

High Temperature Rating Of Hook-Up Wire

◆ Standard

High Temperature Rating of Hook-Up Wire is manufactured according to GJB773A-2000.

◆ Application

This product uses PTFE, silicone rubber insulation, it has good performance such as anti-oil, anti-water, anti-abrasion, anti-acid and anti-alkali, wide range of using temperature, etc., it can be used as connecting wire of electrical appliances, instrument and telecommunication equipment.

◆ Code and Explanation

I-Installing wire, P₁-Tinned copper wire braided shield, F-PTFE, S-Silicone, B-Fiberglass

◆ Type and Name, Structure and Diameter

1. Type and Name (Table 1)

Table 1

Type	Product Name
HCIF-200	F ₄ insulated high temperature rating of 200°C installing wire (Silver plating wire conductor)
HCIFP ₁ -200	F ₄ insulated tinned copper wire shielded high temperature rating of 200°C installing wire (Silver plating wire conductor)
HCIF-250	F ₄ insulated high temperature rating of 250°C installing wire (Silver plating wire conductor)
HCIFP ₁ -250	F ₄ insulated tinned copper wire shielded high temperature rating of 250°C installing wire (Silver plating wire conductor)
HCIFB	Copper conductor F ₄ insulated fiberglass braided installing wire
HCIFBP ₁	Copper conductor F ₄ insulated fiberglass braided tinned copper wire shielded installing wire
HCISR	Tinned copper conductor silicone rubber insulated installing wire
HCISRP ₁	Tinned copper conductor silicone rubber insulated tinned copper wire braided installing wire

2. Example of type

- i. PTFE insulated tinned copper wire shielded high temperature rating of 250°C installing wire (Silver plating wire conductor), the core area sectional that is 2.5mm² multi-stranded conductor, which can be expressed as: HCIFRP₁-250 2.5mm².
- ii. PTFE insulated fiberglass braided high temperature installing wire (Copper conductor), the core area sectional that is 1.5mm² multi-stranded conductor, which can be expressed as: HCIFBR 1.5mm².

3. Structure size (Table 2)

Table 2

Nominal section(mm ²)	Conductor structure (Core No./Diameter)	Max. diameter	
		HCIF-200 HCIF-250 HCIFB	HCIFP ₁ -200 HCIFP ₁ -250 HCIFP ₁

0.06	7/0.10	1.00	2.11
0.12	7/0.15	1.05	2.37
0.20	7/0.20	1.20	2.63
0.30	7/0.23	1.29	2.85
0.35	19/0.15	1.38	2.91
0.50	19/0.18	1.61	3.33
0.75	19/0.23	1.95	3.68
1.0	19/0.26	2.10	3.86
1.5	19/0.32	2.40	4.30
2.0	19/0.37	2.85	4.61
2.5	49/0.26	3.35	5.22
3.0	49/0.28	3.40	5.47
4.0	49/0.32	3.88	6.23
5.0	49/0.36	4.30	6.65
6.0	49/0.39	4.55	7.00
8.0	133/0.28	4.80	7.68
10	133/0.31	5.65	8.24
16	133/0.41	7.00	9.44

4. Spec & Weight/Parameter (Table 3~7)

600V			Table 3						
Conductor (Tinned copper wire)			Insulated thickness of silicone rubber (mm)	Ref. outer diameter (mm)	Conductor resistance (20°C)Ω.km	Test voltage V/1min	MΩ.km Insulation resistance (20°C)	Surface leakage resistance MΩ.50km	Ref. Weight Kg/km
Nominal section (mm ²)	Wire core/No./Diameter(mm)	Conductor diameter (mm)							
0.75	30/0.18	1.1	1.1	3.3	25.8	1500	100	300	17
1.0	19/0.26	1.3	1.1	3.5	20.2	1500	100	300	22
1.5	19/0.32	1.6	1.1	3.9	12.5	1500	100	300	28
2.5	49/0.26	1.9	1.1	4.2	9.01	1500	100	200	35
4.0	49/0.32	2.8	1.1	4.6	5.02	1500	95	200	52
6.0	49/0.39	3.3	1.1	5.5	3.21	1500	90	200	85
10	133/0.31	4.2	1.2	6.2	1.60	2000	80	100	130
16	133/0.41	5.2	1.2	7.6	1.03	2000	80	100	205
25	98/0.58	7.5	1.4	10.5	0.772	2500	70	100	320
35	133/0.58	8.6	1.4	11.7	0.546	2500	60	100	400
50	133/0.68	10.0	1.6	13.6	0.411	2500	60	90	550
70	189/0.68	12.0	1.8	15.8	0.289	3000	50	90	720
95	259/0.68	14.1	1.8	18.9	0.204	3000	50	70	980
120	259/0.76	16.3	2.3	20.6	0.151	3000	50	70	1360
150	336/0.47	17.7	2.3	22.3	0.136	3500	40	60	1580
185	427/0.74	18.9	2.6	25.4	0.102	3500	40	60	2000
240	427/0.85	21.8	2.6	27.6	0.0884	3500	40	60	2640

