GEESYS

800VAC LT DISTRIBUTION PANELS

UL IEC VDE CSA CE RoHS PD EMC/EMI Shielding IK10 IP65 UV

About GEESYS

GEESYS Technologies India Pvt. Ltd. is a leading manufacturer of Solar LV AC Combiner Panel Boards, Solar ACDB, LV Busducts, Auxiliary Transformers, Distribution Boards, UPS DBs, Earthing Electrodes, and Lightning Arresters. With years of expertise in renewable energy solutions, GEESYS delivers reliable, safe, and innovative power distribution products for the solar industry.

GEESYS Advantage Over Competitors

- Custom Engineering
- Safety First
- Smart Future
- Proven Reliability
- End-to-End Solutions

GEESYS 800VAC

Solar AC Combiner Panels

Next-Generation 800VAC Solar AC Combiner Panels – Engineered for Utility-Scale Solar Plants

Why 800VAC AC Combiner Panels?

Designed
for large-scale solar power plants

Improves
efficiency by minimizing power loss during transmission.

Enhanced
safety with advanced protection and fault detection systems.

Real-time
monitoring for performance and fault analysis.

ELITE-SID SERIES

G-ELITE-SID SERIES

SMART-SID SERIES

G-SMART-SID SERIES

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800VAC

LV Combiner Panel Boards

VOLTAGE CLASS	INTERRUPTING RATING	CONTINUOUS CURRENT RATING
800Vac wye nominal voltage	Up to 65 KA	Up to 400 A

Built-In Standard Features (Available in All Series)

- Compliance to latest IEC 61439-1 & 2
- Stringent fault withstand capacity up to 100 kA for 1s
- Double-deck busbar system for optimized current distribution
- Ingress Protection up to Ip54
- Internal Arc withstand up to 85 kA / 0.5 sec as per IEC 61641
- Seismic Zone V compliance tested for extreme structural conditions
- Flexibility in busbar & cable entry (top / bottom entry options)
- High-Performance Cubicles designed for durability under harsh solar site conditions
- Robust Specifications with premium materials, thicker busbars, and advanced insulation

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SERIES-WISE FEATURES COMPARISON TABLE

FEATURE	ELITE-SID	G-ELITE-SID	SMART-SID	G-SMART-SID
ON/OFF/TRIP Indication	✓	✓	✓	✓
SPD	Type-2 + Fuse	Type-1+2 + Fuse	Type-1+2 + Fuse	Type-1+2 + Fuse
Auxiliary Transformer	—	✓	✓	✓
PLC + HMI Monitoring	—	—	✓	✓
Remote Monitoring	—	—	✓	✓
Temperature Compensation	—	✓	✓	✓
LDB	—	✓	—	✓
UPS DB	—	✓	—	✓
Online UPS + Battery	—	✓	—	✓
Smoke Detection	—	—	✓	✓

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ELITE-SID SERIES
COST-EFFECTIVE RELIABILITY

Ideal for projects requiring dependable performance at competitive cost.

Key Features

- ON/OFF/TRIP Indication for all MCCB/ACB
- SPD Type-2 with Backup Fuse
- Faster Delivery
- Safe Design
- IEC/IS standards
- Affordable

