

ESAC Series

SHIZ-ESAC50DP-BC100DE

-  Safe & Reliable
-  Quick installation & User-friendly
-  Economical & Efficient

Outdoor Battery Cabinet Parameters

Technical parameters	SHIZ-BC100DE
Battery Type	LFP
Battery Module Capacity	5.12 kWh
Number of Modules	10*2
Total Battery Capacity	102.4 kWh
Nominal Voltage	512 V
Operating Voltage Range	448 V ~ 565 V
Charge / Discharge Rate	Max. 0.5C
DoD	90%
General parameters	SHIZ-BC100DE
Dimensions(WxDxH)	1100 x 1100 x2380 mm
Weight	< 1.5 T
Installation Site	Outdoor
IP Protection	IP54
Anti Corrosion Level	C4
Operation Humidity	5% ~ 95% (No Condensing)
Operation Ttemperature	-30°C ~+ 50°C
Max. Operation Altitude	4000 m (> 3000 m Derating)
Communication Port	Ethernet; CAN
Communication Protocol	CAN; MODBUS TCP / IP
Cooling Method	Air Conditioner
Standards	IEC 62619-2017; UN 38.3; IEC 61000-6-2/4



Product Specifications	SHIZ-ESAC50DP
PV Side	
Max. Input Voltage	1000 V
MPPT Voltage Range	350 V ~800 V
Max. Current per MPPT	36 A
Number of MPPT	3
Number of Inputs Per MPPT	2
Battery Side	
Max. Input Voltage	750 V
Min. Input Voltage	350 V
DC Voltage at Nominal Operation	500 V ~ 750 V
Max. DC Current	55 A*2
Max. DC Input Power	55 kW
Number of DC Inputs	2
AC Side (On Grid)	
Nominal AC Output Power	50 kW
Max. AC Output Power	55 kVA
Max. AC Current	80 A
Nominal AC Voltage	400 V
AC Voltage Range	340 V ~ 440 V
Nominal Grid Frequency/Frequency Range	50 / 60 Hz ±5Hz
THDv	< 3% (100% Load)
Adjustable PF Range	-1 (Lagging) ~ 1 (Leading)
AC Side (Off Grid) ¹⁾	
Nominal AC Voltage	230 / 400 V ±3%; 3L+N+PE
THDv	< 3% (Linear Load)
Nominal Grid Frequency/Frequency Range	50 / 60 Hz
Nominal AC Output Power	50 kW
Max. AC Output Power	55 kVA
Efficiency	
Max. Efficiency	97.5%
Protection	
Reverse Connection Protection	Yes
DC Switch	Yes
Over-Temperature Protection	Yes
Grid Monitoring/Earthing Fault Detection	Yes
Insulation Monitoring	Yes
DC/AC Surge Protection	DC Type II; AC Type III
General Parameters	
Dimensions(WxDxH)	650 x 715 x 325 mm
Weight	75 kg
Topology	Transformerless
IP Protection	IP65
Operation Temperature Range	-25 ~ 60°C (> 45°C Derating)
Operation Humidity Range	0 ~ 100% (No Condensing)
Cooling Method	Intelligent Air Cooling
Max. Operation Altitude	3000 m
Communication Port	RS-485 / CAN
Standards	IEC 62477; IEC 61000; CE;GB/T; IEC 62109; IEC 61683; IEC 60068; IEC 61727; IEC 62116; EN 50549; VDE 4105; G 99

1) For off-grid application, SHIZ-ASC100D or SHIZ-ASC250D automatic switching cabinet is needed.

