TORRENT
ELECTRICALS

Wires and Flexibles

Engineered for
Reliable Power

SAFE BY DESIGN

SUPERIOR CONDUCTIVITY

BUILT FOR DURABILITY

CONSISTENT PERFORMANCE

TORRENT GROUP

TORRENT ELECTRICALS

Torrent Electricals Limited, embodies the Group's spirit of innovation. With over 3 decades of experience, we are a leading manufacturer of power cables, catering to a diverse clientele across the private and public sectors. We offer a comprehensive range of cables, from low-tension (LT) to extra-high voltage (EHV), constantly expanding our portfolio to include cutting-edge solutions like E-beam and speciality cables. Our 82 acres manufacturing facility is strategically located at Nadiad NH-8 Gujarat and is equipped with latest technology.

TORRENT PHARMA

Torrent Pharma, the flagship cornpany of Torrent Group is a leader in niche therapeutic segments including cardiovascular, central nervous system and women's healthcare. With a presence in over 50 countries, Torrent Pharma holds the largest market share among Indian companies in Brazil and Germany.

TORRENT POWER

Torrent Power, a leading brand in the Indian power sector, excels in power generation, transmission and distribution. With a generation capacity of about 5000 MW, including thermal and renewable energy and extensive transmission and distribution networks, Torrent Power operates effciently across multiple regions. The Company distributes power to over 4.13 million customers in its distribanion areas spreading across Gujarat, Maharashtra and Uttar Pradesh.

TORRENT GAS

Torrent Group is dedicated to transforming lives by addressing essential needs of community, through its City Gas Distribution business. With operations in 17 geographical areas across 34 districts. Torrent Gas is committed to driving socio-economic development by ensuring widespread availability of natural gas, reducing pollution and providing significant cost savings.

GUJARAT TITANS

Gujarat Titans is one of the ten cricket teams in the Indian Premier League, based at the world's largest cricket stadium,the Narendra Modi Stadium in Ahmedabad, India. Backed by the Group's legacy of trusted leadership, the franchise unites strategic brilliance, top-tier talent, and a winning mindset for an inspiring, world-class sporting experience.

TORRENT DIAGNOSTICS

Torrent Diagnostics is redefining medical diagnostics through innovation, accuracy, and trust. Backed by 50+years of healthcare excellence from Torrent Pharma, it combines advanced diagnostic technology witl digital innovation to make healthcare more accessible, reliable, and patient-centric.

OUR CERTIFICATIONS

BIS CERTIFIED

CE

CPRI TESTED

RoHS

REACH

ERDA TESTED

BIS recognized manufacturing facility for the last 30+ years

NABL Accredited, BIS certified testing laboratory

The first cable manufacturer in India to receive the ISO 9001:2000 certification

In-house dedicated Research & Development team

Comprehensive Product Range – Wires & Cables

Customer Centric Approach – Sales, service & technical assistance

BEING RESPONSIBLE SINCE

1989

At Torrent Electricals, we have been a leader in power cable manufacturing for over 35 years. We are proud to be India's first cable manufacturer with an ISO 9001:2000 certification.

What is our speciality?
We specialize in a wide range of cables, including Extra-High-Voltage (EHV) cables, High-Tension (HT) & Low-Tension (LT) XLPE/PVC Power cables and Control & Instrumentation cables. Each product undergoes comprehensive testing to guarantee outstanding performance and safety.

What fuels our passion?
Our unwavering commitment to fulfilling all electrical needs drives us forward. At Torrent Electricals, we stand for responsibility and innovation in every endeavour.

THE TORRENT STORY

With over 35 years of industry leadership, Torrent Electricals has been a trusted partner in delivering high-performance cables since 1989. As a proud member of the Torrent Group, we uphold excellence, innovation, and a commitment to transforming lives.

As India's first cable manufacturer to achieve ISO 9001:2000 certification, we have set industry benchmarks for quality and reliability. Specializing in Extra-High-Voltage (EHV), High-Tension (HT) XLPE, Low-Tension (LT) XLPE/PVC Power cables, Control cables, Instrumentation cables, Housing wires, and Flexible multicore cables, we follow rigorous testing protocols to ensure unmatched safety and performance.

Expanding beyond power cables, we are strategically entering the consumer segment to offer reliable, innovative solutions that enhance everyday life. By adapting to evolving customer needs, we continue to lead with quality and value in every interaction.

FUN FACT:

OUR CABLES COULD WRAP 1.5 TIMES THE EARTH'S CIRCUMFERENCE. BUT WHERE DO WE MAKE THEM?

Our manufacturing unit in Nadiad is spread across 82 acres.

ABOUT

TORRENT WIRES

Torrent Electricals Limited proudly unveils its advanced range of housing wires, engineered for superior performance, safety, and sustainability. Designed with precision and innovation, our wires set new benchmarks in residential, commercial, and industrial wiring solutions.

Our extensive range includes Flame Retardant (FR), Heat Resistant Flame Retardant (HRFR), Flame Retardant Low Smoke & Halogen (FR-LSH), and Halogen-Free Flame Retardant (HFFR) wires, each tailored to meet diverse safety and performance requirements.

Available in six versatile sizes (0.75 sq.mm to 6 sq.mm) and seven vibrant colors (Red, Yellow, Blue, Black, Green, Grey, and White), our wires offer exceptional flexibility for every application.

WHY TORRENT WIRES?

Our housing wires feature 101% copper conductivity, superior heat resistance, flame retardancy and built-in protection against termites and rodents. These wires are entirely free from hazardous substances, aligning with global safety and eco-friendly standards.

Our wires are precision-manufactured using state-of-the-art German technology. It features conductors with reduced resistance for optimal performance. The use of halogen-free insulating compounds enhance safety and underscores our commitment to environmental sustainability.

Choose Torrent Electricals housing wires for durability, efficiency, and innovation for all your projects, whether you're a professional or working on home improvements.

RANGE OF HOUSE WIRES PRODUCTS

FLAME RETARDANT (FR)

Torrent Electricals Flame retardant wires are engineered to minimise fire risks by preventing flame spread with FR PVC insulation. These wires safeguard both the wiring and surrounding structures during a fire, ensuring enhanced safety for electrical installations.

SALIENT FEATURES:

FLAME RETARDANT

These wires actively prevent flame propagation, ensuring enhanced safety and reliability in critical situations.

EASY INSTALLATION

Designed with superior flexibility, these wires simplify installation, reducing labour time and improving project efficiency.

101% COPPER CONDUCTIVITY

Made from EC-grade annealed copper (99.97% purity), delivering exceptional conductivity for superior energy efficiency, reduced losses and consistent performance.

