

(1) PVC Insulated, Copper Conductor, Non-Jacket, Single Core (IEC60227).

(A) Application

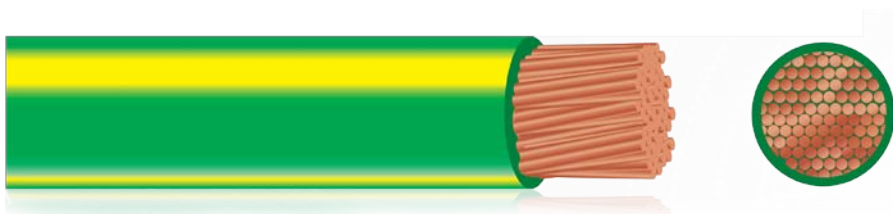
These cores are used for the purpose of lighting, internal, and industrial wiring. These cables are intended for drawing into trunk and conduit. They may also be used inside fixed, protected installations such as light fittings, appliances, switch gear, and control gear.

(B) Technical Data

Relevant Standard:	IEC 60227.
Conductor:	Plain annealed copper, class 1, 2, and 5 according to IEC 60228
Insulation:	PVC rated @ 70 °C or 90 °C.
Maximum conductor temperature:	70 °C during operation.
Color code:	Any colors are available to order.
Packing condition:	100 Yard on either: <ul style="list-style-type: none">▪ Shrink wrapped coil.▪ Plastic spool.

(C) Electrical Data

Conductor resistance (max.)	According to IEC 60228 / BS 6360.
Rated voltage:	U ₀ /U 450/750 V.
Test voltage Urms:	1500 V for radial insulation thickness ≤ 0.6 mm. 2000 V for radial insulation thickness > 0.6 mm.
Current rating:	As listed in the following tables.



(D) Product Data (Standard Products)

	Conductor		Radial thickness of insulation (Nom.) (mm)	Overall diameter (Approx.) (mm)	Cable weight (Approx.) (kg/km)	Current rating in free air @ 30 °C (A)
	Cross Srea	Max. DC Resistance @ 20 °C (Ω / km)				
Solid	1 x 1.0	18.10	0.6	2.33	13.6	22
	1 x 1.5	12.10	0.7	2.78	19.9	28
	1 x 2.5	7.41	0.8	3.38	31.5	38
	1 x 4.0	4.61	0.8	3.86	46.6	50
Stranded	1 x 1.0	18.10	0.6	2.48	14.4	22
	1 x 1.5	12.10	0.7	2.96	21.0	28
	1 x 2.5	7.41	0.8	3.58	32.3	38
	1 x 4.0	4.61	0.8	4.12	48	50
	1 x 6.0	3.08	0.8	4.69	69	66
	1 x 10	1.83	1.0	6.0	114	89
	1 x 16	1.15	1.0	7.0	172	115
	1 x 25	0.727	1.2	8.8	272	152
	1 x 35	0.524	1.2	9.8	362	189
Flexible	1 x 1.0	19.50	0.6	2.40	13.1	22
	1 x 1.5	13.3	0.7	3.00	20.6	28
	1 x 2.5	7.98	0.8	3.65	32.6	38
	1 x 4.0	4.95	0.8	4.20	48	50
	1 x 6.0	3.30	0.8	4.78	69	66
	1 x 10	1.91	1.0	6.10	113	89
	1 x 16	1.21	1.0	7.10	117	115
	1 x 25	0.780	1.2	8.80	250	152
	1 x 35	0.554	1.2	10.0	345	189

Remark: Dimensions and weights are representative figures and may vary by ± 5 %.

Current rating correction factor for ambient temperature							
Ambient Temperature	35 °C	40 °C	45 °C	50 °C	55 °C	60 °C	65 °C
Correction factor	0.94	0.87	0.79	0.71	0.61	0.50	0.35

(2) Ordinary duty polyvinyl chloride sheathed cord (300/500V)

(A) Application

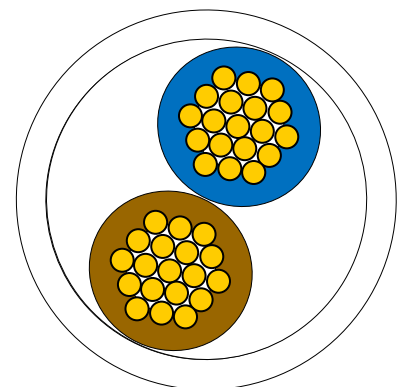
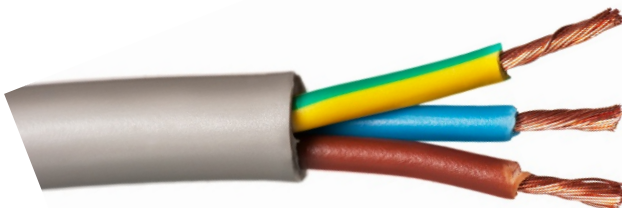
These cords are used with appliances and equipment intended for domestic, offices, and similar environments. So, they are suitable for portable tools, washing machines, vacuum cleaner, lawn mowers, and refrigerators. Also, they can be used for indoors or outdoors in dry or damp situation.

