NGPS 200-50E

High-stability Digital Power Supply 200 A @ 50 V (10 kW) – 400 VAC three-phase input

3U, 19" Eurorack	Positive	1
Package	Polarity	No. of Channels

NGPS 200-50E is a single-channel 400 Vac–50 Vdc digital power supply delivering 200 A and 10 kW in a 19”-3U stand-alone crate. It provides configurable digital control-loop operation, voltage or current regulation, 1 ppm/°C temperature dependence, excellent long-term stability and parallel operation up to 40 kW. Waveform generation operates at 40 ksps, while an embedded 4-channel oscilloscope monitors parameters such as current and voltage at 40 kHz. External analog control, interlock and status signals, local controls, an embedded web-server, 10/100/1000 Mbit Ethernet and a fast SFP interface are included.

Overview

Product Highlights

- 19”-3U stand-alone crate
- Configurable digital control loop
- Voltage regulation
- Excellent long-term stability
- Waveform Generation at 40 ksps
- Embedded Web-Server
- Local Display and Controls
- Fast SFP interface (10 kHz update)
- Co-designed with OCEM
- 200 A-50 V
- PARALLEL operation up to 40 kW
- 1 ppm/°C temperature dependence
- External Analog Control and Auxiliary Analog Inputs
- Embedded 4-channel Oscilloscope
- External Interlock and Status Signals
- 10/100/1000 Mbit Ethernet
- Water-cooled models available
- Horizontal Cooling

Product Description

NGPS 20050E is a single channel 400 Vac – 50 Vdc converter, which allows to integrate into the EASY channels control also the management of the power supplies. Configurable digital control loop, and parallel operation up to 40 kW. Features also encompass current or voltage regulation, 1 ppm/°C temperature dependence, long-term stability, and external analog control.

NGPS 20050E offers waveform generation at 40 ksps, an embedded 4-channel oscilloscope that allows monitoring up to four different values (e.g. current, voltage, etc.) with a sampling rate of 40 kHz by using an internal DMA, and embedded web-server for remote operation. It has a broad application range, including particle accelerators and medical imaging, showcasing flexibility through 10/100/1000 Mbit Ethernet connectivity and fast SFP interface.

AT A GLANCE

Package	**3U, 19" Eurorack**
Polarity	**Positive**
No. of Channels	**1**
AC input	**3-phase 400 V / 50 Hz**
Output Voltage	**50 V**
Max Output Power	**10 kW**

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Technical Specifications

Packaging	19″-wide, 3U-high Euromechanics rack; Depth: 647 mm (including connectors) Weight: 18 Kg Horizontal Cooling
Output Polarity	Positive
Output Voltage	50 V
Output Current	200A
Max. Output Power	10 kW
AC Input	Three-phase 400 VAC ± 10%, 50/60 Hz
Regulation Type	Constant Current (CC) or Constant Voltage (CV)
Output Insulation	500 V
Output Setting Resolution - CC/CV	>19 bit
Output Readout Resolution	24 bit
Output Accuracy In CC	< 0.01 %
Output Accuracy In CV	< 0.05 %
Remote Sensing Compensation	Up to 2 V
Operating Current Range	2-100 %
Temperature Stability	< 0.0002 %K in CC mode < 0.005 %K in CV mode
Efficiency	> 90 %
Power Factor (at full-load)	> 0.92
PARALLELING Option	Up to 4 modules – via front SFP optical links
Operating Ambient Temperature	0 … 40°C
Communication Interfaces	x Ethernet 10/100/1000 Mbit TCP-IP and UDP 2 x SFP/SFP+ ports
External Signals	Analog Control Input (0-10V) Trigger Input

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Ordering Information

ORDERING CODE	DESCRIPTION
WNGPS20050HC	NGPS 200-50 AC/DC Converter for EASY5000 and EASY6000 400 V 3-phase 50 V 10000 W

1. Ordering codes and descriptions are reproduced from the product record. Availability is confirmed at order entry.

Related Products

NGPS 30-300E — High-stability Digital Power Supply 30 A @ 300 V (9 kW) – 400 VAC three-phase input

Software & Control Tools

CAEN HV Wrapper Library — Library for CAEN Power Supply Control

OPC Server — OPC Server for CAEN Power Supplies

GECO2020 — GEneral COntrol Software for CAEN HV Power Supplies

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