Anti-Termite and Anti-Rodent

Featuring specialised insulation, these wires effectively repel rodents and termites, ensuring long-lasting performance and lower maintenance costs.
Anti-termite/Anti-rodent feature is applicable for a period of 12 months from the date of invoice.

RoHS Complaint - Eco-friendly

RoHS-compliant as per EU Directive (2015/863), these wires are free from hazardous substances like lead and mercury. Crafted with eco-conscious materials, they ensure safety for human health while promoting a sustainable, greener environment.

APPLICATIONS:

- Suitable for residential and commercial infrastructure.
- Recommended for industrial wiring.

CONSTRUCTION:

APPLICABLE STANDARDS: IS:694, IS:8130, IS:5831, IS:10810, ASTM-D-2863 and ASTM-D-2843.

CONDUCTOR:

The conductors are manufactured using 100% electrolytic-grade copper, which is subject to annealing and bunching processes to ensure high levels of flexibility and a superior finish. The application of advanced German technology in manufacturing results in final products that exhibit exceptional precision, reducing conductor resistance and enhancing performance.

FR PVC INSULATION:

The bunched conductors are insulated using a high-speed process with a specially formulated flame-retardant PVC (FR-PVC) compound that meets relevant standards. In the event of a fire, this FR-PVC compound effectively restricts the spread of flames, enhancing safety during such situations.

FR PROPERTIES:

OXYGEN INDEX:
>29% as per ASTM-D-2863 / IS 10810 (Part 58)

TEMPERATURE INDEX:
>250°C at 21% oxygen index as per ASTM-D-2863 / IS 10810 (Part 64)

FLAMMABILITY TEST:
As per IEC:60332-1 / IS 10810-53 & IS:694

DESIGN PARAMETERS:

Single core FR PVC Insulated Unsheathed cable for voltage grade 1100 V as per IS:694-2010

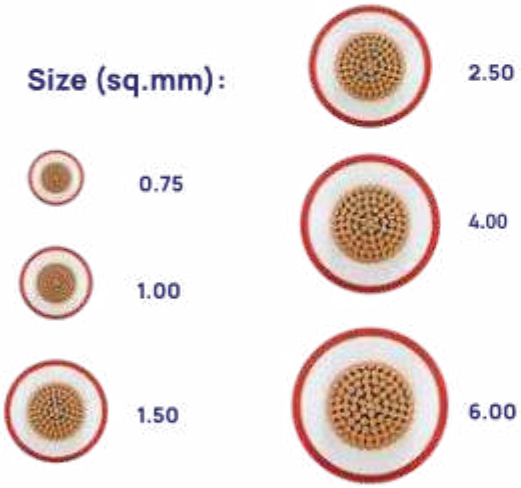
Nominal cross sectional area	No. of strands/- Max. dia. of each strand	Nominal Insulation thickness	Max. Overall Diameter	Maximum DC Conductor resistance at 20°C	Current carrying capacity 2 cables in single phase	
					Bunched and Enclosed in Conduit or Trunking	Clipped direct to a surface or on a cable tray, Bunched and unenclosed
sq.mm	No./mm	mm	mm	Ω/km	Amp.	Amp.
0.75	24/0.21	0.6	2.8	26.00	8	9
1.00	32/0.21	0.6	3.0	19.50	11	12
1.50	30/0.26	0.6	3.4	13.30	15	16
2.50	50/0.26	0.7	4.1	7.98	19	23
4.00	56/0.31	0.8	4.8	4.95	26	30
6.00	84/0.31	0.8	5.3	3.30	33	38

Current carrying capacity values are in accordance with IS:3961 (Part-5)
Available in Conductor Class-2 and Class-5 as per requirement.

Maximum operating temperature 70°C

PRODUCT OFFERING:

Size (sq.mm):



COLOURS:

(Any other colour will be available on request)

PACKING: 90 metres coils packed in protective cartons. Project packing of 180 metres and customized sizes also available.

HEAT RESISTANT FLAME RETARDANT (HRFR)

Torrent Electricals Heat-resistant flame-retardant wires are engineered to endure high temperatures while preventing flame spread. This advanced design ensures safe and reliable performance in environments exposed to both elevated heat and fire risks.

SALIENT FEATURES:

101% Copper Conductivity

Made from EC-grade annealed copper (99.97% purity), delivering exceptional conductivity for superior energy efficiency, reduced losses and consistent performance.

High Insulation Resistance

Specially formulated HRFR compound minimises current leakage, thereby providing enhanced protection against electrical shocks and ensuring the highest safety standards.

High Temperature Resistance

Designed to perform reliably in extreme conditions, withstanding temperatures upto 85°C for long-lasting durability.

Anti-Termite and Anti-Rodent

Featuring specialized insulation, these wires effectively repel rodents and termites, ensuring long-lasting performance and lower maintenance costs. Anti-termite/Anti- rodent feature is applicable for a period of 12 months from the date of invoice.

reach & rohs Compliant - Eco-friendly

REACH & RoHS-compliant as per EU Directive (2015/863), these wires are free from hazardous substances like lead and mercury. Crafted with eco-conscious materials, they ensure safety for human health while promoting a sustainable, greener environment.

APPLICATIONS:

- Designed for conduit and fixed installations, HRFR is ideal for high-density applications.
- Heat-resistant insulation ensures safe performance in residential, commercial and industrial settings, up to 85°C.

CONSTRUCTION:

APPLICABLE STANDARDS: IS:694, IS:8130, IS:5831, IS:10810, ASTM-D-2863, ASTM-D-2843.

CONDUCTOR:

The conductors are made from 100% electrolytic-grade copper, which is annealed and bunched to provide high flexibility and a superior finish. They are produced with exceptional precision using advanced German technology, resulting in lower resistance and optimal performance.

HRFR PVC insulation:

The bunched conductors are insulated using a high-speed process with specially formulated Heat-Resistant Flame-Retardant (HRFR) PVC compound, designed to perform reliably even at temperatures up to 85°C. This advanced insulation combines excellent flame resistance with enhanced thermal stability, ensuring safety and durability in demanding conditions. The HRFR PVC material effectively limits the spread of flames, providing a safer and more reliable solution for various applications.