ESAC Series

SHIZ-ESAC120D-BC233DE

-  Safe & Reliable
-  Quick installation & User-friendly
-  Economical & Efficient



Outdoor Battery Cabinet Parameters

Technical Parameters	SHIZ-BC197DE		SHIZ-BC215DE	SHIZ-BC233DE
Battery Type	LFP			
Battery Module Capacity	17.92 kWh			
Number of Modules	11	12	13	
Total battery Capacity	197 kWh	215 kWh	233 kWh	
Nominal Voltage	704 V	768 V	832 V	
Operating Voltage Range	616 V ~ 792 V	672 V ~ 864 V	728 V ~ 936 V	
Charge/Discharge Rate	0.5C			
DoD	90%			
General Parameters	SHIZ-BC233DE			
Dimensions(WxDxH)	1300 x 1200 x 2380 mm			
Weight	< 2.5 T			
Installation Site	Outdoor			
IP Protection	IP54			
Anti Corrosion Level	C4			
Operation Humidity	5% ~ 95% (No Condensing)			
Operation Temperature	-30°C ~+ 50°C			
Max. operation Altitude	4000 m (> 3000 m Derating)			
Communication Port	Ethernet; CAN			
Communication Protocol	CAN; TCP			
Cooling Method	Air Conditioner			
Standards	IEC 62619-2017; UN 38.3; IEC 61000-6-2/4			

Product Specifications	SHIZ-ESAC120D
Battery Side	
Max. Input Voltage	1000 V
Min. Input Voltage	580 V
DC Voltage at Nominal Operation	580 V ~ 1000 V
Max. DC Current	232 A
Max. DC Input Power	134 kW
Number of DC Inputs	1
AC Side (On Grid)	
Nominal AC Output Power	120 kW
Max. AC Output Power	132 kW
Max. AC Current	191 A
Nominal AC Voltage	400 V
AC Voltage Range	400 Vac, (-15% + 10%)
Nominal Grid Frequency/Frequency Range	50 / 60 Hz ±5Hz
THDv	< 1.5% (Rated Power)
Adjustable PF Range	-1 ~+ 1
AC Side (Off Grid) ¹⁾	
Nominal AC Voltage	230 / 400 V ±3%; 3L+N+PE
THDv	< 1% (Resistive Load)
Nominal Grid Frequency/Frequency Range	50 / 60 Hz
Nominal AC Output Power	120 kW
Max. AC Output Power	132 kVA
Efficiency	
Max. Efficiency	98.5%
Protection	
Reverse Connection Protection	Yes
DC Switch	Yes
Over-Temperature Protection	Yes
Insulation Monitoring	Yes
DC/AC Surge Protection	Type II(DC side); Type III(AC side)
General Parameters	
Dimensions(WxDxH)	650 x 310 x 900 mm
Installation	Wall Mounted / Plug in
Weight	80 kg
Topology	Transformerless
IP Protection	IP66
Operation Temperature Range	-40 ~ 60°C (> 45°C Derating)
Operation Humidity Range	0 ~ 100% (No Condensing)
Cooling Method	Intelligent Air Cooling
Max. Operation Altitude	5000 m / (> 3000 m Derating)
Communication Port	RS-485 / CAN 2.0
Standards	CE; IEC 61000; IEC 62477-1; 2012; IEC 61727; IEC 62116; GB/T 34120; GB/T 34133

1) For off-grid application, SHIZ-ASC250D automatic switching cabinet is needed.

BESS (Air Cooling)

