



wires & cables

Catalogue 2012

CORPORATE INFORMATION



From an enterprise formed in 1958 by a young group of technocrats, Eon Electric has grown into a multi-product, multi-location company specializing in manufacturing and marketing a wide range of high-tech electrical products used for distribution, protection, control and conservation of electrical energy group of companies, manufacturing and marketing a wide range of electrical equipment. The superior quality of these products has earned them the respect of the Indian market and the world over.

The foundation of the company's growth over the last 50 years is a deep understanding of economic stimuli and customer needs, and the

ability to translate them into customer desired offerings through leading edge R&D team, highly qualified technical managers and strong workforce of quality conscious, superbly trained personnel. We believe in technology for tomorrow & our products stand testimony to this. Eon Electric is all set to scale new heights of growth, excellence and worldwide acceptance. Eon Electric owes its leading position in the Indian Electrical Industry to its strong focus on indigenization. This focus has driven the Company to set up world-class manufacturing units with state-of-the-art technology. Every stage of product evolution-design, development, manufacturing, assembly and quality control, is carried out meticulously. Our manufacturing plants are situated at Haridwar & Noida are producing world class Fans, Modular Switches, Wires & Cables, Lighting & Luminaries, Mobile Accessories, other energy saving solutions.

"At Eon Electric, our single-minded dedication towards building better electrical control and protection equipment is a vindication of this

commitment. By providing technologically better and environment-friendly products, we contribute our mite to build a prosperous and productive human society; safe and secure in it's highly protective use of electrical power for betterment of lives."

**EON (Indo Asian) Plain Copper Conductor, FR/FRLS-H PVC Insulated (Unsheathed)
Single Core Flexible Industrial Cables, 1100 Voltage Grade**

Table No.-1

Nominal Cross Sectional area of conductor	Number / Nom. Dia of cond. stands*	Thickness of Insulation (Nom)	Approx Overall Diameter	Current Carrying Capacity 2 Cables Single Phase		Max. Conductor Resistance per KM at 20°C
				Conduit / Trunking	Unenclosed clipped directly to a surface or on cable trays	
34 mm ²	mm	mm	mm	Amps	Amps	Ohms
0.75	24/0.2	0.6	2.5	8	10	26
1.0	14/0.3	0.7	2.7	13	14	18.1
1.5	22/0.3	0.7	2.9	16	19	12.1
2.5	36/0.3	0.8	3.6	22	26	7.41
4.0	56/0.3	0.8	4.1	29	35	4.95
6.0	84/0.3	0.8	4.7	37	44	3.30

Note : 90 meters length in carton packaging & 180 meters project lengths in polywrap packaging

*Conductor Shall be class-II for 1.0, 1.5 & 2.5 Sq mm & for other size shall be of class V as per IS:8130.

The number and diameter of conductor strands are for reference only.
Conductor resistance as per IS:8130 is the governing criteria.

Construction:-

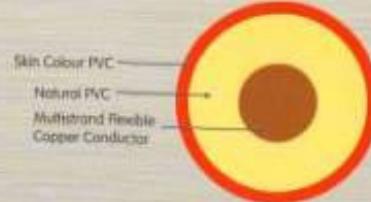
Conductor : Plain annealed copper conductor as per IS:8130

Insulation : Primary-Natural PVC with FR / FRLS-H property

Secondary : Skin colour coated PVC with FR / FRLS-H property

Colour : Red / Yellow / Blue / Black / Green

Any other colour on specific request can also be supplied.