FR PROPERTIES:

OXYGEN INDEX:
>29% as per ASTM-D-2863 / IS 10810 (Part 58)

TEMPERATURE INDEX:
>250oC at 21% oxygen index as per ASTM-D-2863 / IS 10810 (Part 64)

FLAMMABILITY TEST:
As per IEC:60332-1 / IS 10810-53 & IS:694

DESIGN PARAMETERS:

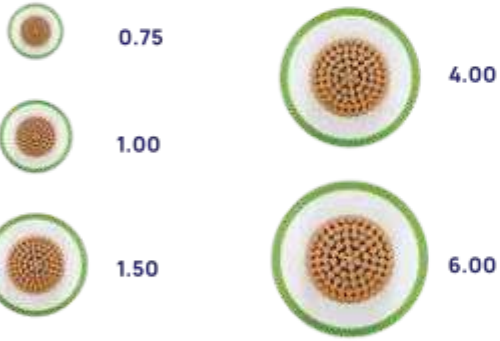
Single core HRFR PVC Insulated Unsheathed cable for voltage grade 1100 V as per IS:694-2010						
Nominal cross sectional area	No. of strands/Max. dia. of each strand	Nominal insulation thickness	Max. Overall Diameter	Maximum DC Conductor resistance at 20°C	Current carrying capacity 2 cables in single phase	
					Bunched and Enclosed in Conduit or Trunking	Clipped direct to a surface or on a cable tray, Bunched and unenclosed
sq.mm	No./mm	mm	mm	Ω/km	Amp.	Amp.
0.75	24/0.21	0.6	2.8	26.00	8	9
1.00*	14/0.31	0.7	3.2	18.10	14	15
1.50*	22/0.31	0.7	3.3	12.10	17	19
2.50*	36/0.31	0.8	4.6	7.41	21	25
4.00	56/0.31	0.8	4.8	4.95	26	32
6.00	84/0.31	0.8	5.3	3.30	33	38

Current carrying capacity values are in accordance with IS:3961 (Part-5)
*Class-2 conductor. Also available in Class-5 as per requirement

Maximum operating temperature 85°C

PRODUCT OFFERING:

Size (sq.mm):



COLOURS:

(Any other colour will be available on request)

cking: 90 metres coils packed in protective cartons. Project cking of 180 metres and customized sizes also available.

FLAME RETARDANT LOW SMOKE & HALOGEN (FR-LSH)

Torrent Electricals Flame Retardant Low Smoke & Halogen (FR-LSH) wires are advanced electrical wires engineered to enhance safety by reducing fire risks and limiting the emission of toxic gases and smoke during fires, ensuring a safer environment in critical applications.

SALIENT FEATURES:

101% Copper Conductivity

Made from EC-grade annealed copper (99.97% purity), delivering exceptional conductivity for superior energy efficiency, reduced losses and consistent performance.

Anti-Termite/Anti-Rodent

Featuring specialized insulation, these wires effectively repel rodents and termites, ensuring long-lasting performance and lower maintenance costs. Anti-termite/Anti-rodent feature is applicable for a period of 12 months from the date of invoice.

Low Smoke and Low Halogen

Minimises toxic gas emissions and smoke generation during fire emergencies, ensuring better visibility and safer environments.

Flame Retardant

Constructed with advanced FR-LSH PVC insulation, these wires actively prevent fire propagation, ensuring enhanced safety and reliability in critical situations.

reach & rohs Compliant - Eco-friendly

REACH & RoHS-compliant as per EU Directive (2015/863), these wires are free from hazardous substances like lead and mercury. Crafted with eco-conscious materials, they ensure safety for human health while promoting a sustainable, greener environment.

APPLICATIONS:

• Ideal for conduit and fixed, protected installations, especially in fire-prone and high-risk areas such as chemical factories, densely wired environments, public buildings, schools, hospitals, commercial complexes and theatres.

CONSTRUCTION:

APPLICABLE STANDARDS: IS:694, IS:8130, IS:5831, IS:10810, ASTM-D-2863, ASTM-D-2843, IEC 60754.

CONDUCTOR:

The conductors are made from 100% electrolytic-grade copper, which is annealed and bundled to provide high flexibility and a superior finish. They are manufactured with exceptional precision using advanced German technology, leading to reduced conductor resistance and optimal performance.

FR-LSH PVC Insulation:

The bunched conductors are insulated using a high-speed process with a specially formulated, flame-retardant, low-smoke and halogen-free (FR-LSH) compound that complies with relevant standards. In the event of a fire, the FR-LSH compound releases minimal halogen content, effectively limiting the spread of flames. Additionally, it produces very low levels of smoke that are less toxic, ensuring enhanced safety.

FR-LSH PROPERTIES:

OXYGEN INDEX:
>29% as per ASTM-D-2863 / IS 10810 (Part 58)

TEMPERATURE INDEX:
>250°C at 21% oxygen index as per ASTM-D-2863 / IS 10810 (Part 64)

FLAMMABILITY TEST:
As per IEC:60332-1 / IS 10810-53 & IS:694

HALOGEN ACID GAS GENERATION:
<20% as per IEC 60754 / IS 10810 (Part 59)

SMOKE DENSITY RATING
<60% as per ASTM – D-2843 / IS 13360 (Part 6/see 9)

DESIGN PARAMETERS:

Single core FR-LSH PVC Insulated Unsheathed cable for voltage grade 1100 V as per IS:694-2010

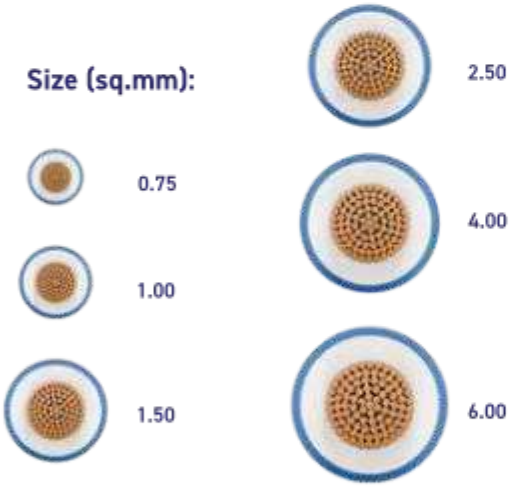
Nominal cross sectional area	No. of strands/Max. dia. of each strand	Nominal insulation thickness	Max. Overall Diameter	Maximum DC Conductor resistance at 20°C	Current carrying capacity 2 cables in single phase	
					Bunched and Enclosed in Conduit or Trunking	Clipped direct to a surface or on a cable tray, Bunched and unenclosed
sq.mm	No./mm	mm	mm	Ω/km	Amp.	Amp.
0.75	24/0.21	0.6	2.8	26.00	8	9
1.00	32/0.21	0.6	3.0	19.50	11	12
1.50	30/0.26	0.6	3.4	13.30	15	16
2.50	50/0.26	0.7	4.1	7.98	19	23
4.00	56/0.31	0.8	4.8	4.95	26	30
6.00	84/0.31	0.8	5.3	3.30	33	38

Current carrying capacity values are in accordance with IS:3961 (Part-5)
Available in Conductor Class-2 and Class-5 as per requirement

Maximum operating temperature 70°C

PRODUCT OFFERING:

Size (sq.mm):



COLOURS:

(Any other colour will be available on request)

ACKING: 90 metres coils packed in protective cartons. Project cking of 180 metres and customized sizes also available.

