

Flexible Cables



Single Core and Multi Core
Flexible Cables



Single Core Flexible Cables

Single Core PVC Insulated
(Unsheathed) Flexible Cables
as per IS 694



"Garutmaan" Single Core PVC insulated, unsheathed flexible cables, conforming to IS 694, are manufactured using high conductivity, electrolytic grade, bright, plain annealed copper conductors. These cables are available with different types of PVC insulation. Accordingly, different insulation characteristics can be provided as below :

GP : General Purpose (70 °C)
HR : Heat Resisting (85 °C or higher)
FR : Flame Retardant
HR FR : Heat Resisting and Flame Retardant
FRLS : Flame Retardant and Low Smoke

HR type cables are suitable for use at higher temperatures, thereby improving the current rating. FR and FRLS type cables prevent the spread of fire and are frequently used in fire-sensitive or cramped areas.

Single core cables are manufactured in sizes ranging from 0.5 to 95 mm².

Technical Data :

Type	: Single Core Flexible Cable
Conductor	: Plain Annealed Flexible Copper (Class 5), as per IS 8130
Insulation	: PVC Type A / Type D, as per IS 5831
Ref. Specifications	: IS 694
Cable Range	: 0.5 mm ² to 95.0 mm ²
Working Voltage	: Up to 1100 V
Application	: The cables are commonly used for electrical panel switch boards. These cables are also used for wiring in control panels, machines and various electrical installations in small, medium and large industries.
Normal Packing Length	: In 100 m coils. Longer lengths can be made available on request.
Standard Colors	: Red, Black, Yellow, Blue, White, Grey, Yellow/Green or as per customer's need.

The standard cables are provided with the IS 694 mark and the CE mark. These cables comply with RoHS directive.

ZHFR Insulation can be provided if required.

Garutmaan Item Code	Nominal Area of Copper Conductor	Number / Dia. of strands (Nom.)	Thickness of Insulation (Nom.)	Overall Diameter (Approx.)	Current Carrying Capacity	Conductor Resistance @20°C (Max.)	Approx. Weight
	mm ²	mm	mm	mm	Amps.	Ω/km	kg/km
SCFRISC0201001	0.50	16/0.2	0.6	2.1	5	39.0	9
SCFRISC0201002	0.75	24/0.2	0.6	2.4	8	26.0	12
SCFRISC0201003	1.0	32/0.2	0.6	2.5	12	19.5	14
SCFRISC0201004	1.5	30/0.25	0.6	2.8	16	13.3	19
SCFRISC0201005	2.5	50/0.25	0.7	3.5	20	7.98	30
SCFRISC0201006	4	56/0.3	0.8	4.2	27	4.95	48
SCFRISC0201007	6	84/0.3	0.8	4.9	35	3.30	69
SCFRISC0201008	10	140/0.3	1.0	6.2	46	1.91	111
SCFRISC0201009	16	126/0.4	1.0	7.3	62	1.21	167
SCFRISC0201010	25	196/0.4	1.2	9.1	80	0.780	263
SCFRISC0201011	35	276/0.4	1.2	10.3	102	0.554	361
SCFRISC0201012	50	396/0.4	1.4	12.4	138	0.386	514
SCFRISC0201013	70	360/0.5	1.4	14.2	216	0.272	719
SCFRISC0201014	95	475/0.5	1.6	16.5	262	0.206	961

Note:

The above data is indicative, and may be revised without prior notice, as a part of ongoing development activities and continual improvement efforts. The conductor construction (number of wires & strand diameter) may be revised, but will satisfy the requirements of IS 8130.

Multicore Flexible Cables

Multicore PVC Insulated and
Sheathed (Round) Flexible
Cables as per IS 694



Technical Data :

Type	: Multi Core Flexible Cable
Conductor	: Plain Annealed Flexible Copper (Class 5), as per IS 8130
Insulation	: PVC Type A / Type D, as per IS 5831
Assembly	: Cores twisted together, in the form of a round assembly. Fillers are used if necessary.
Sheath	: PVC Type ST1 / Type ST3, as per IS 5831
Ref. Specifications	: IS 694
Cable Range	: 0.5 mm ² to 4.0 mm ² in 2 to 5 cores
Working Voltage	: Up to 1100 V
Application	: The cables are used to supply electricity to machines, motors, industrial equipment and to domestic appliances.

"Garutmaan" PVC insulated and sheathed multicore (round) flexible cables, conforming to IS 694, are manufactured using high conductivity, electrolytic grade, bright, plain annealed copper conductors.

These cables are manufactured from 2 core up to 5 core construction, in sizes ranging from 0.5 mm² to 4 mm².

Higher sizes can also be supplied on customer demand. Multicore flexible cables can be supplied with GP, HR, FR or FRLS insulation and sheath as required.

The standard cables are provided with the IS 694 mark and the CE mark. These cables comply with RoHS directive.

ZHFR insulation and sheath can also be provided if required.

