



EASY-DRIVER

Compact Digital Bipolar
Power Supply Series



- The EASY-DRIVER series is a new family of current-controlled bipolar power supplies with Ethernet communication
- The digital current control loop makes the connection and configuration of the power supply to any load quick and simple
- Stand-alone unit with local display, extended input range and embedded air self-cooling

FEATURES

- 19" – 1U stand-alone crate
- $\pm 5A @ \pm 20V$ and $\pm 10A @ \pm 20V$
- True Bipolar Zero-crossing operation
- 10/100 Mbit Ethernet interface
- Digital Current regulation loop
- Low noise
- Internal protections and auxiliary readbacks
- External Interlock and Status Signal
- Extended input range (90-260VAC)
- Local display for monitoring
- VISUAL free software available

APPLICATIONS

- Magnet Power Supplies
- Laboratory Equipment
- Current Control

The new EASY-DRIVER series by CAEN ELS is composed of two different models of digital bipolar power supplies: 5A@20V and 10A@20V bipolar units are commercially available.

Despite being the perfect replacement for the SY2064 system modules, the EASY-DRIVER is a perfect solution also for stand-alone and laboratory equipment.

The 10/100 standard Ethernet connection allows controlling the power converter in a very simple and reliable manner, especially for large installations.

The current control loop, as for most of CAEN ELS power supplies, is digital in order to obtain the maximum flexibility and easiness of configuration to any connected load.

The EASY-DRIVER models present the best performance-to-price ratio, having excellent characteristics while keeping the price at low values.





Low noise and good bandwidth are only two of the main features of these power units, based on a multi-DSP architecture.

Internal protections – e.g. over-voltage, over-temperature and others – are implemented as well as an external interlock signal is present. The circuitry to discharge inductive loads is also embedded.

The EASY-DRIVER unit also has a local display in order to locally monitor the output current and output voltage of the unit. LED indicators summarize the status of the power supply in real-time.

About Us

CAEN ELS is a leading company in the design of power supplies and state-of-the-art complete electronic systems for the Physics research world, having its main focus on dedicated solutions for the particle accelerator community and high-end industrial applications.

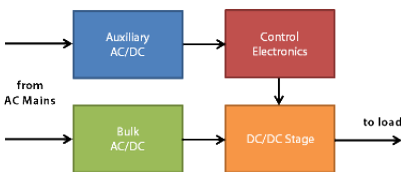
-  Power Supply Systems
-  Precision Current Measurements
-  Beamline Electronic Instrumentation
-  FMC & MTCA.4 – MicroTCA for Physics

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EASY-DRIVER Basic Architecture

The EASY-DRIVER units are internally composed by separate Auxiliary and Bulk AC/DC sections.

Technical Specifications

EASY-DRIVER

	"0520" Model	"1020" Model
Output current range	± 5 A	± 10 A
Output voltage range	± 20 V	
Maximum output power	100 W	200 W
Topology	Bipolar	
Current setting resolution	160 µA	320 µA
Output current readback	20 bit	
Output voltage readback	20 bit	
Output current ripple*	< 40 ppm / FS	
Output current stability	< 40 ppm / FS	
Output Current TC	< 40 ppm / °C	
Accuracy	< 0.05 %	
Switching Frequency	> 100 kHz	
Closed Loop Bandwidth	> 1 kHz	
Efficiency	up to 84 %	
External Interlocks/Status	1 Input: External Fault 1 Output: Power Supply Status	
Internal Interlocks	DC Link Under-Voltage MOSFETs Over-Temperature Shunt Over-Temperature	
Hardware Protections	Input Fuses Passive Crowbar (Over-Voltage)	
Cooling	Forced Air Convection – Front-to-Rear	
Control System Drivers	EPICS IOC	
Connectivity	Ethernet 10/100 Mbit TCP-IP	
Extra-Features	User-settable Slew Rate Value Firmware Remote Update	
Mechanical Dimensions	19" × 1U × 264 mm 19" × 1U × 295 mm - <i>with output connectors</i>	
Weight	4 kg	
Input Ratings	90/260 VAC) 47-63 Hz	
Local Indicators	LCD Display 6 LEDs	

* measured on 1mH load



EPICS IOC

Ordering Options

EASYDRV0520A	EASY-DRIVER 0520	EASY – DRIVER 0520 - Digital Bipolar Current Power Supply (±5A@±20V - 100W)
EASYDRV1020A	EASY-DRIVER 1020	EASY – DRIVER 1020 - Digital Bipolar Current Power Supply (±10A@±20V - 200W)