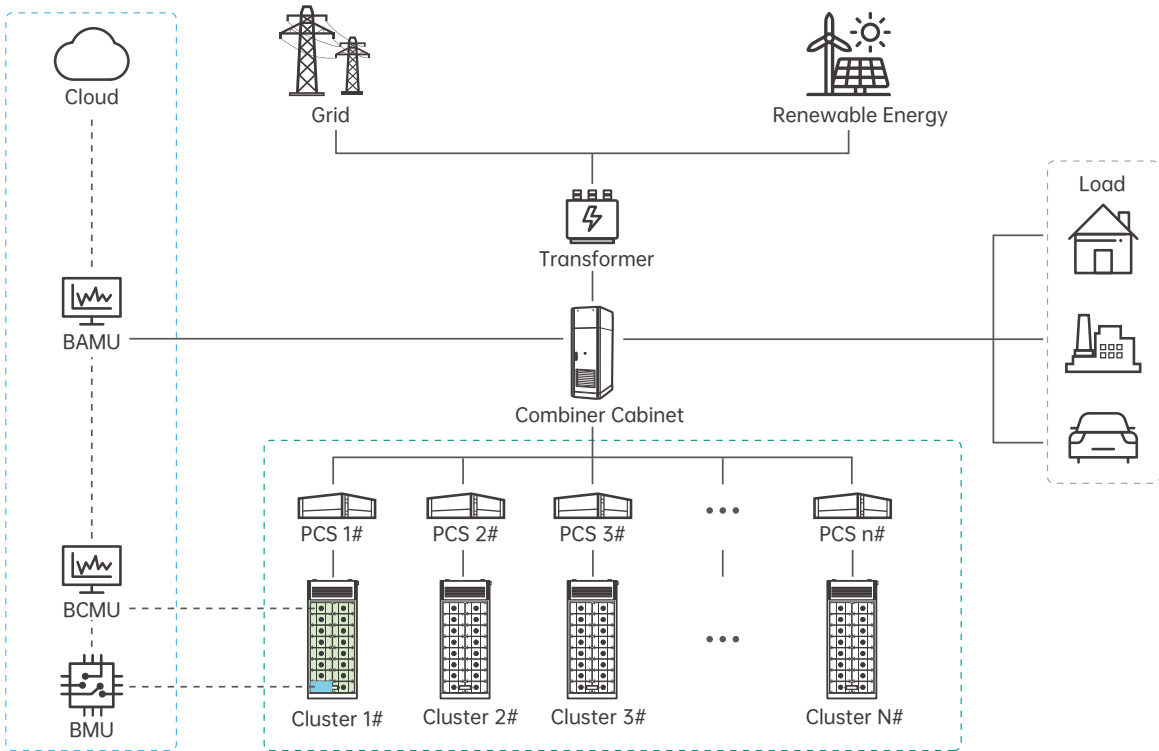
SHIZ-BEAC100

- Safe & Reliable
- Quick installation & User-friendly
- Economical & Efficient



Product Specifications	SHIZ-BEAC100
Battery Side	
Cell Type & Capacity	LFP, 280Ah
Battery cycle life	6000 times(@25°C, 0.5P, 80% EOL)
DC Voltage at Nominal Operation	648 V ~ 876 V
Rated battery voltage	768 V
Rated capacity	215 kWh
Serial method	1P240S
AC Side (On Grid)	
Rated Output Power	100 kW
Maximum Output Power	110 kW
Rated voltage	400VAC/3W+N+PE
Rated current	144A
Maximum current	158A
Rated frequency	50 Hz
General Parameters	
Dimensions(WxDxH)	1050 x 2500 x 980 mm
Weight	< 2000 kg
Cooling Method	Intelligent Air Cooling
Fire Protection	Perfluorohexanone (Novec 1230)
IP Protection	IP55
Operation Temperature Range	Charge: 0~ 55°C, Discharge: -20~ 55°C
Operation Humidity Range	0 ~ 95% Rh (No Condensing)
Max. Operation Altitude	5000 m / (> 2000 m Derating)
Communication Port	Ethernet / RS-485 / CAN 2.0
Communication Interface	Modbus / CAN / MQTT

Product Application



BESS (Li Cooling)

