NEW

TDK

# GENESYS™ Series

## Programmable DC Power Supplies
## 5kW in 1U 0-600V / 0-500A

**Built-in LAN, USB**
**RS-232 & RS-485 Interface**
**Isolated Analog Program/Monitor/Control Interface**

**Scalable Power Systems up to 20kW**


TDK·Lambda

The GENESYS™ family of programmable power supplies sets a new standard for flexible, reliable, AC/DC power systems in OEM, Industrial and Laboratory applications.

### Features include:

- Leading DC Programmable power density 5kW In 1U package
- Light weight <7.5 Kg
- Wide Range of popular worldwide AC inputs, 3ø (208VAC, 400VAC & 480VAC)
- Output Voltage up to 600V, Current up to 500A
- Built-in LAN (LXI 1.5), USB, RS-232/RS-485 Interface
- Last-Setting Memory
- Auto-Start / Safe-Start: user selectable
- High Resolution 16 bit ADCs & DACs
- Arbitrary waveform profiles and output sequencing
- Store up to 100 steps into four internal memory cells
- High-speed Programming
- Constant Voltage/Constant Current/Constant Power operation modes
- Voltage & Current Slew Rate Control
- Internal Resistance programming
- Local / Remote Sensing - software controlled
- Fan speed profile controlled by ambient temperature and load
- Built-in Isolated Analog Programming and Monitoring
- Auto paralleling Scalable Master-Slave Operation up to four identical units
- Certified LabWindows™/CVI, LabVIEW™, and IVI Drivers
- 19" Rack Mount capability for ATE and OEM applications
- Five Year Warranty

Worldwide Safety Agency Approvals

CE marked for LVD, emc and RoHS compliance

CE RoHS

### Applications

GENESYS™ power supplies have been designed to meet the demands of a wide variety of applications.

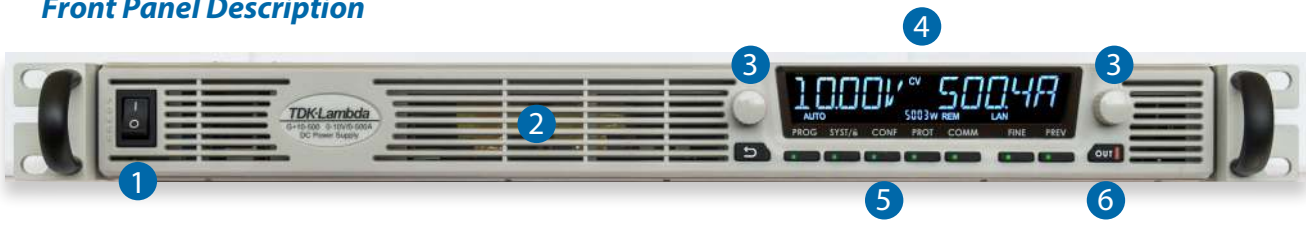
**Test & Measurement systems, Component Device Testing, Manufacturing and process control.**

**Semiconductor Processing & Burn-In, Aerospace & Satellite Testing, Medical Imaging, Green Technology.**

**Higher power systems** can be configured with up to four 5kW units. Each unit is 1U with zero space between them (zero stack).

