

Power Supplies

0-20V to 0-1500V programmable power supplies can be configured in 20U high 19" racking cabinets to deliver 90kW

Date: 9 July, 2024

Ref: LA209

TDK Corporation (TSE 6762) announces the introduction of 90kW rated GSPS 20U 19-inch racking cabinets to the TDK-Lambda GENESYS+™ series of programmable DC power supplies. The GSPS systems seamlessly transition across constant voltage, constant current and constant power limit operating modes. The cabinets are mounted on lockable castors (wheels) to enable them to be easily repositioned around research or production facilities.

The GSPS series meets the demands of testing and measurement of automotive components, batteries for electric vehicles, aerospace, high-power magnets, medical imaging, semiconductor processing, and industrial automation and process control applications.

Internally, twelve of the GENESYS+™ 7.5kW power supplies are configured together to provide twelve output voltage ranges from 0 - 20V to 0 - 1500V with output currents of up to 4500A. TDK-Lambda's patented advanced parallel system provides dynamic load response and ripple and noise characteristics comparable with that of a single power supply.

The input voltage range is three-phase 342 to 528Vac 47 – 63Hz, covering nominal 380, 400, 415, 440, 460 and 480Vac. The input circuit breakers are accessible on the front panel of the cabinet, and the paralleled output bus bar connections are at the rear. Safety features are standard in all GENESYS+™ power supplies, providing Safe/Auto Re-Start, Last Setting Memory and built-in protection functions for voltage, current and temperature.

The GSPS series uses common programming across the entire GENESYS+™ series, either by the front panel controls, remotely via LAN (LXI 1.5), USB 2.0 and RS232/485 communications or an isolated analogue control and monitoring interface (0-5V, 0-10V), which are provided as standard. Optional interfaces include a choice of GPIB (IEEE488.2), EtherCAT, Modbus-TCP and IS420 (4 to 20mA isolated current programming loop). The software package provides software drivers, a waveform creator, and a virtual front panel GUI.

The GSPS 20U 19-inch racking cabinet measures 553 x 902 x 1028mm (WxDxH) and weighs less than 200kg. The castors can be removed if not needed.

The five-year warranty series is safety certified to IEC/EN/UL 61010-1 and has CE and UKCA markings for the Low Voltage, EMC, and RoHS Directives. The GENESYS+™ series also complies with IEC/EN 61204-3 for conducted and radiated EMI and EMC immunity.

Further information on the GSPS 90kW series can be found at [GSPS Series Datasheet \(tdk.com\)](https://tdk.com/GSPS-Series-Datasheet)

Main applications

- Test and measurement of automotive components, batteries for electric vehicles, aerospace, high power magnets, medical imaging, semiconductor processing and industrial automation and process control applications

Main features and benefits

- Compact 20U high, 19" wide rack size
- Three phase input range of 342 - 528Vac
- 0-20V up to 0-1500V output voltages
- LAN, USB, RS232, RS485 and Isolated Analogue Interfaces as standard
- Arbitrary Waveform Generation and Storage
- Five-year warranty

Key data

Model		GSPS 90kW
Input voltage range	Vac	Three phase 342 - 528
Output voltages	Vdc	0 - 20V up to 0 - 1500
Maximum output power	W	90,000
Efficiency	%	Up to 90
Safety certifications	-	IEC/EN/UL 61010-1
Size (W x D x H)	mm	553 x 902 x 1028 (with castors)
Other standard features	-	LAN, USB, RS232, RS485 and Isolated Analogue
Warranty	-	Five years

About TDK Corporation

TDK Corporation is a world leader in electronic solutions for the smart society based in Tokyo, Japan. Built on a foundation of material sciences mastery, TDK welcomes societal transformation by resolutely remaining at the forefront of technological evolution and deliberately "Attracting Tomorrow." It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's comprehensive, innovation-driven portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, as well as magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads and more. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK focuses on demanding markets in automotive, industrial and consumer electronics, and information and communication technology. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2023, TDK posted total sales of USD 16.1 billion and employed about 103,000 people worldwide.

About TDK-Lambda Corporation

TDK-Lambda Corporation is a trusted, innovative leader and global supplier of highly reliable power conversion products for industrial and medical equipment worldwide.

TDK-Lambda Corporation is aligned for fast responses to any customer need with R&D, manufacturing, sales and service locations in five key geographic regions, namely Japan, EMEA, Americas, China and ASEAN.

For more details, please pay a visit to: www.jp.lambda.tdk.com/en/

Contacts for regional media

Region	Contact		Phone	Mail
Americas	Tom Goodman	TDK-Lambda Americas	+1 732 795 4148	tom.goodman@tdk.com
EMEA	Hannah Owen	TDK-Lambda UK	+44 (0)1271 856667	tlu.powersolutions@tdk.com
	Danielle Burness	Publitek	+44 (0)7581 024101	danielle.burness@publitek.com
Other Asia	BK Neo	TDK-Lambda Singapore Pte Ltd.	+65 6251 7211	tls.marketing@tdk.com
Greater China	Helen Van	TDK-Lambda (China) Electronics Co., Ltd.	+86 21 64850777 *209	helen.van@tdk.com
Japan	Mr. Daiki Ito	TDK Corporation	+813 6778-1055	TDK.PR@tdk.com