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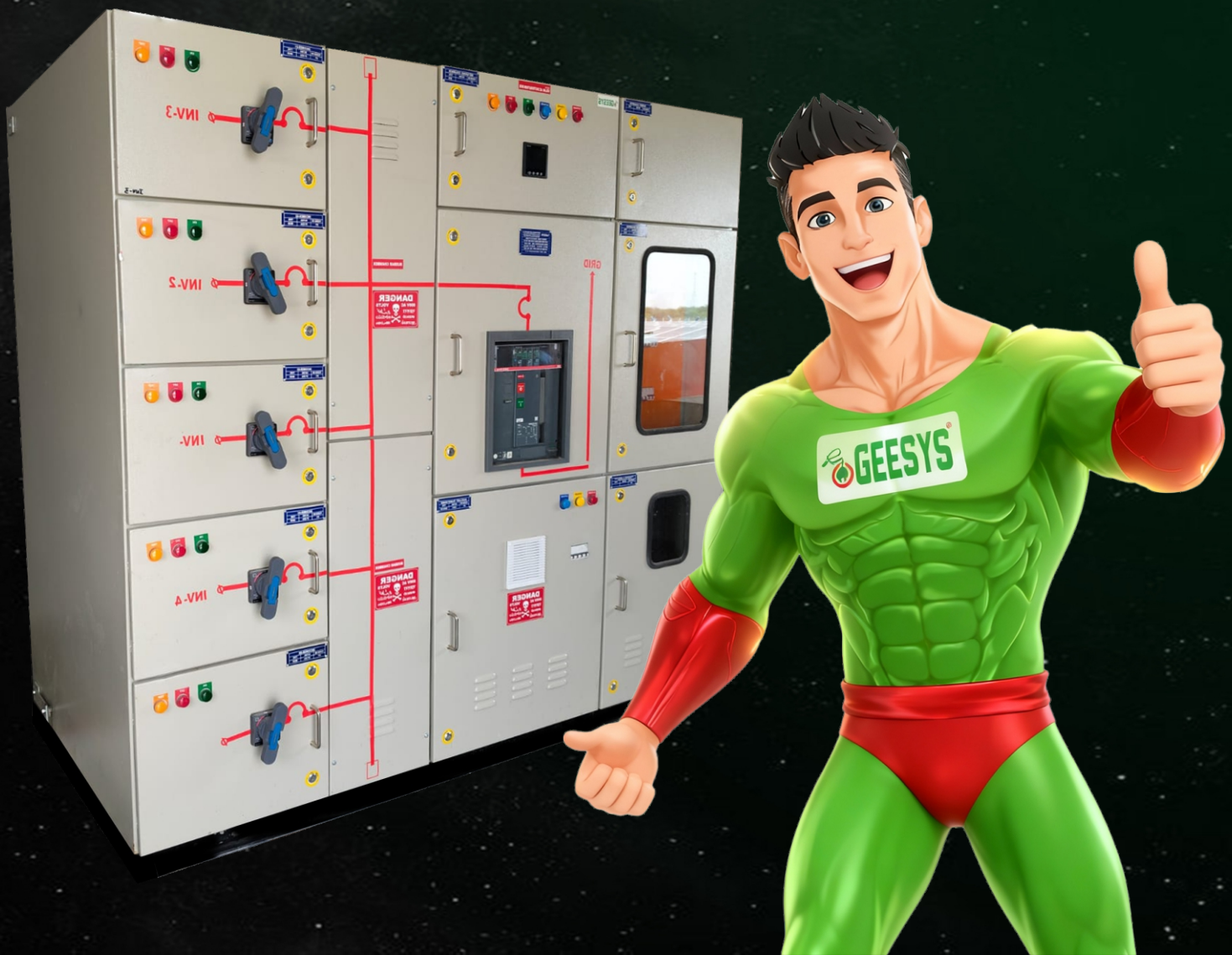
G-ELITE-SID SERIES
ENHANCED PROTECTION

For critical installations demanding redundancy & improved safety

Key Features

- Auxiliary Transformer
- Online UPS with Battery Backup
- LDB + UPS DB
- ON/OFF/TRIP Indication for all MCCB/ACB
- SPD Type-1+2 with Backup Fuse
- Better Temperature Compensation



