

GENESYS™

Programmable Power Supplies



TDK-Lambda

GENESYS™

The next generation has arrived. And it's small and mighty.

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

+High functionality

+Versatile
communication
protocols

+Smallest and
lightest product
on the market

+Simplifies
control

+Speeds up test times

+Highest power
density on the market



Features

General

- 1U benchtop and 19 Inch standard rack package
- Constant voltage/constant current operation modes/constant power (CP) Limit
- Internal Resistance Simulation

Control interfaces

- High resolution 16 bit ADCs & DACs
- RS-232/RS-485, USB, LAN (**LXI** 1.5) built-in as standard
- Isolated Analogue interface built-in as standard
- Integrated Anybus CompactCom interface platform
- Communications compatible with Z+ and Genesys™

Programming

- Arbitrary Waveform Generator with Auto-Triggering (store up to 100 steps into four internal memory cells)
- Slew-Rate Control (V/I)
- Two user programmable output control pins (open drain) to activate external devices
- Easy auto-configuration for parallel systems up to 20kW
- Safe or Auto re-start and last settings memory

Environmental

- Fan speed profile controlled by ambient temperature and load
- Efficiency up to 92%

Mechanical

- High contrast, wide viewing angle LCD display with brightness and dimming control
- Blank front panel option
- Front Panel dust filter option

Specifications

- 1.7-5kW in 1U
- 10kW in 2U / 15kW in 3U
- Wide Range of popular worldwide AC inputs:
G5kW - G15kW: 3Ø (208, 400 & 480Vac),
Wide range 3Ø 480Vac (342~528Vac)
G1.7kW: 1Ø (85~265Vac)
- Output Voltage up to 600V, Current up to 1500A
- 5 year warranty

Applications

- Test & Measurement systems, Component Device Testing, Manufacturing and process control
- Semiconductor Processing & Burn-In, Aerospace & Satellite Testing, Medical Imaging, Green Technology
- ATE, Automotive, Automation, Laser diodes, Battery simulation
- 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

Find out more at: emea.tdk-lambda.com/genesysplus



GENESYS™ Panel Description

Front Panel GENESYS+™ G (1.7-5kW) **NEW**



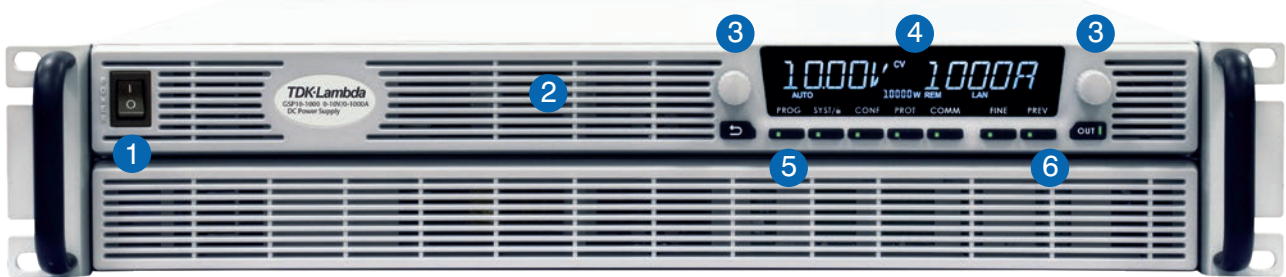
1. Input Power ON/OFF Switch
2. Air Intake allows zero stacking for maximum system flexibility and power density
3. Reliable Detent Encoders for settings and Menu navigation
4. High Contrast/Brightness display with wide viewing angle, 16 segment LCD
5. Function/Status LEDs: Active modes and function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