**OEM Designers** have a wide variety of Inputs and Outputs from which to select depending on application and location.

## Front Panel Description

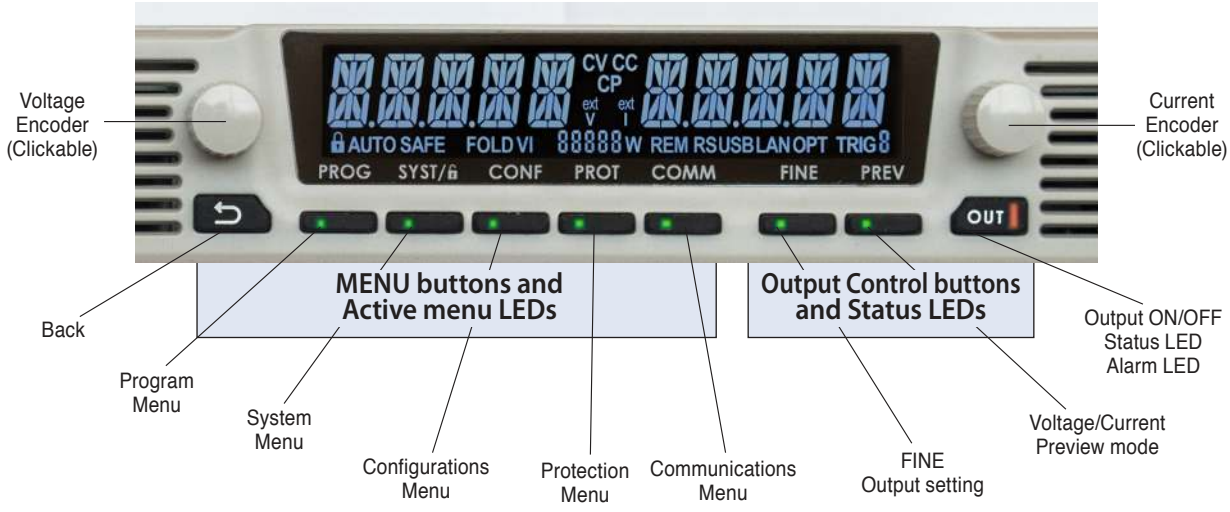


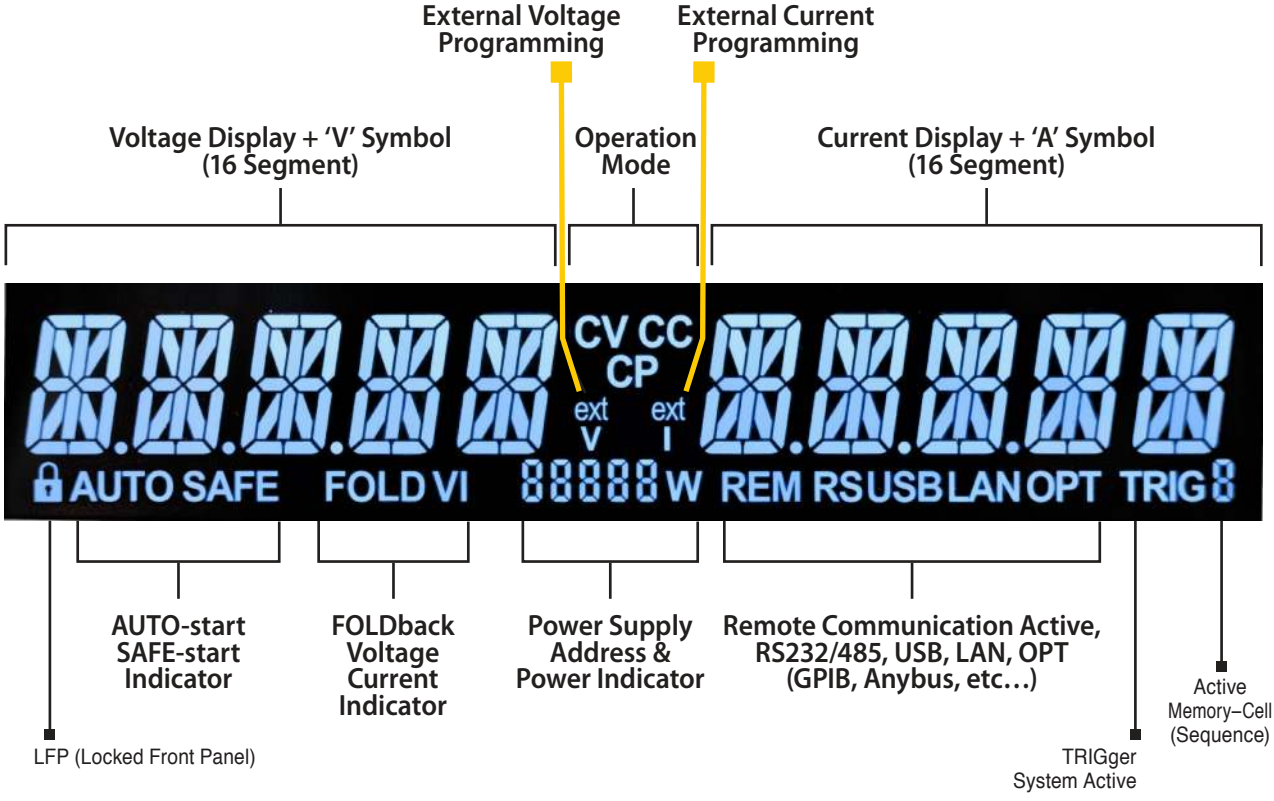

1. ON/OFF Switch
2. Air Intake allows zero stacking for maximum system flexibility and power density.
3. Reliable Detent Encoders for settings and Menu navigation.
4. High Contrast/Brightness display with wide viewing angle, 16 segment LCD
5. Function/Status LEDs: Active modes and function indicators
6. Pushbuttons allow flexible user configuration

## Rear Panel Description


1. DB26 (Female) connector for Isolated Analog Programming, Monitoring and other functions.
2. USB Interface.
3. RS-232/RS-485 IN/OUT Remote Serial Programming.
4. LAN (LXI 1.5) Interface .
5. Auto paralleling Bus connectors.
6. Remote/Local Output Voltage Sense Connections (spring cage).
7. Output Connections: Rugged busbars (shown) for models up to 150V Output;
   Plug connector: PHOENIX CONTACT IPC 5/4-STF-7.62 for models with Outputs >150V.
8. Input: 208VAC, 400VAC & 480VAC Three Phase, 50/60 Hz.
   AC Input Connector: PHOENIX CONTACT Power Combicon PC 5/4-STCL1-7.62 Series with strain relief.
9. Optional Interface Position for IEEE 488.2 SCPI or AnyBus Interface.
10. Exhaust air assures reliable operation when zero stacked.