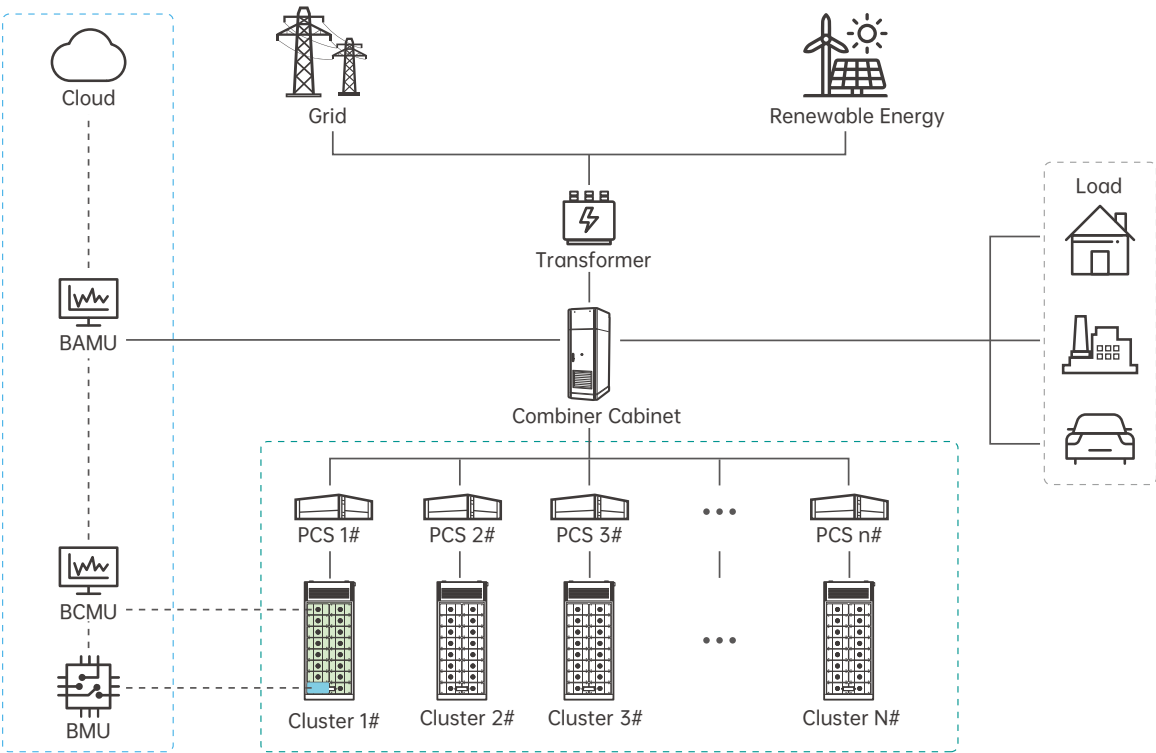
SHIZ-BELQ100

- Safe & Reliable
- Quick installation & User-friendly
- Economical & Efficient



Product Specifications	SHIZ-BEAC100
Battery Side	
Cell Type & Capacity	LFP, 280Ah
Battery cycle life	6000 times(@25°C, 0.5P, 80% EOL)
DC Voltage at Nominal Operation	648 V ~ 876 V
Rated battery voltage	768 V
Rated capacity	215 kWh
Serial method	1P240S
AC Side (On Grid)	
Rated Output Power	100 kW
Maximum Output Power	110 kW
Rated voltage	400VAC/3W+N+PE
Rated current	144A
Maximum current	158A
Rated frequency	50 Hz
General Parameters	
Dimensions(WxDxH)	1050 x 2500 x 980 mm
Weight	< 2000 kg
Cooling Method	Intelligent Air Cooling
Fire Protection	Perfluorohexanone (Novec 1230)
IP Protection	IP55
Operation Temperature Range	Charge: 0~ 55°C, Discharge: -20~ 55°C
Operation Humidity Range	0 ~ 95% Rh (No Condensing)
Max. Operation Altitude	5000 m / (> 2000 m Derating)
Communication Port	Ethernet / RS-485 / CAN 2.0
Communication Interface	Modbus / CAN / MQTT

Product Application



BESS (Li Cooling)