Rear Panel GENESYS+™ G (1.7-5kW) **NEW**



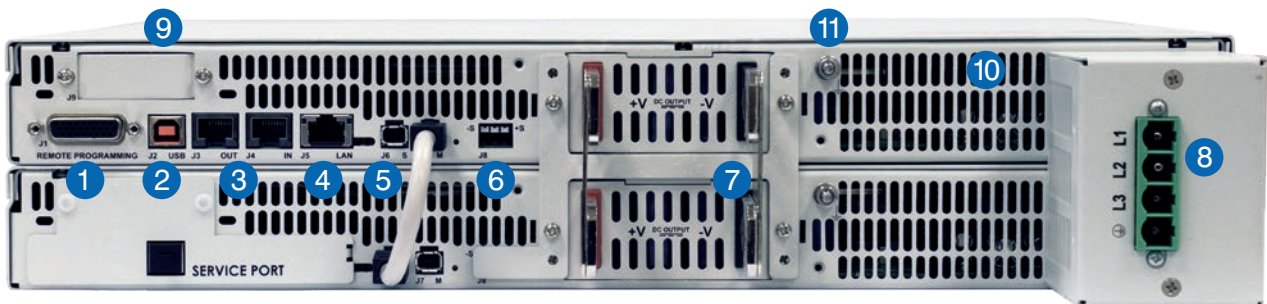
1. Isolated Analogue Programming, Monitoring and other control connector (DB26 Female)
2. USB Interface connector (Type B)
3. RS-232/RS-485 IN/OUT Remote Digital Interface (RJ-45 type) for Multi-Drop connection
4. LAN (**LXI** 1.5) Interface connector (RJ-45 type with LAN status indicators)
5. Auto paralleling Bus connectors (mini I/O type) for connecting Master unit-to-Slave and slave unit-to-slave unit
6. Remote/Local Output Voltage Sense Connections (spring cage)
7. Output Connections: Rugged busbars (shown) for models up to and including 100V Output;
Plug connector: PHOENIX CONTACT IPC 5/4-STF-7.62 for models with Outputs > 100V
8. G5kW Input: 208, 400 & 480Vac Three Phase, 50/60Hz (Model shown)
AC Input Plug Connector: PHOENIX CONTACT Power Combicon PC 5/4-STCL1-7.62 Series with strain relief
G1.7kW Input: 85~265Vac, Single Phase, 50/60Hz
AC Input Plug Connector: PHOENIX CONTACT Power Combicon PC 5/3-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 units are zero stacked
11. Functional Ground connection (M4x8mm stud)

Front Panel GENESYS+™ GSP (10kW) **NEW**



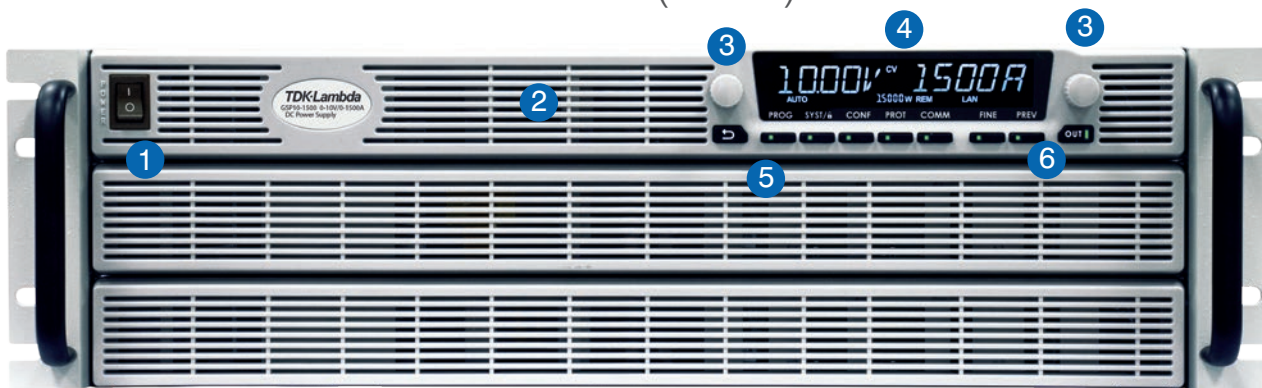
1. Input Power ON/OFF Switch
2. Air Intake allows zero stacking for maximum system flexibility and power density
3. Reliable Detent Encoders for settings and Menu navigation
4. High Contrast/Brightness display with wide viewing angle, 16 segment LCD
5. Function/Status LEDs: Active modes and function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