Nominal Area of Copper Conductor	Number/Dia. of strands (Nom)	Thickness of Insulation (Nom)	Conductor Resistance @20°C (Max.)	Sheath Thickness (Nom)				Overall Diameter (Approx.)			
				2 Core mm	3 Core mm	4 Core mm	5 Core mm	2 Core mm	3 Core mm	4 Core mm	5 Core mm
Sq.mm.	mm	mm	Ω/km								
0.50	16/0.2	0.6	39.0	0.9	0.9	0.9	0.9	6.3	6.6	7.2	8.0
0.75	24/0.2	0.6	26.0	0.9	0.9	0.9	0.9	6.8	7.2	7.8	8.6
1.0	32/0.2	0.6	19.5	0.9	0.9	0.9	1.0	7.1	7.5	8.1	9.1
1.5	30/0.25	0.6	13.3	0.9	0.9	1.0	1.0	7.7	8.2	9.1	10.1
2.5	50/0.25	0.7	7.98	1.0	1.0	1.0	1.0	9.2	9.8	10.7	12.0
4.0	56/0.3	0.8	4.95	1.0	1.0	1.0	1.1	10.6	11.3	12.4	14.0
6.0	84/0.3	0.8	3.30	1.1	1.2	1.2	-	12.2	13.2	14.5	-
10.0	140/0.3	1.0	1.91	1.3	1.4	1.4	-	15.7	16.8	18.4	-
16.0	126/0.4	1.0	1.21	1.4	1.4	1.4	-	18.5	19.1	21.0	-

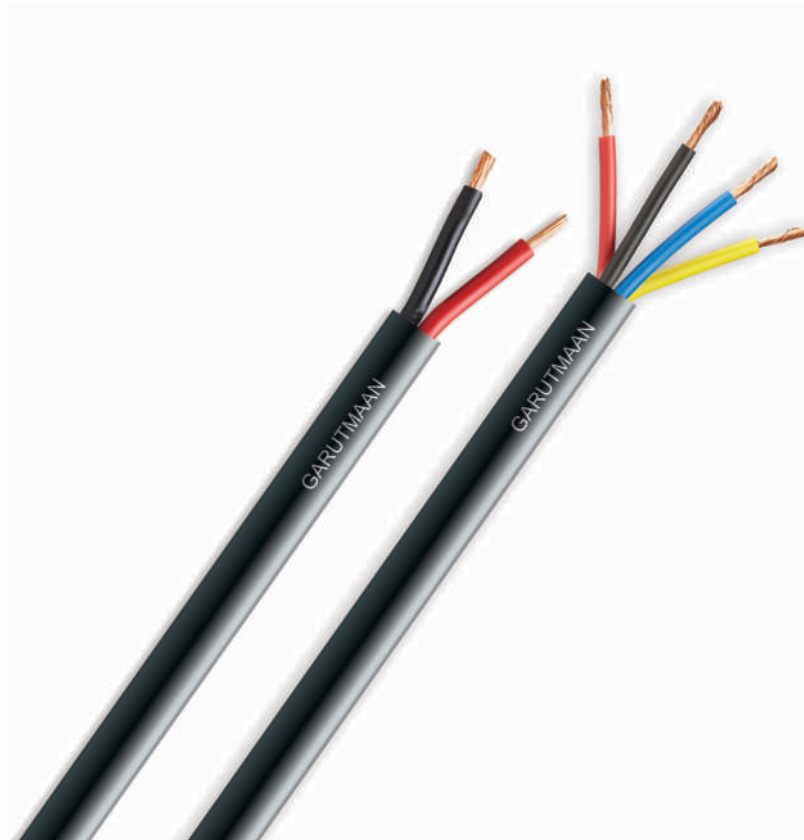
Cables in sizes up to 4 mm² can be supplied with up to 19 cores.

Note:

The above data is indicative, and may be revised without prior notice, as a part of ongoing development activities and continual improvement efforts. The conductor construction (number of wires & strand diameter) may be revised, but will satisfy the requirements of IS 8130.

Multicore Flexible Cables

Multicore PVC insulated and sheathed (round) flexible cables as per IS 694



Item Codes for Flexible Multicore Cables

Nominal Area of Copper Conductor mm ²	Garutmaan Item Code	Code for No. of Cores	Nominal Area of Copper Conductor mm ²	Garutmaan Item Code	Code for No. of Cores
0.50	MCGPISC02CC001	For 2 Cores, CC = 02	4.0	MCGPISC02CC006	-
0.75	MCGPISC02CC002	For 3 Cores, CC = 03	6.0	MCGPISC02CC007	-
1.0	MCGPISC02CC003	For 4 Cores, CC = 04	10.0	MCGPISC02CC008	-
1.5	MCGPISC02CC004	For 5 Cores, CC = 05	16.0	MCGPISC02CC009	-
2.5	MCGPISC02CC005	and so on			

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