

REC-MAK SD Series Industrial Rectifier

Industrial Rectifier / Anodizing Rectifier / Plating Rectifier

MAK 
POWER SYSTEMS
www.mak-powersis.de



- High Frequency PWM Newest Technology
- Thyristor Technology or IGBT Technology 1 Millisecond R. Time
- Micro Chip Controlled, Fast and Precisely, Efficient
- Perfect DC Supply for Industrial Solutions
- 2 Years Warranty & 10 Years Spare Part Availability
- High Efficiency up to 96%
- Thyristor or IGBT Switch Mode Optional
- Wide Input Voltage Range for Usage in Rural Areas
- Advanced Protection and Data Logging for Industrial Usage
- Short Circuit, Overload, Over Voltage & Over Temperature Protection
- Unlimited Number of Paralleled Modules
- Selectable Output Voltage Values “Lower Than Ordered Unit”
- 6 Pulse, 12 Pulse or Switch Mode Technology
- Input 230V / 400V or 108V / 220V & 50Hz / 60Hz Options
- Constant Voltage or Current Option
- Small Footprint, Easy Maintenance & Robust & Anti Rust Cabinet
- Easy Monitoring Voltage, Current, from Screen
- Warning LEDs and Dry Contact as Optional
- Wall Mount or Stand Alone or With Wheel Optional
- Customized Production, Higher Voltage & Current Values



Industrial Applications



GSM Stations & Radars



Automation Panels

*24Volt – 48Volt – 72Volt – 108Volt – 127Volt – 220Volt / * 50Amper – 80Amper – 100Amper – 150Amper – 200Amper – 400Amper - 500Amper - 1000Amper



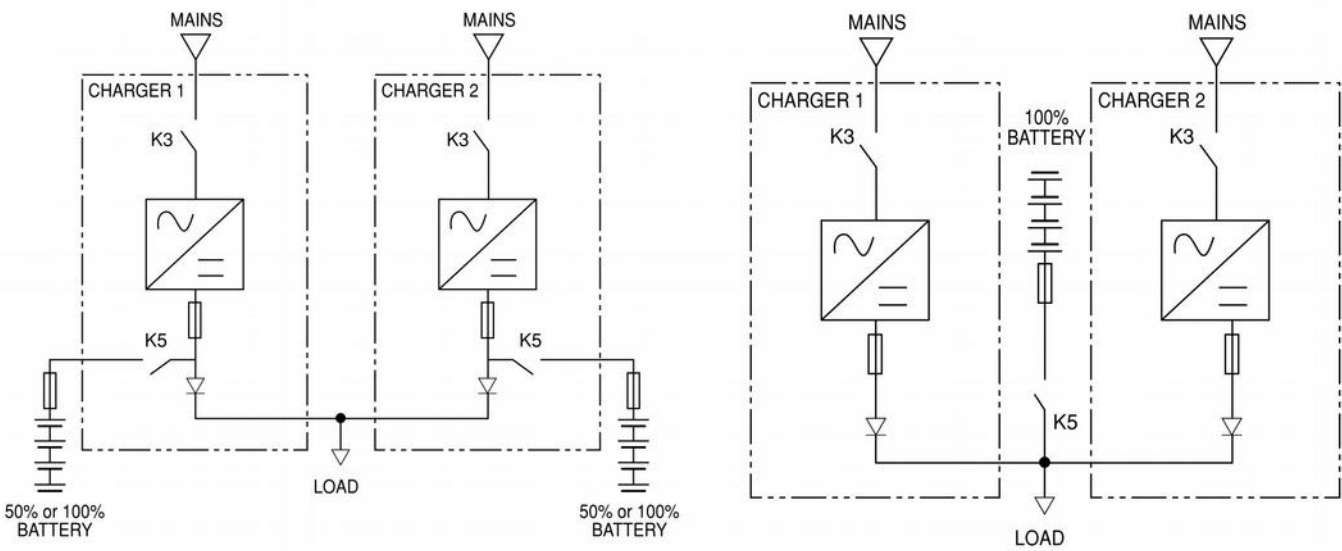
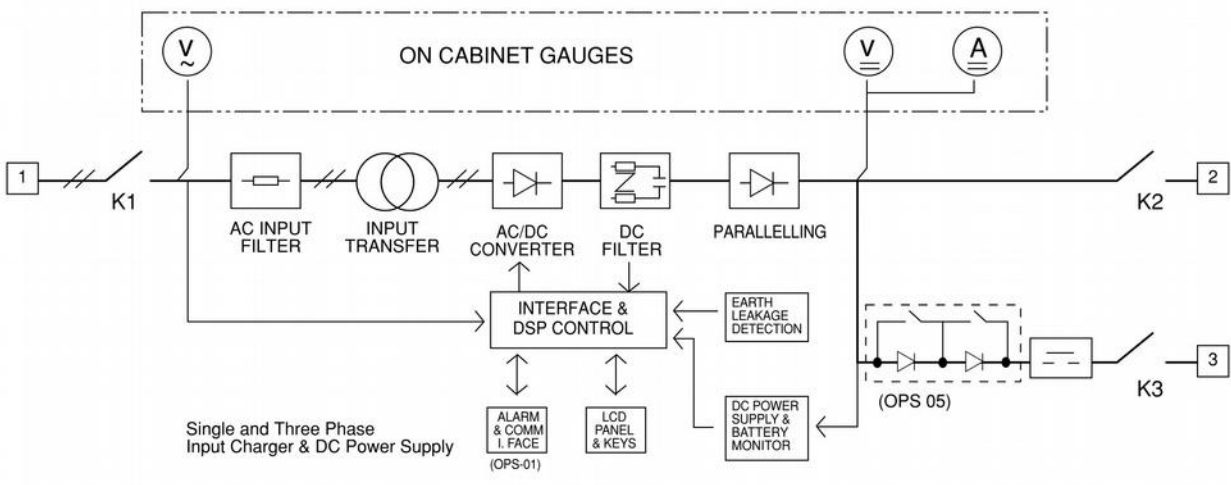


