

GUIDING RULES OF POWERtrac

WORKING HARD, & AIMING HIGH.

WE ENSURE HIGHEST QUALITY OF ELECTRIC PRODUCTS

WE ALWAYS RESPECT LAW OF THE COUNTRY & OBEY IT

WE KNOW SERVICE FAST, PROFIT IS LOGICAL OUTCOME.

SEEING IS BELIEVING, PLEASE VISIT OUR FACTORY.

WE ENHANCE OUR SKILLS & CREATIVITY - QC CIRCLE RECOGNIZES OUR POTENTIAL

POWERtrac CONNECTS WITH THE LATEST GLOBAL TECHNOLOGY.

POWERtrac IS ALWAYS A FAMILY WITH STRONG BONDS.

[www.powertrac-bd.com](http://www.powertrac-bd.com)

**MV & LV**  
**SWITCHGEAR**  
CONTROLS & AUTOMATION



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POWERtrac Group is a leading name in the electrical industry, providing high-quality switchgear solutions for industrial, commercial, and residential applications. With a strong commitment to reliability, safety, and innovation, we offer a comprehensive range of LT & HT switchgear, PFI panels, circuit breakers, busbar trunking systems, and more. Our expertise, combined with partnerships with globally recognized brands, ensures that our customers receive cutting-edge electrical solutions tailored to their needs.

**OUR INFRASTRUCTURE**

Our switchgear shaded area 12000SFT & factory shaded area 75000SFT & Total area 180000SFT.

- Annual Manufacturing Capacity-4600pcs.
- Certification: ISO 9001:2008  
ISO 14001:2008  
ISO 26000



**OVERVIEW OF SWITCHGEAR**

Switchgear is essential in electrical power systems, controlling, protecting, and isolating equipment. It includes circuit breakers, fuses, and disconnect switches, ensuring safe and efficient operation. Designed to interrupt power during faults or maintenance, switchgear prevents equipment damage and enhances safety. Modern systems feature advanced monitoring and remote control for real-time diagnostics.



OUR PRODUCTS

33kV Vacuum Circuit Breaker (VCB)

- An electrical switch designed to protect and control high-voltage circuits by interrupting the flow of electricity during faults.
- Uses a vacuum as the arc extinguishing medium, ensuring efficient and reliable operation.

TECHNICAL DATA	
Type	VBF 36
Standard	IEC-62271-100
Rated Voltage	36kV
Frequency	50 Hz
Insulation Level	70/170kVp
Normal Current	1250/1600 Amp
Short Circuit Breaking Current	26.3 kA
Operating Sequence	0-0.3s-CO-3 Min.-CO
Weight	800 Kg



33Kv Control Panel

Designed for efficient power management and protection, our 33kV Control Panel integrates key components for reliable operation:

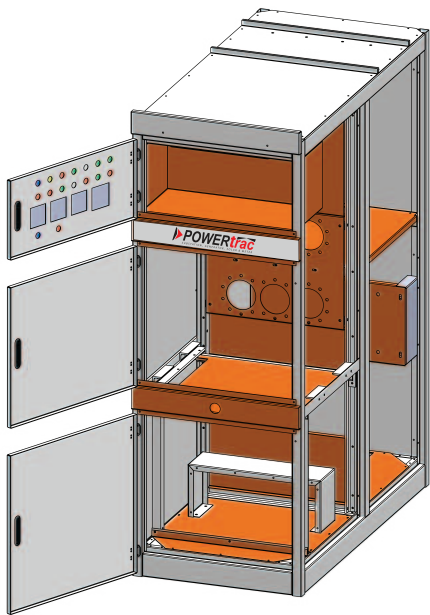


- TCSR (Trip Circuit Supervision Relay) – Ensures trip circuit reliability.
- Master Trip Relay – Enables coordinated breaker tripping.
- Overcurrent & Earth Fault Relay – Provides fault protection.
- Alarm Annunciator – Alerts operators to system issues.
- TNC Switch – Facilitates safe breaker control.
- Meters – Ensures accurate monitoring.
- Circuit Position Indicator – Displays breaker status.
- Test Terminal Block – Simplifies testing & troubleshooting.



