VIMAL

# PVC Flat Cables

An IS/ISO 9001 Company

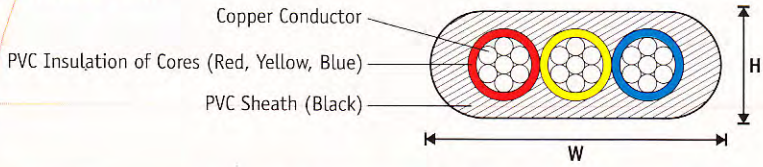
ISO 9001 REGISTERED
DNV
MGMT SYS
RvA C 024
DNV Certification B.V., The Netherlands

## THREE CORE FLAT CABLES FOR SUBMERSIBLE

For trouble free working, these connecting cables are just as important as winding wires are for the submersible pump motors. Vimal 3 Core Flat Cables are manufactured keeping in mind the severally difficult conditions in which they are required to operate. The individual flexible conductors are made from electrolytic grade bright copper. The wires are drawn, annealed and bunched properly to ensure long life. Each of these three flexible copper conductors is insulated with a specially formulated PVC compound and the cores are laid-up in Flat Parallel Position. The outer sheath of the cable is made from a special grade of abrasion resistant PVC compound impervious to water, grease oil and flexible in nature.

The PVC insulated copper conductor and PVC sheathed 3 Core Flat Cables are made similar to satisfy the requirements as per IS 694. Sequential meter marking is printed for users convenience to get correct length of cables. Vimal brand name and size of cable is embossed on the sheath.

## TECHNICAL DATA




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

| Conductor | | Insulation | Sheath | Overall Dimensions | | Conductor Resistance @20°C (max) ohms/km. | Current Carrying Capacity @40°C Amps |
|---|---|---|---|---|---|---|---|
| Area sq. mm. | No./Dia. of Strands mm | Thickness (Nom) mm | Thickness (Nom) mm | Width x Height (Approx) W x H mm Nom. | Max. | | |
| 1.5 | 22/0.30* | 0.60 | 0.90 | 11.0 x 5.0 | 11.5 x 5.4 | 12.10 | 14 |
| 2.5 | 36/0.30* | 0.70 | 1.00 | 13.0 x 5.8 | 14.0 x 6.4 | 7.41 | 18 |
| 4.0 | 56/0.30** | 0.80 | 1.00 | 15.6 x 6.8 | 16.5 x 7.2 | 4.95 | 26 |
| 6.0 | 84/0.30** | 0.80 | 1.10 | 17.1 x 7.3 | 18.0 x 8.0 | 3.3 | 31 |

**Note :**
The strand diameter is nominal.
However, construction of conductor is designed 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

IS : 694
CM/L-7183574

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

| Conductor | | Insulation | Sheath | Overall Dimensions | | Conductor Resistance @20°C (max) ohms/km. | Current Carrying Capacity @40°C Amps |
|---|---|---|---|---|---|---|---|
| Area sq. mm. | No./Dia. of Strands mm | Thickness (Nom) mm | Thickness (Nom) mm | Width (Approx) 'W' mm | Width (Approx) 'H' mm | | |
| 1.5 | 22/0.30 | 0.8 | 1.15 | 12.8 | 6.0 | 12.10 | 14 |
| 2.5 | 36/0.30 | 0.9 | 1.15 | 14.6 | 6.4 | 7.41 | 18 |
| 4.0 | 57/0.30 | 1.0 | 1.15 | 17.2 | 7.4 | 4.95 | 26 |
| 6.0 | 85/0.30 | 1.0 | 1.15 | 18.7 | 7.9 | 3.30 | 31 |
| 10.0 | 140/0.30 | 1.0 | 1.40 | 23.7 | 9.9 | 1.91 | 42 |
| 16.0 | 226/0.30 | 1.0 | 1.40 | 28.0 | 11.4 | 1.21 | 57 |
| 25.0 | 354/0.30 | 1.2 | 2.00 | 35.5 | 14.7 | 0.780 | 72 |
| 35.0 | 496/0.30 | 1.2 | 2.00 | 39.5 | 16.2 | 0.554 | 90 |

**Note :**
The number of wires and strand diameter will be such as to satisfy the requirements of conductor resistance as per IS 8130 : 1984

**Note :**
As per the international practice which is also adopted by BIS, the size of the conductor by its resistance only. The construction of the conductor mentioned in the literature are only for guidelines and are as per market convention. It may vary within the prescribed limit of IS : 8130-1984 with related classes and tables.

## SELECTION GUIDE FOR 3 CORE FLAT CABLES

**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 |
|---|---|---|---|---|---|
| Rating Factor | 1.09 | 1.04 | 1.00 | 0.95 | 0.77 |

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An IS/ISO 9001 Company

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Sample card available on request.

**Note**
In view of continuous improvements in our design and process, specifications given herein are subject to change without notice
All information is given in good faith. VIMAL shall not be liable for any damages arising out of incorrect use or interpretation

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