## *Front Panel Display:*

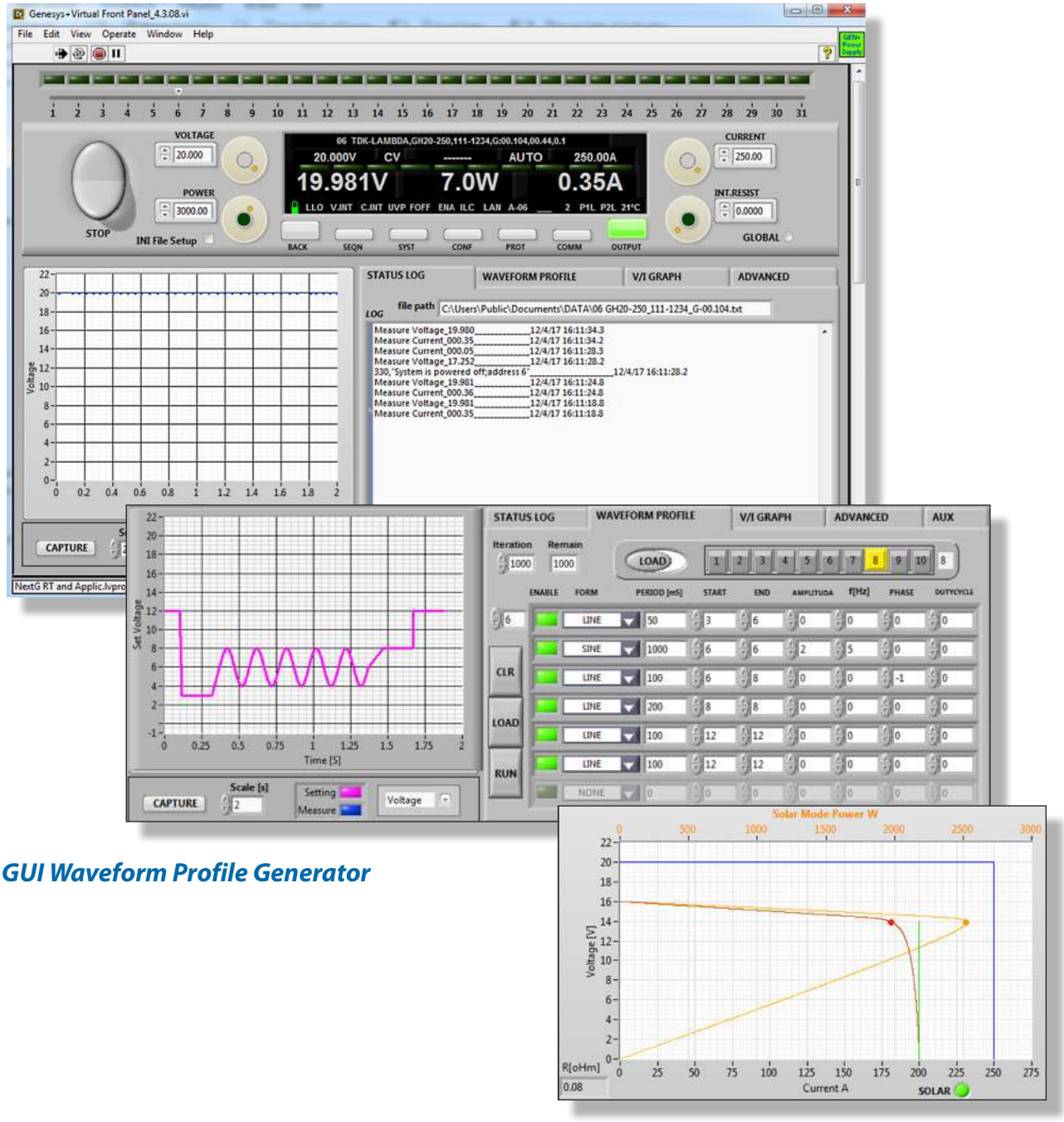


## *Graphical User Interface*

**Virtual Panel allows programming and monitoring units with or without front panel.**

1. **Control and monitor up-to 31 units**
2. **Data logging including errors, events and recovery**
3. **Realtime Graph and Waveform creator, store/load sequence.**
4. **Solar array mode - calculate MPP (Max Peak Power) for solar array.**
5. **Registers View: Operation Status, Fault, Event Status, ENABLE and INTERLOCK signals.**
6. **Remote communication state LOC, REM, LLO.**
7. **Programmed signals 1&2**




## *GUI Waveform Profile Generator*

## GENESYS™ Blank Front Panel

Blank Front Panel is available for applications where the front panel display and controls are not required and only remote interface (Digital/Analog) is needed.

Blank Front Panel option has all the standard product functions and features except the display.

The power supply can be controlled via the rear panel connectors.

(LAN, USB, RS-232/RS-485, Isolated analog programming and monitoring).

## GENESYS™ Parallel and Series Configurations

### Parallel operation - Master/Slave:

Auto paralleling Scalable Master-Slave Operation.

Active current sharing allows up to four identical units to be connected

Total real current is programmed measured and reported by the Master.

Up to four supplies operate as one.

Standard Unit - Zero stacked up to 4 units

Standard & Blank - Zero stacked up to 4 units

### Scalable Power Systems:

Factory assembly and test available for two and three unit Systems 10kW/15kW.

Parallel Kit available for four unit systems 20kW.

GSP 10kW in 2U

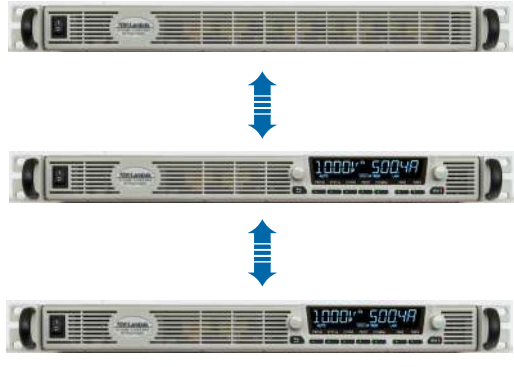
GSP 15kW in 3U

### Series operation

Two units may be connected in series to increase the output voltage or to provide bipolar output. (Max 600V to Chassis Ground).

## Remote Programming via communication Interface

Standard Built-in LAN, USB, RS-232 & RS-485 allows daisy-chain control of up to 31 Power supplies on the same communication bus. Can be Daisy chained via built-in RS-485 Interface.



## Power Supply Identification / Accessories How to order

**G** | **10** - **500** - - -

| Series Name | Output Voltage | Output Current | Interface Options | AC Input Options | Accessories Options |
|---|---|---|---|---|---|
| Front Panel Type | | | | 3P208 (Three Phase 170~265VAC) | M - Printed *User Manual |
| Empty: standard | (0~10V) | (0~500A) | | 3P400 (Three Phase 342~460VAC) | * User Manual & GUI are provided on CD as Standard |
| **B:** Blank Front Panel | | | | 3P480 (Three Phase 342~528VAC) | |
| **SP:** Scalable Power Systems (Factory assembled) | | | | | P - Bus Parralleling Cable |
| | (0~10V) | (0~1000A) | | | |

| Interface Options (Factory installed) | P/N | |
|---|---|---|
| LAN (LXI 1.5) - built-in | - | |
| USB - built-in | - | |
| RS-232/RS-485 - built-in | - | |
| Isolated Analog Voltage/Resistive Programming/ Monitoring control interface (600V Isolation) - built-in | - | |
| IEEE | IEEE | Available |
| Modbus-TCP | MDBS | coming soon |
| EtherCAT | ECAT | coming soon |

