



ADVANCED POWER BUSWAY SYSTEM

By Vayuson Technologies Pvt Ltd (VTPL)

Safe | Efficient | Reliable | Flexible

SMART POWER DISTRIBUTION

ENGINEERED FOR PERFORMANCE

VTPL is committed to deliver innovative, reliable and performance-driven advanced power distribution solutions for modern infrastructure. Our solutions are built to serve Industrial Setups, Data Centers, Manufacturing Setups, Warehouses, Substations and High Rise Buildings, where reliability is not optional.



THE NEXT EVOLUTION IN

POWER BUSWAY SYSTEMS

V Bar Power Busway is a safe, and highly reliable power distribution system designed to outperform conventional cables, traditional busbars and sandwich busducts.

Built with a closed structural design and advanced airflow engineering, V Bar offers:

- ✓ Efficient heat dissipation
- ✓ Compact design
- ✓ Flexible configuration (as per site conditions)
- ✓ Superior safety performance
- ✓ Freedom for on-site modifications during installation
- ✓ Faster installations compared to conventional systems
- ✓ Self fire extinguishing properties
- ✓ Long operational life

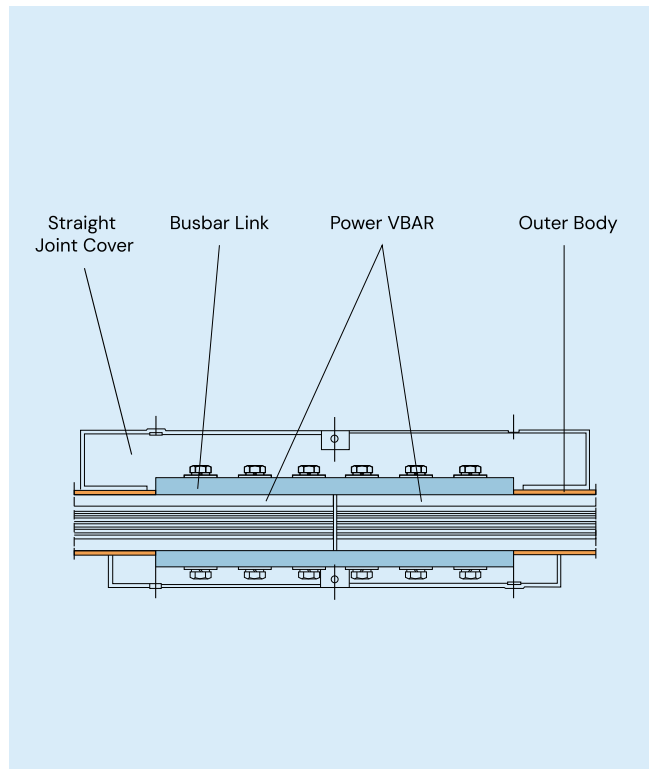


**RELIABLE
PERFORMANCE**
WHERE IT
MATTERS MOST

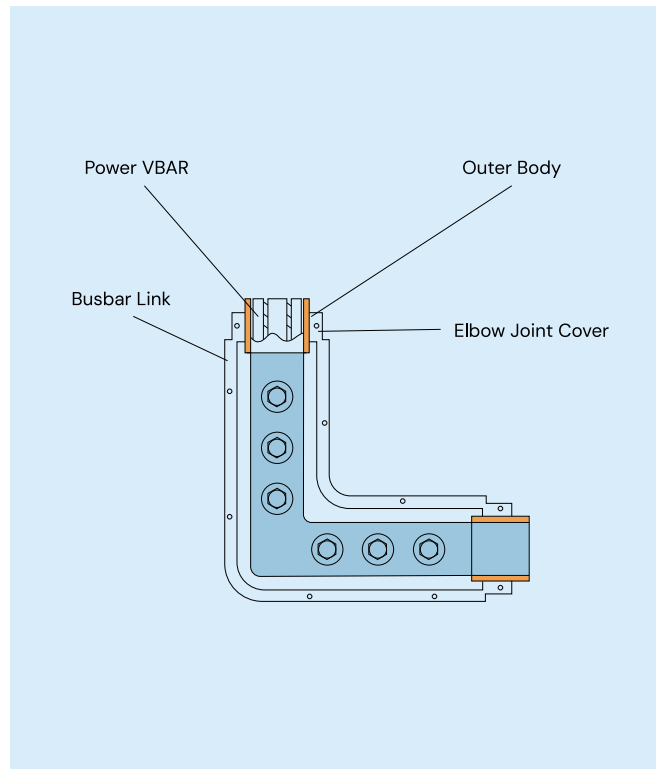