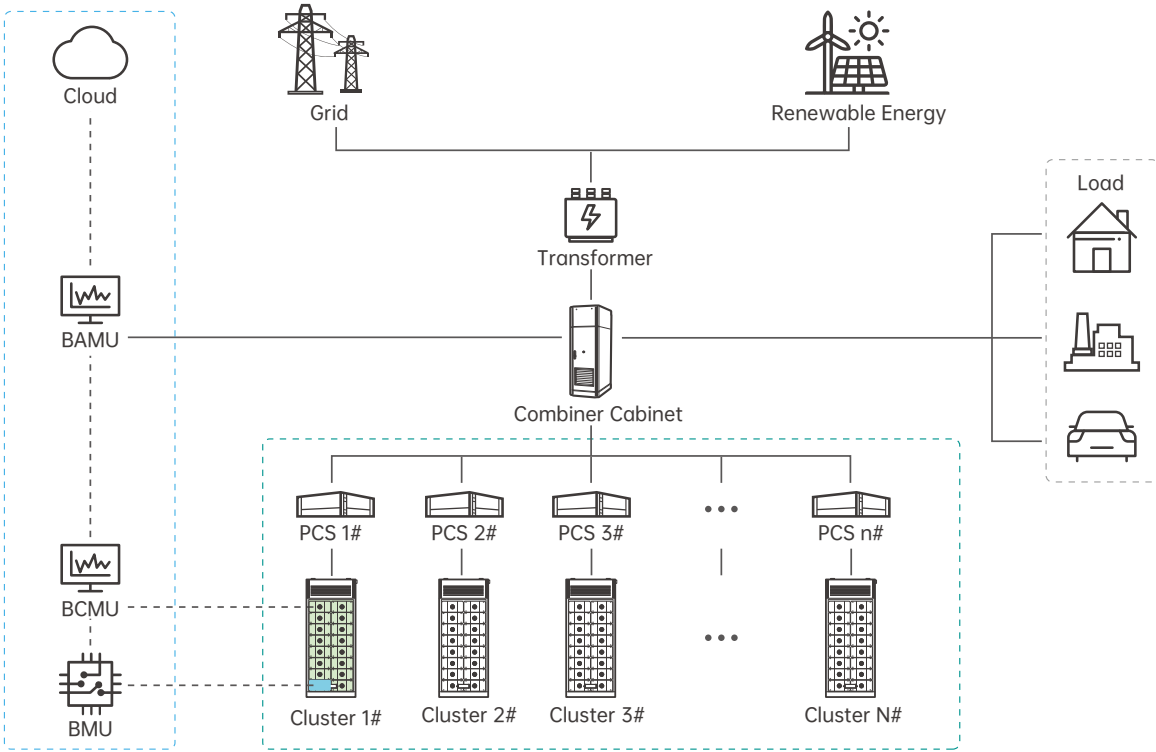
SHIZ-BELQ186

- Safe & Reliable
- Quick installation & User-friendly
- Economical & Efficient



Product Specifications	SHIZ-BELQ186
Battery Side	
Cell Type & Capacity	LFP, 280Ah
Battery cycle life	6000 times(@25°C, 0.5P, 80% EOL)
DC Voltage at Nominal Operation	1123.2 V ~ 1497.6 V
Rated battery voltage	1331.2 V
Rated capacity	372 kWh
Serial method	1P416S
AC Side (On Grid)	
Rated Output Power	186 kW
Maximum Output Power	205 kW
Rated voltage	690VAC/3W+PE
Rated current	155A
Maximum current	171A
Rated frequency	50/60 Hz
General Parameters	
Dimensions(WxDxH)	1400 x 2350 x 1350 mm
Weight	< 4500 kg
Cooling Method	Liquid cooling and heating
Fire Protection	Level 3 protection (perfluorohexanone)
IP Protection	IP55
Operation Temperature Range	Charge: 0~ 55°C, Discharge: -20~ 55°C
Operation Humidity Range	0 ~ 95% Rh (No Condensing)
Max. Operation Altitude	5000 m / (> 2000 m Derating)
Communication Port	RS-485 / CAN
Communication Interface	Modbus / CAN / MQTT