**EON (Indo Asian) Plain Copper Conductor, FR/FRLS-H PVC Insulated (Unsheathed)
Single Core Flexible Industrial Cables, 1100 Voltage Grade**

Table No.-2

Nominal Cross Sectional area of conductor	Number / Nom. Dia of cond. stands*	Thickness of Insulation (Nom)	Approx Overall Diameter	Current Carrying Capacity 2 Cables Single Phase		Max. Conductor Resistance per KM at 20°C
				sq. mm	mm	
0.5	16/0.2	0.6	2.2	4	4	39.00
0.75	24/0.2	0.6	2.5	8	10	26.00
1.0	32/0.2	0.7	2.7	13	14	19.5
1.5	30/0.25	0.7	2.9	16	19	13.3
2.5	50/0.25	0.8	3.6	21	26	7.98
4.0	56/0.3	0.8	4.1	29	35	4.95
6.0	84/0.3	0.8	4.7	37	44	3.30
10	140/0.3	1.0	6.10	50	61	1.91
16	227/0.3	1.0	7.40	68	82	1.21
25	196/0.4	1.2	9.10	85	103	0.780
35	276/0.4	1.2	10.30	108	132	0.554
50	396/0.5	1.4	12.20	144	174	0.386
70	360/0.5	1.4	14.10		256	0.272
95	457/0.5	1.6	16.40		304	0.206
120	608/0.5	1.6	18.00		359	0.161
150	750/0.5	1.8	20.10		406	0.129
185	925/0.5	2.0	22.30		466	0.106
240	1221/0.5	2.2	25.20		550	0.0801

Note : *Conductor as per class V as per IS:8130

The number and diameter of conductor strands are for reference only

Conductor resistance as per IS:8130 is the governing criteria.

Construction:-

Conductor : Plain annealed copper conductor as per IS:8130

Insulation : Primary-Natural PVC with FR / FRLS-H property

Secondary : Skin colour coated PVC with FR / FRLS-H property

Colour : Red / Yellow / Blue / Black / Green

Any other colour on specific request can also be supplied.

Note : Conductor as per class V Supplied in 100 meters length as per IS:694 & in bigger packing on request with 5% length tolerance.

The number and diameter of conductor strands are for reference only

Conductor resistance as per IS:8130 is the governing criteria.



**EON (Indo Asian) Plain Copper Conductor, PVC Insulated and PVC Sheathed
Multicore Flexible Industrial Cables, 1100 Voltage Grade**