Rear Panel GENESYS+™ GSP (10kW) **NEW**



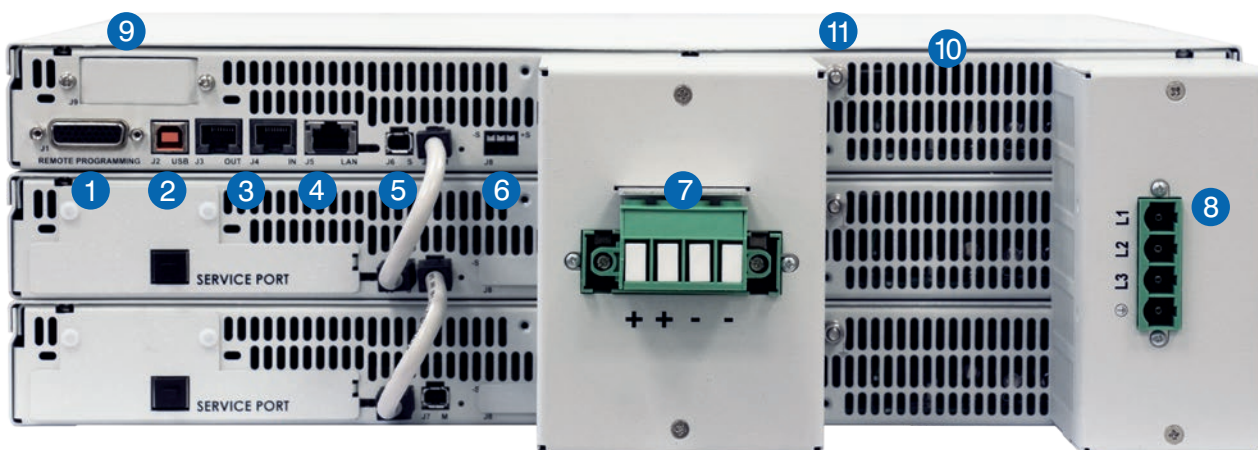
1. Isolated Analogue Programming, Monitoring and other control connector (DB26 Female)
2. USB Interface connector (Type B)
3. RS-232/RS-485 IN/OUT Remote Digital Interface (RJ-45 type) for Multi-Drop connection
4. LAN (1.5) Interface connector (RJ-45 type with LAN status indicators)
5. Auto paralleling Bus connectors (mini I/O type) for connecting Master unit-to-Slave and slave unit-to-slave unit
6. Remote/Local Output Voltage Sense Connections (spring cage)
7. Output Connections: Rugged busbars (shown) for models up to and including 100V Output;
Plug connector: PHOENIX CONTACT DFK-IPC 16/4-STF-10.16 for models with Outputs > 100V
8. Input: 208, 400 & 480Vac Three Phase, 50/60Hz
AC Input Plug Connector: PHOENIX CONTACT DFK-IPC 16/4-STF-10.16 with strain relief
9. Optional Interface Position for IEEE 488.2 SCPI or Anybus Interface
10. Exhaust air assures reliable operation when zero stacked
11. Functional Ground connection (M4x8mm stud)

Front Panel GENESYS+™ GSP (15kW) **NEW**



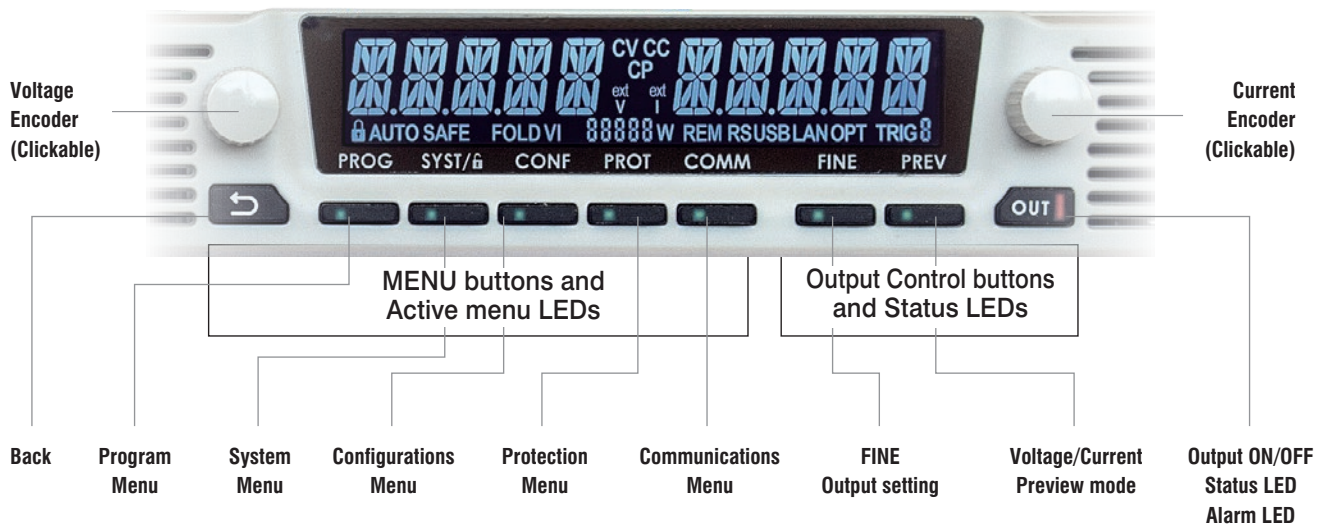
1. Input Power ON/OFF Switch
2. Air Intake allows zero stacking for maximum system flexibility and power density
3. Reliable Detent Encoders for settings and Menu navigation
4. High Contrast/Brightness display with wide viewing angle, 16 segment LCD
5. Function/Status LEDs: Active modes and function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

