TDK

GENESYS™ AC

AC Power Sources

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Professional Power Supplies

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GENESYS™ AC

Where Brilliance meets Precision.

+Field upgradeable

+Easy to install

+Wide library of test profiles

+High efficiency

+User-friendly interface

+GUI commonality for AC/DC

+Worldwide safety approvals

+Five-year warranties

Advanced AC Power Sources for reliable Testing

The GENESYS™ AC Power Source redefines testing for functionality, reliability and usability. The ease of operation and purity of signals means you can perform tests efficiently and repeatably, making better use of your time and resources.

Functionality

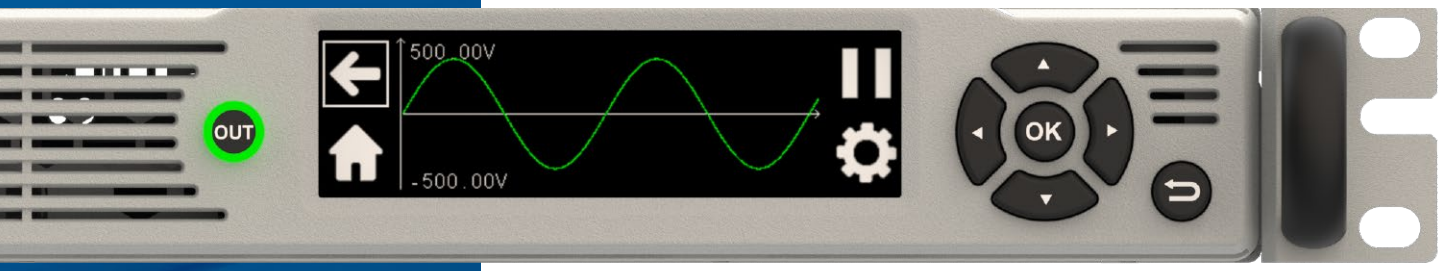
A high-quality, technically advanced solution that allows you to enhance testing operations – identifying more potential problems and working more efficiently, reliably and sustainably.

Experience and trust

GENESYS™ AC Power Source builds on unrivalled knowledge and capability of our DC portfolio – providing high levels of consistency. Users get the same look and feel when using AC, DC, or both.

Usability

GENESYS™ AC Power Source has been designed with ease of use in mind –allowing you to integrate it into your testing operations quickly and easily with minimum set-up times.



Benefits

GENESYS™ AC Power Source is a high-density and fully programmable product engineered to the same standard as our DC offerings, providing a high quality technically advanced solution and easy access to the many parameters and measurements that are necessary in AC test scenarios.

Exceptional quality, reliability and ease of use

- Ultra-high, class leading power density - up to 3kVA in 1U
- 6 & 9kVA version can provide one phase output power
- High-end specification for more accurate measurements
- Excellent crest factor
- Elegant design and build with TDK quality
- Lighter than similar products

- Intuitive GUI
- GUI commonality for AC / DC
- Wide library of test profiles
- Capacitive touchscreen
- User-friendly interface
- DC source function availability

- Maintenance-free operation
- Five-year warranties
- Worldwide safety approvals
- Direct sales channel with close and immediate support

Key Features

Models GAC & GAC PRO

- Highest power density in a full-featured 1U format
- 350Vac with 20A @ 2kVA and 30A @ 3kVA single range output
- AC output frequency 16 to 1200Hz
- Output single phase 2 & 3 kVA, output three phase available starting at 6 & 9 kVA
- Sine, square & triangle waveforms standard
- Arbitrary waveform generator & harmonics analysis option
- High crest factor at 4:1, 4x rated current
- Full colour capacitive touch panel
- Blank (ATE) grey and black front panel available
- Built-In LAN, USB, RS-232/RS-485 and isolated analogue interfaces
- Optional IEEE488 interfaces
- Scalable power systems up to 27 kVA
- 2kVA and 3kVA can be paralleled by the user to higher power and multi-phase configurations
- Single (85-265 Vac) and three phase (170-265/342-528 Vac) input power options
- Remote GUI Interface included
- Optional IEC 60601 test standard & reporting available in GUI
- 5 year warranty