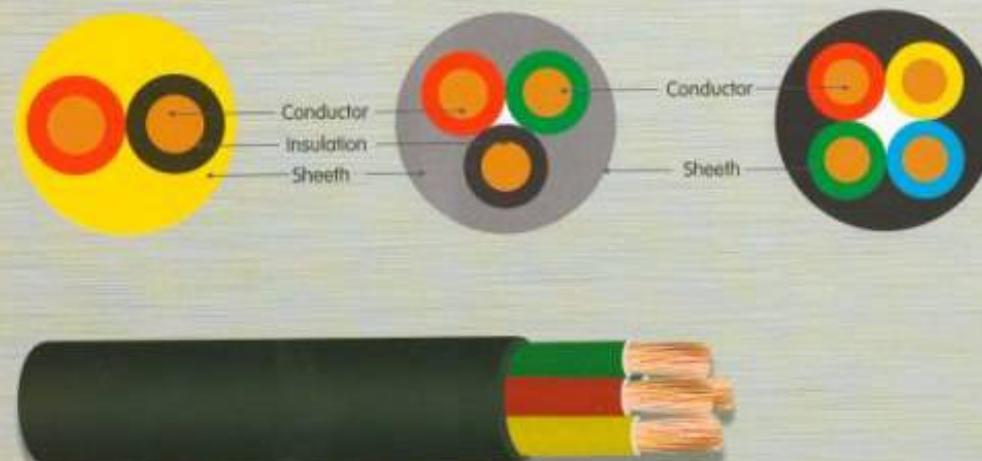
Table No.-3

Nominal Cross Sectional Area of Conductor	Number Nom. Dia of cond. Strands*	Thickness of insulation (Nom)	Nominal Thickness of Sheath			Approx Overall Diameter			Current Rating AC	Voltage Drop/Amp/Meter		Max. Conductor Resistance per KM at 20°C
			Two Core	Three Core	Four Core	Two Core	Three Core	Four Core		DC or Single Phase AC	3 Phase AC	
			sq. mm	mm	mm	mm	mm	mm		Amps	mV	Ohms
0.5	16/0.20	0.6	0.9	0.9	0.9	6.2	6.6	7.2	5	83	72	39.0
0.75	24/0.20	0.6	0.9	0.9	0.9	6.5	6.9	7.6	8	56	48	26.0
1.0	32/0.20	0.6	0.9	0.9	0.9	6.9	7.3	8.2	13	43	37	19.5
1.5	30/0.25	0.6	0.9	0.9	0.9	7.6	8.2	9.3	18	31	26	13.3
2.5	50/0.25	0.7	1.0	1.0	1.0	9.0	9.6	10.5	24	18	16	7.98
4.0	56/0.30	0.8	1.0	1.0	1.0	10.3	10.9	12.3	31	11	9.6	4.95

Note: Available in 100 meters length with black outer sheath & in bigger packing on request. Any colour on specific request can be supplied, in economical run.

* The number and diameter of conductor strands are for reference only. Conductor resistance as per IS:8130 is the governing criteria.

** Conductor for all size shall be of class V as per IS:8130



EON (Indo Asian) Three Core Flat PVC Insulated Flexible Industrial Cable for Submersible use, 1100 Voltage Grade

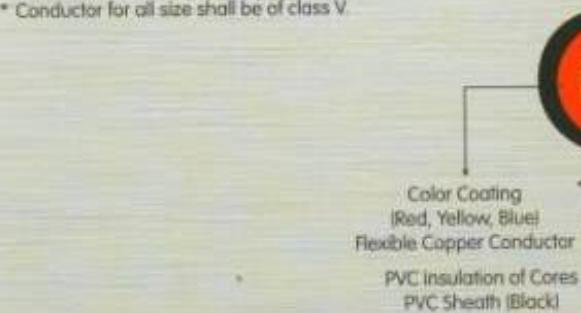
Table No.-4

Nominal Area of Conductor	Insulation			Sheath Approx Overall Dimensions		Max. Conductor resistance at 20°C (Max.)	Current Carrying Capacity at 40°C
	* Number/Size of Wire for each Core	Thickness (Nom.)	Core dia Aprox. (Nom.)	Width W (Nom.)	Thickness T (Nom.)		
sq. mm	mm	mm	mm	mm	mm	Ohm/km	Amps
1.50	30/0.25	0.6	2.9	10.4	4.8	13.3	14
2.50	50/0.25	0.7	3.6	12.8	5.7	7.89	18
4.00	56/0.30	0.8	4.1	15.0	6.5	4.95	26
6.00	84/0.30	0.8	4.7	16.8	7.2	3.30	31
10.00	140/0.30	1.0	6.10	21.0	8.8	1.91	42
16.00	227/0.3	1.0	7.4	24.3	10.0	1.21	57

Note: Conductor as per class V. Available in 500 ± 5% meters packing on drums. Also available in 100 meters packing on request.

* The number and diameter of conductor strands are for reference only. Conductor resistance as per IS:8130 is the governing criteria.

** Conductor for all size shall be of class V.





EON (Indo Asian) FRLS-H Insulated Cables (Flame Retardant - Low smoke & Halogen)

FRLS-H Flexible cables are recommended for use in places with high human concentration like high rise buildings, Offices, Shopping malls, hospitals etc.

EON (Indo Asian) FRLS-H insulated cables

are made from specially formulated PVC Polymers that restrict

the toxic gases and smoke as they are self extinguishing and do not allow the fire to spread.

EON (Indo Asian) Zero Halogen Flame Retardant cables are the final word in safety.

These cables are manufactured using a special polymeric compound which is practically free of Halogen content. ZHFR cables are highly recommended for place like: shopping malls, offices, cinema halls etc.

An oxygen mask helping people trapped in fire breathe.

Non Toxic - Research shows that maximum number of casualties in fire happen due to chocking caused by generation of smoke and gases. PVC Flame Retardant Low Smoke and Halogen cables release lesser toxic gases compared to ordinary PVC cables. Smoke generation in case of FRLS-H cables is <20% in this aspect. ZHFR cables are 10 times more superior to FRLS-H cables as they contain practically 0% halogens & therefore in case of fire release of hazardous gases is <2%. This ensures that people trapped in fire can breathe



easy facilitating better chances of their rescue.