Rear Panel GENESYS+™ GSP (15kW) **NEW**

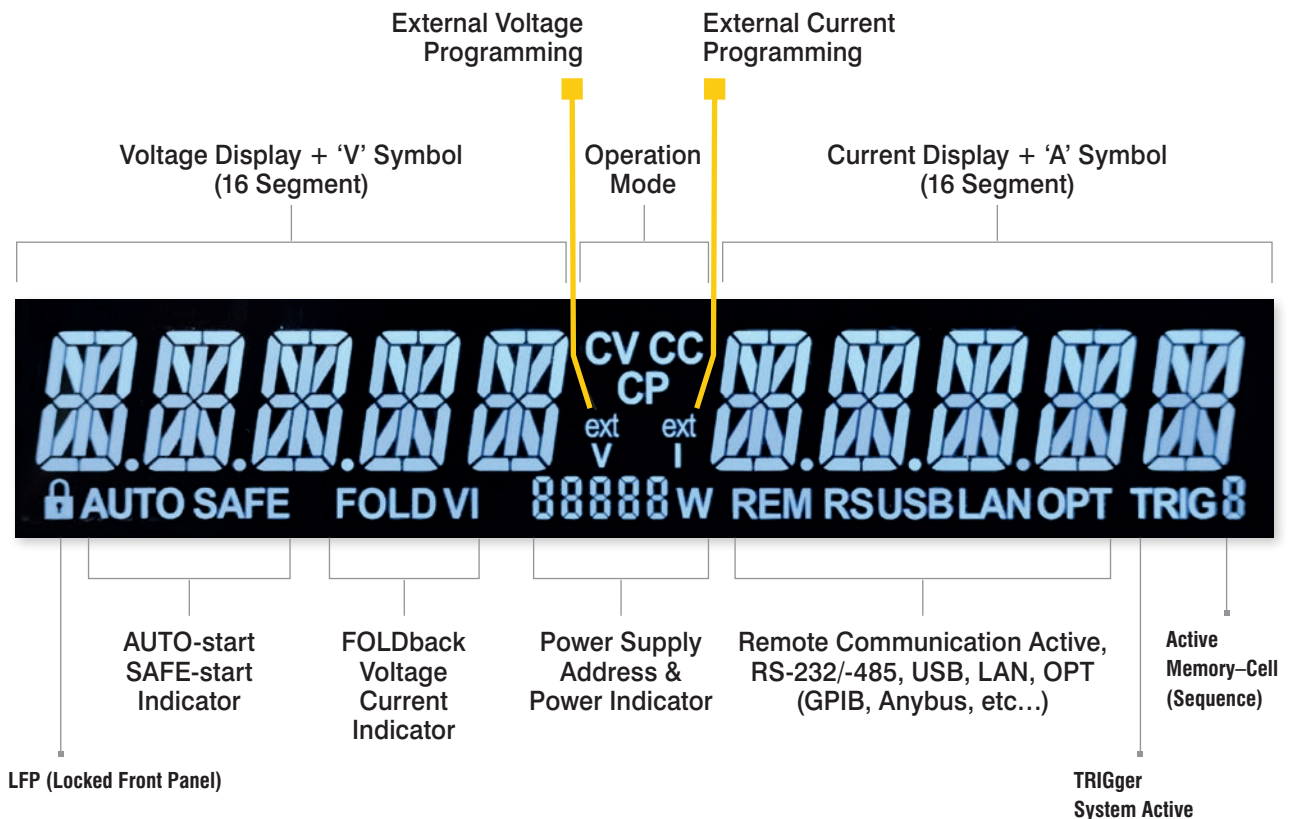


1. Isolated Analogue Programming, Monitoring and other control connector (DB26 Female)
2. USB Interface connector (Type B)
3. RS-232/RS-485 IN/OUT Remote Digital Interface (RJ-45 type) for Multi-Drop connection
4. LAN (**LXI** 1.5) Interface connector (RJ-45 type with LAN status indicators)
5. Auto paralleling Bus connectors (mini I/O type) for connecting Master unit-to-Slave and slave unit-to-slave unit
6. Remote/Local Output Voltage Sense Connections (spring cage)
7. Output Connections: Rugged busbars for models up to and including 100V Output;
Plug connector: PHOENIX CONTACT DFK-IPC 16/4-STF-10.16 for models with Outputs > 100V (shown)
8. Input: 208, 400 & 480Vac Three Phase, 50/60 Hz
AC Input Plug Connector: PHOENIX CONTACT DFK-PC 16/4-ST-10.16 with strain relief
9. Optional Interface Position for IEEE 488.2 SCPI or Anybus Interface
10. Exhaust air assures reliable operation when zero stacked
11. Functional Ground connection (M4x8mm stud)

Front Panel Display MENU/CONTROL buttons



Front Panel Display indicators



GENESYS+™ G&GSP Series Blank Front Panel

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

The 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 Remote digital interface (LAN, USB, RS-232/RS-485) or via the remote Isolated Analogue interface.



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. Order P/N: G/P - 4U



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).