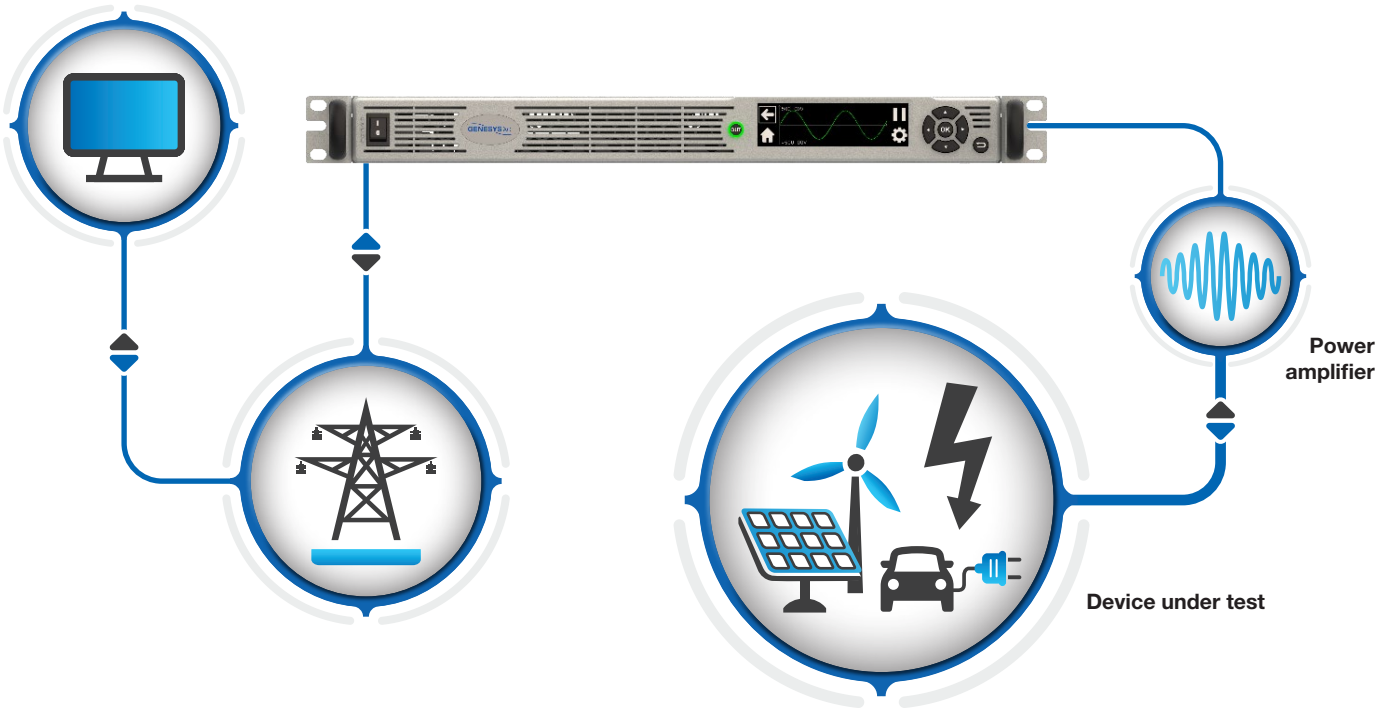
Additionally to GAC-PRO Models

- 350Vac & +/- 500Vdc single range output
- AC output frequency 16-1200Hz (16-5000Hz option)
- Full rated power available in DC operation (2kW/20A and 3kW/30A)
- Sine, square & triangle waveforms, including arbitrary waveform generator & harmonics analysis
- Analogue programming and real time analogue control
- Optional IEC 60601, avionic, and mil/shipboard test standards & reporting available in GUI

Applications

Advantages using GENESYS™ AC in your application

- GENESYS™ AC enables you to precisely simulate a wide range of grid conditions. From voltage sags to harmonic distortions, you have complete control.
- With the cutting-edge technology of GENESYS™ AC, you can create exact test conditions that are reproducible with every test run. This is crucial in research and development, where consistent data throughout the testing process is essential.
- With the GENESYS™ AC, potential weaknesses in the charger can be detected and resolved during the development phase, preventing costly issues later in production.
- The GENESYS™ AC can be customized to simulate various grid conditions and disturbances that might occur in real-world scenarios. This allows for comprehensive testing that covers all possibilities.
- Since GENESYS™ AC can be adjusted to different voltages and frequencies, it is easy to verify compliance with international charging and safety standards. This is essential for global deployment.
- Whether you're testing solar modules, inverters, or complete solar systems, the GENESYS™ AC provides the flexibility needed to meet diverse testing requirements. You can program the source to precisely replicate the desired conditions.
- As power grids continue to evolve, GENESYS™ AC offers the flexibility to adapt to new demands. This ensures you are well-prepared for future challenges.



