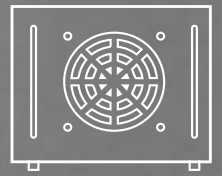
ELYTT ENERGY / NEUREUS TECHNOLOGIES
Carlos A. Sánchez · carlos.sanchez@elytt.com
C/ Orense, 11 2º A
28020 Madrid (Spain)
Tel: +34 91 411 09 63 · +34 636 423 785 · Fax: +34 91 411 09 64

www.epowersys.com · www.elytt.com

REPRO S Series

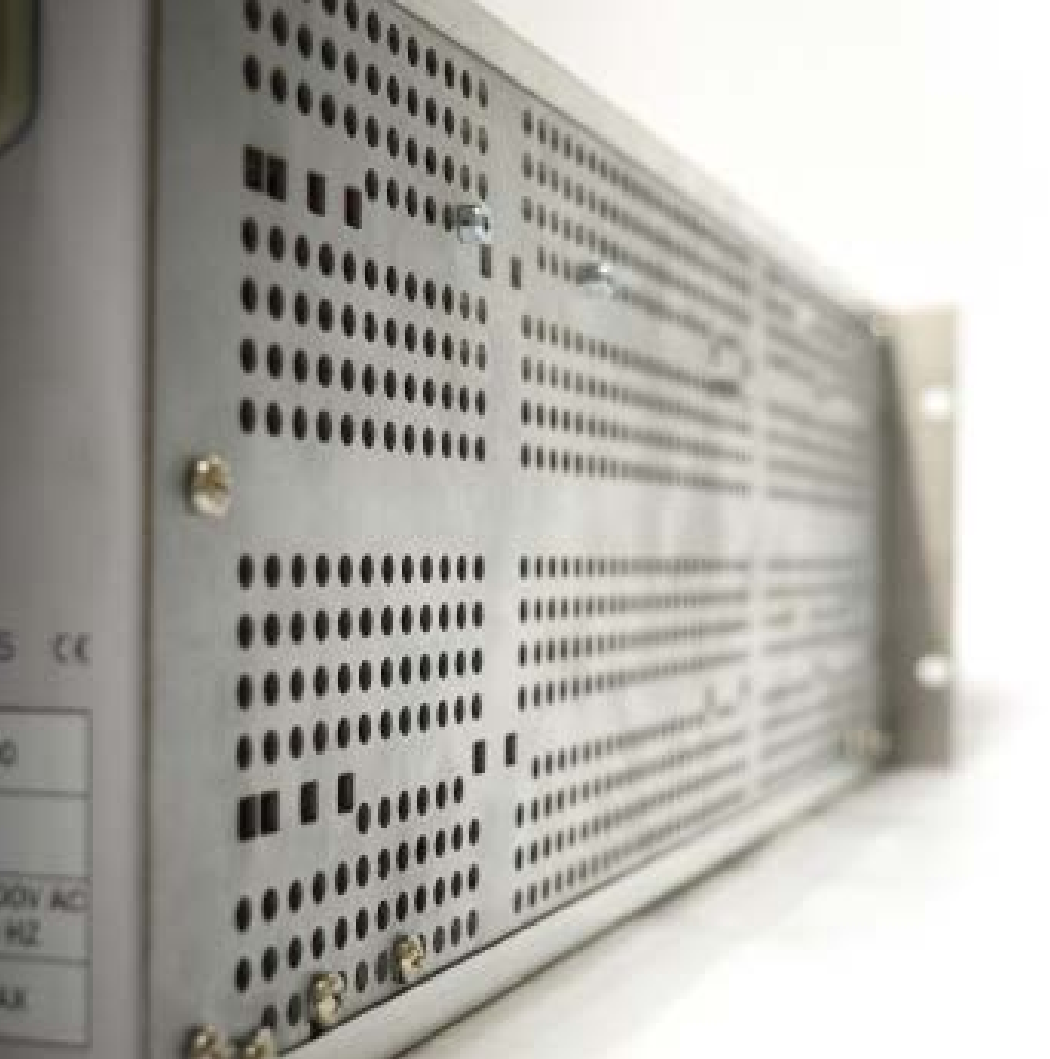
High stability programmable DC Power Supply



REPRO S 06
200A - 30V

REPRO S 15
200A - 75V

EPOWER SYS



REPRO S is the **EPOWER SYS** range of high reproducibility programmable DC power converters, with switched topology, focused on scientific research and industrial applications.

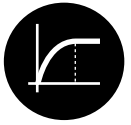
01 Features

01> Boosted ZVS
REPRO S Series is designed to offer great Robustness and efficiency due to the zero voltage switched operation from 0 to 100% load.
All the power supply components have been chosen especially for their durability in the ZVS operation mode, increasing the MTBF.

02> Thermally stable
REPRO S series are thermally controlled providing constant performance and excellent ratings. Thermally controlled ADC and 10 temperature control points minimize the temperature deviation.

03> Accuracy
Precision output is not affected by room temperature changes. Reliable performance is essential on scientific research and industry. DCCT sensor and double control loop are used to achieve the maximum output precision.

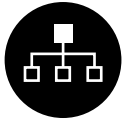
04> High Stability
In applications where great reproducibility and stability are required, REPRO S series provides you less than ±2 ppm between multiple outputs under the same references.