Engineered to Industrial Standards

Parameter	Final Specification
Rated Operating Voltage U_e	440 V
Rated Frequency f_n	50 Hz
Rated Insulation Voltage U_i	1000 V
Rated Impulse Withstand Voltage U_{imp}	8 kV
Protection Rating	IP5X
Enclosure Thermal Class	Class E
Short-Circuit Rating (ICW)	Upto 65KA For 1 Sec
Peak Withstand (IPK)	Upto 137KA
Pollution Degree	Pollution Degree 3 (as per IEC 61439-1 / IEC 60664-1) for all indoor industrial and construction site applications
SECTION 2: ELECTRICAL PERFORMANCE	
System Configuration	3P3W, 3P4W, 3P 5W (3-Phase 3-Wire / 3-Phase 4-Wire / 3-Phase 5-Wire)
Rated Insulation Voltage (U_i)	1000 V
Rated Impulse Withstand Voltage (U_{imp})	8 kV
SECTION 3: PRODUCT/MANUFACTURER DETAILS	
Applicable Standard	IEC 61439-6
Conductor Material	EC Grade Aluminium Alloy AA-6101 (IS 5082) – Standard offering EC Grade Copper (IS 613) – On request
Current Ratings (A)	100 / 150 / 200 / 250 / 400 / 630 / 800 / 1000 / 1250 / 1600 / 2000 / 2500 / 3200 / 4000 / 5000 A
Section Length	Maximum 6m However customized lengths can be modified at site.
SITE ACCEPTANCE TESTS	
Site Acceptance Tests	IR Test (500 V Megger, $\geq 1 \text{ M}\Omega$ acceptable at site) Visual joint inspection before energisation