Save the environment

Every day thousands of tonnes of hazardous halogen gases are released in the environment resulting in depletion of the earth's ozone layer (which protects us from cancer causing UV radiations of the sun) a phenomenon popularly known as green house effect. Eon ZHFR insulated industrial cables contain practically 0% halogens and therefore are environment friendly. So when you sell / buy these cables you are not only protect your near's and dear's but also future generations against the Green House Effect.

Some comparative technical features are given in the details below :

S No	Feature	Standard Range Flame Retardant FR	Flame Retardant Low Smoke & Halogen FRLS-H	Low Smoke ZHFR
1	Insulation material	Spl. PVC	Spl. PVC	Spl. Polymer
2	Insulation Property	Good	Good	Very Good
3	Temperature Rating	70° C	70° C	70° C
4	Thermal Stability	Good	Good	Very Good
5	Flame Retardancy	Very Good	Very Good	Excellent
6	Safety During Burning	Good	Good	Excellent
7	Requirement of critical oxygen index as per ASTMD-2863 to catch the fire (%)	>29	>29	>35
8	Temperature Index	>250° C	>250° C	>280° C
9	Light Transmission (Visibility) during burning as per ASTMD-2843 Burning (%)	NA ---	NA Good	>80% Excellent
10	Release of Halogen Gas During Burning (%)	NA ---	<20% Good	<2% Excellent
11	Abrasion Resistance During Installation	Good	Good	Good



EON (Indo Asian) TELEPHONE SWITCH BOARD CABLE

Application

Cable used for Indoor Telephones, Telephone Exchanges, Satellite Telecommunication Systems, Industrial Plant Communication Systems, EPBAX Systems, Closed Circuit Security Systems, In-House Telephone wiring and various other equipments involving telephones.

Standard

Cables are generally made as per TEC Specification No. G/WIR-06/02 or as per customer specification.

Construction

Solid annealed tinned/bare copper conductor, PVC insulated cores suitably color coded for distinct identification, twisted to form pairs, pairs laid up, PVC sheathed. Armoured Cables are provided with Galvanised steel wire/strip armouring and then sheathed again with PVC.

Design / Material Options

Conductor	Tinned copper/Bare Copper
Insulation	PVC/PVC/Polythelene
Shielding	Over all shielded / individual pair shielded and over all shielded with polyester backed aluminium tape or fine copper wire braid (Manufactured against customer's orders only for economical runs.)
Sheathing	FRPVC / FRLSH / Polythelene
Conductor size Cable	0.4/0.5/0.6/0.7/0.8/0.9 mm
Configuration	1p, 2p, 3p, 4p, 5p, 10p, 20p

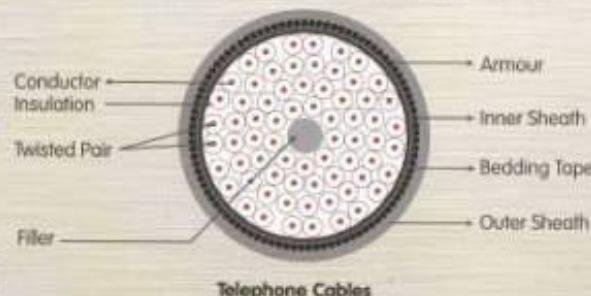
Note: Supplied in 90 meters length carton except 3 pairs and above polywrap coils.

Buyers

BSNL, C.Dot, Switching equipment manufacturers, contractors of BSNL and G.OOT, every industrial and commercial establishment, construction industry and many more beside the general dealer market.

Silent Features for Telephone Cable

- Hard grade PVC insulation is used for long life and stable properties of cables.
- Staggered lays of twisted pairs are used to insure minimum cross talk.
- Sizing and processing of conductor and insulated cores is done in precisely controlled manner on automatic modern machines to have optimum values of capacitance, capacitance unbalance, image and cross talk attenuation and characteristic impedance.
- Shielding is done to protect from outside / inter pair interference as per specific needs.



