

SAFE • RELIABLE • EFFICIENT

Safety You Can Trust!



CE

ISO 9001: 2015 | ISO 14001: 2015 | ISO 45001: 2018





SAFE • RELIABLE • EFFICIENT

Welcome to KCW - Kalya Cables & Wires

Powering Safety, Ensuring Reliability

KCW: Where innovation meets safety and performance.

Built on a foundation of trust, quality, and excellence,
we manufacture high-performance cables and wires designed for
superior conductivity, fire resistance, and long lasting durability
making every connection safer and stronger.

With cutting-edge technology and stringent quality control, we ensure that every wire meets the highest industry standards.

Whether for homes, industries, or commercial spaces,

KCW promises efficiency, reliability, and a future-ready approach to power solutions.

KCW - The Wire You Can Trust.















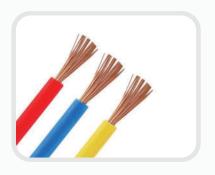






OUR PRODUCT RANGE

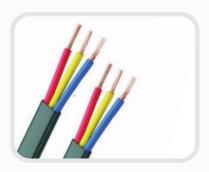




House Wire



Panel Wire



Flat 3 Core Cable



Round Multi-core Cable



Twin Twisted Cable



Twin Flat Aluminum Cable



Solar Cable



Cat 6 Cable



Instrumentation Cable



Speaker Cable



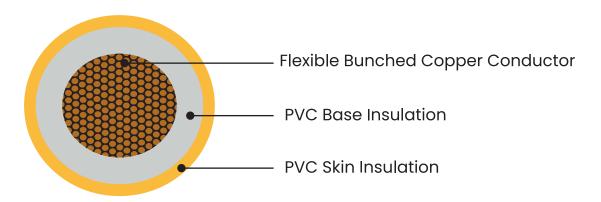
KCW - FR - LF 10 SQ MM 1100V IS : 694 🔄 CM/L

APPLICATION

KCW Single core FR-LF wire is environment friendly & suitable for use where high flexibility is of prime importance. This is also appropriate for indoor and outdoor installation in industries, household appliances, power supply for refrigerator & air conditions as well as building electrification.

CABLES DESIGNATION/TYPE

LF-FR



PRODUCT FEATURE

- Flame Retardant
- Smooth & glossy surface with enhanced lubrication properties
- High Insulation Resistance
- ROHS Complaint

DESIGN

- Plain annealed bunched circular copper conductor
- Insulation Flexible PVC compound

AVAILABLE COLORS



Red, Yellow, Blue, Black, Green



APPLICABLE STANDARD

IS 694 : 2010IEC 60332 - 1: 2004

ASTM 2863 : ASTM D2803 - 17 a

APPROVALS

IS 8130 : 2013 BIS

C€

CABLE CHARACTERISTICS

Nominal Voltage (UO/U) : 600/1100 V

Max Operating Temperature : 70°C

Temperature Range : -15C to +70°C
 Flame Resistance : ASTM D2863

Flammability : IEC 60332 - 1:2004

• Minimum Bending Radius : 8D

LF-FR

| Normal Area of Conductor SQ.MM. | Max Diameter Of each strand | Thickness of Insulation (Nom.) mm. | Approx. Overall Diameter mm. | Current Carrying Capacity Rating Amps. | Resistance (Max.) Per Km.@20 ⁰ Ohms |
|---------------------------------------|-----------------------------------|------------------------------------------|------------------------------------|----------------------------------------------------|---------------------------------------------------------|
| **0.75 | 24/0.20 | 0.6 | 2.5 | 7 | 26 |
| *1 | 14/0.30 | 0.7 | 2.8 | 12 | 18.1 |
| *1.5 | 22/0.30 | 0.7 | 3.1 | 16 | 12.1 |
| *2.5 | 36/0.30 | 0.8 | 3.8 | 22 | 7.41 |
| **4 | 56/0.30 | 0.8 | 4.4 | 29 | 4.95 |
| **6 | 84/0.30 | 0.8 | 5.2 | 37 | 3.3 |
| **10 | 80/0.40 | 1.0 | 5.8 | 51 | 1.91 |
| **16 | 126/0.40 | 1.0 | 6.8 | 68 | 1.21 |

^{*}Class 2 Conductor As Per IS 8130

THE ABOVE DATA & IMAGES ARE INDICATIVE AND MAY BE REVISED WITHOUT PRIOR INFORMATION.