## Models 5kW

| Model | Output Voltage VDC | Output Current ( A ) | Output Power ( W ) |
|---|---|---|---|
| G10-500 | 0~10V | 0~500 | 5000 |
| G20-250 | 0~20V | 0~250 | 5000 |
| G30-170 | 0~30V | 0~170 | 5100 |
| G300-17 | 0~300V | 0~17 | 5100 |
| G600-8.5 | 0~600V | 0~8.5 | 5100 |

| Model | Output Voltage VDC | Output Current ( A ) | Output Power ( W ) |
|---|---|---|---|
| G40-125 | 0~40V | 0~125 | 5000 |
| G60-85 | 0~60V | 0~85 | 5100 |
| G80-65 | 0~80V | 0~65 | 5200 |
| G100-50 | 0~100V | 0~50 | 5000 |
| G150-34 | 0~150V | 0~34 | 5100 |

Available

Available: March 2018

## Accessories

Accessories will be sent separatly from the Power Supply packing, according to order.

**1. Serial Communication cable**

RS-232/RS-485 cable is used to connect the power supply to the Host PC.

| Mode | RS-485 | RS-232 |
|---|---|---|
| PC Connector<br>Communication Cable<br>Power Supply Connector | DB-9F<br>Shielded L=2m<br>RJ-45 | DB-9F<br>Shielded L=2m<br>RJ-45 |
| P/N | GEN/485-9 | GEN/232-9 |

**2. Serial link cable (Included with the power supply)**

Daisy-chain up to 31 GENESYS™ power supplies.

| Mode | Power Supply Connector | Communication Cable | P/N |
|---|---|---|---|
| RS-485 | RJ-45 | Shielded L=50cm | GEN/RJ45 |

**3. Bus Paralleling cable**

| Connectors | Cables | P/N |
|---|---|---|
| 2013595-1 (TYCO) | Shielded L=11cm | G/P |

**4. User Manual**

| Printed User Manual | G/M |
|---|---|

# GENESYS™ 5000W SERIES SPECIFICATIONS

| OUTPUT RATING | | GEN | 10-500 | 20-250 | 30-170 | 40-125 | 60-85 | 80-65 | 100-50 | 150-34 | 300-17 | 600-8.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.Rated output voltage(*1) | | V | 10 | 20 | 30 | 40 | 60 | 80 | 100 | 150 | 300 | 600 |
| 2.Rated output current (*2) | | A | 500 (*3) | 250 | 170 | 125 | 85 | 65 | 50 | 34 | 17 | 8.5 |
| 3.Rated output power | | W | 5000 | 5000 | 5100 | 5000 | 5100 | 5200 | 5000 | 5100 | 5100 | 5100 |
| **INPUT CHARACTERISTICS** | | **V** | 10 | 20 | 30 | 40 | 60 | 80 | 100 | 150 | 300 | 600 |
| 1.Input voltage/freq. 3 phase, 3 wire + Ground (*4) | | --- | 3-Phase, 200V models: 170~265Vac, 47~63Hz (Covers 200/230Vac) | | | | | | | | | |
| | | | 3-Phase, 400V models: 342~460Vac, 47~63Hz (Covers 380/400/415Vac) | | | | | | | | | |
| | | | 3-Phase, 480V models: 342~528Vac, 47~63Hz (Covers 380/400/415/440/460/480Vac) | | | | | | | | | |
| 2. Maximum Input curren at 100% load | 3-Phase, 200V models: | --- | 17.5A @ 200Vac | | | | | | | | | |
| | 3-Phase, 400V models: | | 9.2A @ 380Vac | | | | | | | | | |
| | 3-Phase, 480V models: | | 9.2A @ 380Vac | | | | | | | | | |
| 3.Power Factor (Typ) | | --- | 0.94 @ 200/380Vac, rated output power. | | | | | | | | | |
| 4.Efficiency (*5) | | % | 90 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 92 | 92 |
| 5.Inrush current (*6) | | --- | Less than 50A | | | | | | | | | |
| **CONSTANT VOLTAGE MODE** | | **V** | 10 | 20 | 30 | 40 | 60 | 80 | 100 | 150 | 300 | 600 |
| 1.Max. Line regulation (*7) | | --- | 0.01% of rated output voltage | | | | | | | | | |
| 2.Max. Load regulation (*8) | | --- | 0.01% of rated output voltage +5mV | | | | | | | | | |
| 3.Ripple and noise (p-p, 20MHz) (*9) | | mV | 75 | 75 | 75 | 75 | 75 | 80 | 90 | 120 | 200 | 480 |
| 4.Ripple r.m.s. 5Hz~1MHz (*9) | | mV | 8 | 10 | 12 | 12 | 12 | 15 | 15 | 20 | 60 | 100 |
| 5.Temperature coefficient | | PPM/°C | 50PPM/°C from rated output voltage, following 30 minutes warm-up. | | | | | | | | | |
| 6.Temperature stability | | --- | 0.01% of rated Vout over 8hrs interval following 30 minutes warm-up. Constant line, load & temp. | | | | | | | | | |
| 7. Warm-up drift | | --- | Less than 0.05% of rated output voltage+2mV over 30 minutes following power on. | | | | | | | | | |
| 8.Remote sense compensation/wire (*10) | | V | 2 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 9.Up-prog. Response time (*11) | | mS | 30 | 30 | 30 | 30 | 50 | 50 | 50 | 50 | 50 | 100 |
| 10.Down-prog.response time: | Full load (*11) | mS | 50 | 50 | 80 | 80 | 80 | 100 | 100 | 100 | 100 | 200 |
| | No load (*12) | mS | 300 | 600 | 800 | 900 | 1000 | 1200 | 1500 | 2000 | 3000 | 3000 |
| 11.Transient response time | | mS | Time for output voltage to recover within 0.5% of its rated output for a load change 10~90% of rated output current. Output set-point: 10~100%, Local sense. Less than 1mS, for models up to and including 100V. 2mS, for models above 100V. | | | | | | | | | |
| 12.Hold-up time | | --- | | | | | | | | | | |
| **CONSTANT CURRENT MODE** | | **V** | 10 | 20 | 30 | 40 | 60 | 80 | 100 | 150 | 300 | 600 |
| 1.Max. Line regulation (*7) | | --- | 0.05% of rated output current. | | | | | | | | | |
| 2.Max. Load regulation (*13) | | --- | 0.08% of rated output current. | | | | | | | | | |
| 3.Load regulation thermal drift | | --- | Less than 0.03% of rated output current over 30 minutes following load change. | | | | | | | | | |
| 4.Ripple r.m.s. @ 10% rated voltage (*14) | | mA | 1200 | 600 | 300 | 150 | 100 | 70 | 45 | 45 | 15 | 8 |
| 5.Ripple r.m.s. @ rated voltage. B.W 5Hz~1MHz. | | mA | 700 | 300 | 150 | 75 | 50 | 35 | 23 | 23 | 7.5 | 4 |
| 6.Temperature coefficient | | PPM/°C | 70PPM/°C from rated output current, following 30 minutes warm-up. | | | | | | | | | |
| 7.Temperature stability | | --- | 0.01% of rated Iout over 8hrs. interval following 30 minutes warm-up. Constant line, load & temperature. | | | | | | | | | |
| 8. Warm-up drift | | --- | 10V model: Less than +/-0.2% of rated output current over 30 minutes following power on. | | | | | | | | | |
| | | | 20V~600V: Less than +/-0.1% of rated output current over 30 minutes following power on. | | | | | | | | | |

