

CABLE DATA for H05V-U (R, K)

General Information



Cable Standard(s)

- EN 50525-2-31, IEC 60227-3.

Construction Product Regulation (CPR) Classification

- Regulation: Compliant with the EU Regulation (EU) No. 305/2011 on construction products.
- Intended Use: Suitable for general applications in construction works with fire safety requirements.
- Harmonized Standard: EN 50575:2014
- Reaction to Fire Classification: Eca (according to EN 13501-6)
- Release of Dangerous Substances: N.P.D. (No Performance Determined)

Flame Retardant Properties

- The cable complies with the self-extinguishing requirements specified in EN 60332-1-2 (single vertical wire flame test).

Temperature Ratings

- Minimum installation and handling temperature: 0°C
- Maximum continuous conductor operating temperature: +70°C
- Maximum conductor temperature during short-circuit (< 5 seconds): +160°C
- Permissible ambient temperature range during operation: -30°C to +50°C

Minimum Bending Radius (D = external diameter of the cable)

- $8 \times D$ for H05V-U and H05V-R
- $6 \times D$ for H05V-K

Scope of Application

- H05V-U Cable: Intended for installation inside electrical equipment and control panels; Suitable for protected installation within conduits.
- H05V-R Cable: Designed for power and lighting circuits as well as building wiring; Appropriate for use in semi-exposed and embedded conduits, including closed installation ducts; Ideal for internal wiring of appliances.
- H05V-K Cable: Used for internal wiring of electrical devices, lighting fixtures, and switchboards; Serves as a connecting conductor in signal and control circuits; Intended for installation in dry environments, within open wiring channels; Not suitable for direct embedding in plaster.

Cable Construction and Electrical Properties

Conductor(s):

- Copper conductor: solid (Class 1) for H05V-U, stranded (Class 2) for H05V-R, and fine-wire stranded (Class 5) for H05V-K, in accordance with IEC 60228 Clause 5.

Insulation:

- PVC compound type TI1, compliant with EN 50363-3.
- Insulation color coding according to HD 308 S2.

Sheath:

- No outer sheath.

Rated Voltage:

- $U_0/U = 300/500\text{ V}$.

Test Voltage:

- 2 kV AC

Dimensional Specifications

Nº	Construction [n×mm ²]	Metal index [kg/km]	Weight (approx.) [kg/km]	Diameter (range.) [mm]	Resistance at 20°C [Ω/km]	Ampacity in air at 30°C (range)* [A]
H05V-U						
1	1×0,5	4,8	9	1,9–2,3	36,0	3–6
2	1×0,75	7,2	10	2,1–2,5	24,5	6–9
3	1×1,0	9,6	14	2,2–2,7	18,1	10–13
H05V-K						
4	1×0,5	4,8	9	2,1–2,5	39,0	3–6
5	1×0,75	7,2	10	2,2–2,7	26,0	6–9
6	1×1,0	9,6	14	2,4–2,8	19,5	10–13

* For bundled cables, higher ambient temperatures, or longer runs, derating factors must be applied.

** H05V-R variant provided upon customer-initiated order