11kV Draw Out Type VCB Panel

- Ensures circuit protection by interrupting faults using a vacuum arc quenching medium.
- Ideal for high-voltage applications (11kV–33kV) with high reliability and low maintenance.
- Available in Draw Out/Fixed Type.
- LBS used in 500kVA–2000kVA substations for professional, reliable installations.

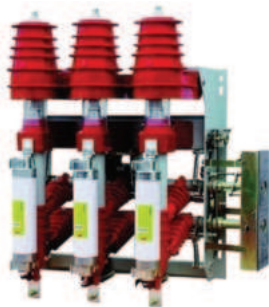


TECHNICAL DATA			
Rated Voltage	kV	12	12
Rated Current	A	630	1250
Short Time Current (maximum)	kA	25	25
Short Time Current Duration	Sec	3	3
Operating Sequence	0-3mn-CO-3mn-CO		
	0-3mn-CO-3mn-CO		
	0-3mn-CO-15mn-CO		

Load Break Switches (LBS)

Designed for safe and efficient switching, our Load Break Switches (LBS) disconnect electrical current when it exceeds the nominal value. Featuring a sheet steel enclosure, epoxy insulators, switch blades, contacts, and an arc quenching chamber, they ensure durability and performance.

- Reliable switching for public distribution, industrial sectors, panels, and motor feeders.
- Reduces wear on manual switches and enhances safety.
- Used in 315kVA to 500kVA substations with professional installation.



# OUR PRODUCTS

## 4B LT Panel

- Separate incoming & outgoing busbar chamber
- Separate capacitor chamber
- Automatic earth switch
- If there is a problem in one chamber, the other one will not be affected
- Enhanced safety features with overcurrent protection
- Compact design for space efficiency
- Quick disconnect functionality for easy maintenance



## LT Panel

- Distributes electrical power at low voltage levels.
- Typically used for voltages up to 415 volts.
- Includes circuit breakers, relays, meters, and busbars.
- Used in commercial buildings, industrial plants, and residential complexes.
- Provides reliable power distribution, easy maintenance, and enhanced safety.



### Power Factor Improvement (PFI) Plant

- Enhances the efficiency of electrical systems by improving the power factor.
- Typically involves the use of capacitors and controllers.
- Used in industrial, commercial, and residential electrical systems.
- Reduces energy consumption, lowers electricity bills, and decreases stress on electrical equipment



### 2B LT Panel



- All panel fitting nut bolt type
- Double door type
- 5mm tempered glass
- Dust proof
- Loading & unloading is much easier
- Quick maintenance facilitated by nut and bolt assembly

### Motor Control Panel (MCP)

Motor Control Panels efficiently manage and protect electric motors, ensuring smooth operation with built-in motor starters, circuit breakers, and overload relays. Designed for industrial automation, HVAC systems, and other applications, these panels provide reliable performance with user-friendly controls. Available in both fixed and draw-out configurations, they offer flexibility, safety, and ease of maintenance.





# OUR PRODUCTS

## Distribution Box (DB)

- Ensures safety by preventing overloads and short circuits.
- Made from high-grade materials for durability and long-lasting performance.
- Blends seamlessly with interior spaces.
- Hassle-free setup with organized wiring and accessible components.
- Suitable for homes, offices, and industrial setups.
- Available in various sizes and specifications to match your needs.
- IP-rated enclosures for protection against dust and moisture.
- Compact design for optimized space usage.
- Assurance of quality with manufacturer warranty and after-sales service.



## Sub-Distribution Box (SDB)



- Efficiently distributes electrical power from the main distribution board to various circuits
- Ensures safe and organized power management
- Suitable for residential, commercial, and industrial applications
- Compact, durable design
- Easy installation & reliable performance
- Available in various configurations to meet different power requirements