HALOGEN FREE FLAME RETARDANT (HFFR)

Torrent Electricals Halogen-free flame-retardant wires are engineered to enhance safety by minimising fire risks and preventing the release of corrosive or toxic gases during fire condition, ensuring a safer and more reliable solution for critical applications. Unlike traditional materials, the HFFR compound releases no harmful halogens during combustion, ensuring a cleaner, non-toxic environment with minimal smoke emission and superior safety credentials.

SALIENT FEATURES:

101% Copper Conductivity

Made from EC-grade annealed copper (99.97% purity), delivering exceptional conductivity for superior energy efficiency, reduced losses and consistent performance.

Anti-Termite/Anti-Rodent

Featuring specialized insulation, these wires effectively repel rodents and termites, ensuring long-lasting performance and lower maintenance costs. Anti-termite/Anti-rodent feature is applicable for a period of 12 months from the date of invoice.

High Visibility in fire emergencies

HFFR wire ensures superior light transmission (>70%) during fires, significantly reducing smoke and enhancing visibility for safer evacuation compared to ordinary PVC cables.

Non-Toxic Zero Halogen

HFFR wires minimise halogen gas release (<0.5%) thus offering 10x safer performance than conventional wires. These wires ensure improved air quality during emergencies, enhancing survival and rescue opportunities.

Environment friendly

Compliant with green building standards for sustainable construction.

reach & rohs Compliant - Eco-friendly

REACH & RoHS-compliant as per EU Directive (2015/863), these wires are free from hazardous substances like lead and mercury. Crafted with eco-conscious materials, they ensure safety for human health while promoting a sustainable, greener environment.

APPLICATIONS:

- Ideal for home use, conduit wiring and permanent installations, these wires are highly effective in residential, commercial and public settings such as auditoriums, hospitals, hotels, schools, stadiums, theatres and chemical factories.

CONSTRUCTION:

APPLICABLE STANDARDS: IS:17048, IS:8130, IS:10810, ASTM-D-2863, ASTM-D-2843, IEC 60754.

CONDUCTOR:

The conductors are made from 100% electrolytic-grade copper, which is annealed and stranded to provide high flexibility and an excellent finish. They are manufactured with exceptional precision using advanced German technology, resulting in lower conductor resistance and optimal performance.

HFFR INSULATION:

The bunched conductors are insulated using a state-of-the-art, high-speed process that employs a specially engineered Halogen-Free Flame Retardant (HFFR) compound. This innovation sets a new standard in safety and performance. Advanced insulation provides excellent flame resistance, significantly decreasing the risk of fire spreading in critical applications.

HFFR PROPERTIES:

OXYGEN INDEX:
>31% as per ASTM-D-2863 / IS 10810 (Part 58)

TEMPERATURE INDEX:
>250°C at 21% oxygen index as per ASTM-D-2863 / IS 10810 (Part 64)

FLAMMABILITY TEST:
As per IEC:60332-1 / IS 10810-53 & IS:17048

HALOGEN ACID GAS GENERATION:
<0.5% as per IEC 60754 / IS 10810 (Part 59)

SMOKE DENSITY RATING
<30% as per ASTM – D-2843 / IS 13360 (Part 6/see 9)

DESIGN PARAMETERS:

Single core HFFR (HFI-TP 70) Insulated Unsheathed cable for voltage grade 1100 V as per IS:17048-2018

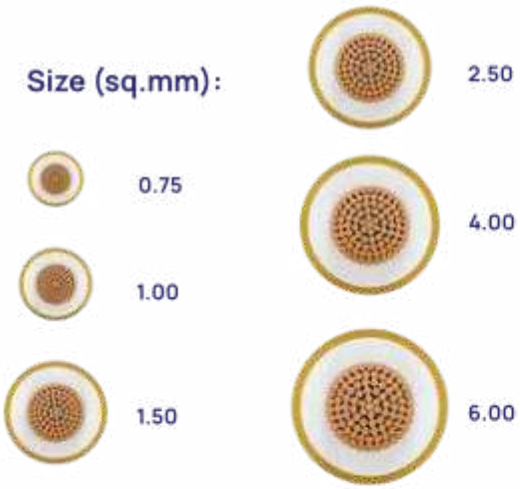
Nominal cross sectional area	No. of strands/-Max. dia. of each strand	Nominal Insulation thickness	Max. Overall Diameter	Maximum DC Conductor resistance at 20°C	Current carrying capacity 2 cables in single phase	
					Bunched and Enclosed in Conduit or Trunking	Clipped direct to a surface or on a cable tray, Bunched and unenclosed
sq.mm	No./mm	mm	mm	Ω/km	Amp.	Amp.
0.75	24/0.21	0.6	2.8	26.00	8	9
1.00	32/0.21	0.6	3.0	19.50	11	12
1.50	30/0.26	0.6	3.4	13.30	15	16
2.50	50/0.26	0.7	4.1	7.98	19	23
4.00	56/0.31	0.8	4.8	4.95	26	30
6.00	84/0.31	0.8	5.3	3.30	33	38

Current carrying capacity values are in accordance with IS:3961 (Part-5)
Available in Conductor Class-2 and Class-5 as per requirement.

Maximum operating temperature 70°C

PRODUCT OFFERING:

Size (sq.mm):



COLOURS:

(Any other colour will be available on request)

PACKING: 90 metres coils packed in protective cartons. Project packing of 180 metres and customized sizes also available.

SINGLE-CORE
FLEXIBLE CABLES:

Torrent Electricals Single Core Flexible Cables, designed and manufactured as per IS 694 standards, provide exceptional performance and reliability for various electrical applications. With a cross-sectional range from 10 sq.mm to 300 sq.mm, these cables are engineered for flexibility, ease of installation and durability, making them ideal for industrial, commercial and residential projects. The cables feature EC-grade flexible copper conductors, ensuring superior conductivity and minimal power loss. The insulation is manufactured from high-grade materials to offer resistance to heat, moisture and flame retardant, ensuring a long service life even in harsh environments. Whether indoor or outdoor use, our flexible cables are the trusted choice for safety, efficiency and performance. Designed to meet the stringent requirements of IS 694, they guarantee top-tier quality and compliance for all your electrical wiring needs.