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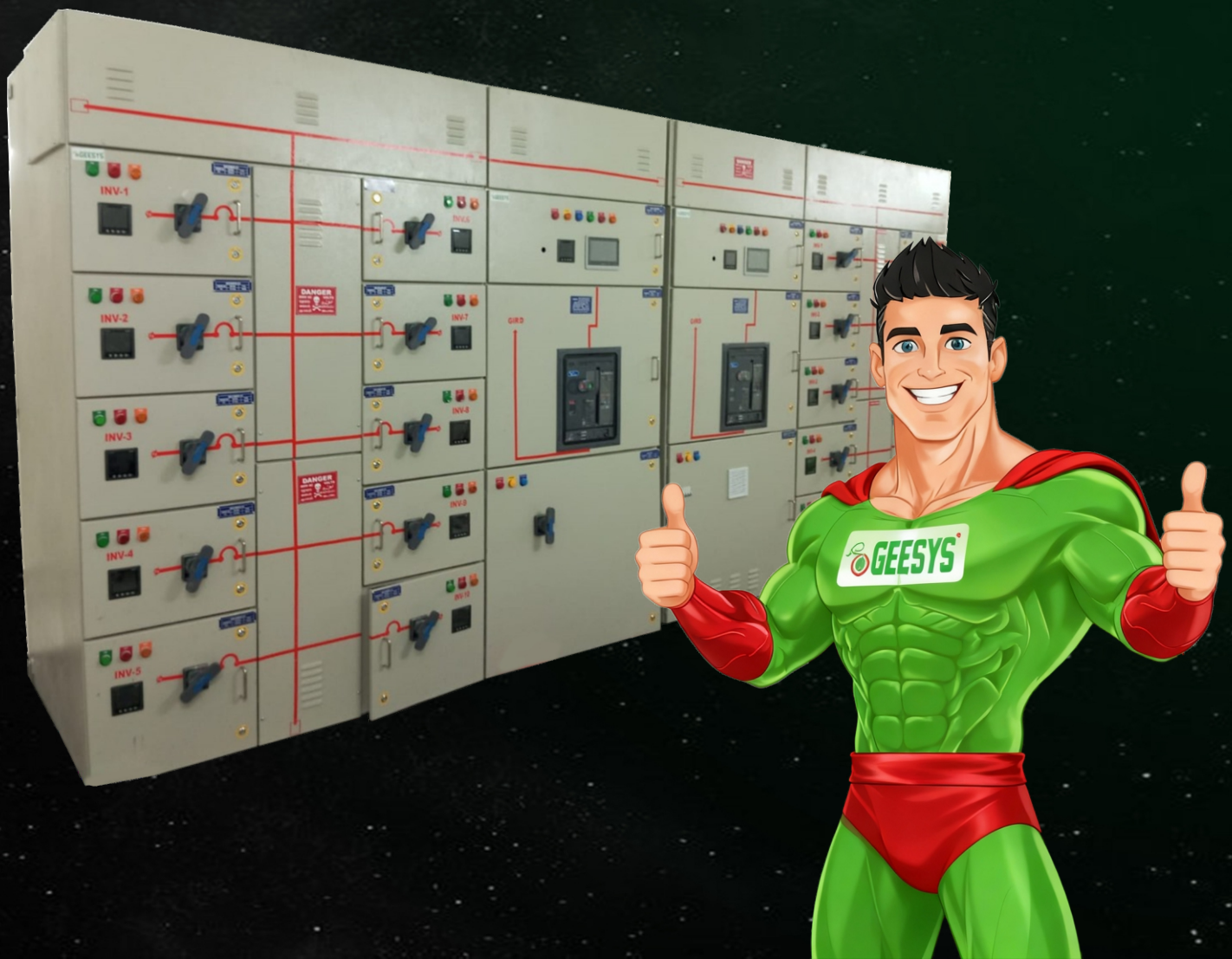
SMART-SID SERIES
INTELLIGENT MONITORING

Designed for digital control & smart solar management.

Key Features

- Free Remote Monitoring
- Auxiliary Transformer
- ON/OFF/TRIP Indication for all MCCB/ACB
- Smoke Detection & Protection
- PLC withTouch Screen HMI
- SPD Type-1+2 with Backup Fuse
- Better Temperature Compensation



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SMART-SID SERIES
INTELLIGENT MONITORING

The most advanced 800VAC AC Combiner Panel – a complete power & monitoring solution.