1500V										Table 4
Conductor (Tinned copper wire)			Insulated thickness of silicone rubber (mm)	Ref. outer diameter (mm)	Conductor resistance (20°C)Ω.km	Test voltage V/1min	MΩ.km Insulation resistance (20°C)	Surface leakage resistance MΩ.50km	Ref. Weight Kg/km	
Nominal section (mm ²)	Wire core/Pcs/ Diameter(mm)	Conductor diameter (mm)								
0.75	30/0.18	1.1	1.5	4.1	25.8	5000	100	300	26	
1.0	19/0.26	1.3	1.5	4.3	20.2	5000	100	300	32	
1.5	19/0.32	1.6	1.5	4.6	12.5	5000	100	300	44	
2.5	49/0.26	1.9	1.5	5.2	9.01	5000	100	200	53	
4.0	49/0.32	2.8	2.0	6.8	5.02	5000	95	200	75	
6.0	49/0.39	3.3	2.0	7.3	3.21	5000	90	200	98	
10	133/0.31	4.2	2.0	8.2	1.60	5000	80	100	140	
16	133/0.41	5.2	2.2	9.6	1.03	5000	80	100	225	
25	98/0.58	7.5	2.2	11.9	0.772	5000	70	100	345	
35	133/0.58	8.6	2.2	13.0	0.546	5000	60	100	430	
50	133/0.68	10.0	2.2	14.4	0.411	5000	60	90	580	
70	189/0.68	12.0	2.5	17.0	0.289	5000	50	90	810	
95	259/0.68	14.1	2.5	19.1	0.204	5000	50	70	980	
120	259/0.76	16.3	3.0	22.3	0.151	5000	50	70	1140	
150	336/0.74	17.7	3.0	23.7	0.136	5000	40	60	1640	
185	427/0.74	18.9	3.0	24.9	0.102	5000	40	60	2000	
240	427/0.85	21.8	3.5	28.8	0.0884	5000	40	40	2700	

Silicone rubber insulated installing wire					Table 5
Nominal section(mm ²)	Conductor structure	Insulated thickness mm	Type & Outer diameter		
			HCISR	HCISRP ₁	
0.06	7/0.10	0.7	2.06	2.78	
0.12	7/0.15	0.7	2.24	2.88	
0.20	12/0.15	0.7	2.44	3.17	
0.30	16/0.15	0.7	2.50	3.30	
0.50	28/0.15	0.7	2.90	3.60	
0.75	19/0.23	0.8	3.20	4.00	
1.00	32/0.20	0.8	3.45	4.20	
1.50	30/0.25	0.8	3.60	4.50	
2.50	49/0.25	0.9	5.40	6.10	
4.00	56/0.30	1.0	6.20	7.00	
6.00	84/0.30	1.0	7.10	7.60	
10.00	84/0.40	1.0	8.40	8.90	

Silicon rubber insulated HV installing wire	Table 6
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Type	Nominal section(mm ²)	Conductor structure	Insulated thickness mm	Outer diameter
HCISR-5	0.2	7×0.2	1.4	3.2-3.5
HCISR-10	0.2	7×0.2	1.8	4.0-4.3
HCISR-15	0.2	12×0.15	2.2	4.8-5.2
HCISR-20	0.2	12×0.15	2.6	5.6-6.0
HCISR-25	0.2	12×0.15	2.9	6.2-6.6
HCISR-30	0.2	12×0.15	3.2	6.8-7.2

Silicon rubber insulated HV lead wire				Table 7	
Nominal section(mm ²)	6KV HCISR Insulated thickness mm	10KV HCISR Insulated thickness mm	Max. diameter (mm ²)		
			6KV	10KV	
4	3.0	3.5	8.6	9.6	
6	3.5	4.0	10.3	11.3	
10	3.5	4.0	10.9	11.9	
16	3.5	4.5	12.0	14.8	
25	3.5	4.8	14.2	16.8	
35	3.5	4.8	16.6	18.6	
50	3.5	5.0	17.6	19.8	
70	4.0	5.5	19.8	22.8	
95	4.0	5.5	21.5	24.5	
120	4.5	6.0	25.0	28.0	
150	4.5	6.0	26.7	29.7	
185	4.5	6.0	27.6	30.4	
240	4.7	6.2	31.0	34.0	
300	4.8	6.2	33.2	36.0	
350	4.8	6.5	35.8	39.0	
400	5.0	7.0	39.5	43.5	