(B) Technical Data

Relevant standard:	IEC 60277-5, BS 6500, and BS 7919.
Harmonized code:	H05VV-F
Conductor:	Plain annealed copper, class 5 according to IEC 60228 / BS 6360.
Insulation:	PVC compound type TI3 or PVC/D (rated @ 70 °C).
Color code:	Two cores: Blue and Brown. Three cores: Yellow/Green, Blue, and Brown. Four cores: Yellow/Green, Brown, Black, and Gray.
Laying up:	Cores twisted together and separator powder is applied over the laid up cores.
Outer jacket:	PVC compound type TM2 or PVC/ST 5.
Outer jacket color:	White or black. Also, other colors are available to order.
Maximum temperature range:	60 °C during operation.
Minimum bending radius:	3 x outer diameter, fixed. 6 x outer diameter, flexing.
Packing Condition:	100 Yard length on shrink wrapped coil.

(C) Electrical Data

Conductor resistance (max.)	According to IEC 60228 / BS 6360.
Rated voltage:	U _o /U 300/500 V.
Test voltage Urms (core/core):	1500 V for radial insulation thickness ≤ 0.6 mm. 2000 V for radial insulation thickness > 0.6 mm.
Current rating:	As in the following tables.



(D) Product Data (Standard Products)

No. of cores x cross section	Conductor	Radial thickness of insulation (Nom.) (mm)	Radial thickness of outer jacket (Nom.) (mm)	Overall diameter (Approx) (mm)	Cable weight (Approx) (kg/km)	Current carrying capacity (A)	
	Max. DC Resistance @ 20 °C (Ω / km)					DC or single phase A.C.	Three phase A.C.
2 x 1.0	19.50	0.60	0.80	6.60	65	10	10
2 x 1.5	13.30	0.70	0.80	7.58	88	16	16
2 x 2.5	7.98	0.80	1.00	9.30	136	25	20
2 x 4.0	4.95	0.80	1.10	10.60	186	32	25
2 x 6.0	3.30	0.80	1.20	11.96	251	42	36
2 x 10	1.91	1.00	1.40	15.01	403	57	49
3 x 1.0	19.50	0.60	0.80	7.00	80	10	10
3 x 1.5	13.30	0.70	0.90	8.26	114	16	16
3 x 2.5	7.98	0.80	1.00	9.89	171	25	20
3 x 4.0	4.95	0.80	1.10	11.26	238	32	25
3 x 6.0	3.30	0.80	1.20	12.72	324	42	36
3 x 10	1.91	1.00	1.40	15.98	524	57	49
4 x 1.0	19.50	0.60	0.80	7.84	101	10	10
4 x 1.5	13.30	0.70	1.00	9.23	143	16	16
4 x 2.5	7.98	0.80	1.10	11.04	214	25	20
4 x 4.0	4.95	0.80	1.20	12.55	298	32	25
4 x 6.0	3.30	0.80	1.40	14.36	414	42	36
4 x 10	1.91	1.00	1.40	17.57	649	57	49

Remark: Dimensions and weights are representative figures and may vary by ± 5 %.

Current rating correction factor for ambient temperature					
Ambient Temperature	35 °C	40 °C	45 °C	50 °C	55 °C
Correction factor	0.91	0.82	0.71	0.58	0.41

(3) THHN/THWN BUILDING WIRE 75 DEG. C 600 VOL

(A) Application

Type THHN - THWN wires are designed to operate at conductor temperatures of 75 deg. C for 600 volts service in wet and dry locations.

Applicable for both new work and rewiring installations where the smaller wire diameter permits additional circuits or larger conductors to be installed in the conduit without exceeding maximum fill limitations.

Type THHN - THWN wires are also recommended for industrial installation where exceptional resistance to heat and corrosive atmospheres are needed, such as chemical plants, oil refineries, paper mills, etc.

(B) Technical Data

Conductor:	Soft drawn annealed copper conductors as per UL 83. Available in solid or stranded
Insulation:	Extruded Polyvinyl Chloride (PVC) compound rated 75 and 90 deg. C.
Maximum conductor temperature:	70 °C during operation.
Jacket:	Tough, smooth, heat and light stabilized, low moisture absorption nylon As per UL-1063 and UL-83
Color code:	Any colors are available to order.
Packing condition:	100 Yard on plastic spool.

(D) Product Data (Standard Products)

Size AWG	Conductor		Insulation Thickness (Nom.) (mm)	Nylon Jacket Thickness (Nom.) (mm)	Overall Diameter (Approx) (mm)	Cable Weight (Approx) (kg/km)
	Diameter (mm)	Max. DC Resistance @ 20 °C (Ω / km)				
16	1.48	13.42	0.38	0.10	2.5	17
14	1.86	8.62	0.38	0.10	2.9	25
12	2.35	5.43	0.38	0.10	3.4	37
10	2.97	3.409	0.51	0.10	4.3	5
8	3.75	2.144	0.76	0.13	5.6	96