Key Features

- Free Remote Monitoring
- PLC withTouch Screen HMI
- Auxiliary Transformer
- LDB + UPS DB
- Online UPS with Battery Backup
- ON/OFF/TRIP Indication for all MCCB/ACB
- SPD Type-1+2 with Backup Fuse
- Smoke Detection & Protection
- Better Temperature Compensation

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PREVENTIVE PROTECTION

Ti Panel Solutions is crafted with all safety measures integrated into its design, ensuring that electrical faults are prevented. This mindful engineering not only prevents faults but also inhibits the propagation of arcs.

RESPONSIVE PROTECTION

With all preventive measures in place, Ti Panel Solutions is tested in accordance with IEC 61641 for internal arc faults, ensuring safety even in the event of an arcing incident. The careful design ensures the safety of both the system and personnel, while also maintaining continuity of operation.

INCREASED PHASE SEPARATION :

Offers a 25mm gap (IEC 61439 recommends 14mm), minimizing Ph-Ph arcing faults.

SUPERIOR INSULATION:

Busbar supports with CTI > 600V Qualifying for Material Group I best electrical insulation.

BUSBAR SLEEVING:

Ensures spreading of Electrical arcing.

FORMS OF SEPARATION

Available up to Form 4b for added safety

HIGH WITHSTAND CAPACITY

Withstands up to 85kA for 0.5 seconds.

HIGHEST COMPLIANCE

Meets IEC 61641 standardsfor Arcing Class C.

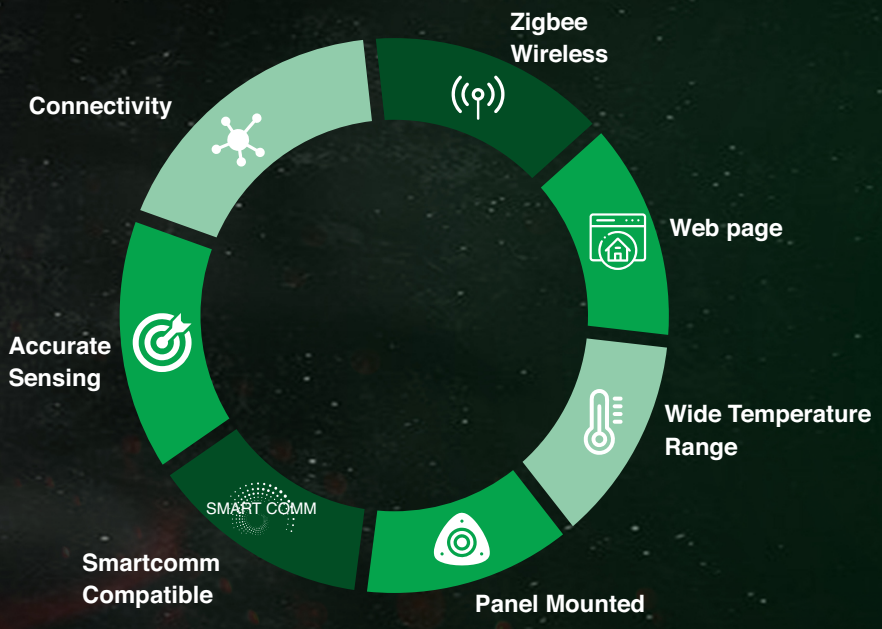
SAFETY ASSURANCE

Ensures personal protection, equipment,protection, andservice continuity.