"KCW" WILL NOT BE LIABLE FOR ANY DAMAGES ARISING OUT OF INCORRECT APPLICATION OF ITS PRODUCTS.

^{**}Class 5 Conductor As Per IS 8130



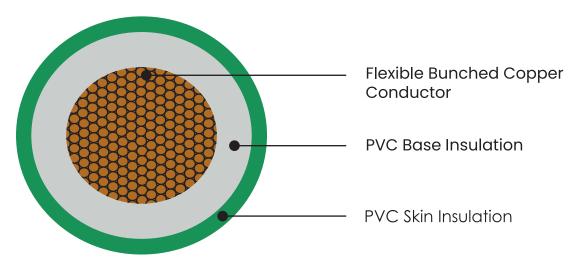
KCW - FR-LF-LSH 10 SQ MM 1100V IS: 694 @ CM/L

APPLICATIONS

KCW Single core FR-LSH unsheathed insulated wire is well suited for residential wiring, either through embedded conduit or on the surface of the wall. These wires have enhanced flame resistant properties and low smoke generation making it is appropriate for use in all high rise buildings, malls and hospitals.

CABLES DESIGNATION/TYPE

FR-LSH



PRODUCT FEATURE

- Flame Retardant
- Smooth & glossy surface with enhanced lubrication properties
- High Insulation Resistance
- ROHS Complaint

DESIGN

- Plain annealed bunched circular copper conductor
- Insulation: Flexible PVC compound

AVAILABLE COLORS



Red, Yellow, Blue, Black, Green



APPLICABLE STANDARDS

IS 694

ASTM D2863

ASTM D2843-16

IEC 60332 - 1 : 2004IEC 60754-1 : 2011

APPROVALS

● IS 8130:2013 **⑤**

● C€

CABLE CHARACTERISTICS

Nominal Voltage (UO/U) : 600/1100 V

Max Operating Temperature : 85°C

Temperature Range : -15C to + 85°C
 Flame Resistance : ASTM 2863

• Flammability : IEC 60332 - 1

• Minimum Bending Radius : 8D

FR-LSH

| Normal Area of Conductor SQ.MM. | Max Diameter of each strand | Thickness of Insulation (Nom.) mm. | Current Carrying Capacity Rating Amps. | Current Carrying Capacity Rating Amps. | Resistance (Max.) Per Km.@200 Ohms |
|---------------------------------------|-----------------------------------|------------------------------------------|-------------------------------------------------|----------------------------------------------------|---------------------------------------------|
| **0.75 | 24/0.20 | 0.6 | 2.5 | 8.4 | 26 |
| *1 | 14/0.30 | 0.7 | 2.8 | 14.4 | 18.1 |
| *1.5 | 22/0.30 | 0.7 | 3.1 | 19.2 | 12.1 |
| *2.5 | 36/0.30 | 0.8 | 3.8 | 26.4 | 7.41 |
| **4 | 56/0.30 | 0.8 | 4.4 | 34.8 | 4.95 |
| **6 | 84/0.30 | 0.8 | 5.2 | 44.4 | 3.3 |
| **10 | 80/0.40 | 1.0 | 5.8 | 61.2 | 1.91 |
| **16 | 126/0.40 | 1.0 | 6.8 | 81.6 | 1.21 |

^{*}Class 2 Conductor As Per IS 8130

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^{**}Class 5 Conductor As Per IS 8130

ZHFR: ZERO HALOGEN FLAME RETARDANT





ZH-FR represents our dedication to environmental sustainability. This eco-friendly solution, combined with improved safety measures for fire incidents, is designed to mitigate the primary cause of death in indoor fires: smoke inhalation.

