PVC Insulated Industrial Cables

Catalogue 2015

- Single Core Regid Conductor Wires
- Single Core Flexible Conductor Wires
- Heat Resistant Panel Wires

HAVELLS

Introduction

Havells India Ltd is a billion-dollar-plus organization, and is one of the largest & India's fastest growing electrical and power distribution equipment manufacturer with products ranging from Industrial & Domestic Circuit Protection Switchgear, Cables & Wires, Energy Meters, Motors, Fans, Power Capacitors, CFL Lamps, Luminaires for Domestic, Commercial & Industrial applications, Modular Switches, & Bathfittings covering the entire gamut of household, commercial and industrial electrical needs.

Havells owns some of the prestigious global brands like Crabtree, Sylvania, Concord, Luminance, Linolite, & SLI Lighting.

PVC Insulated Industrial Cable

The Cable Division

Set up in the year 1996, Havells Cables plant (an ISO: 9001-2000 certified unit) is located in Alwar, in the state of Rajasthan, India. Since inception, Havells has invested heavily in the manufacturing infrastructure, which has today become one of the largest in India. All wires & cables are manufactured on most modern laser controlled automatic machines, using best raw material from primary manufacturers ensuring perfect quality.

Innovation is the hallmark of every vital development at Havells. Keeping this philosophy in mind, the company has invested in R&D to make sure that the clients get the advantage of latest technological developments. Through these innovations, we have been able to develop special insulating compounds & provide our clients the safest house wiring cables. For us safety of our clients will always be our prime concerns.

Conductor: All the core of Havells Cable is electrolytic copper conductor with 99.97-99.99% purity and greater than 100% conductivity as per IACS (International Annealed Copper Standard), fully annealed to impart the desired softness / pliability in Class I conductor and extra flexibility in class 2 and 5 conductors are stranded / bunched into a compact, cohesive and uniform conductor.

Insulation: The PVC Insulation is an in-house made specially formulated proprietary compound that has high insulation resistance, thermal stability and exceptional fire retardant properties, suitable for installation in environs of high ambient temperature and adverse condition. The insulation is applied on a state-of-the-art PLC based fully automatic insulating line that ensures correct diameter / thickness and concentricity, further enhancing the reliability and longevity of the cable.

Laying Up: The required number of cores in specified colours, are laid up with proper lay and optimum tension to form an assembled cable that retains the circular shape and does not allow the cores to open or twist out of shape during further processing. The laying up is carried out in an imported machine which applies uniform tension on all the cores resulting in a compact round assemble, correct laid up diameter, essential for maintaining uniform sheath thickness.

Sheath: It is provided to protect the insulated cores from mechanical damage. The sheathing compound is again in-house specially formulated FR compound which combines superior mechanical strength and desired flexibility to withstand rigorous use involving impact and abrasion. It is easily separable from cores.

SINGLE CORE PVC INSULATED NON-SHEATHED CABLE WITH
COPPER CONDUCTORS, 450/750 V DC, 600/1000 VAC CONFORMING TO BS 6004
Cable with Solid Single Conductor – Class 1Harmonised Code H07V-U