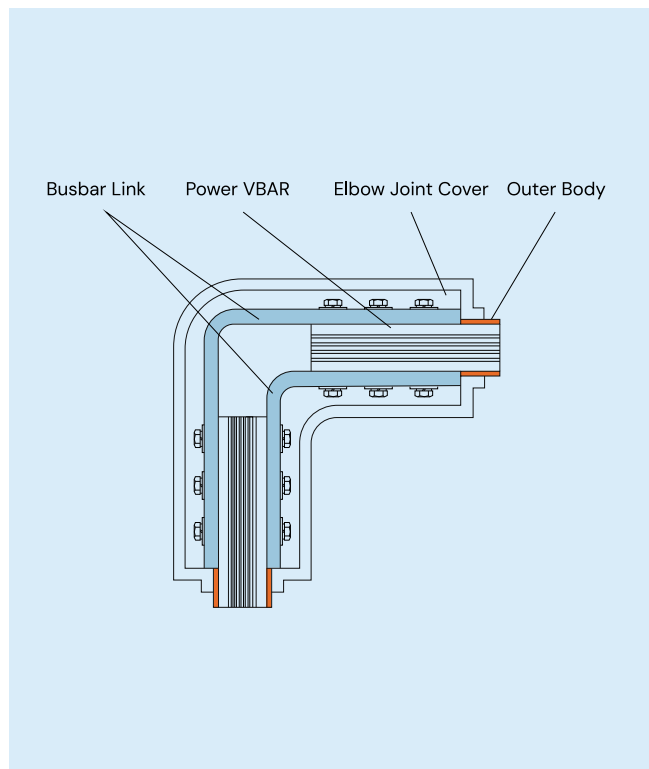




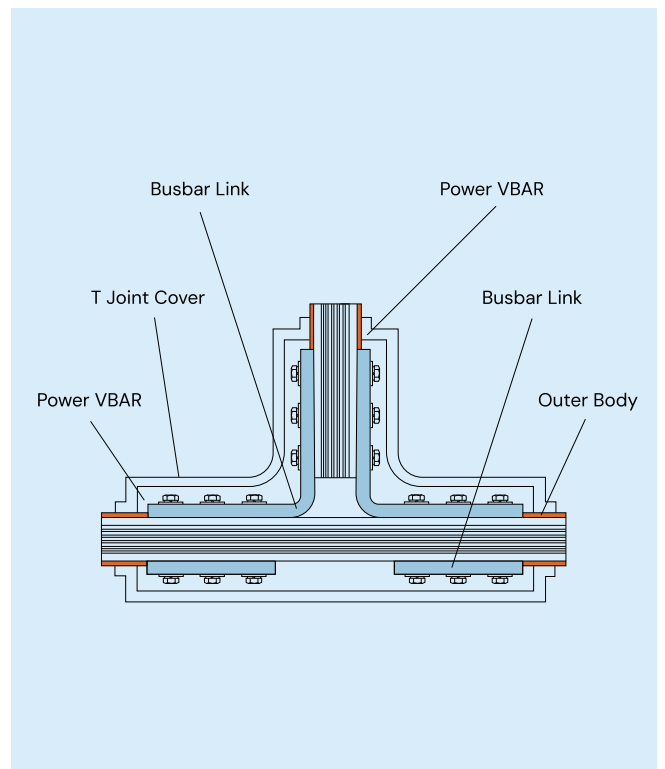
VBAR Aluminum Busbar Trunking
Straight Connector



VBAR Aluminum Busbar Trunking
90° Horizontal Elbow Connector



VBAR Type Aluminum Busbar Trunking
90° Vertical Elbow Connector



VBAR Type Aluminum Busbar Trunking
"T" Joint Connector

Modular. Adaptable. Complete.

SYSTEM COMPONENTS & ACCESSORIES

The V Bar system includes:



Straight Busbar



T Joint Busbar Link



Straight Busbar Link



90° Busbar Link



Elbow Cover



Busbar Clamp



Joint Cover

COMPARISON CHART

Description	Cables	Sandwich Bus Ducts/ Air Insulated Bus Ducts	VTPL "V-Bar" Bus Ducts
Flexibility	Yes	No	Yes
Modification at Site	Yes	No	Yes
Design	Centralized. Panel Footprint Increases	Decentralized. Panel Footprint Decreases	Decentralized. Panel Footprint Decreases
Short Circuit Capacity	Less	More	More
Voltage Drop	More	Less	Less
CAPEX	Less	More Costly	Optimal (More than Cable and less than Sandwich Bus Duct)
Ease of Installation	Complicated (First need to install cable tray and then need to pull heavy cables)	Complicated (Very heavy to Install)	Very Easy (As we have to lift and install each phase which make it 75% less weight than Sandwich Bus Duct)
Installation Time	More	Comparatively Less	Very Less
Chances of Short Circuit	Yes, because of Insulation Failure.	Yes, because of Insulation Failure as all the Phases are stacked together.	Zero Chance of Short Circuit as each phase is Separate.
Impact of Water	No Impact – If Use of Water-Resistant Cables	Immediate Short Circuit due to water ingress	No Impact – As each phase is separate.
Chances of Fire	Not Possible, only if Special Cables are Used	No	No

