



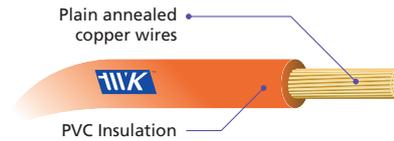
Switchgear

Cables & Appliance Wires

This cable is suitable for fixed protected installation in or on lighting fitting and inside appliances, switchgears and controlgears.

MS 136

Voltage rating	:	450 / 750V
Temperature rating	:	70°C
Construction	:	
Conductor	-	Stranded plain annealed copper wires
Insulation	-	PVC

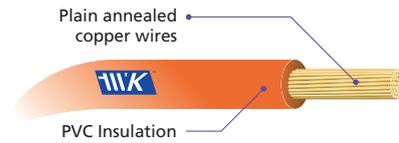


Conductor		Insulation Thickness	Nominal Overall Diameter	Maximum Conductor Resistance at 20°C
Nominal Area	Stranding			
mm ²	No. / mm	mm	mm	ohm/km
1.5	30 / 0.25	0.7	3.0	13.3
2.5	50 / 0.25	0.8	3.7	7.98
4	56 / 0.30	0.8	4.2	4.95
6	84 / 0.30	0.8	5.1	3.30
10	80 / 0.40	1.0	6.5	1.91

This cable is suitable for used in fixed protected installation inside appliances, and in or on lighting fittings.

MS 140

- Voltage rating : 300 / 500V
- Temperature rating : 70°C
- Construction :
- Conductor - Stranded plain annealed copper wires
- Insulation - PVC



Conductor		Insulation Thickness	Nominal Overall Diameter	Maximum Conductor Resistance at 20°C
Nominal Area	Stranding			
mm ²	No. / mm	mm	mm	ohm/km
0.5	16 / 0.20	0.6	2.2	39.0
0.75	24 / 0.20	0.6	2.4	26.0
1	32 / 0.20	0.6	2.6	19.5

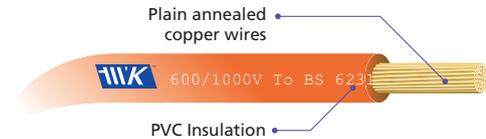
These cables are used for the wiring of switch, control metering, relay and instrument panels of power switchgear, and for application as internal connections in rectifier equipment and in motor starters and controllers.

BS 6231
**Type : BR
BK**

Type BR - Rigid, round stranded conductor

Type BK - Flexible conductor

Voltage rating	:	600/1000V
Temperature rating	:	70°C
Construction	:	
Conductor	-	Stranded plain annealed copper wires
Insulation	-	PVC



Type	Conductor		Insulation Thickness	Nominal Overall Diameter	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 70°C
	Nominal Area	Stranding				
	mm ²	No. / mm	mm	mm	ohm/km	Mohm.km
BR	1.0	7 / 0.44	0.8	3.0	18.1	0.011
	1.5	7 / 0.53	0.8	3.3	12.1	0.011
	2.5	7 / 0.67	0.8	3.7	7.41	0.0093
	4	7 / 0.85	0.8	4.2	4.61	0.0078
BK	0.5	16 / 0.20	0.8	2.6	39.0	0.013
	0.75	24 / 0.20	0.8	2.8	26.0	0.011
	1.0	32 / 0.20	0.8	3.0	19.5	0.010
	1.5	30 / 0.25	0.8	3.3	13.3	0.010
	2.5	50 / 0.25	0.8	3.7	7.98	0.0094
	4	56 / 0.25	0.8	4.2	4.95	0.0076

Application : For internal wiring of small electric appliances, instruments or apparatus of a.c 300V or below.

**HVSF
JIS C 3306**

Temperature : 75°C

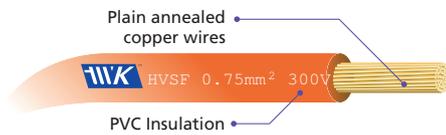
Voltage rating : 300V

MITI Conformity Assessment Approval No.: JET 1639-12005-1001 (< PS >E Mark)

Construction :

Conductor - Stranded plain annealed copper wires

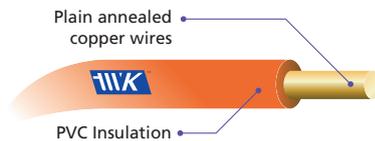
Insulation - Heat-resistant PVC insulation



Conductor			Insulation Thickness	Overall Diameter approx.	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	Electric Strength (in water)
Nominal Size	Stranding	Diameter					
mm ²	No. / mm	mm	mm	mm	ohm/km	Mohm.km	V / min
0.5	20 / 0.18	0.9	0.8	2.5	36.7	5	1000
0.75	30 / 0.18	1.1	0.8	2.7	24.4	5	1000
1.25	50 / 0.18	1.5	0.8	3.1	14.7	5	1000
2.0	37 / 0.26	1.8	0.8	3.4	9.50	5	1000

These wires are commonly used in on lighting fittings and inside appliances.
They are also suitable for fixed protected installation such as switchgear and controlgear wirings.

- Voltage rating : 600V and below
- Temperature rating : 75°C ,105°C
- Construction :
- Conductor - Bare or tinned solid copper wire ; hard-drawn or annealed
- Insulation - PVC



Conductor		Insulation Thickness	Nominal Overall Diameter	Maximum Conductor Resistance at 20°C
Nominal Size	Material			
No. / mm		mm	mm	ohm/km
1 / 0.737	Bare, hard-drawn copper	0.8	2.4	43.0
1 / 0.85	Bare, hard-drawn copper	0.7	2.4	32.2
1 / 0.85	Bare, annealed copper	0.7	2.4	31.3
1 / 0.90	Tinned, annealed copper	0.7	2.4	28.2
1 / 0.914	Bare, annealed copper	0.8	2.6	27.3
1 / 1.12	Bare, hard-drawn copper	0.8	2.8	18.5
1 / 1.12	Bare, annealed copper	0.8	2.8	18.0
1 / 1.35	Bare, annealed copper	0.7	2.9	12.3