AC / Grid operated products
AC motors // Inverters // White goods

ATE / Laboratory (R&D) equipment
UPS // Power supplies // Power sources

Automotive
E-mobility // On-board chargers

Avionics
Airborne equipment // Aircraft electric power

Shipboard

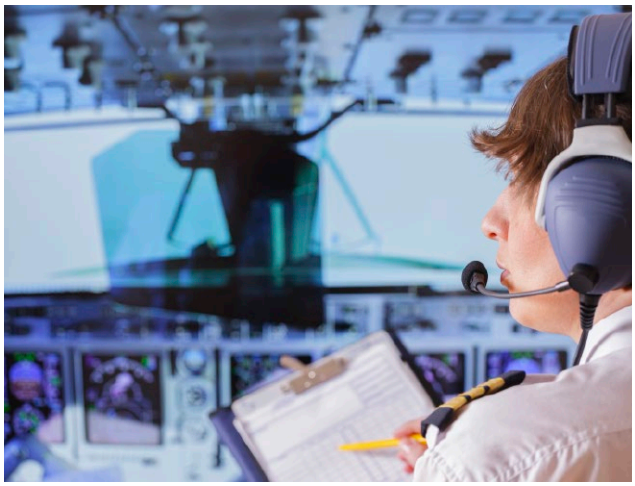
Aerospace and defense

Noise vibration & harshness

Hardware-in-the-loop

Renewable energy

Marine



Scalable Solutions for High Flexibility

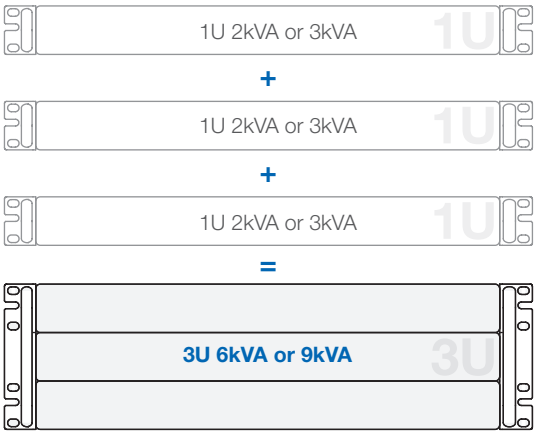
The advanced parallel system provides characteristics comparable with that of a single power supply. 2kVA and 3kVA units may be user-combined for additional power and to provide multiple phase outputs.

The front panel control includes a capacitive touch display, providing increased robustness over mechanical switches.

Multiple languages are catered for including Chinese, English, French, German, Japanese, Korean, and Spanish.

- Ultra compact 1U systems from 2kVA to 3kVA
- Up to 27kVA in single or three phase configurations
- Easy-to-configure
- Remote GUI interface included
- Sleek design, low-profile
- Intuitive touchscreen
- Centralized control and unparalleled modularity
- Emergency stop – stop product output in case of an emergency
- GENESYS™ AC advanced parallel performance is similar to a single Genesys+ unit
- Field upgradeable

Multiple-phase configuration for higher power - plug and play without any difference



User Interfaces and One GUI for All

AC and DC Programmable

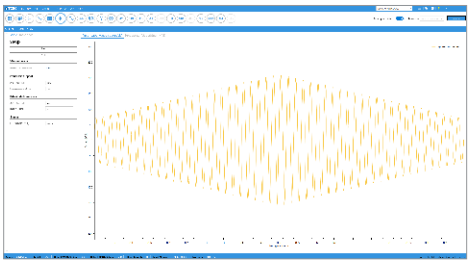
Ultimate programming flexibility

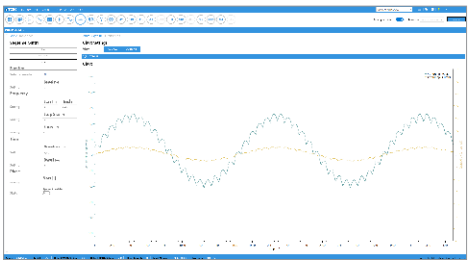
The included remote GUI software allows the user full control, sequence programming, plus the option to use pre-programmed test standards for common IEC, aerospace, and marine tests.

