

H07V-U

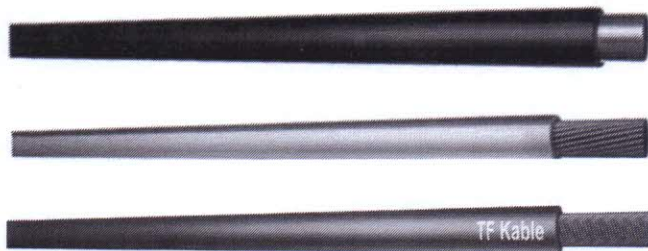
H07V-R

H07V-K

450/750V

PN-EN 50525-2-31, BS EN 50525-2-31

Single core PVC insulated non sheathed cables for general purposes



CONSTRUCTION	
Conductors:	annealed copper conductor acc. to EN 60228: class 1 solid -H07V-U, class 2 stranded H07V-R, class 5 flexible H07V-K
Insulation:	PVC compound type TI 1
Colour of insulation	green/yellow, blue, black, brown or other colours

CHARACTERISTIC				
Maximum conductor operating temperature:	+70°C			
Lowest ambient temperature for fixed installation:	-40°C			
Lowest installation temperature:	-5°C			
Maximum short-circuit conductor temperature:	+160°C			
Test voltage:	2500V			
Minimum bending radius:	For cable diameter D (mm)			
	D ≤ 8	8 < D ≤ 12	12 < D ≤ 20	D > 20
Normal use	4 D	5 D	6 D	6 D
Careful bending at termination	2 D	3 D	4 D	4 D
Max. permissible tensile stress with cable grip for Cu-conductor: 50 N/mm²				

FIRE PERFORMANCE	
▪ Flame retardant:	EN 60332-1-2
▪ CPR – class reaction to fire (acc EN 50575):	Eca

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 Replace H07V- U R K 450/750V JM-17-03-2017

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APPLICATIONS

installation in surface mounted or embedded conduits, or similar closed systems. Suitable for fixed protected installation in, or on, lighting or controlgear for voltages up to 1000V a.c. or, up to 750V d.c. to earth.

Standard length cable packing	50 m of 100 m in rings or on spools, or 500 m on drums. Other forms of packing and delivery are available on request
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APPROVALS

BBJ, BASEC, VDE, GOST

Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	Minimum insulation resistance at temperature 70°C
n x mm ²	mm	kg/km	Ω/km	MΩ.km
H07V-U				
1,5	2,7	20	12,1	0,011
2,5	3,3	31	7,41	0,010
4	3,7	45	4,61	0,0087
6	4,2	63	3,08	0,0074
10	5,4	105	1,83	0,0072
16*	6,3	159	1,15	0,0058
H07V-R				
1,5	3,0	21	12,1	0,010
2,5	3,6	33	7,41	0,0099
4	4,1	48	4,61	0,0082
6	4,5	66	3,08	0,0070
10	5,8	110	1,83	0,0067
16	6,8	167	1,15	0,0056
25	8,5	262	0,727	0,0053
35	9,6	353	0,524	0,0046
50	11,3	480	0,387	0,0046
70	12,6	672	0,268	0,0040
95	15,0	932	0,193	0,0039
120	16,4	1158	0,153	0,0035
150	18,4	1432	0,124	0,0035
185	20,3	1789	0,0991	0,0035
240	23,2	2325	0,0754	0,0034
300	25,4	2908	0,0601	0,0033
400	28,5	3756	0,0470	0,0031

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Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	Minimum insulation resistance at temperature 70°C
n x mm ²	mm	kg/km	Ω/km	MΩ.km
500	32,1	4800	0,0366	0,0030
800	40,4	7650	0,0221	0,0024
1000	44,3	9521	0,0176	0,0023

Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	Minimum insulation resistance at temperature 70°C
n x mm ²	mm	kg/km	Ω/km	MΩ.km
H07V-K				
1*	2,9	20	19,5	0,010
1,5	2,9	20	13,3	0,010
2,5	3,6	31	7,98	0,0095
4	4,1	45	4,95	0,0078
6	4,6	63	3,30	0,0068
10	6,0	107	1,91	0,0065
16	7,1	161	1,21	0,0053
25	8,7	247	0,780	0,0050
35	9,8	344	0,554	0,0043
50	11,8	483	0,386	0,0042
70	13,6	669	0,272	0,0036
95	16,1	886	0,206	0,0036
120	17,2	1111	0,161	0,0032
150	19,4	1389	0,129	0,0032
185	22,1	1697	0,106	0,0032
240	24,0	2210	0,0801	0,0031
300*	28	2771	0,0641	-
400*	30,3	3611	0,0486	-

*based on norm 07V-U, 07V-K

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
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Current ratings acc. to IEC 60364-5-523

Permissible operating temperature at conductor: 70°C; ambient temperature: 30°C

Installation					
	Single core cables in insulating tubes, in a thermally insulated walls		Single core cables in insulating tubes on a wall		In open air *
Number of loaded cores	2	3	2	3	1
Cross-section, mm ²	Current ratings in Ampere (A)				
1	-	-	-	-	19
1,5	14,5	13,5	17,5	15,5	24
2,5	19,5	18	24	21	32
4	26	24	32	28	42
6	34	31	41	36	54
10	46	42	57	50	73
16	61	56	76	68	98
25	80	73	101	89	129
35	99	89	125	110	158
50	119	108	151	134	198
70	151	136	192	171	245
95	182	164	232	207	292
120	210	188	269	239	344
150	240	216	-	-	391
185	273	245	-	-	448
240	321	286	-	-	528
300	367	328	-	-	608
400	-	-	-	-	726

* Current rating acc. to VDE 0298-4, ambient temperature: 30°C

Convention factors for deviating ambient temperature

Ambient temperature, °C	10	15	20	25	30	35	40	45	50	55	60
Conversion factors	1,22	1,17	1,12	1,06	1,00	0,94	0,87	0,79	0,71	0,61	0,50