| ANALOG PROGRAMMING AND MONITORING (ISOLATED FROM THE OUTPUT) | | |
|---|---|---|
| 1.Vout voltage programming | --- | 0~100%, 0~5V or 0~10V, user selectable. Accuracy and linearity: +/-0.15% of rated Vout. |
| 2.Iout voltage programming (*15) | --- | 0~100%, 0~5V or 0~10V, user selectable. Accuracy and linearity: +/-0.4% of rated Iout. |
| 3.Vout resistor programming | --- | 0~100%, 0~5/10Kohm full scale, user selectable. Accuracy and linearity: +/-0.5% of rated Vout. |
| 4.Iout resistor programming (*15) | --- | 0~100%, 0~5/10Kohm full scale, user selectable. Accuracy and linearity: +/-0.5% of rated Iout. |
| 5.Output voltage monitor | --- | 0~5V or 0~10V, user selectable. Accuracy: +/-0.5%. |
| 6.Output current monitor (*15) | --- | 0~5V or 0~10V, user selectable. Accuracy: +/-0.5%. |

| SIGNALS AND CONTROLS (ISOLATED FROM THE OUTPUT) | | |
|---|---|---|
| 1. Power supply OK signal | --- | Power supply output monitor. Open collector. Output On: On. Output Off: Off. Maximum Voltage: 30V, maximum Sink Current: 10mA. |
| 2. CV/CC signal | --- | CV/CC Monitor. Open collector. CC mode: On. CV mode: Off. Maximum Voltage: 30V, maximum Sink Current: 10mA. |
| 3. LOCAL/REMOTE Analog control | --- | Enable/Disable analog programming control by electrical signal or dry contact. Remote: 0~0.6V or short. Local: 2~30V or open. |
| 4. LOCAL/REMOTE Analog signal | --- | analog programming control monitor signal. Open collector. Remote: On. Local: Off. Maximum Voltage: 30V, maximum Sink Current: 10mA. |
| 5. ENABLE/DISABLE Signal | --- | Enables/Disables the PS output by electrical signal or dry contact. 0~0.6V or short, 2~30V or open. User selectable logic. |
| 6. INTERLOCK (ILC) control | --- | Enables/Disables the PS output by electrical signal or dry contact. Remote: 0~0.6V or short. Local: 2~30V or open. |
| 7. Programmed signals | --- | Two open drain programmable signals. Maximum voltage 25V, maximum sink current 100mA (Shunted by 27V zener) |
| 8. TRIGGER IN / TRIGGER OUT signals | --- | Maximum low level input voltage = 0.8V,Minimum high level input voltage = 2.5V, Maximum high level input = 5V positive edge trigger: tw=10us minimum. Tr,Tf=1us maximum, Min delay between 2 pulses 1ms. |

| FUNCTIONS AND FEATURES | | |
|---|---|---|
| 1. Parallel operation | --- | Possible. Up to 4 identical units in Master/Slave mode. Refer to instruction manual. |
| 2. Series operation | --- | Possible. Two identical units. Refer to instruction manual. |
| 3. Daisy chain | --- | Power supplies can be connected in Daisy chain to synchronize their turn-on and turn-off. |
| 4. Constant power control | --- | Limits the output power to a proggrammed value. Programming via the communication ports or the front panel. |
| 5. Output resistance control | --- | Emulates series resistance. Resistance range: 0~1000mΩ. Programming via the communication ports or the front panel. |
| 6. Slew rate control | --- | Programmable Output rise and Output fall slew rate. Programming range: 0.0001~999.9 V/mSec. or A/mSec. Programming via the communication ports or the front panel. |
| 7. Arbitrary waveforms | --- | Profiles of up to 100 steps can be stored in 4 memory cells. Activation by command via the communication ports or by the front panel. |

