BS EN 50525-2-31 H07V-U

H07V-U

450/750 V Solid Copper Conductor PVC-Insulated Rigid Conduit

BS EN 50525-2-31 / IEC 60227-3 · 450/750 V · −30…+70 °C industrial H07V-U construction



BS EN 50525-2-31 / IEC 60227-3 | **450/750 V** | **−30…+70 °C**

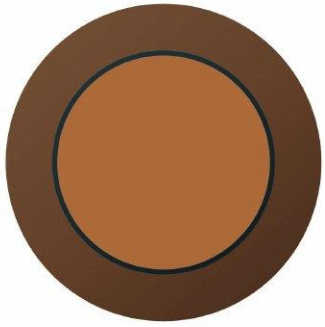
Application

H07V-U 450/750 V Solid Copper Conductor PVC-Insulated Rigid Conduit Building Wire (H07V-U) engineered to BS EN 50525-2-31 / IEC 60227-3 for 450/750 V service across −30…+70 °C, featuring stranded copper conductor and pvc insulation with minimum bending

Typical uses: Commercial & Residential Building Distribution, Data Centers & Public Infrastructure, Fire-Safe Evacuation & Riser Shafts, Industrial Plant Balance-of-Plant Wiring, Automated Assembly & Packaging Lines

Construction





Cross-section, not to scale

1	Stranded copper conductor	BS EN 50525-2-31 / IEC 60227-3
2	PVC insulation	BS EN 50525-2-31 / IEC 60227-3

Technical data

Typical values

Rated voltage / duty	450/750 V (BS EN 50525-2-31 / IEC 60227-3)	**Conductor construction**	Stranded copper conductor — High-conductivity copper conductor per BS EN 50525-2-31 / IEC 60227-3
Primary insulation / dielectric	PVC insulation — Extruded PVC insulation dielectric (continuous layer)	**Continuous operating temperature**	−30…+70 °C per BS EN 50525-2-31 / IEC 60227-3
Short-circuit / peak thermal limit	+160 °C to +250 °C (5 s adiabatic limit depending on dielectric class)	**Minimum installation temperature**	−5 °C (thermoplastic) / −25 °C (cross-linked or elastomer) / −40 °C (metallic)
Outer protection / covering	PVC insulation — Extruded PVC insulation dielectric (continuous layer)	**Minimum bending radius**	4 × OD (installed / static routing)
Layer count & geometry	2 concentric/structural layers verified by cross-section inspection	**Environmental & chemical durability**	Engineered for industrial service in accordance with BS EN 50525-2-31 / IEC 60227-3
RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant	**Standards**	BS EN 50525-2-31 / IEC 60227-3

Sizes

12 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Outer Ø ≈ mm	Weight ≈ kg/km	Min. bend R fixed mm
H07V-U Standard Production Schedule (450/750 V · −30…+70 °C) 12 sizes				
☐ H07V-U 3G1.5	3 × 1.5 mm²	8.4	105	68
☐ H07V-U 4G1.5	4 × 1.5 mm²	9.2	128	74
☐ H07V-U 5G1.5	5 × 1.5 mm²	10.1	156	81
☐ H07V-U 3G2.5	3 × 2.5 mm²	9.8	148	78
☐ H07V-U 4G2.5	4 × 2.5 mm²	10.8	186	86
☐ H07V-U 5G2.5	5 × 2.5 mm²	11.9	228	95
☐ H07V-U 4G4	4 × 4.0 mm²	12.6	268	101
☐ H07V-U 4G6	4 × 6.0 mm²	14.2	365	114
☐ H07V-U 4G10	4 × 10 mm²	17.5	580	140
☐ H07V-U 4G16	4 × 16 mm²	20.4	845	163
☐ H07V-U 4G25	4 × 25 mm²	24.8	1,290	198
☐ H07V-U 4G35	4 × 35 mm²	27.9	1,710	223

– Single-core and multi-core sizes from 0.5 mm² up to 630 mm² (or AWG/kcmil) available per BS EN 50525-2-31 / IEC 60227-3.

Conductor resistance & current-carrying capacity

8 sizes

Cross-section	Max. DC R_{20} Ω/km	Current in air A (30 °C) ≈	Voltage drop mV/A·m
1.5 mm² (AWG 16)	13.30	18	29.0
2.5 mm² (AWG 14)	7.98	26	17.5
4.0 mm² (AWG 12)	4.95	34	10.9
6.0 mm² (AWG 10)	3.30	44	7.3
10 mm² (AWG 8)	1.91	61	4.2
16 mm² (AWG 6)	1.21	82	2.7
25 mm² (AWG 4)	0.78	108	1.7
35 mm² (AWG 2)	0.55	135	1.2

– Current ratings are for 3 loaded conductors at 30 °C ambient in free air/tray per IEC 60364-5-52 / NEC.

Standards and approvals

- BS EN 50525-2-31 Compliant
- EN 10204 3.1 Routine Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/h07v-u-solid-copper-pvc-rigid-conduit-building-wire

Typical values for this cable type, based on BS EN 50525-2-31 / IEC 60227-3. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.