amperis

Battery charger / rectifier

VRLA batteries, flooded battery or Ni/Cd
with output voltage from 24, 48, 110, 220 Vdc up to 150A

ASBR - III

Industrial applications:
Oil&Gas (Petrochemicals Offshore, Onshore, Pipelines);
Energy & Power Generation (Transmission, Distribution);
Transportations (Rail, Airport, Shipping);
Water (Desalination, Treatment);
Instrumentation & Process control (Chemical, Mining, Steel, Paper);
All industrial applications;

ASBR - III series is a single branch rectifier AMPERIS supplies continuous DC load:

ASBR - III rectifiers are composed with an open frame solution rectifier totally independent installed inside in a cabinet. Customer can choose cabinet solution or open frame. Quality and performance are the best in the market. AC/DC converter is realized in swap module. This solution greatly improves MTTR in a few minutes. ASBR – III rectifiers can charge all type of batteries lead or NiCd thanks 3 levels of charge. Also is included equalizing charge. Ripple in output is <1% for safeguard of the batteries.
ASBR – III rectifiers include some optional like drop cells, diode for parallel, MCCB input, batteries, output. ASBR - III series include power transformer in input with 6 pulse SCR rectifiers. Transportation is facilitated thanks the width enough for get in Lifter manual trucks.

Key features:

Standard system - cost effective, short lead time;
Digital instrumentations cl. 0,5;
Electronic management with analog control, trimmer for setting characteristics;
LEDs and control parASBR - IIIters locally or remotely;
Several types of batteries:
Ni-Cd (vented or gas recombination);
Lead acid (vented or gas recombination);
Advance Battery Management;
Parallel operation;
Simplified maintenance:
High MTBF and low MTTR;
International Service support;

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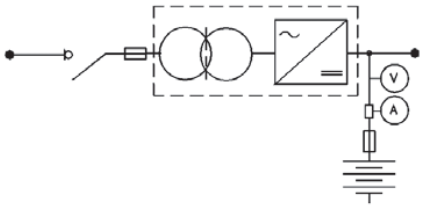
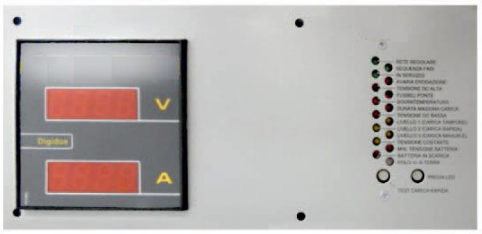
SWAP MODULAR converter

6 Pulse total controlled thyristor rectifiers.
High performance totally independent module; can be changed very easily in case of failure (Very short time MTTR).



Display interface



An human machine interface (HMI) ensure the access to all the important parASBR - IIIters; the main panel accessible from the front side. A large display 3 digits and ½ for battery voltage and current gives the perfect overview of the charge quality.
The display is powered by output batteries, thanks an embedded DC/DC converter, to ensure measurements also without AC supply. LEDs indicate the operation of the system

Front Pannel Signals (LEDs)

Mains status;
Phases sequence;
Rectifier ON;
Fault;
Output DC voltage over high threshold;
Output DC voltage under low threshold;
Fuses fault;
Maximum temperature;
Maximum charge time;
Level 1 (Float charge voltage);
Level 2 (Fast charge voltage);
Level 3 (Manual charge voltage);
Constant voltage
Min. battery voltage;
Battery in discharge;
Pole +/- to earth (included for only 110 V)
Is included in the front panel one following button
Fast charge test
Button LED test

Environment characteristics

Acoustic Noise dBA < 60 to 1 mt
Cabinet Cooling NATURAL
Environment temperature °C 0 ... +50
Storage temperature °C -20 a +70
Relative humidity ≤ 95% without condensing
Altitude 1000 mt Above Sea Level

SPDT Contacts

Mains
Fault
Min. battery voltage
Pole +/- to earth (as above specified)

Measuring

(The display it is powered by battery thanks an DC/DC converter)
Battery Voltage digital, 3 digits and 1/2
Battery current digital, 3 digits and 1/2

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Battery charger / rectifier

Mains	3Ph 400Vac
Frequency	50Hz/60Hz ±5%
Rated output voltage	24,48,110,220 Vdc
Range of operating voltage	Floating charge 75% to 125% of Vdc rated High rate charge 75% to 135% of Vdc rated Commissioning charge 75% to 140% of Vdc rated
Satic voltage regulation	± 0,5% under the following conditions at float charge ; 0-100% DC load variation; input voltage ± 10%; input frequency ± 5%;
Dynamic voltage regulation	Using standard filter and battery connected (Capacity higher than 5 times In) Load step Deviation 10-90% -5% 90-10% +5%
Current regulation	100% down to 50%
Long term stability	0,15% for 1000 hours
Temperatyre ciefficient	0,18% per °C
Chargin characteristics	Constant current /constant voltage I/U as required by IEC 478-1 during float charge
Noise level	< 50dB
Input/output isolation	as required by
Isolation resistance	>2000 MΩ , 500Vdc
Outgoing protecticon	Short Circuit; high and low voltage
Cooling	Natural (forced just for rectifiers bridge)

CABINET MODEL		
IMPUT Vac: 400 3Ph		
Dimensions (WxDxH) mm: 600x650x1600		
	OUTPUT Vdc	System Branch A
ASBR - III 24/60	24	60
ASBR - III 24/80	24	80
ASBR - III 24/100	24	100
ASBR - III 24/120	24	120
ASBR - III 24/150	24	150
ASBR - III 48/60	48	60
ASBR - III 48/80	48	80
ASBR - III 48/100	48	100
ASBR - III 48/120	48	120
ASBR - III 48/150	48	150
ASBR - III 110/60	110	60
ASBR - III 110/80	110	80

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ASBR - III 110/100	110	100
ASBR - III 110/120	110	120
ASBR - III 110/150	110	150

ASBR - III 220/60	220	60
ASBR - III 220/80	220	80
ASBR - III 220/100	220	100
ASBR - III 220/120	220	120
ASBR - III 220/150	220	150

OPEN FRASBR - III MODEL		
IMPUT Vac:400 3Ph		
Dimensions (WxDxH) mm: 800x518		
	OUTPUT Vdc	System Branch A
ASBR - III 24/60/G	24	60
ASBR - III 24/80/G	24	80
ASBR - III 24/100/G	24	100
ASBR - III 24/120/G	48	120
ASBR - III 24/150/G	48	150

ASBR - III 48/60/G	48	60
ASBR - III 48/80/G	48	80
ASBR - III 48/100/G	48	100
ASBR - III 48/120/G	48	120
ASBR - III 48/150/G	48	150

ASBR - III 110/60/G	110	60
ASBR - III 110/80/G	110	80
ASBR - III 110/100/G	110	100
ASBR - III 110/120/G	110	120
ASBR - III 110/150/G	110	150

ASBR - III 220/60/G	220	60
ASBR - III 220/80/G	220	80
ASBR - III 220/100/G	220	100
ASBR - III 220/120/G	220	120
ASBR - III 220/150/G	220	150