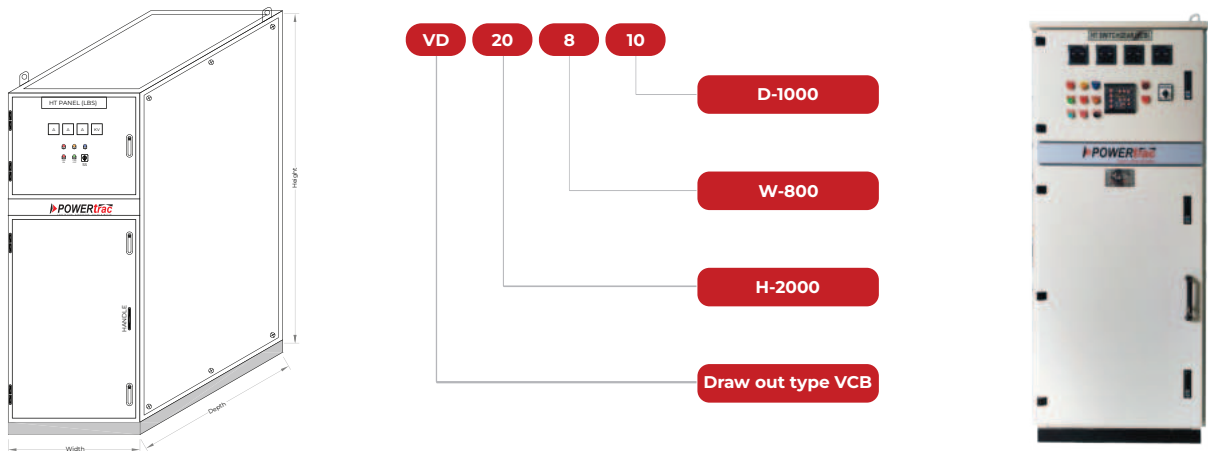
## Variable Frequency Drive (VFD)

- Regulates motor speed and torque for energy efficiency and performance.
- Protects motors from voltage fluctuations and reduces mechanical stress.
- Ideal for industrial automation and HVAC systems.
- Enhances process control and reduces energy consumption.





Panel Model



HT PANEL

SI No.	Type No.	Description	Model No.	Remarks
01	PRO-12	Drawout Type VCB Panel	VD-20815	4 Compact System
02	PRO-12F	Fixed Type VCB Panel	VF-20815	
03	PRO-12L	HT LBS Panel	L-20810	

ACB

SI No.	Description	Model No.	Remarks
01	Fixed Type	AF 3P2068	3 Pole
02	Fixed Type	AF4P2088	4 Pole
03	Fixed Type	AF3P201010	3 Pole
04	Draw Out Type	AD201210	

LT PFI

SI No.	Type No.	Description	Model No.	Remarks
01	PRO-6	Only TP MCCB	LP-1666	100A    7NOS    TP MCCB
			LP-1667	
			LP-1668	
			LP-1678	100A    9NOS    TP MCCB
			LP-1677	
			LP-1676	
			LP-1686	100A    11NOS    TP MCCB
			LP-1687	
			LP-1688	
02	PRO-6L	ACB & TP MCCB	LP-2066	100A    12NOS    TP MCCB
			LP-2067	
			LP-2068	
			LP-2076	100A    16NOS    TP MCCB
			LP-2077	
			LP-2078	
			LP-2086	100A    20NOS    TP MCCB
			LP-2087	
			LP-2088	

ACB

- Protects circuits from overloads and short circuits in systems up to 1,000V.
- Offers high fault current capacity, advanced protection, and monitoring.
- Widely used in industrial, commercial, and residential setups. Regular maintenance ensures reliability.



Circuit breaker IEC 60947	Iu (A)	R a t e d Short-time Withstand Current	Horizontal Terminals		Vertical Terminals	
			Qty	Dimension of busbars(in)	Qty	Dimension of busbars(in)
E2.2	800	66 kA/1s	1	50x10	1	50x10
	1000	66 kA/1s	2	50x5	2	50x5
	1250	66 kA/1s	2	50x10	2	50x10
	1600	66 kA/1s	2	2x60x10	1	100x10
	2000	66 kA/1s	3	60x10	2	80x10
		100 kA/1s	3	60x10 <sup>(1)</sup>	2	80x10 <sup>(1)</sup>
	2500	85 kA/1s	3	60x10	4	100x5
		66 kA/1s	3	60x10 <sup>(1)</sup>	4	100x5 <sup>(1)</sup>
E4.2	2000	66 kA/1s	2	80x10	2	80x10
	2500	85 kA/1s	2	100x10	2	100x10
	3200	66 kA/1s	3	100x10	3	100x10
	4000	85 kA/1s	4	100x10	4	100x10
E6.2	4000	66 kA/1s	4	100x10	4	100x10
	5000	100 kA/1s	5	100x10	5	100x10
	6300	100 kA/1s	6	100x10	6	100x10

Magnetic Contactor

- Electrically controlled switch for power circuits, operating via an electromagnet.
- Ensures safe, efficient switching in motor and lighting control systems.
- **Brand: ABB & as per customer demand.**



**MCCB (Molded Case Circuit Breaker)**

- Protects electrical circuits from overloads, short circuits, and ground faults.
- Used in higher current and voltage applications compared to MCBs.