APPLICATIONS:

- **INDUSTRIAL WIRING:**
  Used in machines, control panels and industrial equipment for reliable, flexible connections.

- **POWER DISTRIBUTION:**
  Ideal for efficient power transmission in commercial and industrial setups.

- **RESIDENTIAL WIRING:**
  Used in homes for wiring outlets, lighting and appliances, ensuring safety and efficiency.

- **RENEWABLE ENERGY SYSTEMS:**
  Used in solar and wind energy installations for reliable, flexible connections.

- **EARTHING:**
  Used for earthing applications to ensure safety by providing a direct path for faulty currents, preventing electrical hazards.

CONSTRUCTION:

APPLICABLE STANDARDS IS:694, IS:5831, IS:8130, IS:10810, ASTM D-2863, ASTM-D-2843, IEC 60754.

CONDUCTOR:

Electrolytic-grade copper Flexible class-5 conductor as per IS:8130.

VOLTAGE RATING:

Up to & including 1100 V

INSULATION:

Extruded PVC type D & HR PVC Type C insulation with different fire performance categories like FR (Flame retardant) & FR-LSH (Flame retardant low smoke & halogen)

DESIGN PARAMETERS:

Single core PVC Insulated Unsheathed cable for voltage grade 1100 V as per IS:694-2010					
Nominal cross sectional area	Nominal Insulation Thickness	Max. Overall Diameter	Maximum DC Conductor resistance at 20°C	Current carrying capacity 2 cables in single phase	
				Bunched and Enclosed in Conduit or Trunking	Clipped direct to a surface or on a cable tray, Bunched and unenclosed
sq.mm	mm	mm	Ω/km	Amp.	Amp.
10	1.0	7.0	1.91	42	51
16	1.0	8.1	1.21	57	68
25	1.2	10.2	0.780	71	86
35	1.2	11.7	0.554	91	110
50	1.4	13.9	0.386	120	145
70	1.4	16.0	0.272	165	200
95	1.6	18.2	0.206	200	235
120	1.6	20.2	0.161	225	270
150	1.8	22.5	0.129	-	310
185	2.0	24.9	0.106	-	360
240	2.2	28.4	0.0801	-	425
300	2.4	31.0	0.0641	-	490

COLOURS:

(Any other colour will be available on request)

PACKING: 100 metres coil or longer lengths may be supplied in drums on request.

MULTICORE
FLEXIBLE CABLES:

Multicore flexible cables, as per IS 694, are designed for use in various industrial applications, offering excellent flexibility, durability and electrical performance. These cables are available in configurations of 2, 3 and 4 cores, with sizes ranging from small to large, up to 300 sq.mm, making them suitable for power transmission in various sectors. The control flexible cables, designed for signal and control purposes, are available in configurations from 6-core to 25-core sizes up to 2.5 sq.mm. These cables are highly flexible, ensuring easy installation and reliability in complex wiring systems. They are ideal for use in industries like manufacturing, automation and power distribution, offering protection against mechanical stress, abrasion and environmental factors, ensuring long-term performance in demanding environments.

APPLICATION:

- **POWER DISTRIBUTION:**
  Used in industries for safe and reliable electrical power transmission.
- **AUTOMATION SYSTEMS:**
  Ideal for wiring in automated machinery and control panels
- **CONTROL SYSTEMS:**
  Used in control circuits for signal transmission in machinery and equipment.
- **BUILDING WIRING:**
  Suitable for residential, commercial and industrial electrical installations.
- **MANUFACTURING EQUIPMENT:**
  Employed in heavy-duty machinery and production lines where flexibility is required.
- **POWER PLANTS:**
  Used for electrical connections in power generation and distribution systems.

CONSTRUCTION:

APPLICABLE STANDARDS IS: 694, IS:5831, IS:8130, IS:10810, ASTM D-2863, ASTM-D-2843, IEC 60754.

CONDUCTOR:

Electrolytic-grade copper Flexible class-5 conductor as per IS:8130

INSULATION:

Extruded PVC type D & HR PVC type C insulation with different fire performance categories like FR (Flame retardant) & FR-LSH (Flame retardant low smoke & halogen)

CORE IDENTIFICATION:

2 Core - Red & Black
3 core- Red, Yellow & Blue or Red, Black & Yellow - Green
4 core- Red, Yellow, Blue & Black or Red, yellow, Blue & Yellow - Green
5 core- Red, Yellow, Blue, Black & Grey or Yellow, Blue, Green, White & Yellow - Green
6 Core- Red, Yellow, Blue, Green, White and Yellow - Green

ABOVE 6 CORES: Insulation cores shall be of the same colour, either in black or grey or any other colour in agreement with the purchaser and the manufacturer, with number coded and with yellow/green in the outermost layer as the last core or it is permissible to have all cores of the same colour. In such cases, the cores shall be numbered sequentially (Hindu-Arabic numerals printed on the surface of the cores), starting with '1' for the innermost layer. The gap between two successive printings shall not exceed 50 mm.

OUTER SHEATH: Extruded PVC type ST-1, ST-2 & ST-3 sheathing grades with different fire performance categories like FR (Flame retardant) & FR-LSH (Flame retardant low smoke & halogen) for all grades.

VOLTAGE RATING: Up to & including 1100 V

Design Parameters:

Flexible PVC Insulated and Sheathed Cables (Circular) for voltage grade 1100 V as per IS:694-2010

Nominal Cross-Sectional Area of Conductor (sq.mm)	Nominal Thickness of Insulation (ti) mm	Nominal Thickness of Sheath (mm)					Overall Diameter, Max (mm)				
		Single Core	Two Core	Three Core	Four Core	Five Core	Single Core	Two Core	Three Core	Four Core	Five Core
4	0.8	1.0	1.0	1.0	1.0	1.1	6.8	11.6	12.4	13.6	15.3
6	0.8	1.1	1.1	1.2	1.2	-	7.5	13.0	13.8	15.5	-
10	1.0	1.3	1.3	1.4	1.4	-	9.4	16.5	17.7	19.5	-
16	1.0	1.4	1.4	1.4	1.4	-	10.9	19.4	20.6	23.0	-
25	1.2	1.4	1.4	1.5	1.6	-	13.6	23.8	25.6	28.5	-
35	1.2	1.6	1.6	1.6	1.7	-	15.5	27.2	29.3	32.7	-
50	1.4	2.0	2.0	2.0	2.0	-	18.1	32.0	34.6	38.6	-
70	1.4	2.2	2.2	2.2	2.2	-	20.8	36.8	39.6	44.3	-
95	1.6	2.4	2.4	2.4	2.4	-	23.6	41.8	47.0	50.2	-
120	1.6	2.5	2.5	2.5	2.5	-	26.0	46.2	51.0	55.7	-
150	1.8	-	-	2.6	2.6	-	-	-	54.8	62.1	-
185	2.0	-	-	2.8	2.8	-	-	-	61.2	68.5	-
240	2.2	-	-	3.0	3.0	-	-	-	69.7	77.9	-
300	2.4	-	-	3.2	3.2	-	-	-	75.7	84.7	-