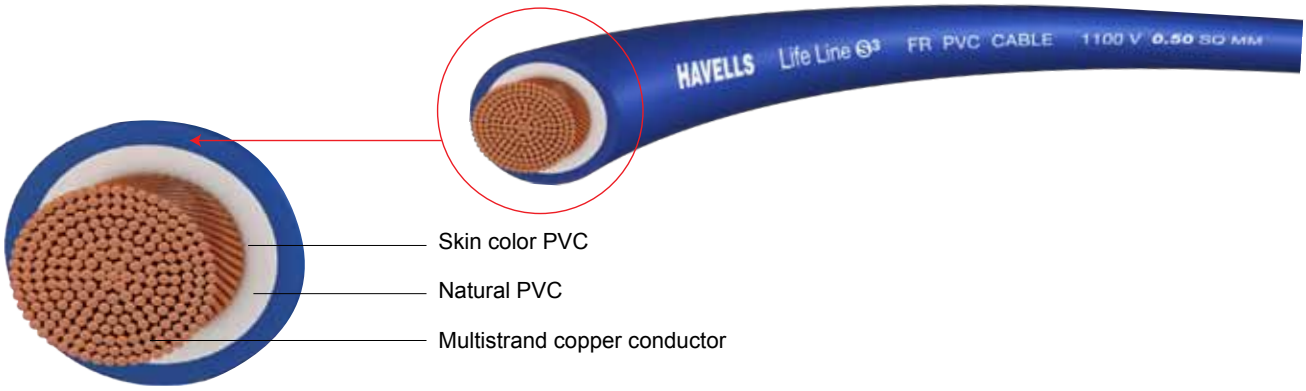
Product code	Nom cross Sectional area of conductor sq mm	Conductor Construction nos./Dia. mm	Nom Radial Thickness of Insulation mm	Max mean O/all Dia mm	Max DC Resistance at 20°C Ohm/km	Min insulation resistance at 70 °C M Ohm - km
	0.5	1/0.80*	0.6	2.3	36.0	0.015
	0.75	1/0.97*	0.6	2.5	24.5	0.012
	1	1/1.13*	0.6	2.7	18.1	0.011
	1.5	1/1.38	0.7	3.2	12.1	0.011
	2.5	1/1.78	0.8	3.9	7.41	0.010
	4	1/2.25	0.8	4.4	4.61	0.0085
	6	1/2.76	0.8	5.0	3.08	0.007
	10	1/3.57	1.0	6.4	1.83	0.007

* Harmonised code H05V-U for operation a: 300/500V, only for signalling or control circuits

Cable with stranded conductor – class Harmonised code H07V-R (450/750 V)

Product code	Nom cross Sectional area of conductor sq mm	Conductor Construction nos./Dia. mm	Nom Radial Thickness of Insulation mm	Max mean O/all Dia mm	Max DC Resistance at 20°C Ohm/km	Min insulation resistance at 70 °C M Ohm - km
	0.5	7/0.30*	0.6	2.3	36.0	0.015
	0.75	7/0.37*	0.6	2.5	24.5	0.012
	1	7/0.44*	0.6	2.7	18.1	0.011
	1.5	7/0.53	0.7	3.3	12.1	0.010
	2.5	7/0.67	0.8	4.0	7.41	0.009
	4	7/0.85	0.8	4.6	4.61	0.0077
	6	7/1.04	0.8	5.2	3.08	0.0065
	10	7/1.35	1.0	6.7	1.83	0.0065
	16	7/1.70	1.0	7.8	1.15	0.0050
	25	7/2.14	1.2	9.7	0.727	0.0050
	35	7/2.52	1.2	10.9	0.524	0.0043
	50	19/1.78	1.4	12.8	0.387	0.0043
	70	19/2.14	1.4	14.6	0.268	0.0035
	95	19/2.52	1.6	17.1	0.193	0.0035
	120	37/2.03	1.6	18.8	0.153	0.0032
	150	37/2.25	1.6	20.9	0.124	0.0032

* Not covered under HO 7V-R



Cable with Flexible conductor – class 5 Harmonised code H07V-K

Product code	Nom cross Sectional area of conductor sq mm	Conductor Construction nos./Dia. mm	Nom Radial Thickness of Insulation mm	Max mean O/all Dia mm	Max DC Resistance at 20°C Ohm/km	Min insulation resistance at 70 °C M Ohm - km
	0.5	16/0.2*	0.6	2.3	39.0	0.015
	0.75	24/0.2*	0.6	2.5	26.0	0.012
	1	32/0.2*	0.6	2.7	19.5	0.011
	1.5	30/0.25	0.7	3.4	13.3	0.010
	2.5	50/0.25	0.8	4.1	7.98	0.009
	4	56/0.3	0.8	4.8	4.95	0.007
	6	84/0.3	0.8	5.3	3.3	0.006
	10	80/0.4	1.0	6.8	1.91	0.0056
	16	126/0.4	1.0	8.1	1.21	0.0046
	25	196/0.4	1.2	10.2	0.78	0.0044
	35	276/0.4	1.2	11.7	0.554	0.0038
	50	395/0.4	1.4	13.9	0.386	0.0037
	70	360/0.5	1.4	16.0	0.272	0.0032
	95	475/0.5	1.6	18.2	0.206	0.0032
	120	608/0.5	1.6	20.2	0.161	0.0029
	150	750/0.5	1.8	22.5	0.129	0.0029