REC-MAK Industrial Rectifier DC Supply

600V & 1200Amper Industrial Rectifier Charger

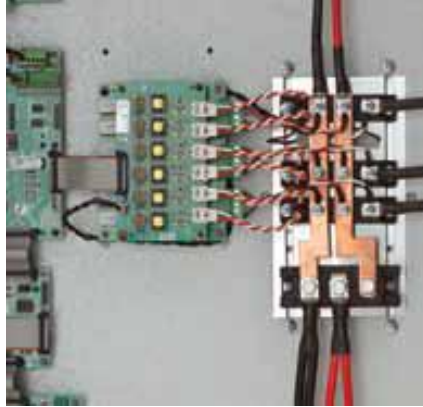
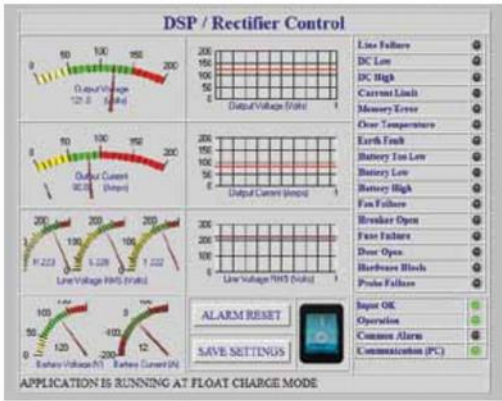
SD-MAK series battery chargers are developed for charging high capacity batteries used in forlifts, GEL batteries, traction batteries electrical earth movers etc... and designed for both individual for your electrical vehicles or industrial use. User friendly control panel and easy operating system is very practical to connect, control. Since the battery charger is electrically smart micro chips controlled charging operation is very safe, easy and extends your lead acid battery life. Day-off charging function enables the battery fully charged when it is not used and increase the life time of the battery. There is no need for any adjustments with Plug and play function and charging starts automatically when the battery is connected.

The charger consists of economic, environment-friendly, and reliable DC power supplies that use the resonant converter technology, operating at high frequencies. They have a high input power factor along with very low output voltage ripples. They have a high input power factor along with very low output voltage ripples. They are used extensively for charging lead-acid and as customized nickel cadmium batteries; at telecom and power distribution sites, or wherever DC power is needed.





