



1110XX is the DC Supply system, is used for to supply DC to Scada, measurement, protection and MV Switching Equipments in OG Switching Centers.

- *DC Output Voltage Low*
- *DC Output Voltage High*
- *AC Input Voltage Low*
- *AC Input Voltage High*
- *Earth (+, -) Leakage Alarm*
- *Battery Alarm*
- *Temperature and Fan Alarm*
- *Short Circuit Alarm*
- *AC On Alarm*

Above notifications can be monitored and transmitted via dry contacts.

For suitable charging of the batteries, ASC 1110XX series are designed with current and voltage regulators.

12V Nominal voltage, 6 cells VRLA type batteries are included in the system and are deep discharge proof. They set to 2,23V for each cell and the output voltage for 54 cells is 121,0V.

Thanks to its compact design, Removing and installation of batteries much more easier and requires less time than before.

To provide DC rectify voltage and isolate the protection system from the network in terms of 2kV 5mA, ASC 1110XX has a powerfull transformer which has copper wire and "H" class temperature values.

Thanks to its design, hardware and high quality equipments, ASC 1110XX series prevents wrong trips, circuit breaker explosions, relay damages and also reduces the labor costs.

Special Features

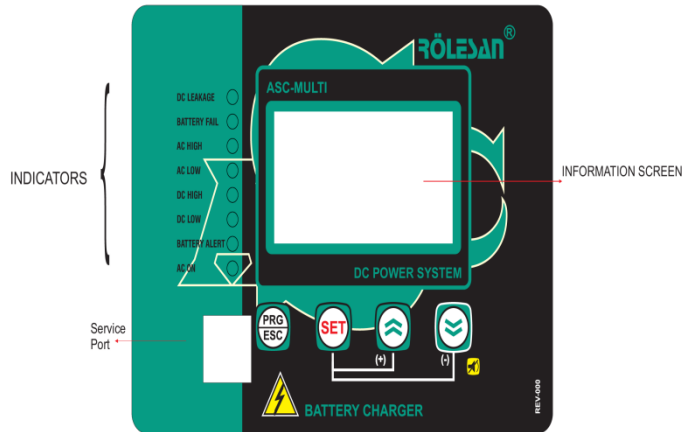
- *SCR Based Microprocessor, Wide Graphical LCD Control Panel*
- *Low Ripple Voltage*
- *Scada Compatible (MODBUS Optional)*
- *Automatic Battery Maintenance, Long Life Batteries*
- *Stable Output Voltage, Perfect Discharge Curves*
- *No gas generates during boost charging*
- *0 -10V/4-20mA Information Transmitting (Optional)*
- *Digital Fan Control (Optional)*
- *Deep Discharge Protection Module (Optional)*
- *Surge Arrester Protection (Optional)*
- *Battery Capacity Selection and automatic charging setting (Optional)*

Flexible and Easy Operation in Wide Range of DC Applications

ASC 1110XX Series can be used in different areas such as Power Transmission and Distribution, Chemical Industry, Water and Waste Water Industry..

System parameters are easy to monitor via its control panel. These parameters;

- AC Input Voltage
- AC Input Current
- DC Output Voltage (Load Current)
- DC Output Voltage
- Frequency
- Battery Charging Current
- Temperature
- Battery Life Rate (Graphical and %)
- Fault and Information Notifications



To charge the batteries in most suitable way and extend their life time, ASC 1110XX is designed with current and voltage regulators and automatic battery maintenance function. The ripple voltage is <5% without battery and <1% with Battery.

ASC 1110XX series are available from 5 to 100A in single-phase input configuration with offering output voltage 110Vdc. (please see other ASC series for there-phase input configuration and different output voltages)

Thanks to our own R&D department, all electronical and mechanical designs are carried out by ourselves for improved reliability and adaptability to industrial requirements.

ASC 1110XX series have easy to use HMI for quick on-site adjustments. Please see the below pages for parameter settings.

ASC 1110XX series can be manufacture according to your special requirements.

Please get in touch with us for the special requirements and optional moduels below.