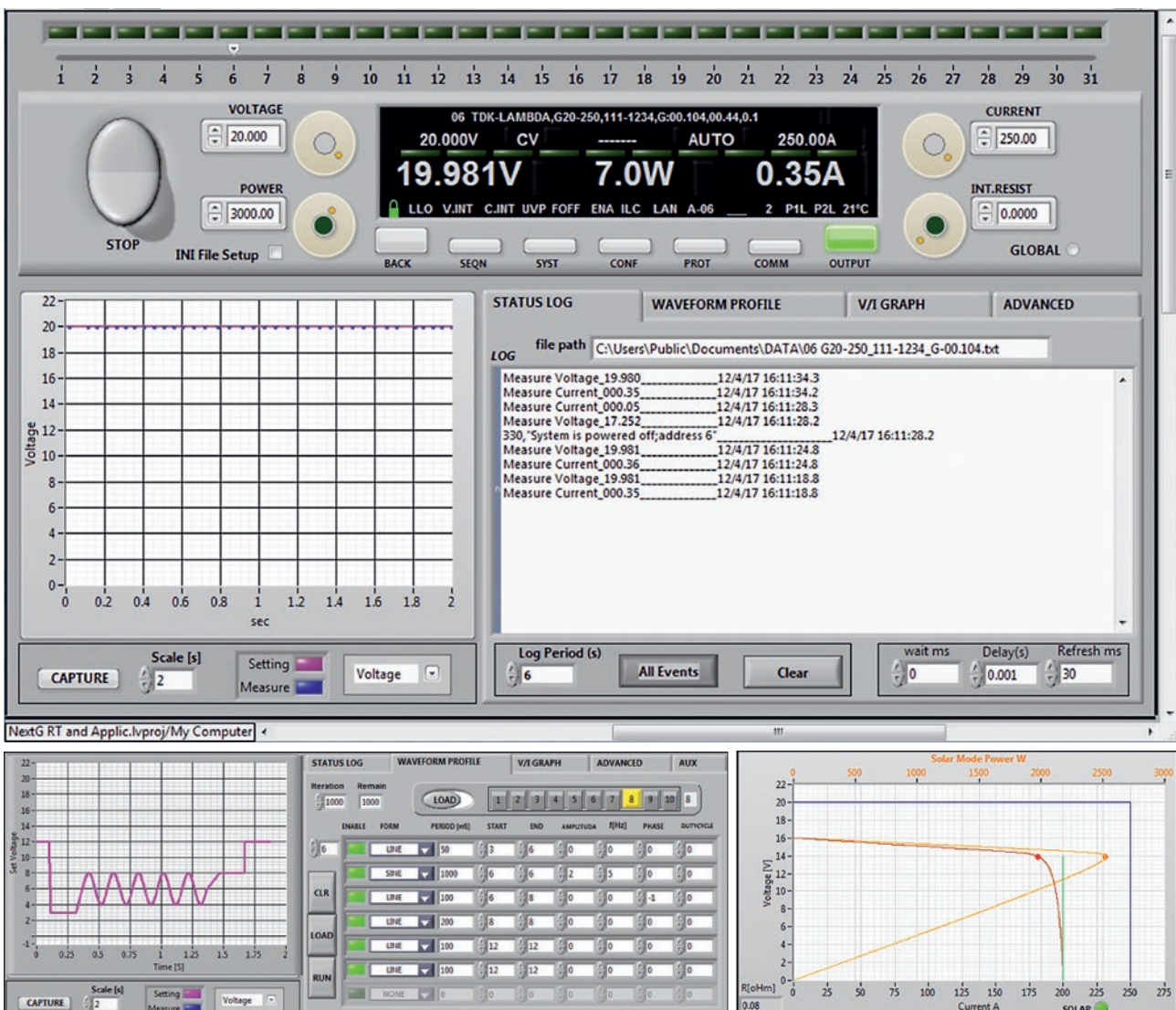
GENESYS™ User Interface

Graphical User Interface

Advanced “Virtual Front Panel” allows programming and monitoring units with or without front panel display.

- Control and monitor up-to 31 units with “Address” bar
- Front panel set-up menu control (PROGram, SYSTem, CONFIguration, PROTection and COMMunication)
- Informative “Parameters” status bar
- Individual unit and Global command control
- Data logging including errors, events and recovery
- Realtime Graph and Waveform creator, store/load sequence