REC-MAK Industrial Rectifier DC Supply



Communication Interface



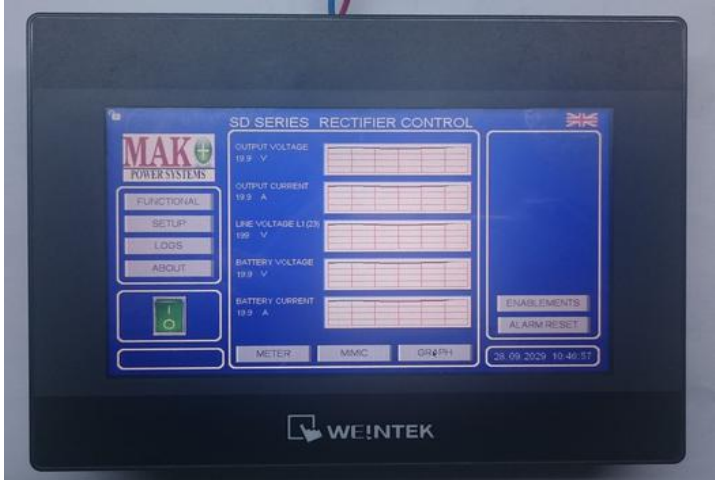
Useable Areas:

- Telecom systems,
- Ni-Cd and Lead,
- Acid batteries charger,
- Energy distribution stations,
- Power stations,
- Emergency lighting systems,
- Natural gas distribution control stations
- DC uninterruptible power systems



REC-MAK Industrial Rectifier DC Supply

Touch Screen Solutions Optional



REC-MAK Industrial Rectifier DC Supply

230V / 600 Amper

INPUT	Voltage	Three Phase 308V- 400V - 415 Volt Star or Delta Connected						
	Voltage Tolerance	± 10%						
	Frequency	50/60 Hz.						
	Frequency Tolerance	±10%						
	Power Factor	1-Phase: 0.98 (THD 4%) / 3-Phae: 0.92 (THD 30%)						
OUTPUT	Voltage	230V / 1V – 600V Selectable (front panel selectable)						
	Current	750Amper DC Supply / 1Amper Selectable						
	Current Limiting	I nom x 102% front panel selectable between 0 and 102%						
	Ripple	<0.5%						
	Voltage Regulation	DC Supply Output Selectable till %10 More						
	Efficiency	3- Phase: >92% / 1- Phase: >85%						
	Protections	Input, output (thermal/magnetic) fuses, Advanced short circuit protection, Over voltage protection, Over current protection, Automatic restart, High Heat, High Voltage						
BATTERY CONNECTION OPTIONAL	(Adjustable DC Supply)	If needed temperature compensated, Ventilation, fan, filter and thermostat. Fan in top, blowing out, filter in bottom. Bottom cable entry and Bus-bar cable output.						
	Boost Charge Time	Increment able by 1 hour up to 24 hours						
	LCD Properties	2x16 character-wide display, or Optional Touch Screen Showing: Output voltage & current, Output voltage high/low Load(%), Log Records up to 200 logs with Real Time Clock Calender AC (AC available), Fault, Current limiting,						
	Displays	Automatic charge, Adjustable Charging Voltage From Screen Float charge, Boost charge, Common alarm						
	Alarms	Common relay contact output for AC input low, DC output low and overheat						
	Operation and control	Via menu selections from buttons on front panel						
	Endurable Dielectric Voltage	2000 V Input-Output / 2000 V Input-Chasis 500 V Output - Chasis (For PS with output voltage <50 V) 1000 V Output - Chasis (For PS with output voltage >50 V)						
	Endurable Dielectric Voltage	1000 V Output - Chasis (For PS with output voltage >50 V)						
GENERAL FEATURES	Case Dimensions (WxDxH)	Stand Alone 3000 X 1750 X 2150mm						
	Protection Class	IP20 With Thermic Magnetic Circuit Breaker and W Automatic Circuit Breaker NH Circuit Breaker						
	Audible Noise 1m.	50dBA						
	Cooling	Mandatory cooling (Fan)						
	Weight / Cabinet	3250kg / 1 Pallet						
	Control	ModBus, Computer Connection, RS232						
	Operation Storing Temperature	0°C.....40°C & -20°C... 70°C						
	Technology	Switchmode IGBT Rectifier / 2016 Model Technology						
	Relative Humidity	98% (Non-condensing)						
STANDARDS	Standards	IEC 61439-1 clause 8.6, 8.6.5, 8.6.6 / EN 62040-1,2 + / EN 62040-3 4.2.1.1: Indoor: 0 °C						
	Dimensions	Availability Matrix	24V	48V	110V -127V	220V	Dimension(mm) W*D*H	Size 0
		15A	Size 0	Size 0	Size 0	Size1	Size 1	500*450*1000
		30A	Size 0	Size 1	Size 1	Size 2	Size 2	600*600*1300
		100A	Size 1	Size 1	Size 2	Size 2	Size 3	750*700*1600
		300A	Size 2	Size 3	Size 4	Size 5	Size 4	800*800*1600
							Size 5	1200*1000*1800