* As per BS 6500 Harmonised code HO57V-K

HAVELLS 600/1000 VOLT HR PVC INSULATED FLEXIBLE WIRE AS PER BS 6231

Conductors

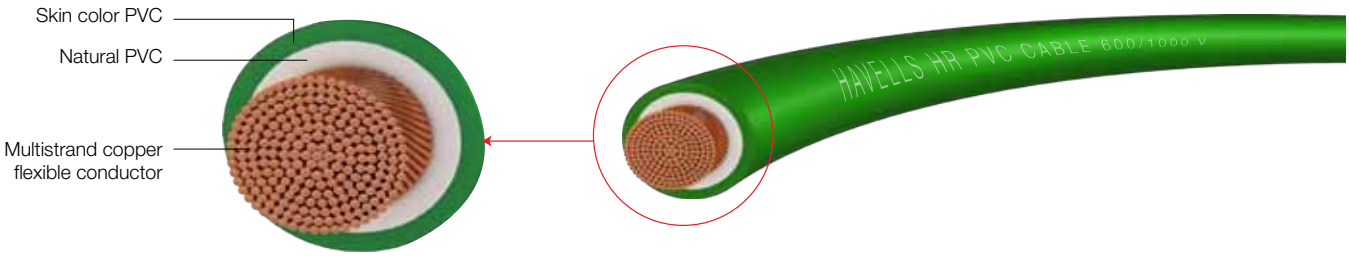
- Plain annealed copper conductor, high conductivity
- 0.50mm² to 150mm² flexible copper complying with BS6360 Class 5.

Insulation

- PVC insulation complying with BS7655 requirements for type T13, Suitable for operation - 15°C to 105°C Core Identification
- RED, BLACK, BLUE, YELLOW, YELLOW/GREEN Colour or other colours available on request.

Harmonized Code Designation

- Upto 1.00mm² flexible wire — H05V2-K
- From 1.5mm² to 300mm² flexible wire — H07V-K



Nominal Cross Section - sq. mm	Conductor Construction nos./ Dia. - mm	DC Resistance at 20°C - Ohm/Km	Approx. Net Weight - Kg/Km	Nominal Insulation Thickness - mm	Approx Overall Daimeter - mm	Current Carrying Capacity - Amp.
0.5	16/0.2*	39	9	0.8	2.4	8.00
0.75	24/0.2*	26	12	0.8	2.6	10.00
1	32/0.2*	19.5	15	0.8	2.8	14.00
1.5	30/0.25	13.3	21	0.8	3.1	18.00
2.5	50/0.25	7.98	33	0.8	3.6	24.00
4	56/0.3	4.95	49	0.8	4.1	32.00
6	84/0.3	3.3	69	0.8	5.1	42.00
10	80/0.4	1.91	116	1.0	6.8	55.00
16	126/0.4	1.21	181	1.0	8.0	75.00
25	196/0.4	0.78	279	1.2	9.6	100.00
35	276/0.4	0.554	381	1.2	10.8	125.00
50	395/0.4	0.386	544	1.4	12.5	165.00
70	360/0.5	0.272	753	1.4	15.0	240.00
95	475/0.5	0.206	993	1.6	17.5	300.00
120	608/0.5	0.161	1221	1.6	19.5	325.00
150	750/0.5	0.129	1450	1.8	21.5	352.00

ZHWMC00003/FEB15

PACKING

Coils in 100 yards (91.4 m) for size up to 16 mm²
Other lengths are available upon customer request.

Havells India Ltd.
QRG Towers, 2D, Sector -126, Expressway, Noida - 201 304 (UP), Ph. +91-120-3331000,
E-mail: marketing@havells.com, www.havells.com
Consumer Care No.: 1800 11 0303 (Tollfree), 011-4166 0303 (Landline)