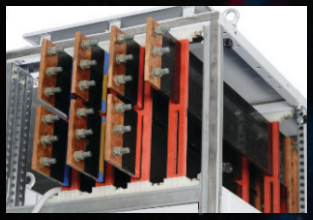
Thermal Management

Geesys smart and G-smart

Abnormal temperature rise is a leading cause of electrical system failures. Lauritz Knudsen's Thermal Management Module (TMZ) offers aproactive solution. Equipped with contact sensors, TMZ delivers real-time temperature monitoring of critical points within the Panel, Thispreemptive approach allows for early intervention, preventing failures and extending the lifespan of your electrical systems, ensuring safer andmore efficient operations



TMZ integrates seamlessly with the built-in temperature monitoring modules of Lauritz Knudsen ACBs and Ti Panel Solutions, ensuring maximum reliability and reduced downtime.TMZ's thermistor-based wireless sensors enable precise temperature tracking within Lvswitch boards, communicating effortlessly with strategically placed transmitters located away from heat-intensive zones. Automatedalerts for temperature spikes through SmartComm further enhance operational safety and extend system longevity.



Horizontal Busbars

Feeder Link Work

Inter-ConnectionLink Work

CableTerminations

Efficiency Meets Versatility

Abnormal temperature rise is a leading cause of electrical system failures. Lauritz Knudsen's Thermal Management Module (TMZ) offers aproactive solution. Equipped with contact sensors, TMZ delivers real-time temperature monitoring of critical points within the Panel, Thispreemptive approach allows for early intervention, preventing failures and extending the lifespan of your electrical systems, ensuring safer andmore efficient operations

Flexibile in Configuration

In urban environments, space equals money. Ti Panel Solutions are designed with flexibility and customization to maximize the value of your available space, delivering solutions thatsave both space and costs. All our switchgear assemblies are highly customizable, with each requirement tailored by our expert engineering teams. Our Designs-> Ti Panel Solutions are built to perform in extreme conditions, backed by regionally located project teams to develop optimal solutions that give your business the winning edge.

Description	Options
Heights provided	1800, 2000, 2200, 2400 mm
Depth provided	440, 600, 1100 mm
Width options MCCB Chamber	250, 350, 500, 600 mm
Width options ACB Chamber	440, 600, 700, 800, 1000 mm
AOC Available in	300, 400, 500 mm (rear or side)
Cable or Duct entry	Top/Bottom
Busbar flexibility	Top/Bottom
Cable access	Front/Rear

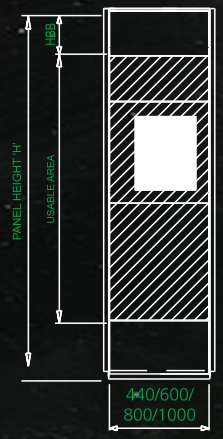
Technical Specifications

Standards			IS 8623, IEC 61439 - 1&2
		Clearance	> 20 mm
		Creep age distances	> 20 mm
Power Rating		Overvoltage category	II / III / IV
		Pollution degree	3
		Field condition	Inhomogeneous (non-uniform)
		Rated operational voltage (U_e)	415-690 VAC, 24-220 VDC
	Voltage	Rated insulation voltage (U_i)	690 V
	Ratings	Rated impulse withstand voltage (U_{imp})	6 / 8 kV
		Rated frquency (f_n)	50 / 60 Hz
		Main Horizontal busbars:	
Electrical		Rated current (I_{nA})	up to 4000 A
characteristics		Short circuit withstand (I_{cw})	main bus 65 kA / 1sec / 143 kA
	Current ratings	peak Short circuit withstand (I_{cw})	neutral 39kA / 1sec / 82kA peak
		Short circuit withstand (I_{cw})	earth 39kA / 1sec / 82kA peak
		Busbar execution Interleaved / non-Interleaved	
		Busbar options Copper / aluminium	
		Vertical Distribution busbars :	
		Rated current (I_{nA})	
		Short circuit withstand (I_{cw})	main bus 65 kA / 1sec / 143 kA
		peak Short circuit withstand (I_{cw})	neutral 39kA / 1sec / 82kA peak
		Short circuit withstand (I_{cw})	earth 39kA / 1sec / 82kA peak
		Busbar execution Interleaved / non-Interleaved	
		Busbar options Copper / aluminium	
		Infeed termination Cable / bus ways / busduct	
		Infeed entry Top / bottom	
		Cable feeder access Front / rear*	
		In accordance with IEC 60529:	
	Degree of protection	External	IP 4X/54*
		Internal	IP 2X
		Ambient temperature	40º C / 45º C / 50º C
		Temperature rise As per IEC 61439 -2	
	Forms of separation	as per IEC 61439 - 2	Form III/IV*
		Height (mm)	1800, 2000, 2200, 2400
		Width (mm)	440, 600, 800, 1000 (ACB section)
	Dimensions		850, 1100,1400,1650,1900 (Outgoing section)
Mechanical Characteristics			440, 600, 900, 1000, 1100 (ACB section)
			440, 600 (Outgoing section)
		Pretreatment	under 8 tank process
		Structure	Alu-zinc / powder coated / painted
		Internal Components	Alu-zinc / powder coated / painted
		External Components	powder coated / painted
	Resistance to Corrosion	Damp heat cycling test	IEC 60068-2-30
		Salt mist test	IEC 60068-2-11
	Plastic components	Flame retardant, self-extinguishing, Halogen-free	IEC 60695-2-10, IEC 60695-2-11