- Solar array mode - calculate MPP (Max Peak Power) for solar array
- Registers View: Operation Status, Fault, Event Status, ENABLE and INTERLOCK signals
- Remote communication state LOC, REM, LLO
- Programmed signals 1&2

GUI Waveform Profile generator



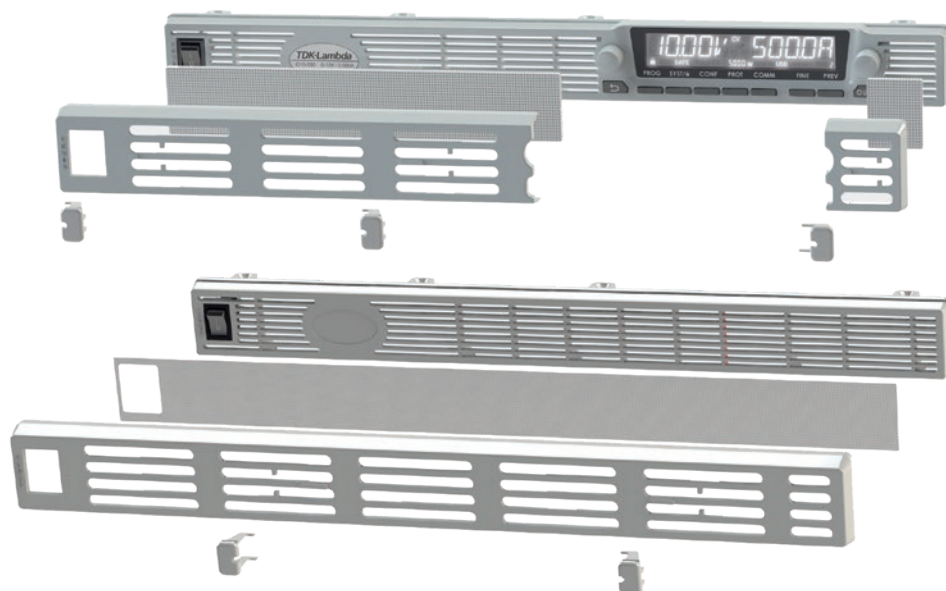
GENESYS™ Air Filter Kit

GENESYS+™ Front Panel Air Filter Assembly

Front panel dust cover is available for dusty air environment applications.
Dust cover is removable snap-in filter (for easy maintenance)

