

H05V-R & H07V-R

Electric cabinet wiring and domestic use.

ACCORDING TO: EN 50525-2-31 / IEC 60227-3



APPLICATION

H05V-R & H07V-R is suitable for power and lighting circuits and building wiring. The cable is intended for use in semi-flush exposed conduits and embedded conduits as well as in closed installation ducts, and is ideal for the internal wiring of appliances.

CONSTRUCTION

Conductor

Electrolytic annealed copper, class 2 (flexible) according to EN 60228 and IEC 60228.

Insulation








Extra sliding flexible polyvinyl chloride type T11 according to EN 50363-3.

The standard identification of insulated conductors is the following:

Blue	RAL 5012
Brown	RAL 8003
Black	RAL 9005
Red	RAL 3000
Green/Yellow	RAL 6018/1021
Grey	RAL 7000
Dark Blue	RAL 5010
White	RAL 9010
Orange	RAL 2003
Violet	RAL 4005
Pink	RAL 3015

Other colours available on request.

CHARACTERISTICS

-  **Electrical performance**
Low voltage 300/500 V · 450/750 V.
Rated Voltage: H05V-R (up to 1 mm²): 300/500 V.
H07V-R (from 1,5 mm² onwards): 450/750 V.
-  **Thermal performance**
Maximum conductor temperature: 70°C.
Maximum short-circuit temperature: 160°C (max. 5 s).
Minimum installation and handling temperature: 5°C.
Minimum service temperature: -40°C (fixed and protected installations).
-  **Fire performance**
Flame non-propagation according to EN 60332-1 / IEC 60332-1.
Reaction to fire CPR: E_{ca} according to EN 50575.
Reduced halogen emission. Chlorine < 15%.
-  **Mechanical performance**
Minimum bending radius: 5x cable diameter.
-  **Environmental performance**
Chemical & Oil resistance: Acceptable.
-  **Installation conditions**
In conduit.
-  **Other**
Meter by meter marking. (from 10 mm² onwards).

STANDARDS / COMPLIANCE



According to
EN 50525-2-31 / IEC 60227-3



Standards and approvals
HAR / AENOR / SEC / RoHS / CE



CPR (Construction Products Regulation)
E_{ca}



H05V-R & H07V-R

DIMENSIONS & ADMISSIBLE INTENSITIES



Cross-section (mm ²)	Diameter (mm)	Weight (kg/km)	In conduit 2 cond. (A) ¹	In conduit 3 cond. (A) ¹	Voltage drop (V/A · km) ²
1 x 0,50	2,1	8	8	-	93,4
1 x 0,75	2,3	11	11	-	62,4
1 x 1	2,5	13	14	-	46,8
1 x 1,5	2,9	19	17,5	15,5	31,9
1 x 2,5	3,6	30	24	21	19,2
1 x 4	4,1	44	32	28	11,9
1 x 6	4,6	61	41	36	7,92
1 x 10	5,9	105	57	50	4,58
1 x 16	7,0	160	76	68	2,90
1 x 25	8,7	245	101	89	1,87
1 x 35	9,9	335	125	110	1,33
1 x 50	11,8	480	151	134	0,926
1 x 70	13,5	655	192	171	0,653
1 x 95	15,6	865	232	207	0,494
1 x 120	17,3	1.095	269	239	0,386
1 x 150	19,3	1.380	-	275	0,310
1 x 185	21,5	1.675	-	314	0,254
1 x 240	24,5	2.210	-	370	0,192
1 x 300	26,9	2.795	-	430	0,153

¹ Reference method B1 for two and three loaded conductors installed in conduit on a wall according to IEC60364-5-52 in open air at 30°C ambient temperature.

² At 70°C conductor temperature, cos φ=1 and single-phase circuit.

SHORT-CIRCUIT CURRENT-CARRYING CAPACITIES

Time (s)	0,1	0,2	0,3	0,5	1	1,5	2	2,5	3
A/mm ²	364	257	210	163	115	94	81	73	66

CORRECTION FACTORS TEMPERATURE

Air T. (°C)	20	25	30	35	40	45	50	55	60
Factor	1,12	1,06	1	0,94	0,87	0,79	0,71	0,61	0,5