CONTROL
FLEXIBLE CABLES:

Flexible PVC Insulated and Sheathed Cables (Circular) for voltage grade 1100 V as per IS:694-2010

No. of Cores	0.50 sq.mm			0.75 sq.mm			1.00 sq.mm			1.50 sq.mm			2.50 sq.mm		
	Nominal Thickness of Insulation (mm)	Nominal Thickness of Sheathing (mm)	Overall Dimension Max (mm)	Nominal Thickness of Insulation (mm)	Nominal Thickness of Sheathing (mm)	Overall Dimension Max (mm)	Nominal Thickness of Insulation (mm)	Nominal Thickness of Sheathing (mm)	Overall Dimension Max (mm)	Nominal Thickness of Insulation (mm)	Nominal Thickness of Sheathing (mm)	Overall Dimension Max (mm)	Nominal Thickness of Insulation (mm)	Nominal Thickness of Sheathing (mm)	Overall Dimension Max (mm)
1	0.6	0.9	4.3	0.6	0.9	4.5	0.6	0.9	4.7	0.6	0.9	5.4	0.7	1.0	6.2
2	0.6	0.9	6.9	0.6	0.9	7.3	0.6	0.9	7.6	0.6	0.9	8.9	0.7	1.0	10.3
3	0.6	0.9	7.3	0.6	0.9	7.7	0.6	0.9	8.1	0.6	0.9	9.4	0.7	1.0	10.9
4	0.6	0.9	8.0	0.6	0.9	8.4	0.6	0.9	8.8	0.6	1.0	10.4	0.7	1.0	12.0
5	0.6	0.9	8.7	0.6	0.9	9.2	0.6	1.0	9.6	0.6	1.0	11.4	0.7	1.0	13.2
6	0.6	0.9	9.5	0.6	1.0	10.0	0.6	1.0	10.5	0.6	1.0	12.4	0.7	1.1	14.5
7	0.6	0.9	9.5	0.6	1.0	10.0	0.6	1.0	10.5	0.6	1.0	12.4	0.7	1.1	14.5
8	0.6	1.0	11.1	0.6	1.0	11.8	0.6	1.0	12.4	0.6	1.1	14.7	0.7	1.2	17.3
9	0.6	1.0	11.8	0.6	1.1	12.4	0.6	1.1	13.1	0.6	1.1	15.6	0.7	1.3	18.3
10	0.6	1.0	12.0	0.6	1.1	12.7	0.6	1.1	13.4	0.6	1.1	16.0	0.7	1.3	18.7
11	0.6	1.0	12.0	0.6	1.1	12.7	0.6	1.1	13.4	0.6	1.1	16.0	0.7	1.3	18.7
12	0.6	1.0	12.4	0.6	1.1	13.1	0.6	1.1	13.9	0.6	1.1	16.5	0.7	1.3	19.4
13	0.6	1.0	13.1	0.6	1.1	13.8	0.6	1.1	14.6	0.6	1.2	17.4	0.7	1.3	20.5
14	0.6	1.1	13.1	0.6	1.1	13.8	0.6	1.1	14.6	0.6	1.2	17.4	0.7	1.3	20.5
15	0.6	1.1	13.5	0.6	1.2	14.3	0.6	1.2	15.1	0.6	1.2	18.1	0.7	1.4	21.3
16	0.6	1.1	13.8	0.6	1.2	14.6	0.6	1.2	15.4	0.6	1.2	18.4	0.7	1.4	21.7
17	0.6	1.1	14.6	0.6	1.2	15.4	0.6	1.2	16.3	0.6	1.3	19.5	0.7	1.4	23.0
18	0.6	1.1	14.6	0.6	1.2	15.4	0.6	1.3	16.3	0.6	1.3	19.5	0.7	1.4	23.3
19	0.6	1.1	14.6	0.6	1.2	15.4	0.6	1.3	16.3	0.6	1.3	19.5	0.7	1.4	23.8
20	0.6	1.2	15.4	0.6	1.3	16.3	0.6	1.4	17.3	0.6	1.4	20.7	0.7	1.5	24.4
21	0.6	1.2	15.4	0.6	1.3	16.3	0.6	1.4	17.3	0.6	1.4	20.7	0.7	1.5	25.0
22	0.6	1.2	16.3	0.6	1.3	17.3	0.6	1.4	18.2	0.6	1.4	21.9	0.7	1.5	25.8
23	0.6	1.2	16.3	0.6	1.3	17.3	0.6	1.4	18.2	0.6	1.4	21.9	0.7	1.5	26.3
24	0.6	1.2	17.1	0.6	1.3	18.2	0.6	1.4	19.2	0.6	1.4	23.0	0.7	1.5	27.2
25	0.6	1.2	17.1	0.6	1.3	19.0	0.6	1.4	19.2	0.6	1.4	23.0	0.7	1.5	27.9

CURRENT RATING OF MULTICORE FLEXIBLE CABLES:

Current rating for Flexible PVC Insulated and Sheathed Cables (Circular) for voltage grade 1100 V as per IS:694-2010		
Nominal cross sectional area	Maximum DC Conductor resistance at 20°C	Current carrying capacity
sq.mm	Ω/km	Amp.
0.5	39.0	4
0.75	26.0	7
1	19.5	10
1.5	13.3	14
2.5	7.98	18
4	4.95	24
6	3.30	30
10	1.91	39
16	1.21	55
25	0.780	60
35	0.554	77
50	0.386	102
70	0.272	140
95	0.206	165
120	0.161	190
150	0.129	215
185	0.106	250
240	0.0801	295
300	0.0641	345

PACKING: Packing: 100 metres coil or longer lengths may be supplied in drums on request

SUBMERSIBLE
PVC FLAT CABLE:

Torrent Electricals 3-core submersible PVC flat cables, designed in accordance with IS: 694 standards, are ideal for use in submersible pump installations. These cables are built with high-quality PVC insulation, offering excellent durability and resistance to water and other harsh environmental factors. The flat design ensures easy installation and minimal space usage. These cables are highly reliable, providing consistent performance even in underwater or damp conditions. Suitable for both residential and industrial applications, they ensure safe and efficient power transmission, making them a preferred choice for submersible pumps and related systems.

