

REC-MAK Series Electro Plating Rectifier

10V - 12V - 20V – 24V – 30V / 50 Amper – 10.000 Amper



MAK 
POWER SYSTEMS
www.mak-powersis.de

- High Frequency and Pulse Technology with PWM Newest Technology
- 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 91%
- Adjustable 0.1V and 1Amper Sensitivity
- 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 Options
- Customized Production, Higher Voltage & Current Values



Plating Solutions



Electroplating Solutions



Automation Control

*10Volt - 12Volt – 20Volt - 24Volt – 30Volt – 36Volt – 72Volt / * 50Amper – 80Amper – 100Amper – 150Amper – 200Amper – 400Amper – 600Amper - 1000Amper



<http://www.mak-powersis.de/plating-rectifier.html>



REC-MAK Serie Electro Plating Rectifier

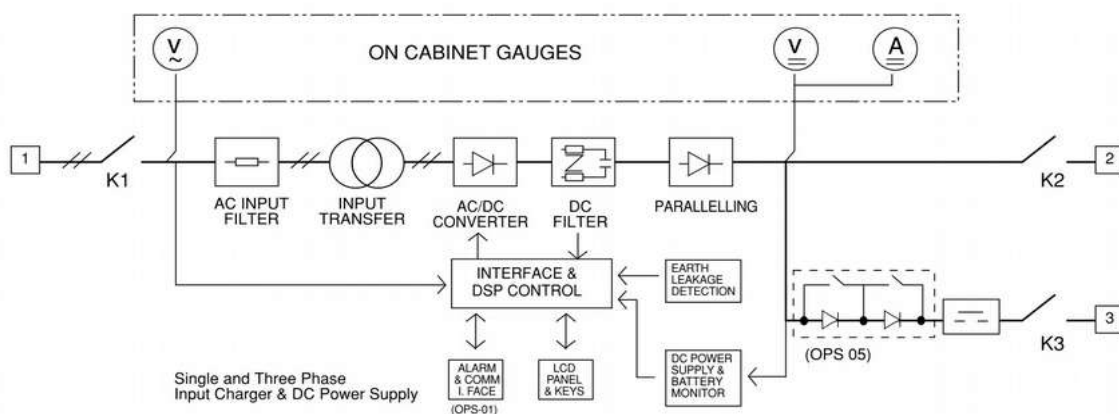
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REC-MAK series plating rectifiers are developed for plating high capacity metal industry used in ectifiers use a recipe system, which allows you to keep a record of the work that has been done before, and with just a simple click, you can use the same recipe in order to define the paint thickness. This feature makes sure that you end up with a standardized product as well as making the process as easy as possible for your operator. ... 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 plating rectifier is electrically smart micro chips controlled plating 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. The plating rectifiers are used extensively for the metal sector and as customized for the clients needs.

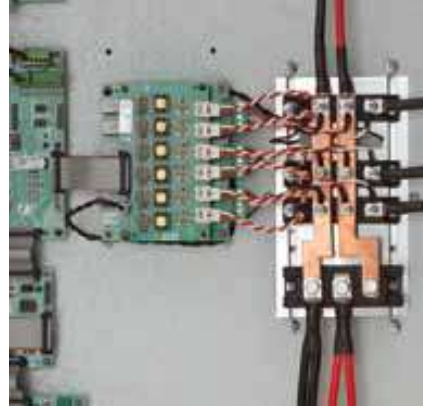
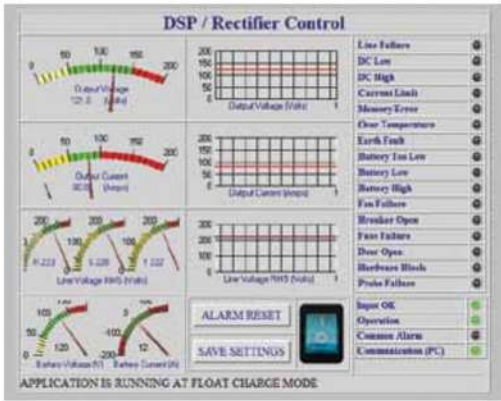
Easy Installation in your plating facilities:

- * Ease of Maintenance for the power electronic parts
- * Operator Panel, PC or PLC control Profi - Bus
- * DP Comprehensive Error Diagnostics, Logging
- * User-Friendly Design for technicians
- * Wide Program Options, customisable
- * Functional Control Panel Options
- * Smart Bug Tracking System
- * Superior Protection Against User Errors
- * Easy to supply spare parts
- * Environmental design
- * Energy-saving system
- * Different line voltage selector





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Communication Interface



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INPUT	Voltage	Single Phase 108Volt or 220Volt or 230Volt or Three Phase 230Volt – 380Volt - 400 Volt
	Voltage Tolerance	± 15%
	Frequency	50/60 Hz.
	Frequency Tolerance	±10%
	Power Factor	1-Phase: 0.98 (THD 4%) / 3-Phase: 0.92 (THD 30%)
OUTPUT	Voltage	10V, 12V, 20V, 24V, 30V, 48V, 72V (front panel selectable 0.1V and 1Amper Sensitive)
	Current	100Amper till 10.000Amper
	Current Limiting	I nom x 102% front panel selectable between 0 and 102%
	Ripple	<0.5%
	Voltage Regulation	±0.5 % at float charge, ±1% at boost charge
	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
BATTERY	Battery Charge Modes (Adjustable Charging voltages)	Automatic charge, boost charge: 2,4 V / Cell Float Charge: 2.25 V / Cell
	Boost Charge Time	Increment able by 1 hour up to 24 hours
	LCD Properties	2x16 character-wide display, showing, Optional Remote Screen: 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, 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)
GENERAL FEATURES	Case Dimensions (WxDxH)	3-Phase: 19" rack cabinet 54 / 1-Phase: 19" 54 or wallmount
	Protection Class	IP20
	Audible Noise 1m.	50dBA
	Cooling	Mandatory cooling (Fan)
	Weight	1- Phase Please Ask 3- Phase Please Ask
	Operation Temperature	0°C.....40°C
	Storing Temperature	-20°C... 70°C
	Relative Humidity	98% (Non-condensing)
STANDARDS	Standards	VDE,DIN 41773 (Battery charge characteristics) ANSI-NEMA PE 5 TS 2000 EN 62040-1, 2,

* 1 Phase Input max output power

** 3 Phase Input max output power

PLEASE ASK FOR DIEMENSIONS

sales@mak-powersis.de