| PROGRAMMING AND READBACK (USB, LAN, RS232/485, Optional IEEE Interface) | V | 10 | 20 | 30 | 40 | 60 | 80 | 100 | 150 | 300 | 600 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.Vout programming accuracy (*16) | --- | 0.05% of rated output voltage | | | | | | | | | |
| 2.Iout programming accuracy (*15) | --- | 0.1% of actual output current+0.2% of rated output current | | | | | | | | | |
| 3.Vout programming resolution | --- | 0.002% of rated output voltage | | | | | | | | | |
| 4.Iout programming resolution | --- | 0.002% of rated output current | | | | | | | | | |
| 5.Vout readback accuracy | --- | 0.05% of rated output voltage | | | | | | | | | |
| 6.Iout readback accuracy (*15) | --- | 0.2% of rated output current | | | | | | | | | |
| 7.Vout readback resolution (of rated output voltage) | % | 0.011% | 0.006% | 0.004% | 0.003% | 0.002% | 0.002% | 0.011% | 0.007% | 0.004% | 0.002% |
| 8.Iout readback resolution (of rated output current)) | % | 0.003% | 0.005% | 0.006% | 0.009% | 0.002% | 0.002% | 0.003% | 0.004% | 0.006% | 0.002% |

# GENESYS™ 5000W SERIES SPECIFICATIONS

| PROTECTIVE FUNCTIONS | V | 10 | 20 | 30 | 40 | 60 | 80 | 100 | 150 | 300 | 600 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.Foldback protection | --- | Output shut-down when power supply change mode from CV to CC or Power Limit mode or from CC to CV or Power Limit mode. User presetable. Reset by AC input recycle in autostart mode, by OUTPUT button, by rear panel or by communication. | | | | | | | | | |
| 2.Over-voltage protection (OVP) | --- | Output shut-down. Reset by AC input recycle in autostart mode, by OUTPUT button, by rear panel or by communication. | | | | | | | | | |
| 3.Over -voltage programming range | V | 0.5~12 | 1~24 | 2~36 | 2~44 | 5~66 | 5~88 | 5~110 | 5~165 | 5~330 | 5~660 |
| 4. Over-voltage programming accuracy | --- | +/-1% of rated output voltage | | | | | | | | | |
| 5.Output under voltage limit (UVL) | --- | Prevents from adjusting Vout below limit. Does not affect in analog programming. Preset by front panel or communication port. | | | | | | | | | |
| 6.Over temperature protection | --- | Shuts down the output. Auto recovery by autostart mode. | | | | | | | | | |
| 7. Output under voltage limit (UVL) | --- | Prevents adjustment of Vout below limit. | | | | | | | | | |
| 8. Output under voltage protection (UVP) | --- | Prevents adjustment of Vout below limit. P.S output turns Off during under voltage condition. Reset by AC input recycle in autostart mode, by OUTPUT button, by rear panel or by communication. | | | | | | | | | |

| FRONT PANEL | | |
|---|---|---|
| 1.Control functions | --- | Mutiple options with 2 Encoders |
| | --- | Vout/Iout/Power Limit manual adjust |
| | --- | OVP/UVL/UVP manual adjust |
| | --- | Protection Functions - OVP, UVL,UVP, Foldback, OCP, ENA, ILC |
| | --- | Communication Functions - Selection of LAN,IEEE,RS232,RS485,USB |
| | --- | Communication Functions - Selection of Baud Rate, Address |
| | --- | Analog Control Functions - Selection Voltage/resistive programming, 5V/10V, 5K/10K programming |
| | --- | Analog Control Functions - Selection of Voltage/Current Monitoring 5V/10V, Output ON/OFF, Front Panel Lock. |
| 2.Display | --- | Vout: 4 digits, accuracy: 0.05% of rated output voltage +/-1 count. |
| | --- | Iout: 4 digits, accuracy: 0.2% of rated output current +/-1 count. |
| 3.Front Panel Buttons Indications | --- | OUTPUT ON, ALARM, PREVIEW, FINE, COMMUNICATION, PROTECTION,CONFIGURATION, SYSTEM, SEQUENCER. |
| 4. Front Panel Display Indications | --- | Voltage, Current, Power, CV, CC, CP, External Voltage, External Current, Address, LFP, Autostart, Safetstart, Foldback V/I, Remote (communication), RS/USB/LAN/IEEE communication, Trigger, Load/Store Cell. |

| ENVIRONMENTAL CONDITIONS | | |
|---|---|---|
| 1.Operating temperature | --- | 0~50°C, 100% load. |
| 2.Storage temperature | --- | -20~85°C |
| 3.Operating humidity | % | 20~90% RH (no condensation). |
| 4.Storage humidity | % | 10~95% RH (no condensation). |
| 5.Altitude (*17) | --- | Operating: 10000ft (3000m), output current derating 2%/100m or Ta derating 1°C/100m above 2000m. Non operating: 40000ft (12000m). |

