

H07V-U & H07V-R(6491X)

Wire refer to EN 50525-2-31
450/750V

Certificate

BASEC
BRITISH APPROVALS SERVICE FOR CABLES



Application

Installation in surface mounted or embedded conduits, or similar closed systems and for fixed protected installation in lighting fittings, appliances, switchgear and control panel wiring.

Construction

No.	Classification	Code		Construction detail
①	Conductor	CU	U for Class1	Annealed copper conductor
			R for Class2	BS EN60228(IEC60228) Class 1 or 2
②	Insulation	PVC		PVC according to EN50363-3 TI1

Cable marking

The outer sheath is marked in ink printing as follows:

The printing information of H07V-R is showed as:

BASEC DRAKA(S) BS EN 50525-2-31 H07V-R 450/750V 6491X YYYY SIZE XXXXm

The printing information of H07V-U is showed as:

BASEC DRAKA(S) BS EN 50525-2-31 H07V-U 450/750V 6491X YYYY SIZE XXXXm

Note: 1.5mm² – 6 mm² does not print meter mark on sheath



Core Identification

Brown, Blue, Black, Grey, Y/G

Other colours available as customer requirement

Applicable Standards

Design guidelines	BS EN 50525-2-31
Flame retardant properties	IEC60332-1

Technical Data

Rated voltage	450/750 V
Test voltage	2.5kV/15min
Temperature range	-15℃-70℃

Bending Radius

Minimum bending radius	Cable diameter D mm			
	D≤8	8<D≤12	12<D≤20	D>20
Normal use	4D	5D	6D	6D
Careful bending at termination	2D	3D	4D	4D
Notes: D =overall diameter of cable				

Cable Type Coding

6491X

H07V-U/H07V-R CU/PVC 450/750V

No. of cores	×	C.S.A	Conductor type	Shape of Conductor	Nominal thickness of insulation	Approx. overall diameter	Approx. weight	DC resistance at max.20°C	Minimum insulation resistance at 70°C
n		mm²			mm	mm	Kg/km	Ω/km	MΩ/km
H07V-U CU/PVC 450/750V									
1	×	1.5	Class1	circular	0.7	2.8	20	12.1	0.011
1	×	2.5	Class1	circular	0.8	3.4	30	7.41	0.010
1	×	4	Class1	circular	0.8	3.9	45	4.61	0.0085
1	×	6	Class1	circular	0.8	4.4	64	3.08	0.0070
H07V-R CU/PVC 450/750V									
1	×	1.5	Class2	circular	0.7	3.0	21	12.1	0.010
1	×	2.5	Class2	circular	0.8	3.6	33	7.41	0.009
1	×	4	Class2	circular	0.8	4.2	48	4.61	0.008
1	×	6	Class2	circular	0.8	4.7	68	3.08	0.0065
1	×	10	Class2	circular	1.0	6.1	112	1.83	0.0065
1	×	16	Class2	circular	1.0	7.2	169	1.15	0.0050
1	×	25	Class2	circular	1.2	8.9	267	0.727	0.0050
1	×	35	Class2	circular	1.2	10.0	360	0.524	0.0043
1	×	50	Class2	circular*	1.4	10.9	464	0.387	0.0043
1	×	70	Class2	circular*	1.4	12.6	658	0.268	0.0035
1	×	95	Class2	circular*	1.6	14.7	918	0.193	0.0035
1	×	120	Class2	circular*	1.6	16.1	1144	0.153	0.0032
1	×	150	Class2	circular*	1.8	17.9	1411	0.124	0.0032
1	×	185	Class2	circular*	2.0	20.1	1743	0.0991	0.0032
1	×	240	Class2	circular*	2.2	22.7	2291	0.0754	0.0032
1	×	300	Class2	circular*	2.4	25.3	2897	0.0601	0.0030
1	×	400	Class2	circular*	2.6	29.0	3718	0.0470	0.0028
1	×	500	Class2	circular*	2.8	32.2	4744	0.0366	0.0028
1	×	630	Class2	circular*	2.8	35.9	6002	0.0283	0.0025

Note *: compacted conductor

H07V-U/H07V-R CU/PVC 450/750V

No. of cores	×	C.S.A	Current rating-three phase AC			Voltage drop-three phase AC			Short circuit current (1s)
			Horizontal flat touching free air	Trefoil touching free air	Horizontal flat spaced free air	Horizontal flat touching free air	Trefoil touching free air	Horizontal flat spaced* free air	
n		mm²	A	A	A	mV/A/m	mV/A/m	mV/A/m	kA(1s)
H07V-U CU/PVC 450/750V									
1	×	1.5	—	—	—	25.000	25.000	25.000	0.17
1	×	2.5	—	—	—	15.000	15.000	15.000	0.29
1	×	4	—	—	—	9.500	9.500	9.500	0.46
1	×	6	—	—	—	6.400	6.400	6.400	0.69
H07V-R CU/PVC 450/750V									
1	×	1.5	—	—	—	25.000	25.000	25.000	0.17
1	×	2.5	—	—	—	15.000	15.000	15.000	0.29
1	×	4	—	—	—	9.500	9.500	9.500	0.46
1	×	6	—	—	—	6.400	6.400	6.400	0.69
1	×	10	—	—	—	3.800	3.800	3.800	1.15
1	×	16	—	—	—	2.400	2.400	2.400	1.84
1	×	25	114	110	146	1.550	1.500	1.550	2.88
1	×	35	143	137	181	1.100	1.100	1.150	4.03
1	×	50	174	167	219	0.840	0.820	0.860	5.75
1	×	70	225	216	281	0.600	0.570	0.630	8.05
1	×	95	275	264	341	0.470	0.430	0.510	10.93
1	×	120	321	308	396	0.400	0.360	0.440	13.80
1	×	150	372	356	456	0.340	0.300	0.400	17.25
1	×	185	427	409	521	0.310	0.260	0.360	21.28
1	×	240	507	485	615	0.270	0.220	0.340	27.60
1	×	300	587	561	709	0.250	0.190	0.320	34.50
1	×	400	689	656	852	0.240	0.175	0.310	41.20
1	×	500	789	749	982	0.230	0.160	0.300	51.50
1	×	630	905	855	1138	0.220	0.150	0.290	64.89

Note Current ratings at ambient temprature 30℃

*: Flat spaced by one cable diameter

BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Certificate No:
225/001/001
Issue No: 6

Certificate of Product Approval

Licensee:
Suzhou Draka Cable Co., Ltd.
No. 88 Kangyuan Road, Xiangcheng Economic Development District, Suzhou, 215131, China

Factory:
No. 88 Kangyuan Road, Xiangcheng Economic Development District, Suzhou, 215131, China

Standard:
BS EN 50525-2-31:2011

Description:
Single core non-sheathed cables with thermoplastic PVC insulation

Details:
N/A

Materials:
Insulation TI 1, Sheath N/A

Brand Name:
N/A

Origin Mark:
PRYSMIAN (S) or DRAKA (S)

Permissible Approval Marks:

BASEC name | BASEC roundel

Signed for and on behalf of
BASEC Group Ltd

Date: 02/02/2024

Date of original issue: 12/06/2018

Check BASEC website to verify validity.

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BSF079 Issue 5 (20-03-2023)

UKAS PRODUCT CERTIFICATION 0004

Expiry date:
01/06/2027

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Type(s) and Range(s) of Approval

Table / Clause	Code Designation	Conductor Class	Range of Cores	Min Nominal Size -sqmm	Max Nominal Size - sqmm
4.1	H07V-U	Class 1	1	1.5	6
4.1	H07V-R	Class 2	1	1.5	630

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