These standards will dramatically reduce test time, consistency, and labour cost compared to traditional manual set-ups.

Consistent GUI look and feel for both AC power sources and DC programmable power supplies to provide best usability.

In addition to the included remote GUI interface, they can be controlled with standard lab and test software using SCPI commands.





GENESYS™ programmable power supplies – AC and DC

- Ease of use
- Ability of remote control
- Data logging
- Visualisation of test
- Saving test configurations
- Build complex test processes
- Generate test reports
- Capture error logs

AC specific functions

- Preprogrammed IEC - avionic tests and Reporting
- Controlling AC, DC and AC+DC modes
- Generate custom AC waveforms
- Program and analize harmonics
- Capture error logs

GENESYS™ AC Product Summary

Models

product website

	GENESYS™ AC models		GENESYS™ AC-PRO models	
Model	**GAC-02**	**GAC-03**	**GAC-PRO 02**	**GAC-PRO 03**
Rated power AC	**2000 VA**	**3000 VA**	**2000 VA**	**3000 VA**
Operating modes	AC	AC	AC-DC, AC+DC	AC-DC, AC+DC
AC voltage range	0-350Vac	0-350Vac	0-350Vac	0-350Vac
AC current range	0-20A	0-30A	0-20A	0-30A
Output frequency	16-1200Hz	16-1200Hz	16-1200Hz (16-5000Hz option)	16-1200Hz (16-5000Hz option)
Peak AC current (Crest factor)	120A (6:1 CF)	120A (4:1 CF)	120A (6:1 CF)	120A (4:1 CF)
DC power	N/A	N/A	2000W	3000W
DC voltage range	N/A	N/A	from -500Vdc to +500Vdc	from -500Vdc to +500Vdc
DC current range	N/A	N/A	0-20A	0-30A
Phases*	Output phase per unit*			
Load PF	0-1 leading or lagging			
AC input range	Single phase: 85-265Vac (Derate to 1.5kVA below 170Vac), Three phase: 170-265 Vac or 342-528 Vac			

* Multiple identical units are user configurable to parallel to higher power or split and three phase configurations.

Product-Code

Build your AC source!

GAC GAC-PRO	-	03	A	A	1	A	-	00	A	00	A
Series Name		**Output apparent power**	**Front panel type**	**Input power**	**Communication interface**	**Frequency limit**		**Avionic standards**	**IEC & various standards**	**Additional options**	**Accessories**

Output apparent power **P/N:**
2kVA 02
3kVA 03
6kVA*1 06
9kVA*1 09

Front panel type **P/N:**
Full panel grey color A
Full panel black color B
Blank panel grey color C
Blank panel black color D

Input power **P/N:**
85-265Vac 1-phase*2 A
170-265Vac 3-phase B
342-528Vac 3-phase C

Interface options **P/N:**
Standard (Built-in, RS232, RS485, USB, LAN (LXI 1.5) 1
Standard + IEEE/GPIB 2

Frequency limit **P/N:**
AC mode, 1200Hz A
AC + DC mode, 1200Hz B
AC + DC mode, 5000Hz C

Avionic standards **P/N:**
None 00

GAC-PRO only:
RTCA/DO 160 01
MIL-STD 704 02
A350 (Airbus ABDCommunication interface) 03
RTCA/DO 160 & MIL-STD 704 04
RTCA/DO 160 & A350 (Airbus ABD100.1.8.1) 05
MIL-STD 704 & A350 (Airbus ABD100.1.8.1) 06
RTCA/DO 160 & MIL-STD 704 & A350 (Airbus ABD100.1.8.1) 07