In the unfortunate event of a fire, Ban Fire – ZH-FR, crafted from specially developed in-house PVC polymers, minimizes smoke and halogen gas emissions, ensuring the safety of people in residential and commercial spaces, facilitating their rescue.

AVAILABLE COLORS

| Red | Yellow | Blue | Black | Green |
|-----|--------|------|-------|-------|

PROPERTIES

| Test | Test Method | Values |
|----------------------|-----------------|---------|
| Limited Oxygen Index | IS 10810 P - 58 | >29% |
| Limited Temp. Index | IS 10810 P - 64 | >2500 C |

1100 Voltage Grade for Industrial application



| Sheath Normal Cross sectional area | Number/ Nom. Dia of Cond. Strands* | of Cond. Conductor Overall | | Normal Thickness Of | Current Carrying Capacity 2 Cables Single Phase | | |
|------------------------------------|------------------------------------------|----------------------------|----------|---------------------------|-------------------------------------------------------|--------------------------------------------------------------------|--|
| Of conductor | | Km at 200C | Of Cable | Insulation | In Conduit/ Trunking | Unenclosed Clipped directly to a surface or on cable tray | |
| Sq.mm. | mm. | ohms | mm. | mm. | Amps. | Amps. | |
| **0.50 | 16/0.20 | 39.00 | 2.20 | 0.6 | 4 | 4 | |
| **0.75 | 24/0.20 | 26.00 | 2.30 | 0.6 | 8 | 8 | |
| *1.00 | 14/0.30 | 18.10 | 2.70 | 0.7 | 12 | 13 | |
| *1.50 | 22/0.30 | 12.10 | 3.00 | 0.7 | 14 | 18 | |
| *2.50 | 36/0.30 | 07.41 | 3.60 | 0.8 | 20 | 24 | |
| **4.00 | 56/0.30 | 04.95 | 4.00 | 0.8 | 26 | 32 | |
| **6.00 | 84/0.30 | 03.30 | 4.60 | 0.8 | 34 | 41 | |
| **10.0 | 140/0.30 | 01.91 | 6.10 | 1.0 | 47 | 58 | |
| **16.0 | 126/0.40 | 01.21 | 7.20 | 1.0 | 65 | 79 | |

^{*}Class 2 Conductor As Per IS 8130

CONSTRUCTION

Conductor: 99.98% Pure electrolyte grade bright Annealed Bare Copper.

Insulation: ZH-FR PVC compound with a high insulation resistance

ensures uninterrupted power supply at all weather condition.

Operating Temp : -15°C to maximum + 85°C







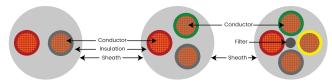


^{**}Class 5 Conductor As Per IS 8130

MULTI-CORE FLEXIBLE CABLE







KCW Multi core FR PVC insulated and PVC Sheathed Flexible cable combination to IS 694 is made with a highly flexible conductor and specially formulated FR (Flame Retardant) flexible PVC insulation and PVC sheathing compound that impart superior flexibility to the cable. Also made with FR-LSH grade sheathing less toxic gases.

APPLICATION

MULTI-CORE SHEATHED CABLES have a wide range of application in housing appliances, machine, tools, control panels & other industrial applications. This product is made from specially formulated PVC compound which has excellent flexibility, abrasion properties & uniform laying which make it easily strippable. These cables facilitate the organization and management of complex industrial processes by enabling the connection of multiple devices.

KCW Multi-core cables play a pivotal role in ensuring the reliable and safe operation of industrial equipment, making them a fundamental component in various industrial sectors.