- 0 -10V / 4-20mA Informations Transmitting Module
- Digital Fan Control Module
- Deep Discharge Protection Module
- Surge Arrester Protecion Module
- Modbus Communication Module
- Battery Capacity Selection Module

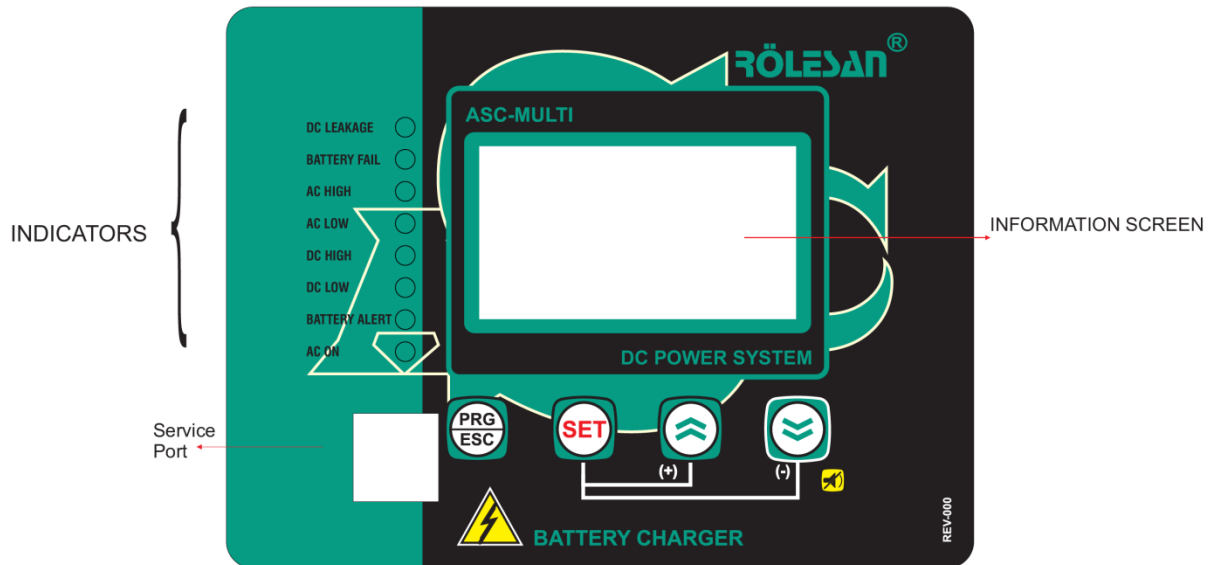
Optional Intelligent VRLA Battery monitoring system is avaiable for analyzing SOH of Block battery, SOC of String battery, Curve Trend analysis, Bar Graph report and Threshold Alarm. ASC 1110XX series are able to measure Block Battery' s Voltage, Temperature and Inner resistant (ohm).

Output Current (A) – Battery Capacity (Ah)					
	26Ah	65Ah	80Ah	100Ah	150Ah
	5	-	-	-	-
	10	-	-	-	-
	25	25	25	25	-
	30	30	30	30	-
	40	40	40	40	40
	100	100	100	100	100
DC System Technical Specifications					
Model	ASC 1110-26	ASC 1110-65	ASC 1110-80	ASC 1110-100	ASC 1110-150
Input Voltage	230 VAC ± % 20				
Power Factor	0,7				
Frequency	50 Hz ± % 5				
Nominal Output Volage	110 VDC				
Nominal Output Current	See. Output Current (A) – Battery Capacity (Ah)Table				
Nomal Charge Voltage Adjustment	Between %90 -%120				
Voltage Regulation	< %2,0				
Ripple Voltage	W/O Battery < %5,0 / W Battery < %1,0				
Current Limitation	%110 In				
Dielectric Withstand	2 kV				
Efficiency	%80				
Operating Temperature	-20°C / +55°C				
Noise Level	< 45 db				
Battery Technical Specifications					
Nominal Voltage	12 V				
Nominal Capacity (Ah)	26	65	80	100	150
Normal Charging Voltage	Normal Charge 2,23V/Cell – Boost Charge 2,40V/Cell				
Life Time	10 years in 20°C Operating Temperature				
Production Date	At most 6 Months Before The Delivey Date				
Battery Type	VRLA Deep Cycle				
Temperature	Charger 0°C / 40°C , Discharge -20°C / 50°C, Storage 20°C / 40°C				
Enclosure Specifications					
Dimensions (mm) – 26Ah	268,5x371x1112,5– dimensions may vary				
Dimensions (mm) – 26 to 150Ah	268,5 x 371 x 508 (Rectifier) / 730 x 965 x 560 (Battery Stand)				
Battery Cabinet Type	Module	Battery Stand			
Battery Cabinet Dimensions (mm)	Integrated	No cabinet			
Protection Class	IP 21				
Color	RAL 7035				
Enclosre	1,50mm DKP Stainless Steel				
Weight	≈90,5kg	≈216,5kg	≈237,5kg	≈287,5kg	≈400,5kg
Cooling	Natura Cooling				
Assemblbe Type	Wall or Ground			Ground	

- For different charging current and battery capacity please get in touch with us.
- Dimension may vary depening on the optional modules, charging current and battery capactiy.
- Weight may change depending on the optional moduels, charging current and battery capactiy.
- Please check the dimensions and weight after ordering the optional modules, different charging current or battery capacity.

