Albat®
energy systems

DESIGN – PRODUCTION – SALES – ASSEMBLY – SERVICE
RENEWABLE AND DC&AC RESERVE
BACKUP POWER SUPPLY SYSTEMS

MODULAR BATTERY CHARGER AC/DC

series SBN - AC/DC

NOMINAL VOLTAGE 12Vdc, 24 Vdc, 48 Vdc, 110 Vdc, 125 Vdc, 220 Vdc

Let`See What We Do?

Modular Battery Charger AC/DC is designed with a modern philosophy of modular conception technology to ensure high reliability, handling and maintenance of DC power supply.

ALBAT'S Modular Battery Charger AC/DC with its Modular design represents a perfect solution for a wide range of applications in the:

- Energetics,
- Industrial,
- Oil & Gas,
- Infrastructure and
- Telecommunication market.

Main Features:

- Switched-mode rectifier
- Power range per module from 250 W to 4400 W
- Input voltage from 90 V to 320 Vac
- Suitable for all common voltages: 12V, 24V, 48V, 108 to 110V, 125V, 216 to 220 Vdc
- 19'' Rack design (23'' Rack design – optional)
- Modular design
- Digital controller
- External battery

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OUR POWER FOR THE BETTER FUTURE

Availability:

- N+1 redundancy
- Hot swap concept
- Energy saving via sleep mode
- Temperature-controlled charging
- Current measuring for battery and consumption
- Battery test during operation
- Local and remote control
- LVDB system battery protection
- Overvoltage protection for system and modules
- Input Isolation Transformer (optional)
- DC/DC Converter (optional)
- Dropper diode (optional)
- Earth faul detection (optional)

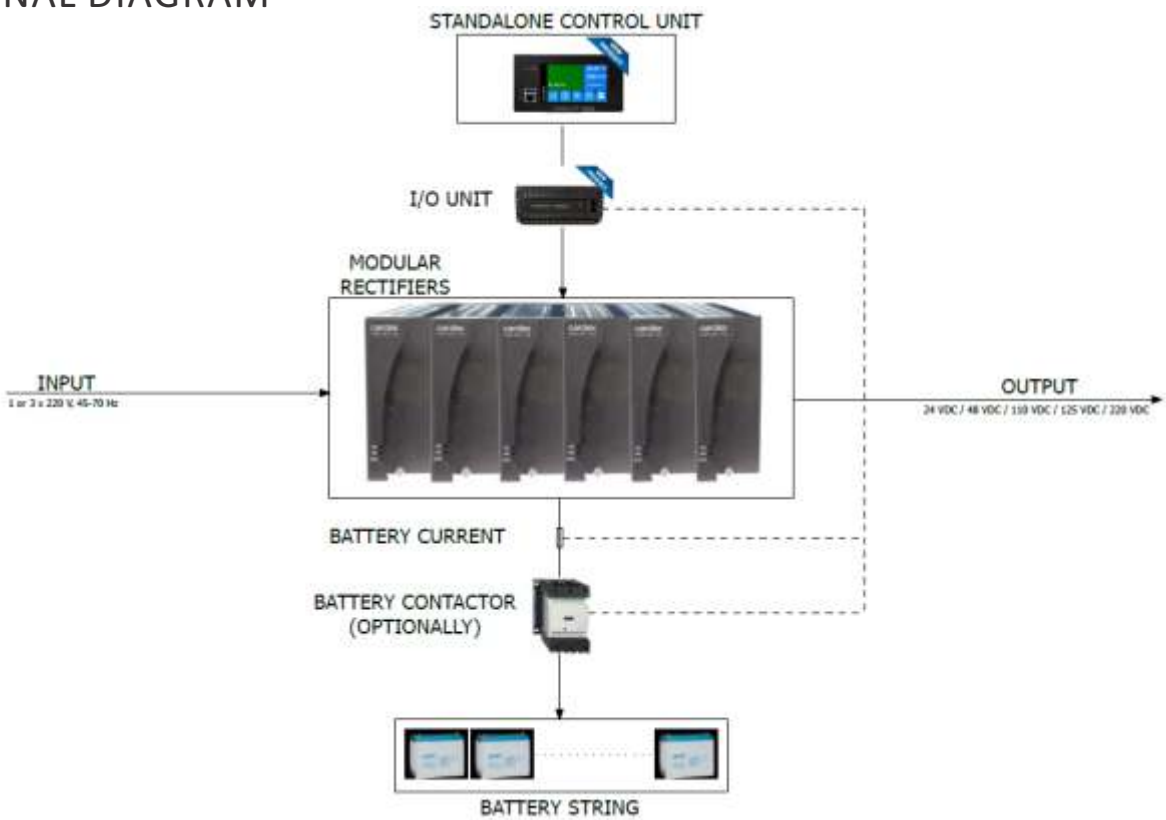
Economic Efficiency:

- High performance beside low volume and weight
- High efficiency, power factor 0,99
- Suitable for Lead Acid and NiCad batteries
- All-inclusive system

ALBAT provides complete Design by your technical requests, Production, Assembly and Service during the warranty and after-warranty periods.

