

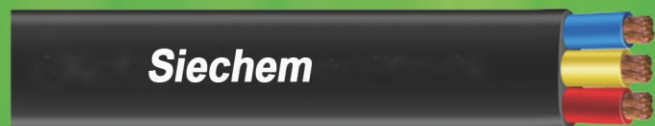
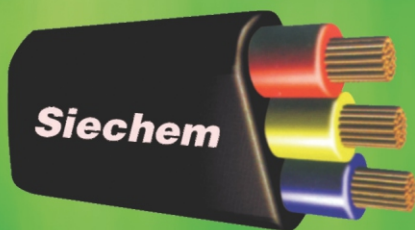
# **Siechem**

Wires & Cables



## **3 Core Flate /Round Submersible Cables & PVC Winding Wires**

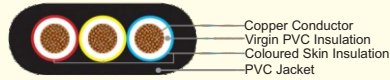
(For working voltages upto & including 1100 volts - as per IS 694 - 2010 and BS : 6004 - 1990)



# 3 Core Flat Cables For Submersible Pump Motors

Siechem Submersible cables perform under rough and tough field conditions. In house PVC compounds are formulated to meet the demanding operating conditions. The cores are laid up in Flat parallel mode and outer sheathed using PVC hard grade compound that are highly resistant to abrasion, water and oil.

The 3 cores will be of colour Red, Yellow and Blue.



Conductor		Insulation Thickness (Nom.) mm	Sheath Thickness (Nom.) mm	Overall Dimensions (Max.) (WxH) mm	Max. Conductor Resistance at 20°C Ω/Km	Current Carrying Capacity at 40°C Amps
Area (Nom.) Sq.mm	No. of wires / dia. of strands No./mm (Max.)					
1.5	30/0.26	0.6	0.9	12.0 x 5.6	13.3	14
2.5	50/0.26	0.7	1.0	13.0 x 6.2	7.98	19
4	56/0.31	0.8	1.0	15.3 x 7.1	4.95	26
6	84/0.31	0.8	1.1	19.2 x 8.4	3.30	30
10	80/0.41	1.0	1.4	24.2 x 10.4	1.91	39
16	126/0.41	1.0	1.4	29.0 x 12.4	1.21	55
25	196/0.41	1.2	2.0	36.5 x 15.7	0.780	60
35	276/0.41	1.2	2.0	40.5 x 17.2	0.554	77
50	396/0.41	1.4	2.2	46.5 x 19.3	0.386	102

Note : 3 Core x 70 sq.mm & 3 core x 95 sq.mm Flat Cables are available on request.

## Siechem - Special (as per IS : 694)

Conductor		Insulation Thickness (Nom.) mm	Sheath Thickness (Nom.) mm	Overall Dimensions (Approx.) (WxH) mm	Max. Conductor Resistance at 20°C Ω/Km	Current Carrying Capacity at 40°C Amps
Area (Nom.) Sq. mm	No. of wires / dia. of strands No./mm (Max.)					
1.5	22/0.3	0.8	1.1	12.4 x 6.0	12.1	14
2.5	36/0.3	0.9	1.2	14.8 x 7.0	7.41	19
4.0	56/0.3	1.0	1.2	17.0 x 8.0	4.95	26

Note : Insulation thickness, Sheath thickness and Overall dimensions given in the table are nominal values. The strand diameter is nominal. However, construction of the conductor is designed to satisfy the requirement of conductor resistance as per IS 8130 : 2013

## Selection Guide For 3 Core Flat Cables

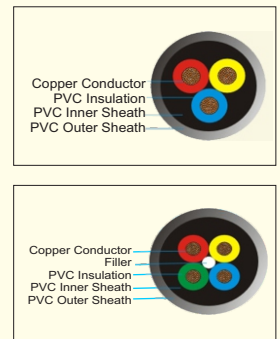
1)HP Vs Current : The full load current for submersible pump motors, 3 phase, 50 cycle, 415 - 425V. 2)Derating Factors : Multiply the current carrying capacity of the cable by factors given below for various ambient temperatures.

HP	5.0	7.5	10.0	12.5	15.5	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	Ambient Temperature (°C)	30	35	40	45	50
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	100.8	108.0	Rating Factor	1.09	1.04	1.00	0.95	0.88

## Double Sheathed Round Submersible Cables

Double sheathed round 3 core and 4 core cables are better suited for heavy duty applications like sewage, slurry and dewatering pumps. The operating conditions require the sheathing to be able to withstand abrasion, prevent ingress of water and be resistant to acidic fluids and chemicals

Conductor		Max. Conductor Resistance at 20°C Ohm/Km	Thickness of Insulation (Nom.) mm	Thickness of Inner Sheath (Nom.)		Thickness of Outer Sheath (Nom.)		Overall Diameter (Nom.)	
Area Sq.mm	No. of wires / dia. of strands No./mm (Max.)			3 Core mm	4 Core mm	3 Core mm	4 Core mm	3 Core mm	4 Core mm
1.5	30/0.26	13.3	0.6	1.0	1.0	1.2	1.2	10.8	12.0
2.5	50/0.26	7.98	0.7	1.0	1.0	1.2	1.2	13.2	13.8
4	56/0.31	4.95	0.8	1.0	1.0	1.2	1.4	14.2	15.2
6	84/0.31	3.30	0.8	1.0	1.0	1.4	1.4	16.5	18.5
10	140/0.31	1.91	1.0	1.0	1.0	1.4	1.4	19.1	22.0
16	126/0.41	1.21	1.0	1.0	1.0	1.4	1.4	23.0	25.0
25	196/0.41	0.780	1.2	1.0	1.0	1.6	1.6	27.0	30.0
35	276/0.41	0.554	1.2	1.0	1.0	2.0	2.0	30.5	32.8
50	396/0.41	0.386	1.4	1.0	1.0	2.2	2.2	35.5	38.5



5 Core Cables upto 4 sq.mm are also available on request. XLPE Insulated Cables are also available on request.

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