Product Application



Energy Storage Combine Cabinet

SHIZ-ESCC400800 - SHIZ-ESCC6901600

-  Safe & Reliable
-  Quick installation & User-friendly
-  Economical & Efficient



Product Specifications	SHIZ-ESCC400800
AC Output	
Input Current for Single ESS	200A
Number of input channels	4 channels (4 energy storage cabinets are equipped with a 800A switch)
Rated Output Voltage	400VAC
Rated Output Current	800A (4 energy storage cabinets are equipped with a 800A switch)
Rated Frequency	50/60 Hz
General Parameters	
Dimensions(WxDxH)	600 x 2500 x 9800 mm
Weight	< 400 kg
IP Protection	IP55

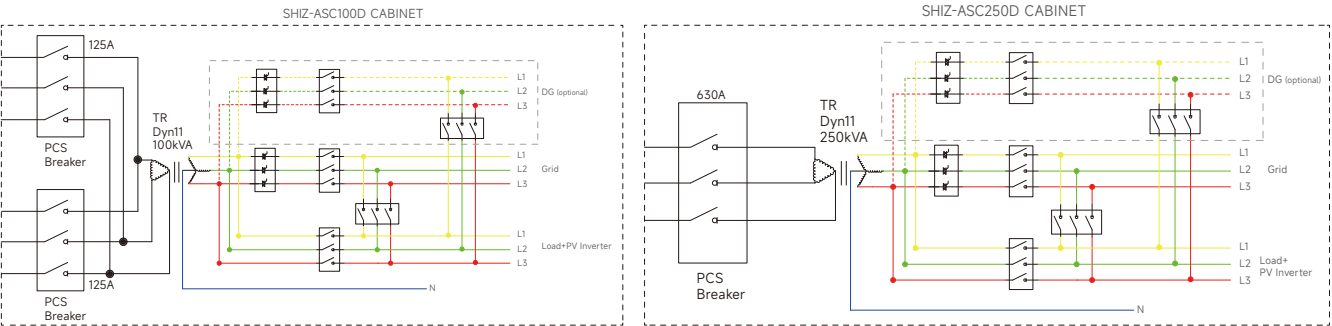
Product Specifications	SHIZ-ESCC6901600
AC Output	
Input Current for Single ESS	156A
Number of input channels	6 channels (6 energy storage cabinets are equipped with a 1600A switch)
Rated Output Voltage	690VAC
Rated Output Current	1600A (6 energy storage cabinets are equipped with a 1600A switch)
Rated Frequency	50/60 Hz
General Parameters	
Dimensions(WxDxH)	800 x 2350 x 1350 mm
Weight	< 750 kg
IP Protection	IP55