The production process is in accordance with the standards ISO 9001:2015, ISO 14001:2015 and ISO 45001:2015. All products are in compliance with IEC and EN standards.

FUNCTIONAL DIAGRAM



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MODULAR BATTERY CHARGER AC/DC

Technical Specification

OUTPUT																
Nominal Voltage Vdc	12	24		48							110		125		220	
Operation Voltage Vdc	10,5 to 14,5	21 to 30	21 To 29	42 to 58	42 to 60	42 to 58	44 to 58	42 to 58	42 to 60	44 to 58	90 to 160	90 to 160	90 to 160	90 to 160	180 to 320	180 to 320
Power per Module kW	**0.25**	**0.38**	**3.1**	**0.65**	**1.0**	**1.2**	**2.4**	**3.0**	**4.0**	**4.6**	**1.1**	**4.4**	**1.1**	**4.4**	**1.1**	**4.1**
Power per Shelf kW	1.25	2.0	15.5	3.25	5.0	6.0	9.6	12	20.0	23.0	6.6	22	6.6	22	6.6	22
Max Power per System kW	**Per technical request / Parallel function of Modules / Shelfs**															
Height per Shelf U	2	2	4	2	4	1	1	1	4	4	4	4	4	4	4	4
Load regulation %	Static <±0,5															
Line regulation %	Static <±0,1															
INPUT																
Nominal Voltage Vac	**100 / 110 / 115 / 120 / 127 / 208 / 220 / 230 / 240**															
Operating Voltage Vac	90 to 320	90 to 320	176 to 312	176 to 320	150 to 320	176 to 276	187 to 310	187 to 305	187 to 312	195 to 305	176 to 320	187 to 312	176 to 320	187 to 312	176 to 320	187 to 312
Extended Voltage Vac (de-rated Power)	70 to 90	70 to 90	90 to 176	90 to 176	90 to 150	90 to 175	90 to 187	90 to 187	90 to 187	95 to 195	85 to 176	90 to 187	85 to 176	90 to 187	85 to 176	90 to 187
Frequency Hz	45 to 70	45 to 70	45 to 70	45 to 70	45 to 66	45 to 70	44 to 66	45 to 66	45 to 66	45 to 66	45 to 70	45 to 70	45 to 70	45 to 70	45 to 70	45 to 70
Power Factor	>0,99															
THD %Efficiency %	<5															
Efficiency %	>90	>91	>90	>91	>92	>93.9	>8.25	>96.9	>95.3	>95.3	>93	>92	>93	>92	>93	>92
PERFOMANCE / FEATURES																
Indicators	AC main OK; Module OK; Module fail;															
Adjustments, via controller	Float voltage; Equalize voltage; High & low voltage alarms; High voltage shutdown; Current limit; Slope; Start dela															

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Protection	Current limit / short circuit; Start delay; Input / output fuses; Output high voltage shutdown; Power limiting; Thermal foldback / shutdown; Input transient; AC low line foldback shutdown;														
ENVIRONMENTAL															
Operation temperature °C	-40 to +50	-40 to +50	-40 to +65	-40 to +50	-40 to +50	-40 to +65	-40 to +55	-40 to +55	-40 to +55	-40 to +40	-40 to +42	-40 to +50	-40 to +42	-40 to +50	-40 to +48	-40 to +50
Power de-rated, up to °C	+70	+70	-	+65	+70	+80	+75+	+75	+75	+75	+65	-50 to +75	+65	-50 to +75	+65	-50 to +75
Humidity %	0 to 95 RH non-condensing														
Elevation m (de-rated more than 2000)	-500 to 3000	-500 to 3000	-500 to 4000	-500 to 3000	-500 to 4000	-500 to 3000	-500 to 3000	-500 to 3000	-500 to 4000	-500 to 4000	-500 to 4000	-500 to 2800	-500 to 4000	-500 to 2800	-500 to 4000	-500 to 2800
CONTROLLER															
Features	High resolution color touchscreen LCD display for local access; Embedded web bassed UI accessed via Ethernet using internet browser; Built in multi-tone speaker; LED indicators (green, amber, red);														
Battery	Automatic battery test; Battery runtime and capacity indication; Charge current control; Temperature compensation; Equalize; Apsorption charge settings with entry/exit criteria;														
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 shelfs; 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														
AGENCY COMPLIANCE															
Safety	EN 62477-1 (IEC 62477-1), EN 62368-1, EN 62311														
EMC / Emission	EN 61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12														
EMC / Immunity	EN 61000-6-5 (IEC 61000-6-5)														

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