Part Number (for standard unit):
G-AFK

Part Number (for unit with
blank front panel): **GB-AFK**



For GSP 10kW/15kW series order part number: GSP10kW-AFK / GSP15kW-AFK

Technical Specifications: Unit with Air Filter Assembly Installed

- Derating (environmental)
- Operating Temperature
- For all models (except 10V): 0°C to +40°C
For 10V model: 0°C to +30°C, derate 5A/°C
for 30°C < TA < +40°C
- Altitude
- For all models (except 10V): derate 2°C/100m
or 2% of load/100m (above 2000m)
- For 10V model: derate 1°C/100m
or 2% of load/100m (above 2000m)

Air Filter Assembly Components Standard Unit (P/N: G-AFK)

- Air Filter Cover (two pieces)
- Slide Button #1 (two locations:
near AC ON/OFF switch and near left-hand side
of front panel display)
- Slide Button #2 (one location: right-hand side
of front panel display)
- Filter foam (two pieces)

Filter Foam Technical Specifications

- Material: reticulated polyurethane foam
- Thickness: 4.0mm
- Porosity: 30ppi
- Operating Temperature Range: 0°C to +60°C
- Storage Temperature Range: -40°C to +85°C
- Humidity: 95% RH

Blank Front Panel Unit (P/N: GB-AFK)

- Air Filter Cover (one piece)
- Slide Button #1 (two locations)
- Filter foam (one piece)

GENESYS™ Product Summary

GENESYS+™ Family Output Voltage and Current

Models Series	G (Std Front Panel Display) / GB (Blank Front Panel Display)		GSP (Scalable Power)	
Rated Power	1.7kW	5kW	10kW	15kW
Output Voltage [Vdc]	Output Current [A]			
0~10	0~170	0~500	0~1000	0~1500
0~20	0~85	0~250	0~500	0~750
0~30	0~56	0~170	0~340	0~510
0~40	0~42	0~125	0~250	0~375
0~60	0~28	0~85	0~170	0~255
0~80	0~21	0~65	0~130	0~195
0~100	0~17	0~50	0~100	0~150
0~150	0~11.2	0~34	0~68	0~102
0~300	0~5.6	0~17	0~34	0~51
0~600	0~2.8	0~8.5	0~17	0~25.5
Weight [kg/lb]	5/11	7.5/16.5	15.5/34.2	23.5/51.8

AC Input Range

Rated Power	1.7kW	5kW	10kW	15kW
1Ø, 85-265Vac	*	N/A	N/A	N/A
3P208	N/A	*	*	*
3P400	N/A	*	*	*
3P480	N/A	*	*	*

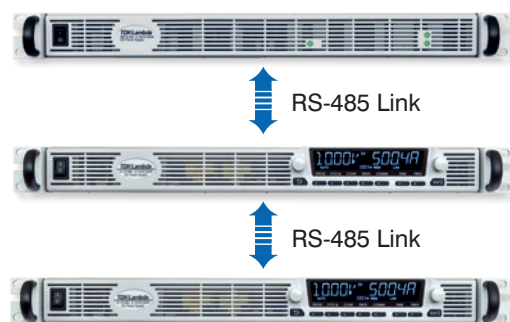
Multi-Drop Remote Programming via Communication Interface

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

- First unit is LAN, USB, RS-232, RS-485, etc.
- All other units use RS-485 daisy chain with linking cable.