Product
MODELS & SPECIFICATIONS

Serial No.	Current Rating	Weight Per Meter / Per Phase	Dimensions / Per Phase
VB150A	150 Amp	0.28 Kg	28 mm x 28 mm
VB200A	200 Amp	0.28 Kg	28 mm x 28 mm
VB250A	250 Amp	0.500 Kg	28 mm x 28 mm
VB300A	300 Amp	0.550 Kg	36 mm x 36 mm
VB320A	320 Amp	0.575 Kg	37 mm x 37 mm
VB400A	400 Amp	0.730 Kg	37 mm x 37 mm
VB500A	500 Amp	0.900 Kg	37 mm x 37 mm
VB630A	630 Amp	1.2 Kg	37 mm x 37 mm
VB630A	630 Amp	1.4 Kg	37 mm x 37 mm
VB800A	800 Amp	1.5 Kg	37 mm x 37 mm
VB900A	900 Amp	1.7 Kg	37 mm x 37 mm
VB1000A	1000 Amp	1.8 Kg	58 mm x 58 mm
VB1000A	1000 Amp	1.8 Kg	37 mm x 37 mm
VB1250A	1250 Amp	2.2 Kg	58 mm x 58 mm
VB1600A	1600 Amp	2.85 Kg	58 mm x 58 mm
VB2000A	2000 Amp	3.5 Kg	58 mm x 58 mm
VB2500A	2500 Amp	4.3 Kg	58 mm x 58 mm
VB2500A	2500 Amp	4.5 Kg	58 mm x 58 mm
VB2500A	2500 Amp	4 Kg	58 mm x 58 mm
VB3000A	3000 Amp	5.4 Kg	80 mm x 80 mm
VB3200A	3200 Amp	5.8 Kg	80 mm x 80 mm
VB3500A	3500 Amp	6.3 Kg	80 mm x 80 mm
VB3700A	3700 Amp	6.6 Kg	80 mm x 80 mm
VB4000A	4000 Amp	7.3 Kg	80 mm x 80 mm
VB4500A	4500 Amp	8.2 Kg	80 mm x 80 mm
VB4500A	4500 Amp	8.2 Kg	80 mm x 80 mm
VB5000A	5000 Amp	9 Kg	80 mm x 80 mm

Below are the installation guidelines, however installation is recommended to be carried under the supervision of VTPL technical representatives.



Busbar Clamp

- Ensure proper alignment of mounting clamps in both horizontal and vertical directions.
- The deviation in alignment should not exceed 5 mm.

Busbar Connection

- Joint 2 straight busbars together, connect busbar links on both sides of the busbars and ensure they are torqued tightened.
- Once the link is in place, put the joint cover on the top of the busbar.

Power Supply Cable / Busbar

For cable insertion:

- Position the connection box
- Install the busbar link
- Insert the cable / busbar
- Secure the connection box firmly to the connection plate

Final Inspection & Retest

- Verify the straightness of the bus bar. The permissible tolerance is ± 20 mm.
- Ensure all fasteners are securely tightened.
- After one month of continuous operation, recheck and retighten all fasteners to maintain system integrity.



● **Pre-Energization Check**

- Use megger
- Insulation resistance > 2.5 MΩ
- Rectify faults; if any, before energizing



● **Annual Maintenance**

- Inspect all fasteners
- Tighten if necessary



● **Specification Selection**

Choose product rating based on:

- Equipment load
- Duty cycle
- Ambient temperature
- Circuit length

Installation
GALLERY



Complete Electrical Solutions. One Trusted Partner.

While V Bar is one of our flagship power distribution solutions, at Vayuson Technologies we deliver comprehensive electrical engineering solutions that encompass power distribution, transformers, control panels, busbar systems, automation solutions, and associated electrical infrastructure. From technical consultation and detailed engineering to procurement, installation, testing, commissioning, and after-sales support, we manage the complete electrical scope delivering integrated systems that are efficient, reliable, and built to perform throughout their lifecycle.

Engineering-Driven Design

Every project begins with detailed load analysis, single-line diagrams, equipment selection, and layout optimisation to ensure maximum safety, performance, and long-term reliability.

Faster Project Execution

Our integrated project management, pre-engineered solutions, and experienced execution teams help accelerate installation and commissioning while maintaining the highest quality standards.

Value Engineering

Every project begins with detailed load analysis, single-line diagrams, equipment selection, and layout optimisation to ensure maximum safety, performance, and long-term reliability.

Certified Products & Trusted Supply Chain

Every component is sourced from trusted manufacturers and complies with applicable IEC standards and project-specific technical requirements, ensuring dependable performance and quality.

Lifecycle Support

Our partnership extends beyond commissioning with technical documentation, commissioning assistance, preventive maintenance, and ongoing engineering support to keep your systems operating reliably for years to come.

Industries We Serve



Industrial Plants
& Facilities



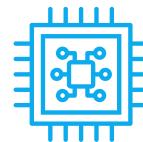
Automotive & EV
Manufacturing



Chemical & Process
Industries



Metals, Minerals
& Coke



Electronics &
Semiconductor



Oil, Gas &
Petrochemicals



Data Centres &
IT Parks



Ports, Logistics &
Warehousing



Healthcare & Life
Sciences



Commercial &
Residential Buildings



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