

MODULAR INVERTERS DC/AC

series SBN – DC/AC

INPUT NOMINAL VOLTAGE
OUTPUT NOMINAL VOLTAGE

24 Vdc, 48 Vdc, 110 Vdc, 125 Vdc, 220 Vdc
120 Vac, 230 Vac, 400 Vac

Modular Inverter DC/AC has modular concept, providing a pure sine wave AC supply. In conjunction with a DC Power System, it provides an excellent AC backup solution. It uses the latest inverter technology, providing superior energy efficiency in a compact size.



ALBAT'S Modular Inverters DC/AC with its Modular design represents a perfect solution for a wide range application in the:

- Energetics,
- Industrial and
- Telecommunication market.

MAIN FEATURES:

- Dual input sources (AC & DC)
- Input AC voltage from 150 V to 265 Vac
- Input DC voltage 24 V, 48 V, 110 V, 220 Vdc
- Single phase system
- Three phase system
- Internal static switch
- 19" Rack design
- Transfer time 0 msec
- Up to 10kVA in 2U
- Up to 225kVA in 3 enclosures of 75kVA each
- Modular design
- Digital controller
- Use of existing battery and rectifier system

AVAILABILITY:

- N+1 redundancy
- Galvanically isolated
- Hot swap conception
- Local and remote control
- Over voltage protection for system and modules
- Enable the additional power extension

ECONOMIC EFFICIENCY:

- Low Mean Time to Repair (MTTR)
- Reduction in service costs
- High performance beside low volume and weight
- Hot swap conception
- All-inclusive system

ALBAT provide completely Design by your technical request, Production, Assembly and Service in warranty and after-warranty period.

The production process is in accordance with the standards ISO 9001:2008 and ISO 14001:2004. All products are in compliance with IEC and EN standards.

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Technical Specification

DC INPUT					
Nominal voltage Vdc	24	48	60	110	220
Voltage range Vdc	19 to 35	40 to 60	48 to 72	90 to 160	170 to 300
AC INPUT					
Nominal voltage Vac	220 / 230 / 240 V 1PH or 3PH				
Voltage range Vac	150 to 265				
Power Factor %	> 99				
Frequency Hz	50 / 60				
Frequency range Hz	47 to 63				
AC OUTPUT					
Nominal power per Module VA / W	1500 / 1200	2500 / 2000			
Nominal power per Shelf VA / W	6000 / 4800	10000 / 8000			
Max Power per System kW	Up to 225 kVA in 3 enclosures of 75 kVA each / Per technical request / Parallel function of Modules / Shelves				
Height per Shelf U	2				
Overload capacity %	150 % in 15 seconds, 110 % permanent within T° range				
Admissible load power factor	Full power rating from 0 inductive to 0 capacitive				
Nominal voltage Vac	120 / 230 / 400				
Nominal frequency Hz	50 or 60				
Frequency accuracy %	0,03				
THD %	< 1,5				
Crest factor at nominal power	2,8 : 1	3 : 1			
Short circuit clear up capacity	10 x In for 20 msec – Available while mains is available at AC input port With magnitude control and management				
Short circuit current after clear up capacity	2,1 In during 15 sec and 1,5 In after 15 sec				
Max voltage interruption	0 sec				
Total transient voltage duration	0 sec				
CONTROLLER					
Features	High resolution color touchscreen LCD display for local access; Embedded web based UI accessed via Ethernet using internet browser; Built in multi-tone speaker; LED indicators (green, amber, red);				
System	User management – Admin + 5 users with configurable access rights; Advanced inventory management with custom inventory items; User configurable alarms and custom data; Advanced equation editing with timers and counters; Software, firmware, and configuration file upgrade management; CAN Bus interface to power electronics and peripherals; Custom data logging and performance monitoring; Power save feature for optimizing system efficiency;				
Communication ports	2 x Ports for communication with shelves; 2 x Ethernet ports front and rear; 2 x USB ports front and rear;				
Inputs (possibility of extension)	4 x Voltage; 4 x Shunt; 4 x Temp; 8 x Digital; 12 x Relay;	2 x Voltage; 1 x Shunt; 2 x Temp; 4 x Digital; 6 x Relay;			
MECHANICAL					
Cabinet dimension	600 x 600 x 2000 mm + 100 mm / or different per technical request				
Cabinet protection	IP 21 or IP 54 or IP 65 (standard or AIR-conditioned or Seismic resistance) / or different per technical request				
Installation	Indoor / Outdoor				
PERFORMANCE / FEATURES					
Cooling / Isolation	Forced / Doubled				
Efficiency EPC / ON Line %	> 95,5 / 89,5	> 96 / 91			> 95,5 / 92,5
Dielectric strenght DC/AC	4300 Vdc				
Alarms output / supervision	Dry contacts on shelf / Standard USB port and MODBUS: Display / TCP-IP				
ENVIRONMENTAL					
Standard temperature °C	-20 to +50				
Humidity %	0 to 95 RH non-condensing				
Elevation m	Up to 1500 / derating > 1500 -0,8 per 100 m				
AGENCY COMPLIANCE					
Safety	EN 62040-1				
EMC / Emission	EN 55022 A	EN 55022 B	EN 55022 A	EN 55022 B	
EMC / Immunity	EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-8				

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FUNCTIONAL DIAGRAM