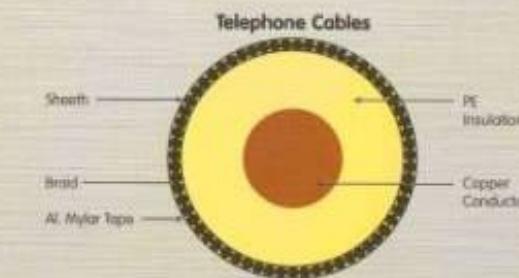
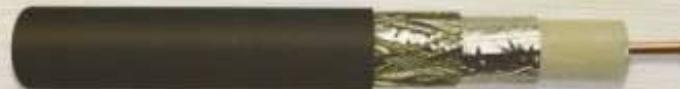
EON (Indo Asian) CO-AXIAL TV CABLES

Application

Used in cables TV operations, Computer Net-Working etc.

Construction

Solid annealed bars copper conductor polythelene insulated shielded with polyester backed aluminium tape and additional shielding with fine aluminium braid protected with polyester tape wrapping and sheathed with PVC.



Technical Data

S.No.	Type	
1	Size	RG-59, RG-6, RG-11
2	Inner Conductor	Solid Copper
3	Insulation	Gas Injected Physical Foamed Polythylene
4	Outer Conductor	Bonded Polyaluminum Tape, Braided with Aluminum Alloy Wire
5	Outer Jacket	UV Resistant PVC Jacket
6	Making	Progressive Sequential Length Marking on Every Meter



EON (Indo Asian) CO-AXIAL TV CABLES

Electrical Parameter

S.No.	Type	RG-11 Foam	RG-6 Foam	RG-59 Foam
1	Inner Conductor-			
2	Max. Resistance (phm/km) @ 20 degree C	0.84	2.13	3.55
	Inner Conductor-			
	Loop Resistance (phm/km) @20 degree C	1.66	2.78	4.64
3	Nom. Capacitance (pF/mtr.)	53	53	53
4	Nom. Impedance (phm)	75	75	75
5	Nom. Velocity ratio (%)	85	85	85
6	Nom. Attenuation @ 25 degree (db/100m)			
	@ 55 Mhz	2.82	1.95	6.73
	@ 83 Mhz	3.87	6.20	8.04
	@ 117 Mhz	5.74	9.15	11.81
	@ 211 Mhz	6.23	9.50	12.47
	@ 250 Mhz	6.72	10.50	13.45
	@ 300 Mhz	7.38	11.50	14.60
	@ 350 Mhz	7.94	12.45	15.71
	@ 400 Mhz	8.53	13.30	16.73
	@ 450 Mhz	9.02	14.35	17.72
	@ 500 Mhz	9.51	14.95	18.70
	@ 550 Mhz	9.92	15.70	19.52
	Structural Return Loss (db/100m)			
	From 30 to 300 Mhz	>26	>28	>30
7.	From 300 to 550 Mhz	>24	>22	>24
	Bending Radius, min (mm)	75	65	65

Construction Parameters

S.No.	Type Foam	RG-11 Foam	RG-6 Foam	RG-59 Foam
1	Inner Conductor	Solid Bare Copper	Solid Bare Copper	Solid Bare Copper
2	Nom. Diameter (mm)	1.63	1.02	0.80
3	Dielectric	Foam PE	Foam PE	Foam PE
4	Nom. Diameter (mm)	7.11	4.57	3.55
5	Outer Conductor - First	Bonded AL Tape	Bonded AL Tape	Bonded AL Tape
6	Outer Conductor - second	AL Braid	AL Braid	AL Braid
7	Nom. Coverage (%)	60	60	60
8	Jacket	PVC (Black)	PVC (Black)	PVC (Black)
9	Nom. Diameter (mm)	10.00	7.00	6.20

Note: Supplied in 90 meters & 305 meters project packaging.

Our Network



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