APPLICATIONS:

- **SUBMERSIBLE PUMPS:**
  Ideal for connecting submersible pumps in wells, boreholes and water reservoirs.

- **AGRICULTURAL IRRIGATION SYSTEMS:**
  Used to power irrigation pumps in agricultural fields.

- **WATER TREATMENT PLANTS**
  Used for powering pumps and machinery in water filtration and treatment processes.

- **DEWATERING OPERATIONS:**
  Suitable for dewatering in construction sites, mines and other industrial environments.

- **FOUNTAINS AND AQUATIC INSTALLATIONS:**
  Used for powering pumps in decorative water fountains and aquariums.

- **DOMESTIC WATER SUPPLY SYSTEMS:**
  Efficient for water supply systems in homes and residential buildings.

- **INDUSTRIAL PUMPING SYSTEMS:**
  Employed in various industrial applications requiring water pumping

CONSTRUCTION:

APPLICABLE STANDARDS:
IS:694, IS:5831, IS:8130, IS:10810, ASTM D-2863, ASTM-D-2843, IEC 60754.

CONDUCTOR:
Electrolytic-grade copper Flexible class-5 conductor as per IS:8130.

CORE IDENTIFICATION:
Red, Yellow & Blue

OUTER SHEATH:
Extruded PVC type ST-1 & ST-2 sheathing grades with different fire performance categories like FR (Flame retardant) & FR-LSH (Flame retardant low smoke & halogen) for both grades.

INSULATION:
Extruded PVC type insulation with different fire performance categories like FR (Flame retardant), FR-LSH (Flame retardant low smoke & halogen), HR FR (Heat resistance flame retardant).

VOLTAGE RATING:
Up to & including 1100 V

Design Parameters:

Three Core PVC Insulated and Sheathed submersible Flat Cables for voltage grade 1100 V as per IS:694-2010					
Nominal cross sectional area	Nominal Thickness of Insulation	Nominal thickness of Sheath	Overall Dimensions, Max (W × H)	Maximum DC Conductor resistance at 20°C	Current carrying capacity
sq.mm	mm	mm	mm	Ω/km	Amp.
0.5	0.6	0.9	9.6 × 4.9	39.0	4
0.75	0.6	0.9	10.5 × 5.2	26.0	7
1	0.6	0.9	11.0 × 5.4	19.5	10
1.5	0.6	0.9	12.0 × 5.6	13.3	14
2.5	0.7	1.0	13.0 × 6.2	7.98	18
4	0.8	1.0	15.3 × 7.1	4.95	24
6	0.8	1.1	19.2 × 8.4	3.30	30
10	1.0	1.4	24.2 × 10.4	1.91	39
16	1.0	1.4	29.0 × 12.4	1.21	55
25	1.2	2.0	36.5 × 15.7	0.780	60
35	1.2	2.0	40.5 × 17.2	0.554	77
50	1.4	2.2	46.5 × 19.3	0.386	102
70	1.4	2.2	52.0 × 21.0	0.272	140
95	1.6	2.4	61.0 × 24.5	0.206	165

PACKING: 500/1000 Metre ± 5% in drums or 100 metres coil or longer lengths may be supplied on request

cable selection chart:

The full load current for submersible pump motors, 3 phase, 50 cycle, 415 - 425V	
Current Carrying Capacity	Suitable for Pump Power Range
Amp.	HP
7.5	5.0
11.0	7.5
14.9	10.0
18.9	12.5
22.5	15.5
25.2	17.5
28.4	20.0
35.6	25.0
42.3	30.0
50.4	35.0
58.1	40.0
62.1	45.0
67.5	50.0
73.8	55.0
81.0	60.0
87.3	65.0
100.8	75.0
108.0	80.0

EHV CABLE CONSTRUCTION

WIRE ARMOURED

1. Aluminum Conductor
2. Semi-conducting Tape
3. Conductor Screen
4. XLPE Insulation
5. Insulation Screen
6. Semi-conducting Water Swellable Tapes
7. Lapped Copper Wire Metallic Screening
8. Semi-conducting Water Swellable Tape
9. Poly-Al-Poly Tape
10. Extruded HDPE Inner Sheath
11. Aluminum Round Wire
12. Plain Water Swellable Tape
13. Outer Sheath PVC (ST-2, FR, FR-LSH)/HDPE
14. Graphite Coating

ALUMINIUM CORRUGATED

1. Aluminum Conductor
2. Semi-conducting Tape
3. Conductor Screen
4. XLPE Insulation
5. Insulation Screen
6. Semi-conductor Water Swellable Tape and Copper Woven Tape
7. Aluminum Corrugation
8. Anti-Corrosive Bitumen Coating
9. Outer Sheath PVC (ST-2, FR, FR-LSH)/HDPE
10. Graphite Coating

EHV CABLES

Extra high voltage (EHV) underground cables are a type of power cable used to transmit large amounts of electrical energy at high voltages over long distances, typically 66 kV to 500 kV

ALUMINIUM CORRUGATED SHEATH 66 kV

ALUMINIUM CORRUGATED SHEATH 110 kV

ALUMINIUM CORRUGATED SHEATH 132 kV

COPPER WIRE SCREEN POLY-AL-POLY SHEATH 66 kV

COPPER WIRE SCREEN POLY-AL-POLY SHEATH 110 kV

COPPER WIRE SCREEN POLY-AL-POLY SHEATH 132 kV

FEATURES

- Enhanced Thermal Performance
- Improved Insulation
- High Temperature Rating
- Better Fault Current Rating

APPLICATIONS

- Grid Interconnection
- Long Distance Power Transmission
- Oil & Gas Refineries
- Power Plant

HV CABLE CONSTRUCTION

SINGLE CORE ALUMINIUM

1. Aluminum Conductor
2. Conductor Screen
3. XLPE Insulation
4. Insulation Screen
5. Copper Tape
6. Extruded PVC/HDPE Inner Sheath
7. Aluminum Round Wire
8. Outer Sheath PVC (ST-2, FR, FR-LSH)/HDPE

THREE CORE ALUMINIUM

1. Aluminium Conductor
2. Conductor Screen
3. XLPE Insulation
4. Insulation Screen
5. Copper Tape
6. PVC Fillers
7. Extruded PVC/HDPE Inner Sheath
8. Galvanized Steel Flat Strip
9. Outer Sheath PVC (ST-2, FR, FR-LSH)/HDPE