**MCB (Miniature Circuit Breaker)**



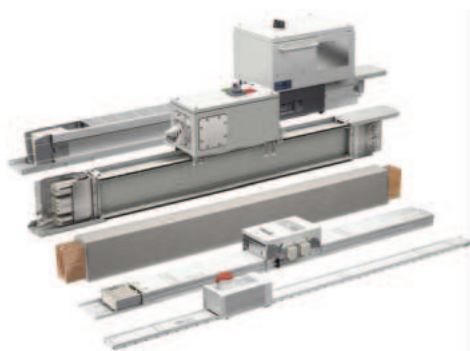
- Protects low-voltage circuits from overloads and short circuits.
- Controls and safeguards single-phase (SP) and double-phase (DP) circuits.
- Ideal for residential and light commercial applications.

**Capacitor**

- Improves power factor by reducing reactive power demand.
- Used for power supply smoothing, signal filtering, and energy storage.
- Enhances efficiency and minimizes energy loss.
- **Brand: RTR Energia, Spain**



**Busbar Trunking (BBT)**



- Distributes power via enclosed copper/aluminum busbars.
- Ideal for buildings, factories, and equipment.
- Offers space-saving design, easy installation, and enhanced safety.
- Available in low, medium, high power, and lighting & trolley BBT systems.
- **Brand: ABB.**

Among our BBT projects, ICCB, Q-Center, Uttara University, Hotel IBIS, and RRP stand out for their unique design and installation.

List of mechanical & Allied Equipment

S.N	ITEM	QTY
1	Laser Cutting M/C	2 NOS
2	Hydraulic Prass M/C	2 NOS
3	Nickle Plant Rectifier	
4	Hand Drill M/C	1 NOS
5	Hand Drill M/C 4"	3 NOS
6	Hand Drill M/C 7"	1 NOS
7	Hit Gun	2 NOS

S.N	ITEM	QTY
8	Weilding M/C (Arc)	3
9	Weilding M/C (MIG)	1
10	Hydraulic Banding M/C	2 NOS
11	Hydraulic Cutting	1 NOS
12	Hydraulic Busber Processing M/C	2 NOS
13	7 Tank Process	1
14	Powder Coating M/C	2 NOS



7 Tank Process



Powder Coating Process



Busbar Bending M/C



Laser Cutting M/C



Hydraulic Bending M/C



Shearing M/C



1	Function test of interlocks	12	Injection
2	Inspect physical and mechanical condition	13	Inspect the switchgear for proper grounding
3	Mechanical operation	14	Insulation resistance test
4	Check for correct breaker position indication	15	Nameplate check
5	Current transformer checks	16	Verification of correct wiring
6	Dielectric tests	17	Verify proper phasing of bus
7	Examine the switchgear for correct operation	18	Voltage transformers
8	Check overload relay setting	19	Circuit breaker timing
9	Electrical operation test	20	Functional check
10	Insulation electrical tests	21	Metering electrical tests
11	Temperature rise test	22	Powder coating test



CT test meter



Megger



Primary current injector



Coat gauge meter



Temperature meter



CT test set

We are also performing:

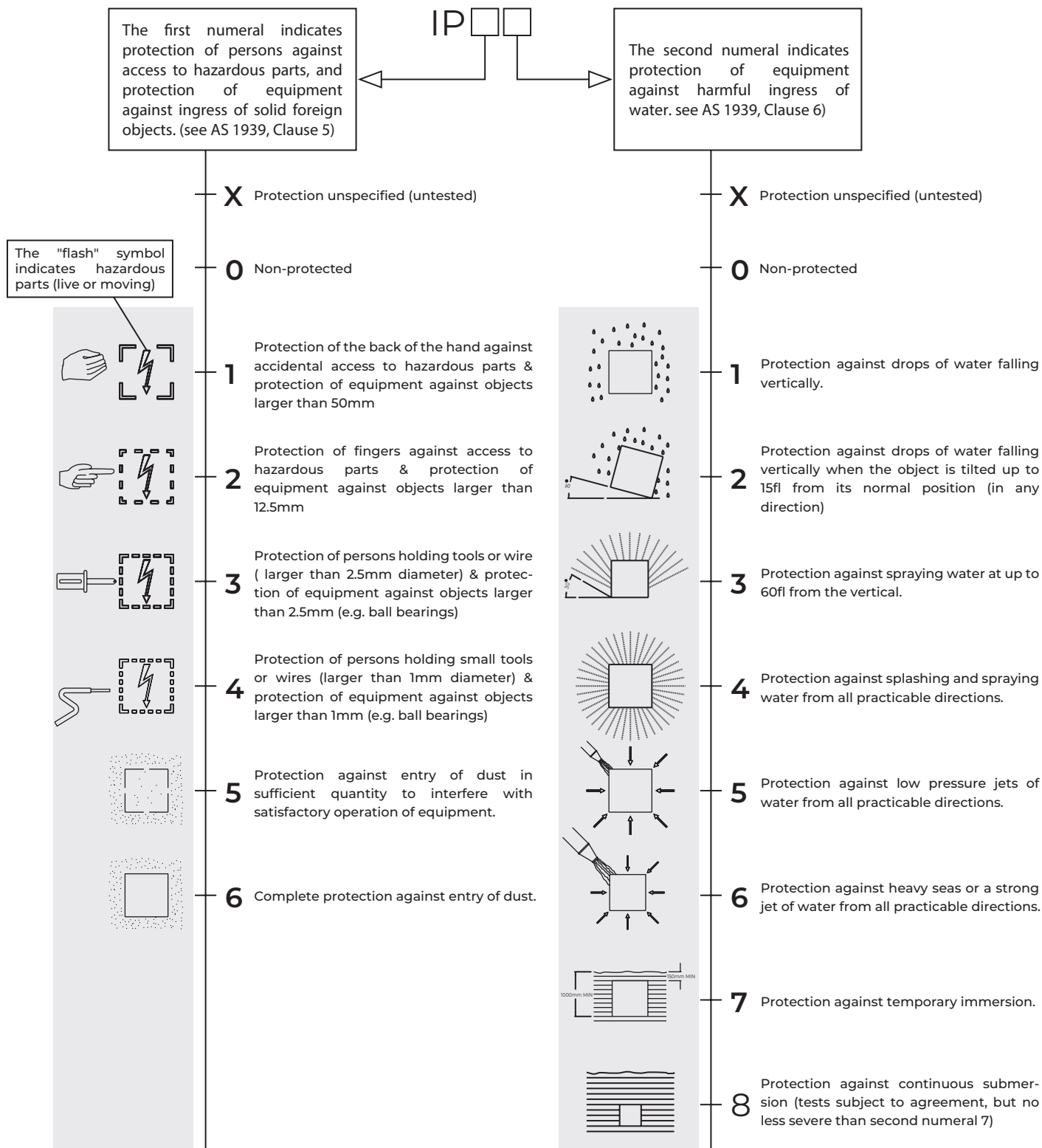
01. Electrical Audit	02. Harmonic Solution	03. Pre-comissioning Test	04. Overhead & Underground Line Construction
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IP RATING CHART

Protection of persons and protection of equipment indicated by the IP code.

Protection provided by enclosures for electrical equipment is indicated by the IP codes two:

CHARACTERISTIC NUMERALS



REMARKABLE PROJECTS



Karnafuli Tunnel



X-Ceramics Limited



Bay Economic Zone



Globe Edible Oil



Matarbari Power Plant



Kulaura- Thakurgaon



ICCL



Bashundhara Group

OUR CERTIFICATIONS



ISO-9001:2015



ISO-14001:2015



MIST PANEL TEST



DUET PANEL TEST



LIVE LIVELY EVERYDAY WITH POWERtrac.



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#### POWERtrac Concerns