ASC 1110XX Series Working Principles

ASC 1110XX Series HMI Information

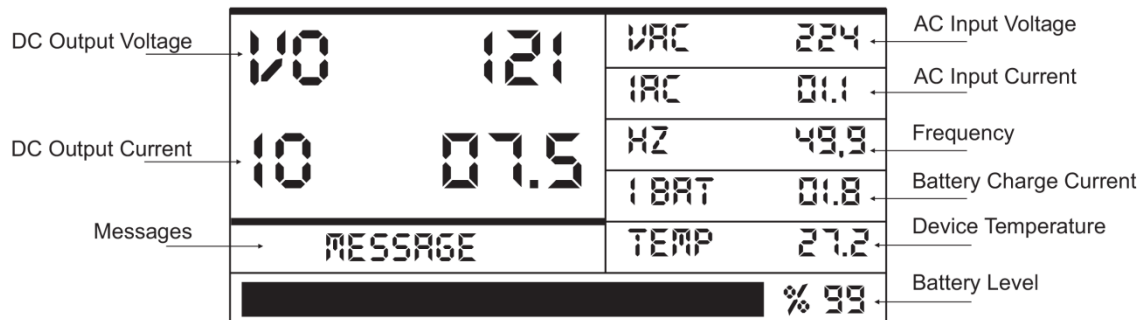


- ASC 1110XX Series can able to give warnings according to the set parameters via LED's, audible and visual

DC Leakage Led: LED will be on, If there is a DC leakage on the system.
Battery Failure Led: LED will be on, If any of the batteries have problem.
AC High Led: LED will be on, If AC is higher than the set value.
AC Low Led: LED will be on, If AC is lower than the set value.
DC High Led: LED will be on, If DC is higher than the set value.
DC Low Led: LED will be on, If DC is lower than the set value.
Battery Alarm Led: LED will be on, If any of the batteries have problem.
AC On Led: LED will be off, If there is no AC on the charger or any internal failure.

- ASC 1110XX Series, included a service port for further upgrades in case of additional system requirements.
- ASC 1110XX Series, included a PRG/ESC button to reach the settings.
- ASC 1110XX Series, included a SET button, to change the settings.
- ASC 1110XX Series, included directional pads to sweep inside the settings.
- ASC 1110XX Series, included a mute button, to avoid the audible alarm.

HMI and Settings



Battery Charge Voltage	DC VOLT	121
Battery Charge Current	DC CURRENT	20.0
DC High Voltage	DC HIGH	135
DC Low Voltage	DC LOW	090
Battery Alarm Voltage	BAT ALERT	101
Battery Deep Discharge Voltage	BAT OFF	081

Pressing PRG/ESC button will make you to enter the first page of the settings.

Output Voltage Setting: Select DC VOLT with using down button and adjust the required value while pressing the SET button.

Output Current Setting: Select DC CURRENT with using down button and adjust the required value while pressing the SET button.

DC High Voltage Setting: Select DC HIGH with using down button and adjust the required value while pressing the SET button.

DC Low Voltage Setting: Select DC LOW with using down button and adjust the required value while pressing the SET button.

Battery Alarm Level Setting: Select BAT ALERT with using down button and adjust the required value while pressing the SET button.

After battery alarm level setting, use down button for the next page.

AC High Voltage	→	AC HIGH	250
AC Low Voltage	→	AC LOW	180
Battery Maint Month	→	MAINT MONTH	06
Battery Maint Y/N	→	MAINT Y/N	H
AC Hz High	→	HZ HIGH	55.0
AC Hz Low	→	HZ LOW	45.0

AC High Voltage Setting: Select AC HIGH with using down button and adjust the required value while pressing the SET button.

AC Low Voltage Setting: Select AC LOW with using down button and adjust the required value while pressing the SET button.

Battery Maintenance Period Setting: Select MAINT MONTH with using down button and adjust the required value while pressing the SET button.

Maintenance Active / Passive Setting: Select MAINT Y/N with using down button and adjust the required value while pressing the SET button.

Frequency High Setting: Select HZ HIGH with using down button and adjust the required value while pressing the SET button.

Frequency Low Setting: Select HZ LOW with using down button and adjust the required value while pressing the SET button.

After Frequency low setting, use down button for the next page.