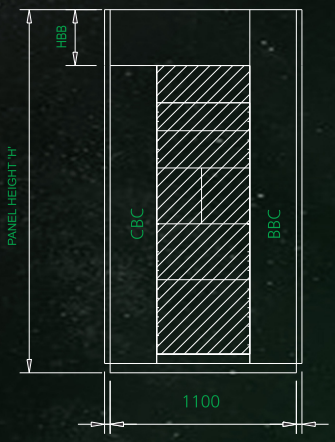
PANEL TYPES

FRONT VIEW

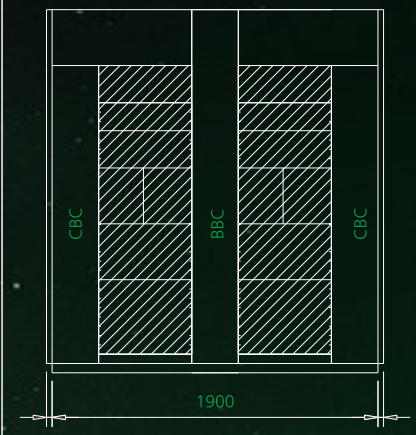
ACB Panel



Type A

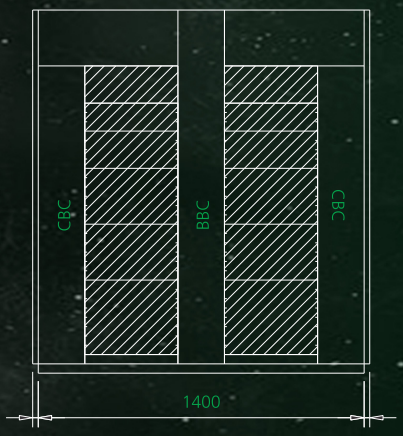


Type AA

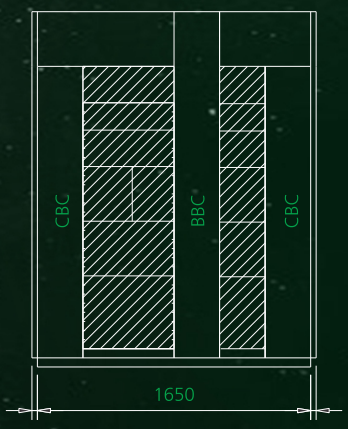


Type B

Type BB



Type AB



*CBC - cable chamber (width = 300 mm), BBC - busbar chamber (width = 300 mm)

Panel Height 'H'	Usable Area					
	ACB section			Outgoing section		
	210HBB	310HBB	410HBB	210HBB	310HBB	410HBB
1800	1220	1120	1020	1460	1360	1260
2000	1420	1320	1220	1660	1560	1460
2200	1620	1520	1420	1860	1760	1660
2400	1820	1720	1620	2060	1960	1860

*HBB - Horizontal Bus Bar

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