HV CABLES

A high-voltage cable (HV cable), sometimes called a high-tension cable (HT cable), is used for electric power transmission at high voltage (from 3.3 kV to 33 kV)

1C MEDIUM VOLTAGE COPPER POWER CABLES

3C MEDIUM VOLTAGE ALUMINIUM POWER CABLES

3C MEDIUM VOLTAGE COPPER POWER CABLES

3C MEDIUM VOLTAGE POWER CABLES WITH WIRE ARMOURED

FEATURES

- High Current Carrying Capacity
- Improved Moisture Barriers
- Reduced Electro-magnetic Interference
- Enhanced Mechanical Protection

APPLICATIONS

- Industrial Power Supply
- Distribution Sub-Stations
- Power Transmission & Distribution Networks
- Renewable Energy Systems

LV CABLE CONSTRUCTION

LV POWER CABLES

1. Aluminium Conductor
2. Insulation (PVC/XLPE)
3. Inner Sheath (Extruded PVC/Tape Wrapped)
4. Armour
5. PVC Outer Sheath

LV CONTROL CABLES

1. Stranded or Solid Copper Conductor
2. Insulation (PVC/XLPE)
3. Inner Sheath (Extruded PVC)
4. Armour
5. PVC Outer Sheath

LV POWER CABLES

Low-Voltage (LV) cables are electrical cables designed to operate at lower voltage levels, typically up to 1.1 kV


COPPER POWER CABLES


ALUMINIUM POWER CABLES


COPPER CONTROL CABLES


LOW VOLTAGE ALUMINIUM POWER CABLES


ALUMINIUM POWER CABLES FOR SOLAR


INSTRUMEN-TATION CABLES


COPPER CONTROL CABLES


INSTRUMEN-TATION CABLES

FEATURES

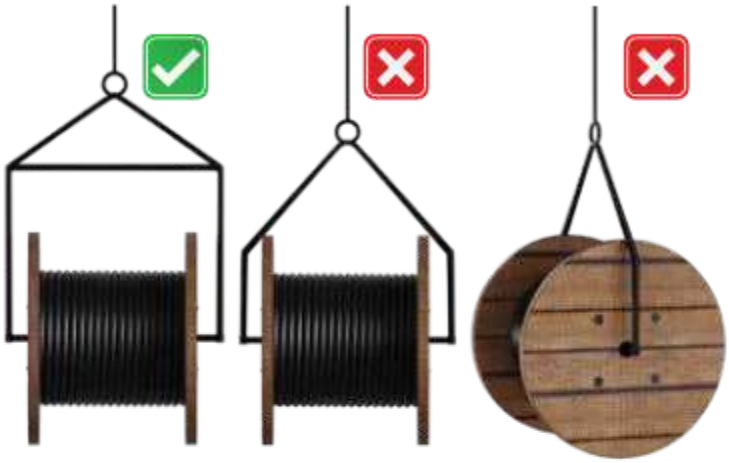
- Better Conductivity
- Enhanced Temperature Rating (700 C - 1100C)
- Better Thermosetting Insulation
- Enhanced Tensile Strength

APPLICATIONS

- Power Distribution In Industrial Buildings
- Automation Systems
- Instrumentation Devices
- Power Generation Facilities

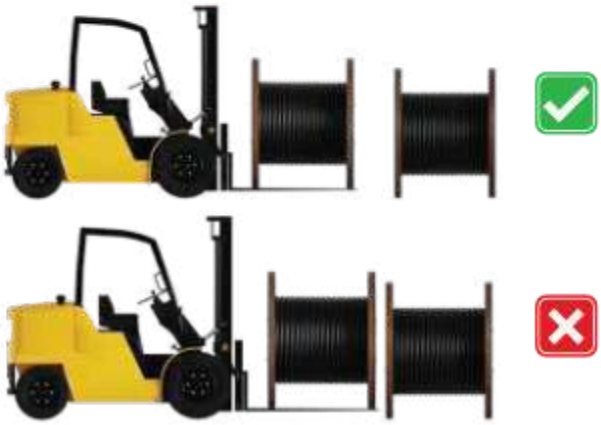
PRODUCT COMPARISON:

WIRE FEATURES	FR	HRFR	FR-LSH	HFFR
[illegible]	✓	✓	✓	✓
[illegible]	✓	✓	✓	✓
[illegible]	✓	✓	✓	✓
[illegible]	✓	✓	✓	✓
[illegible]	✓	✓	✓	✓
[illegible]	✓	✓	✓	✓
[illegible]		✓		
[illegible]			✓	✓
[illegible]			✓	
[illegible]				✓
[illegible]				✓



Cable must to pulled from top with help of screw jack

This is incorrect way of pulling the cable and will cause kinks & twist in cable. Should be avoided.



Do not use the forklift tynes to push cable drums sideways on a truck, tray or direct on the ground as damage to the flanges can result in the drum being unacceptable to customers.

When storing cable drums for long periods, please take the following guidelines into consideration:

- ✔ The drums must always be stored with their flanges vertical.
- ✔ Leave enough space between stored drums for air circulation.
- ✔ The bolts should be tightened at regular intervals.

INDUSTRIES & CUSTOMERS WE CATER TO

GOVERNMENT SECTOR

PRIVATE SECTOR

BRANCH OFFICES

MUMBAI

TORRENT ELECTRICALS LIMITED
The Ruby, 22nd Floor, Kasarwadi, 29,
Senapati Bapat Marg, Dadar (West), Mumbai - 400093.

BANGALORE

TORRENT ELECTRICALS LIMITED
No.15 & 16, 5th Floor, Vayudhdoot Chambers,
M. G. Road, Bangalore - 560001.

CHENNAI

TORRENT ELECTRICALS LIMITED
5E, Century Plaza, 56/562, Anna Salai,
Teynampet, Chennai - 600018.

KOLKATA

TORRENT ELECTRICALS LIMITED
106, Central Plaza, 2/6 Sarat Bose Road,
Kolkata - 700020.

NEW DELHI

TORRENT ELECTRICALS LIMITED
115/116, World Trade Centre, Babar Road,
Connaught Place, New Delhi - 110001.

HYDERABAD

TORRENT ELECTRICALS LIMITED
Unit No.5A & 5B, 5th Floor, Space & More Business Park,
Plot No. 98 & 99, Lumbini Layout, Sangareddy,
Hyderabad - 500032.

JAIPUR

TORRENT ELECTRICALS LIMITED
101-105-FF, Signature Tower, DC-2, Nr. Apex Bank,
Lalkchi Tank Road, Jaipur - 302015.

TORRENT
ELECTRICALS

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