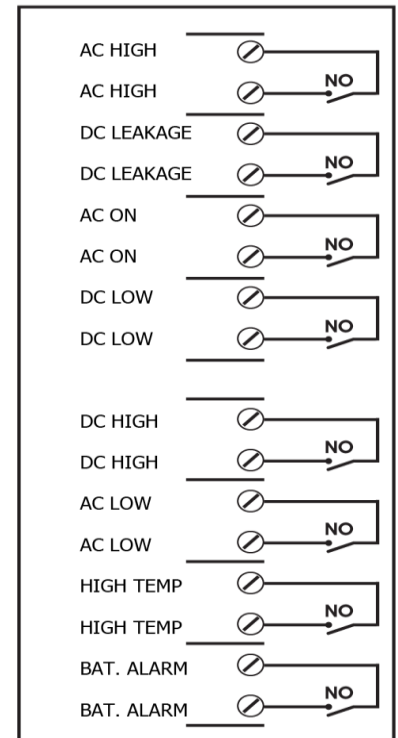
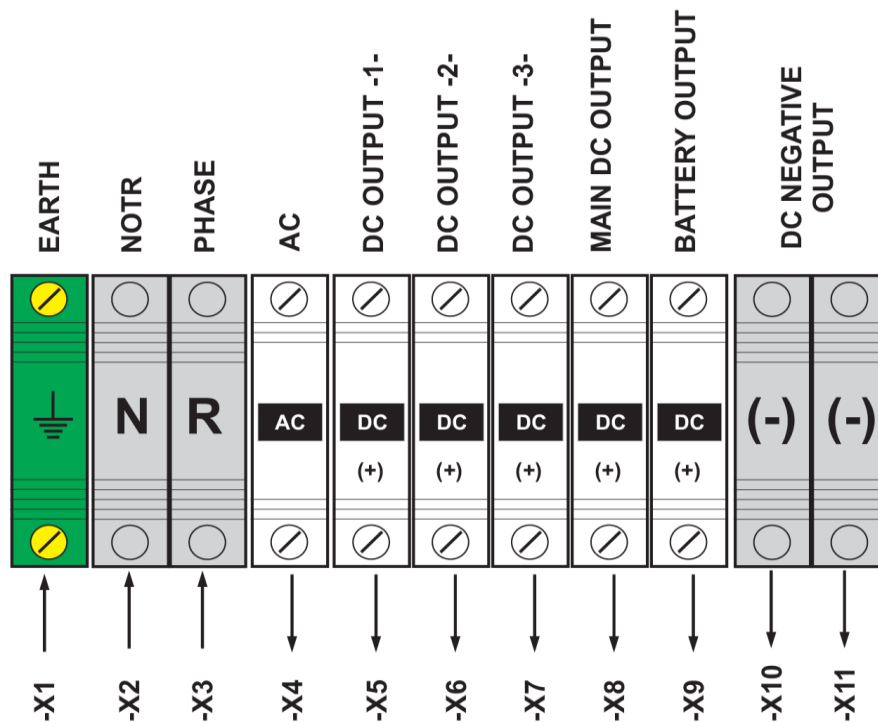
Temperature Setting: Select HEAT with using down button and adjust the required value while pressing the SET button.

Buzzer Active / Passive Setting: Select BUZ E/H with using down button and adjust the required value while pressing the SET button.

Device Temperature	→	TEMPERATURE	65.0
Buzzer Y/N	→	BUZ Y/N	N

ASC 1110XX Series DC Supply System / Rectifier

Connection Diagram and Scada Contact Outputs



Factory Settings

NAME	VALUE	DESCRIPTION
DC VOLT	121	DC Output value that the charger continuously supply.
DC CURRENT	20,0	DC Current value that the charger continuously supply.
DC HIGH	132,0	Visual and Audible alarm value if DC > set value.
DC LOW	90,0	Visual and Audible alarm value if DC < set value.
BATTERY ALARM	105	Visual and Audible alarm value, if the battery voltage < set value.
BATTERY DISCONNECT	95,0	Battery disconnection from the system valeu, if the battery voltage < set value.
AC HIGH	250,0	Visual and Audible alarm value if AC > set value.
AC LOW	180,0	Visual and Audible alarm value if DC < set value.
BATTERY LOOK MOON	06	Battery maintenance period setting in terms of months.
MAINTENANCE Y/N	E	Battery maintenance active or passive setting.
HZ HIGH	55	Visual and Audible alarm value if Frequency > set value.
HZ LOW	45	Visual and Audible alarm value if Frequency < set value.
HEAT	65	Visual and Audible alarm value if the internal temperature > set value.
BUZZER E/H	H	Buzzer active or passive setting.