CONSTRUCTION

Conductor: 99.98% Pure electrolyte grade Bright Annealed Bare Copper.

Insulation : FR PVC/ FR-LSH PVC compound with a high insulation

resistance ensures uninterrupted power supply at all weather

condition.

Operating Temp: Operating Temp: -15°C to maximum + 85°C

FLEXIBLE PVC INSULATED AND SHEATHED CABLE (CIRCULAR) UP-TO 1100V AS PER IS 694: 2010



| Sheath Nominal | Number/ Nom. Dia | Normal Thickness | 2 Cc | 2 Core | | 3 Core | | 4 Core | | 5 Core | |
|--------------------------------------------|-------------------------|---------------------|--------------------------------|------------------|--------------------------------|------------------|--------------------------------|------------------|--------------------------------|------------------|----------------------------------|
| Cross Sectional Area of Conductor | of Cond. Strands* | Of Insulation | Nor. Thickness of Sheath | Max O/all Dia | Nor. Thickness of Sheath | Max O/AII Dia | Nor. Thickness of Sheath | Max O/all Dia | Nor. Thickness of Sheath | Max O/all Dia | Conductor Resistance @200C |
| Sq.mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. | Ohm/Amp |
| 0.50 | 16/0.20 | 0.6 | 0.9 | 6.9 | 0.9 | 7.3 | 0.9 | 8.0 | 0.9 | 8.7 | 39 |
| 0.75 | 24/0.20 | 0.6 | 0.9 | 7.3 | 0.9 | 7.7 | 0.9 | 8.4 | 0.9 | 9.2 | 25 |
| 1.00 | 32/0.20 | 0.6 | 0.9 | 7.6 | 0.9 | 8.1 | 0.9 | 8.8 | 1.0 | 9.5 | 19.5 |
| 1.50 | 30/0.25 | 0.6 | 0.9 | 8.9 | 0.9 | 9.4 | 1.0 | 10.0 | 1.0 | 11.4 | 13.3 |
| 2.50 | 36/0.30 | 0.7 | 1.0 | 10.3 | 1.0 | 10.9 | 1.0 | 12.5 | 1.0 | 13.2 | 7.98 |
| 4.00 | 50/0.25 | 0.8 | 1.09 | 11.5 | 1.09 | 12.4 | 1.0 | 13.5 | 1.1 | 15.3 | 4.95 |

FLEXIBLE PVC INSULATED AND SHEATHED CABLE (CIRCULAR) UP-TO 1100V AS PER IS 694: 2010

| Sheath Nominal Cross Sectional Area of Conductor | Number/ Nom. Dia of Cond. Strands* | Normal Thickness of Insulation | 2 Control Nor. Thickness of Sheath | ore Max O/all Dia | 3 Co Nor. Thickness of Sheath | ore Max O/All Dia | 4 C Nor. Thickness of Sheath | ore Max O/all Dia | Max. Conductor Resistance @200C |
|--------------------------------------------------|---------------------------------------------|-----------------------------------------|------------------------------------|-------------------------|----------------------------------------|-------------------------|---------------------------------------|-------------------------|------------------------------------------|
| Sq.mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. | Ohm/Amp |
| 6.00 | 84/0.30 | 0.8 | 1.1 | 13.0 | 1.2 | 13.8 | 1.2 | 15.47 | 3.30 |
| 10.00 | 140/0.30 | 1.0 | 1.3 | 16.3 | 1.4 | 17.59 | 1.4 | 19.50 | 1.91 |
| 16.00 | 226/0.30 | 1.0 | 1.4 | 19.4 | 1.4 | 20.60 | 1.4 | 23.00 | 1.21 |
| 25.00 | 354/0.30 | 1.2 | 1.4 | 23.8 | 1.5 | 25.60 | 1.6 | 28.50 | 0.78 |
| 35.00 | 495/0.30 | 1.2 | 1.6 | 27.2 | 1.6 | 29.30 | 1.7 | 32.70 | 0.554 |













KCW FLAT CABLES are manufactured keeping in mind the severe and difficult conditions in which they are required to perform. The individual conductors are made from bright electrolytic grade copper. The wires are drawn, annealed and bunched properly to ensure flexibility and uniform resistance. Each of the three copper conductors is insulated with a special BLVD. Compound formulated and manufactured in-house, 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, etc.