IEC & various standards **P/N:**
None A

GAC-PRO only:
IEC61000-4-11 B
IEC61000-4-13 C
MIL-STD-1399-300 PART 1 D
IEC61000-4-11 & IEC61000-4-13 E
IEC61000-4-11 & MIL-STD-1399-300 PART 1 F
IEC61000-4-13 & MIL-STD-1399-300 PART 1 G
IEC61000-4-11 & IEC61000-4-13 & MIL-STD-1399-300 PART 1 H

GAC only:
Wave generator & harmonic analysis I
IEC61000-4-11 & wave generator & harmonic analysis J
IEC61000-4-13 & wave generator & harmonic analysis K
IEC61000-4-11 & IEC61000-4-13 & wave generator & harmonic analysis L

Additional options **P/N:**
None 00

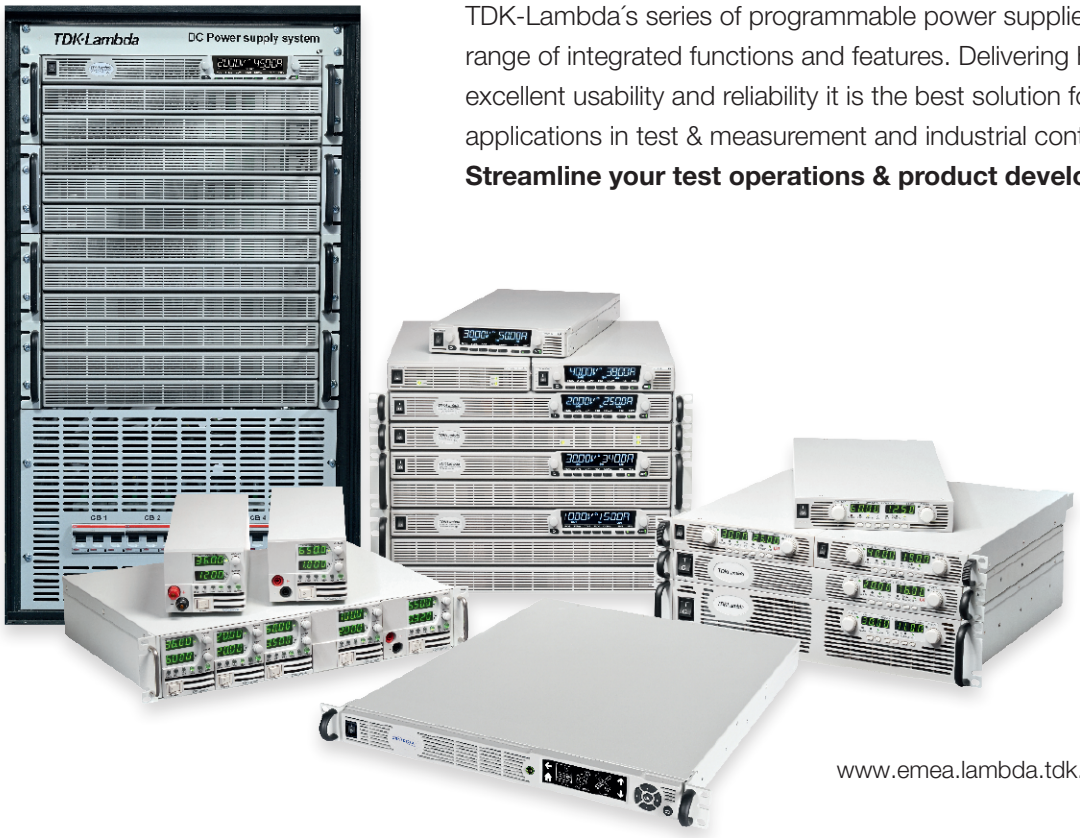
Accessories **P/N:**
None A

*1 Coming soon *2 Available on 2kVA, 3kVA models only

Blank panel options

Powered by Precision

GENESYS™



TDK-Lambda´s series of programmable power supplies offer a wide range of integrated functions and features. Delivering high power density, excellent usability and reliability it is the best solution for many different applications in test & measurement and industrial control.

Streamline your test operations & product development process.

www.emea.lambda.tdk.com/programmable

Our team of experts will be happy to help you find the best power supply for your application.

Local Distribution