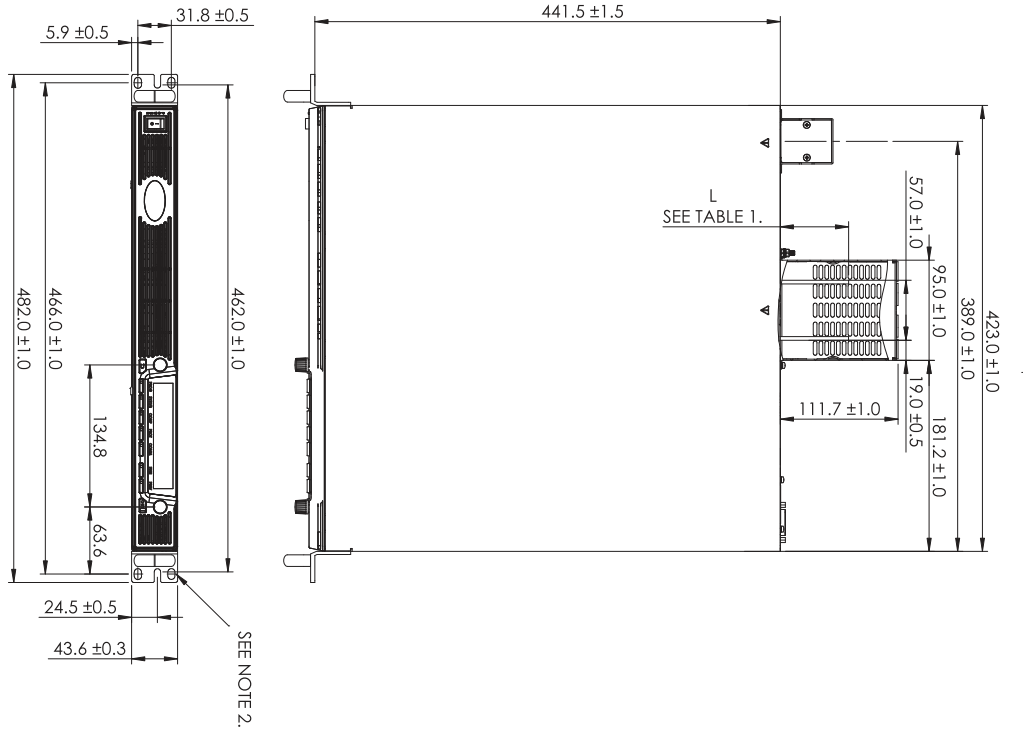
| MECHANICAL | | |
|---|---|---|
| 1.Cooling | --- | Forced air cooling by internal fans. Air flow direction: from Front panel to power supply rear |
| 2.Weight | Kg | Less than 7.5Kg. |
| 3.Dimensions (WxHxD) | mm | W: 423, H: 43.6, D: 441.5 (Refer to Outline drawing). |
| 4.Vibration | --- | MIL-810G, method 514.6, Procedure I, test condition Annex C - 2.1.3.1 |
| 5.Shock | --- | Less than 20G, half sine, 11mSec. |

| SAFETY/EMC | | | |
|---|---|---|---|
| 1.Applicable standards: | Safety | --- | UL60950-1, CSA22.2 No.60950-1, IEC60950-1, EN60950-1. |
| | | | Vout ≤50V: Output, J1,J2,J3,J4,J5,J6,J7,J8 (sense),J9 (communication options) are SELV |
| | | | 60≤ Vout≤ 600V: Output, J8 (sense) is hazardous, J1,J2,J3,J4,J5,J6,J7,J9 (communication options) are SELV |
| | EMC | --- | IEC/EN61204-3 Industrial environment |
| 2.Withstand voltage | | --- | 10V≤Vout≤100V models: Input - Output: 4242VDC 1min, Input - SELV: 4242VDC 1min, SELV-Ground: 707VDC 1min, Output - SELV: 707VDC 1min, Output - Ground: 707VDC 1min, Input - Ground: 2835VDC 1min. |
| | | | 150V≤Vout≤600V models: Input - Output: 3656VDC 1min, Input - SELV: 4242VDC 1min, SELV-Ground: 707VDC 1min, Output - SELV: 1132VDC 1min, Output - Ground: 707VDC 1min, Input - Ground: 2835VDC 1min. |
| 3.Insulation resistance | | --- | More than 100Mohm at 25°C, 70%RH. |
| 4.Conducted emmision | | --- | IEC/EN61204-3 Industrial environment, Annex H table H.1 , FCC Part 15-A, VCCI-A . |
| 5.Radiated emission | | --- | IEC/EN61204-3 Industrial environment, Annex H table H.3 and H4, FCC Part 15-A, VCCI-A |
| 6. EMC compliance | | --- | According to IEC/EN61204-3 Industrial environment |

**NOTES:**

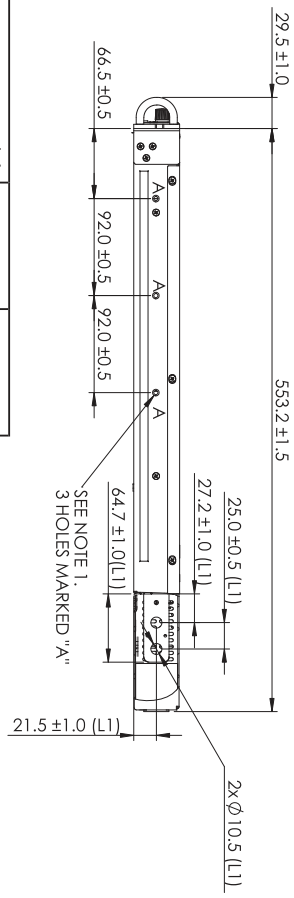
*1: Minimum voltage is guaranteed to maximum 0.1% of rated output voltage.
*2: Minimum current is guaranteed to maximum 0.2% of rated output current.
*3: Derate 5A/1°C above 40°C.
*4: For cases where conformance to various safety standards (UL, IEC, etc…) is required, to be described as 190-240Vac (50/60Hz) for 3-Phase
*5: 3-Phase 200V models: At 200Vac input voltage, 3-Phase 400/480V: At 380Vac input voltage. With rated output power.
*6: Not including EMI filter inrush current, less than 0.2mSec.
*7: 3-Phase 200V models: 170~265Vac, 3-Phase 400V models: 342~460Vac, 3-Phase 480V models: 342~528Vac. Constant load.
*8: From No-Load to Full-Load, constant input voltage. Measured at the sensing point in Remote Sense.
*9: For 10V~150V models: Measured with JEITA RC-9131A (1:1) probe. For 300~600V model: Measured with 100:1 probe.
*10: The maximum voltage on the power supply terminals must not exceed the rated voltage.
*11: From 10% to 90% or 90% to 10% of Rated Output Voltage, with rated, resistive load.
*12: From 90% to 10% of Rated Output Voltage.
*13: For load voltage change, equal to the unit voltage rating, constant input voltage.
*14: For 10V model the ripple is measured at 2V and rated output current. For other models, the ripple is measured at 10% of rated output voltage. B.W 5Hz~1MHz.
*15: The Constant Current programming, readback and monitoring accuracy do not include the warm-up and Load regulation thermal drift.
*16: Measured at the sensing point.
*17: For 10V model Ta derating 2°C/100m.