05> Soft-start
The soft-start function allows the digitally controlled charging of capacitors, reducing the stress of components and increasing their useful life.
The power supply has a protection circuit in primary that discharges the bus voltage for safety reasons when the system stops.

06> Time saver
Minimum warm-up time and fast stabilization time over a reference change. REPRO series contribute to save time in operation.

07> Friendly user local interface
REPRO S series control system is extremely easy to use. Power supplies are controlled and monitored with a 7'' touch screen with a friendly user interface providing far more information than conventional interfaces.



08> Remote control
Remote control with Ethernet and RS232 interfaces is included.

01 Features

09> Air Cooling
Air cooling prevents failures caused by water Leaks.

10> High efficiency
Engineered in soft switching architecture, REPRO S power converters range is able to perform over 90% efficiency. Power factor correction is standard.

11> HF Transformer
The power supply uses a high frequency transformer designed to minimize the dispersed flow, preventing induced currents and noise generation. The high technology material core, allows a higher flux density than the ferrites, allowing to lower the heating, size and weight of the transformer compared to conventional transformers.

12>Less interference and noise
The use of local divers and optic fiber connections minimizes false triggering, noise and interference emission, allowing a better and more precise operation.

13> User options
> Programmable ramp time.
> Programmable current and voltage limits.
> Programmable Lan configuration.
> Programmable interlocks and event register.

00> Applications
> Particle accelerator magnets supply.
> Test & Measurement systems.
> Medical Imaging and treatment systems.
> Semiconductor Processing.

02> Technical description

00> Models	
> Output current range:	**200A**
> Output voltage range:	
REPRO S 06:	**30V**
REPRO S 15:	**75V**

01> General	
> Warm up time (cold):	2 min
> Warm up time (stand by):	0 min
> Efficiency up to:	94%
> Input voltage:	3x400V ±10% 47-63Hz
> Ambient temperature:	-20...50ºC
> Power factor:	>0,92

02> Settings	
> Setting range:	0 to 100%
> Setting resolution:	6ppm
> Readback Resolution:	24 bit ADC
> Stability:	±2ppm
> Linearity:	3ppm
> Line regulation:	≤±5ppm (at ±10% mains voltage change)
> Load regulation:	≤5ppm on 10% load change
> Voltage - peak to peak:	<100mV @ 0-100 kHz
> Switching frequency:	200 kHz
> Ramp speed:	(0-100%): 1-30 sec

03> Display
> 7” touch screen. Friendly user interface.

02> Technical description

04>Values displayed
> Current measure
> Voltage measure
> Current setpoint
> Device status
> Errors details
> Transformer temperature
> Power temperature
> Thermal control temperature
> Fans speed
> Current and voltage limits
> Ramp time
> LAN parameters
> Interlock register

05> Errors displayed
> Emergency stop pressed
> Interlocks detected
> Overcurrent hardware
> Overcurrent software
> Overvoltage software
> Loop control failure
> Phase lost detected
> DCCT error detected
> Undervoltage supply +5V
> I2C Communication DSP
> I2C Communication SMC
> I2C Communication ADC
> I2C Communication TEMP

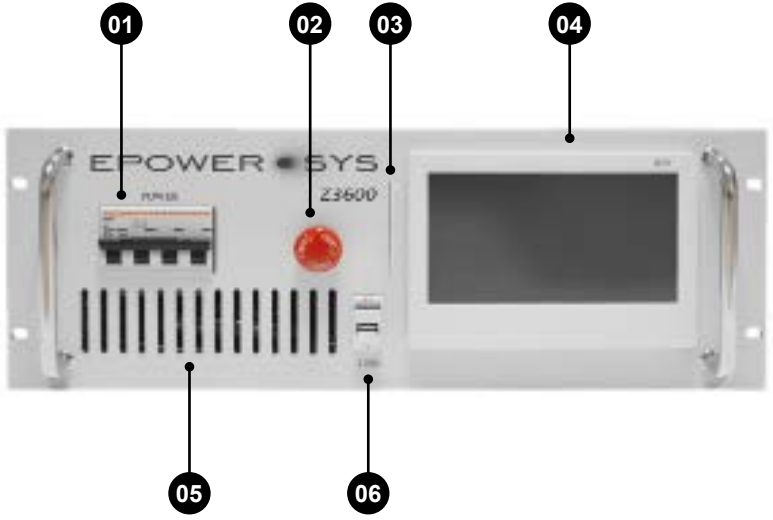
06> Voltage reading
> 12bit
> 0,1% accuracy

07>Enclosure
> 3u 19” rack case.
> Galvanized steed 2mm. EMI
> Weight : 28 kg
> Cooling: air
> Output busbar connection

08> Protection
> Phase loss detection
> Lightning protection
> Freewheeling diode protection.

03> Front panel

01> Main circuit breaker
02> Emergency stop button
03> Stylus
04> 7” touch screen
05> Air inlet
06> USB connector



Rear panel

07> Ethernet connector for remote control
08> Negative voltage output
09> Positive voltage output
10> Input connector
11> Generic port Input/output
12> Interlocks connectors. Connector type DB-9
13> Air outlet