5	21 x 5,9	220	25	16,6
6 G 2,5	27 x 5,9	310	30	19,2
8 G 2,5	34 x 5,9	395	30	19,2
12 G 2,5	50 x 5,9	590	30	19,2
4 G 4	23 x 7,0	305	34	10,3
12 G 4	56 x 7,0	830	40	11,9
4 G 6	25 x 7,2	390	43	6,86
8 G 6	43 x 7,2	735	51	7,9
4 G 10	30 x 9,3	640	60	3,97
4 G 16	35 x 10,5	930	80	2,51
4 G 25	44 x 13,1	1.435	101	1,62
*4 G 35	48 x 14,4	1.880	126	1,15
*4 G 50	57 x 16,2	2.580	153	0,802
*4 G 70	61 x 17,5	3.375	196	0,565
*4 G 95	69 x 19,5	4.375	238	0,427

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² At maximum service temperature and $\cos\phi=1$.

For cables having 4 conductors it is supposed a three-phase circuits

For cables having 6 or more conductors it is supposed a single-phase circuit where not all conductors are fully charged.