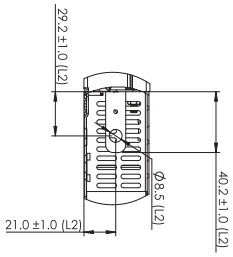
# Outline Drawing GENESYS™ 5kW

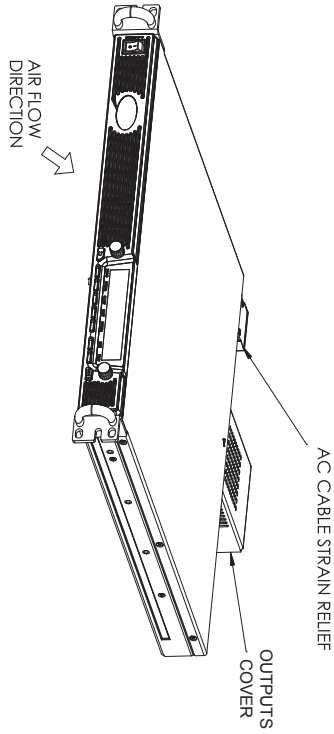



NOTE
1. MOUNTING HOLES FOR SLIDES P/N:CC3001-00-S160.GENERAL DEVICES OR EQUIVALENT.
USE #10-32x0.38INCH x3 SCREWS FOR EACH SLIDE.
ENSURE THAT THE SCREWS DO NOT PENETRATE MORE THAN 6.0mm INTO THE UNIT.
2. MOUNTING HOLES FOR 19" RACK. USE M6x16 SCREWS TO FIX THE UNIT TO THE RACK.

| Dimension / Model | 10V-40V | 60V-100V |
|---|---|---|
| L1 | 64.7mm | |
| L2 | | 40.2mm |



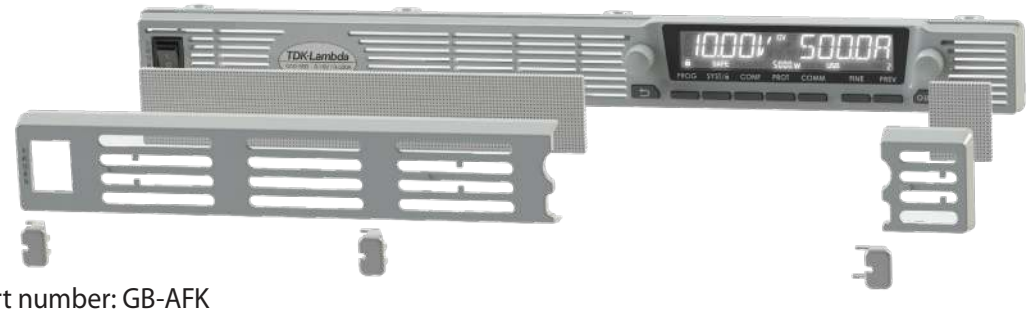



# Front Panel dust filter

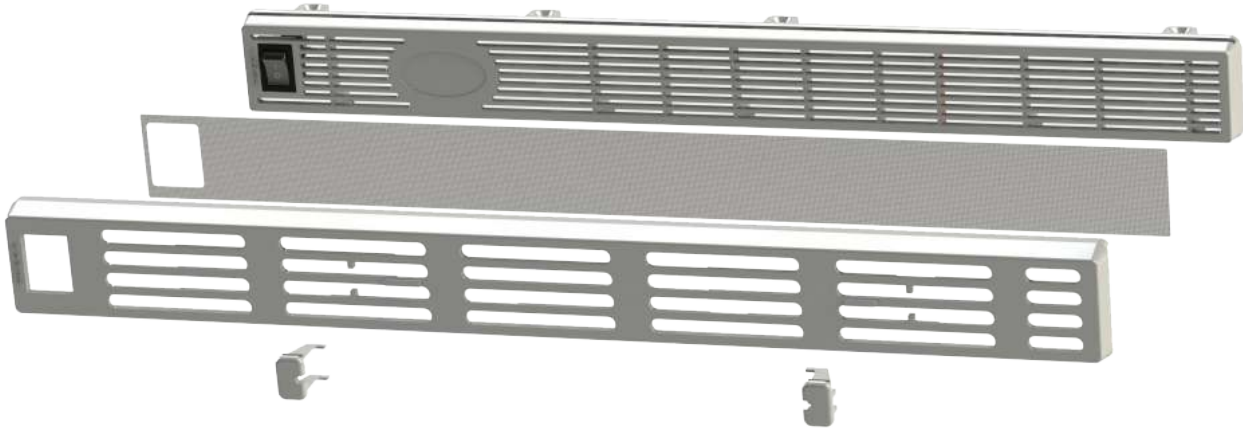
Front panel dust cover is available for dusty air environment applications

Dust cover is removable snap-in filter (for easy maintenance)

Order part number: G-AFK



Order part number: GB-AFK



## *Accessories*

**1. Front Panel dust filter / Field installation kit:**

**Air Filter**

1. Material: Reticulated polyurethane Foam
2. Thickness 4.0 mm
3. 30 PPI
4. Storage temp. : -40º ~ 85ºC
5. Operating temp. : 0º ~ 60ºC
6. Humidity 95% RH

Thermal derating: For all models derate 10˚C up to 2000 meter.

Above 2000 m derate 2˚C / 100 meter or 2% of current rated / 100m

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GENESYS™ Dec 2017

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