

3 Core Flat Cables as per IS:694:1990 with ISI mark

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The strand diameter is nominal however, construction of conductor is design to satisfy the requirements of conductor resistance as per IS:8130:1984.

* As per conductor class 2 of IS:8130:1984

** As per conductor class 5 of IS:8130:1984

Conductor		Insul	ation		Sheath OverallDimension	ns	Conductor Resistance	Current	
Area (Nom.)	No. /size of	Thickness	Core Dia.	Thickness	Width .	Thickness	@20C (max.)	Carrying Capacity @ 40°C (Amp.)	
Sq. mm.	Wires mm	(Nom) mm.	(Nom) mm.	(Nom) mm.	Wimm	T mm	ohms / km.		
1.5	22/0.3	0.8	3.25	1.15	12.5	5.8	12.10	14	
2.5	36/0.3	0.9	3.90	1.15	14.4	6.3	7.41	18	
4.0	56/0.3	1.0	4.65	1.15	17.2	7.4	4.95	26	

3 Core Flat Cables generally conforming to IS:694:1990

Conductor		Insul	ation		Sheath OverallDimensio	ns	Conductor Resistance	Current		
Area (Nom.) Sq. mm.	No. /size of Wires mm	Thickness (Nom) mm.	Core Dia. (Nom) mm.	Thickness (Nom) mm.	Width Wimm	Thickness T mm	@20C (max.) ohms / km.	Carrying Capacity @ 40°C (Amp.)		
6.0	84/0.3	1.0	5.20	1.15	18.7	7.9	3.30	31		
10.0	140/0.3	1.0	6.60	1.40	23.7	9.9	1.91	42		
16.0	226/0.3	1.0	8.20	1.40	28.0	11.4	1.21	57		

Selection Guide For 3 Core Flat Cables

1) HP Vs Current

The full load current for submersible pump motors. 3 phase, 50 cycles, 415 ~ 425 V.

Нр	5.0	7.5	10.0	12.5	15.0	17.5	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0
Amp	7.5	11.0	14.9	18.9	22.5	25.2	28.4	35.6	42.3	50.4	58.1	62.1	67.5	73.8	81.0	87.3	93.6	100.80	108.0

2) Derating Factors

Multiply the current carrying capacity of the cable by factors given below for various ambient temperatures.

Ambient Temperature C	30	35	40	45	50	
Operating Factor	1.09	1.04	1.00	0.95	0.77	