SHIZ-ASC100D/250D NEW Automatic Switching Cabinet

On-grid / Off-grid / 100-250 kVA

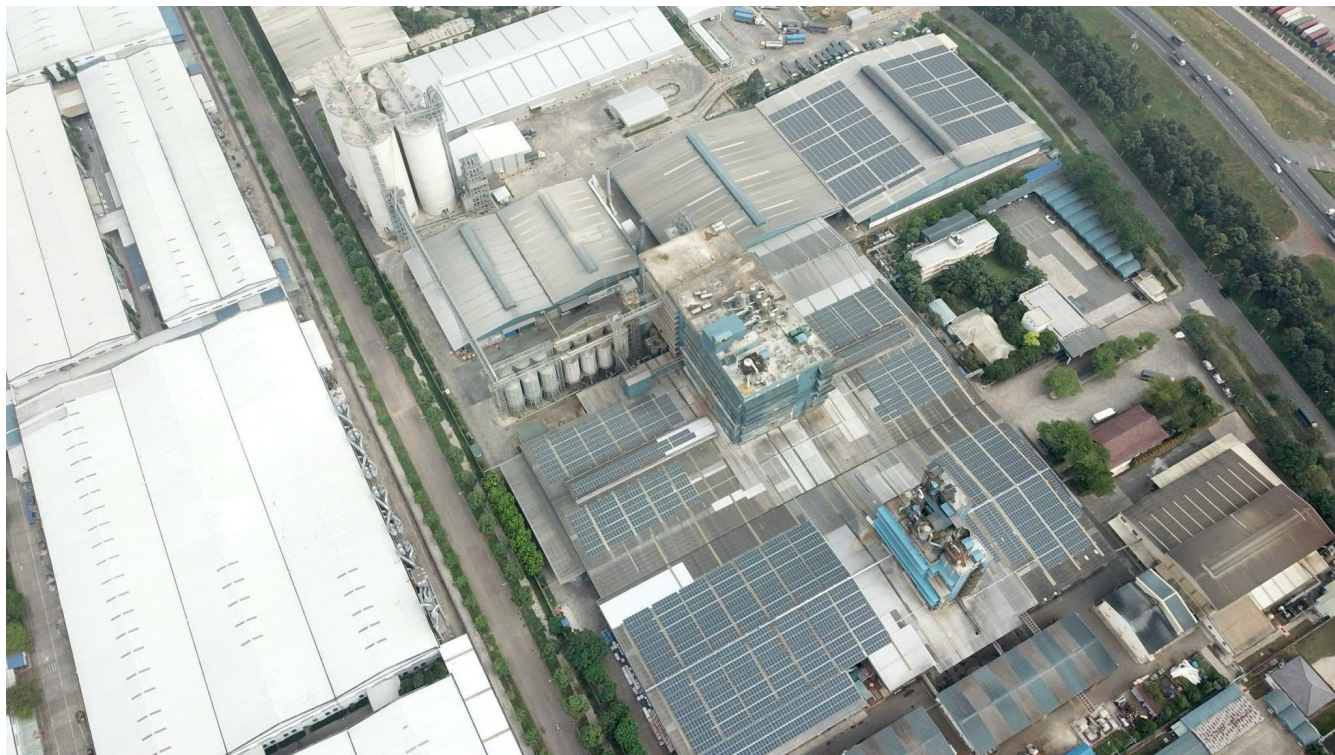


Block Diagram:



Parameter	SHIZ-ASC100D	SHIZ-ASC250D
Rated Voltage	400 V	400 V
Rated Current	144 A	360 A
Rated Frequency	50 Hz	50 Hz
Rated Power	100 kVA	250 kVA
Max. grid Input Power	200 kVA	500 kVA
Switch Time Between On/Off-grid	≤ 20ms	≤ 20 ms
PCS Input	125 A*2	630 A
Max. grid Input	400 A	1000 A
DG Input(Optional)	400 A	1000 A
Load Breaker	400 A	1000 A
Grid/DG Bypass Breaker	200 A*2	630 A*2
Isolation Transformer	100 kVA	250 kVA
Lightning Protection	Type II	Type II
Protection Degree	IP54	IP54
Relative Humidity	0 ~ 100%	0 ~ 100%
Operating Temperature	-25°C ~+ 45°C	-25°C ~+ 45°C
Cooling Type	Air Cooling	Air Cooling
Dimension(WxDxH)	1170 x 2380 x 1105 mm	900 x 2380 x 930 mm
Weight	791 kg	1250 kg
Operating Altitude	≤ 3000 m	≤ 3000 m
Communication	RS-485 / 4G / Ethernet	RS-485 / 4G / Ethernet
Installation	Tower - type	Tower - type

* The capacity of the PV inverter for AC coupling can't be larger than the capacity of PCS.** One SHIZ-ASC100D can be connected to a maximum of two SHIZ-ESAC50DP.
*** One SHIZ-ASC250D can be connected to a maximum of five SHIZ-ESAC50DP or two SHIZ-ESAC120D.



01 Energy cost reduction for Feed mil factory Bến Tre, 1000kW SHIZ-SL-125KT7