3 CORE FLAT CABLES AS PER IS: 2010 WITH ISI MARK

| Cond | ductor | Insulation | Sheath | Sheath Overall Din | | Conductor Resistance | Current carrying |
|------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|
| Area of sq.mm | No/ Dia of stands mm | Thickness (Nom.) mm | Thickness (Nom.) mm | Thickness (Nom.) mm | Height (Approx.) mm | @20C | capacity @40C Amps |
| mm. | mm. | mm. | mm. | mm. | mm. | ohm/km | Amps |
| 1.50 | 22/0.30 | 0.6 | 0.9 | 11.0 | 13.30 | 13.30 | 13 |
| 2.50 | 36/0.30 | 0.7 | 1.0 | 13.0 | 7.98 | 7.98 | 18 |
| 4.00 | 56/0.30 | 0.8 | 1.0 | 15.3 | 4.95 | 4.95 | 24 |

3 CORE FLAT CABLES AS PER IS: 2010 WITH ISI MARK

| Condu | uctor | Insulation | ion Sheath Overall Dimension | | mension | | Current Carrying |
|------------|---------------------------|------------------------|------------------------------|-----------------------|------------------------|------------------------------|-----------------------|
| Area sq.mm | No./ Dia of strands mm | Thickness (Nom.) mm | Width (Approx.) mm | Width (Approx.) mm | Height (Approx.) mm | Conductor Resistance @20C | Capacity @40C Amps |
| mm. | mm. | mm. | mm. | mm. | mm. | ohm/km | Amps |
| 6.00 | 84/0/.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 | 495/0.30 | 1.2 | 2.00 | 39.5 | 16.2 | 0.554 | 90 |
| 50.0 | 703/0.30 | 1.4 | 2.20 | 45.5 | 18.3 | 0.386 | 115 |
| 70.0 | 360/0.50 | 1.4 | 2.20 | 51.0 | 20.0 | 0.272 | 143 |
| 95.0 | 475/0.50 | 1.6 | 2.40 | 60.0 | 23.5 | 0.206 | 165 |

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 5 of IS 8130:1984

SELECTION GUIDE FOR 3 CORE FLAT CABLE

1. HP vs Current: The full load current for submersible pump motors, 3 phase, 50 cycles, 415-425 V.

| HP | 5.0 | 7.5 | 10.0 | 12.5 | 15.5 | 17.5 | 20.0 | 25.0 | 30.0 | 35.0 |
|-----|------|------|------|------|------|------|------|-------|-------|------|
| AMP | 7.5 | 11.0 | 14.9 | 18.9 | 22.5 | 22.5 | 28.4 | 35.6 | 42.3 | 50.4 |
| НР | 40.0 | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | |
| AMP | 58.1 | 62.1 | 67.5 | 73.8 | 81.0 | 81.0 | 93.6 | 100.8 | 108.0 | |

2. Derating Factors: Multiply the current carrying of cable by factors given below for various ambient temp.

| Ambient Temp.° C | Ambient Temp.° C |
|------------------|------------------|
| 30 | 1.09 |
| 35 | 1.04 |
| 40 | 1.00 |
| 45 | 0.95 |
| 50 | 0.77 |



Product Range

- House Wire
- Flat 3 Core Cable
- Flexible Single Core
- Round Multicore Cable
- Twin Twisted Cable
- Speaker Cable

- Twin Flat Aluminum (Service Cable)
- Solar Cable
- Cat 6 Cable
- Instrumentation Cable
- Panel Wire















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