

# TOPFLEX® MS TRI-RATED SUPER FLEX / H07V2-K

Internal wiring of electrical cabinets. (UL, CSA, BS, UNE)



E<sub>ca</sub>

## APPLICATION

Topflex® MS Tri-rated H07V2-K cable has been designed for the internal wiring of electrical cabinets, switch boards and small electrical devices. Due to its manufacturing characteristics, it can be used in conduit or in flexible motor ducts, transformers and other machinery in general.

- Industrial use.
- Electrical panel wiring.

## CONSTRUCTION

### Conductor

Electrolytic annealed copper, class D (extra-flexible) according to EN 50525-2-81.

### Insulation

Extra-Flexible PVC, extra sliding, high service temperature type T13 according to EN 50363-3, and Class 43 UL 1581.

The special characteristics of the material ensure good easy-slide properties to the cable.

The standard identification of insulated conductors is the following:

Black      RAL 9005

## CHARACTERISTICS

- ⚡ **Electrical performance**  
Low voltage: According to EN (H05V2-K) 300/500 V  
According to EN (H07V2-K) 450/750 V  
According to BS (CK) 600/1000 V  
According to UL (AWM) 600V  
According to CSA (TEW) 600V
- 🔥 **Thermal performance**  
Maximum conductor temperature: 90°C s/HD and BS,  
105°C s / UL and CSA.  
Maximum short-circuit temperature: 160°C (max 5 s).  
Minimum service temperature: -40°C (fixed and protected installations).
- 🔥 **Fire performance**  
Flame non-propagation according to EN 60332-1 / IEC 60332-1 and VW-1 and FT2 according to UL 2556.  
Reaction to fire CPR: E<sub>ca</sub> according to EN 50575.
- ⤵ **Mechanical performance**  
Minimum bending radius: 5x cable diameter.
- 🌿 **Environmental performance**  
Chemical & Oil resistance: Acceptable.  
Water resistance: AD3 Sprays.

### CROSS SECTION PACKAGING

0,50-6 mm <sup>2</sup>	100 m reels (or barrels upon request)
10-16 mm <sup>2</sup>	100 m reels or bulk drums
25 mm <sup>2</sup> onwards	100 m reels or bulk drums

## STANDARDS / COMPLIANCE

- 📄 According to  
EN 50525-2-31 / UL 758 / CSA C22.2 / BS 6231.
- 🌿 Standards and approvals  
HAR / AENOR / UL LISTED / RoHS / CE.
- 🌍 CPR (Construction Products Regulation)  
E<sub>ca</sub>



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# TOPFLEX<sup>®</sup> MS TRI-RATED SUPER FLEX / H07V2-K

## DIMENSIONS & ADMISSIBLE INTENSITIES



Equivalences and designation applicable for every size and standard

Section (mm <sup>2</sup> )	AWG	EN 50525-2-31	BS 6231	UL 758	UL 2556	CSA 22.2
10	8	H07V2-K	CK	Style 1028	FT2 - VW-1	Type TEW
16	6	H07V2-K	CK	Style 1283	FT2 - VW-1	Type TEW
25	4	H07V2-K	CK	Style 1283	FT2 - VW-1	Type TEW
35	2	H07V2-K	CK	Style 1283	FT2 - VW-1	Type TEW
50	1	07V2-K	CK	Style 1284	FT2 - VW-1	Type TEW
70	2/0	07V2-K	CK	Style 1284	FT2 - VW-1	Type TEW
95	3/0	07V2-K	CK	Style 1284	FT2 - VW-1	Type TEW
120	4/0	07V2-K	CK	Style 1284	FT2 - VW-1	Type TEW
150	250 MCM	07V2-K	CK	Style 1284	FT2 - VW-1	---

Cross-Section (mm <sup>2</sup> )	Diameter (mm)	Weight (kg/km)	Current (A) 1 cond.	Current (A) 2 cond. <sup>1</sup>	Current (A) 3 cond. <sup>1</sup>	Voltage drop (V/A · km) <sup>2</sup>
1 x 10	6,4	115	94	75	66	4,89
1 x 16	8,2	175	125	100	88	3,10
1 x 25	9,4	260	166	133	117	2,00
1 x 35	10,5	350	205	164	144	1,42
1 x 50	13,0	505	248	198	175	0,99
1 x 70	15,0	695	315	253	222	0,696
1 x 95	16,7	915	381	306	269	0,527
1 x 120	17,8	1.115	440	354	312	0,412
1 x 150	20,2	1.400	490	393	342	0,330

<sup>1</sup>Reference method B1 for 90°C insulation cables according to IEC 60364-5-52 in open air at 30°C ambient temperature.

<sup>2</sup>At maximum service temperature, cosφ=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 <sup>2</sup>	316	223	182	141	100	82	71	63	58

## CORRECTION FACTORS FOR AIR TEMPERATURE

Air T. (°C)	20	25	30	35	40	45	50	55	60
Factor	1,08	1,04	1	0,96	0,91	0,87	0,82	0,76	0,71

Other correction factors (for grouping cables, for harmonic currents), that are not in this specification, can be applied. Further information can be found in IEC 60364-5-52.

### Contact Your Local TLA Branch:

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