 LAN, USB,
 RS-232/RS-485,
 IEEE, Anybus



Models GENESYS+™ G (1.7kW) **NEW**

Model	Output Voltage [Vdc]	Output Current [A]	Output Power [W]	Model	Output Voltage [Vdc]	Output Current [A]	Output Power [W]
G10-170	0~10	0~170	1700	G80-21	0~80	0~21	1680
G20-85	0~20	0~85	1700	G100-17	0~100	0~17	1700
G30-56	0~30	0~56	1680	G150-11.2	0~150	0~11.2	1680
G40-42	0~40	0~42	1680	G300-5.6	0~300	0~5.6	1680
G60-28	0~60	0~28	1680	G600-2.8	0~600	0~2.8	1680

Product Code

G		-	10	-	170	-		-	
Series Name			Output Voltage (0~10V)		Output Current (0~170A)		Interface Options		Accessories Options
Front Panel Type P/N: Standard - Blank Front Panel B			Interface Options (Factory installed) LAN (LX) 1.5 compliant with Multi-Drop capability USB 2.0 compliant with Multi-Drop capability RS-232/RS-485 Isolated Analogue Program/Monitor Interface (5V/10V Pgm/Mon with 600V isolation)			Interface Options (Optional) IEEE (488.2 & SCPI compliant with Multi-Drop capability installed) Modbus-TCP <i>coming soon</i> EtherCat <i>coming soon</i>		P/N: - AC Input (All Models) 1Ø, 85~265Vac - Accessories Options Printed User Manual (User Manual & GUI on CD as Standard) Bus Paralleling Cable	P/N: - P/N: M P
						P/N: IEEE MDBS ECAT			

Accessories

Accessories will be sent separately 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	PC Connector	Power Supply Connector	Communication Cable	P/N
RS-232	DB-9F	RJ-45	Shielded L=2m	GEN/232-9
RS-485	DB-9F	RJ-45	Shielded L=2m	GEN/485-9

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
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Models GENESYS+™ G (5kW)

Model	Output Voltage [Vdc]	Output Current [A]	Output Power [W]
G10-500	0~10	0~500	5000
G20-250	0~20	0~250	5000
G30-170	0~30	0~170	5100
G40-125	0~40	0~125	5000
G60-85	0~60	0~85	5100

Model	Output Voltage [Vdc]	Output Current [A]	Output Power [W]
G80-65	0~80	0~65	5200
G100-50	0~100	0~50	5000
G150-34	0~150	0~34	5100
G300-17	0~300	0~17	5100
G600-8.5	0~600	0~8.5	5100

Product Code

G		-	10	-	500	-		-		-	
Series Name			Output Voltage (0~10V)		Output Current (0~500A)		Interface Options		AC Input Options		Accessories Options
Front Panel Type P/N: Standard - Blank Front Panel B			Interface Options (Factory installed) LAN (LX) 1.5 compliant with Multi-Drop capability) USB 2.0 compliant with Multi-Drop capability RS-232/RS-485 Isolated Analogue Program/Monitor Interface (5V/10V Pgm/Mon with 600V isolation) Interface Options (Optional) IEEE (488.2 & SCPI compliant with Multi-Drop capability installed) Modbus-TCP <i>coming soon</i> EtherCat <i>coming soon</i>				P/N: - - - - - IEEE MDBS ECAT		AC Input Options Three Phase 170~265Vac Three Phase 342~460Vac Three Phase 342~528Vac Accessories Options Printed User Manual (User Manual & GUI on CD as Standard) Bus Paralleling Cable		P/N: 3P208 3P400 3P480 M P

Accessories

Accessories will be sent separately 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	PC Connector	Power Supply Connector	Communication Cable	P/N
RS-232	DB-9F	RJ-45	Shielded L=2m	GEN/232-9
RS-485	DB-9F	RJ-45	Shielded L=2m	GEN/485-9

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
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5. Parallel Kit: 20kW

BusBar Parallel Kit for 20 kW operation (5kW Models where Vout up to 100V)	G/P-4U
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Models GENESYS+™ GSP (10kW) **NEW**

Model	Output Voltage [Vdc]	Output Current [A]	Output Power [kW]
GSP10-1000	0~10	0~1000	10
GSP20-500	0~20	0~500	10
GSP30-340	0~30	0~340	10.2
GSP40-250	0~40	0~250	10
GSP60-170	0~60	0~170	10.2

Model	Output Voltage [Vdc]	Output Current [A]	Output Power [kW]
GSP80-130	0~80	0~130	10.4
GSP100-100	0~100	0~100	10
GSP150-68	0~150	0~68	10.2
GSP300-34	0~300	0~34	10.2
GSP600-17	0~600	0~17	10.2

Models GENESYS+™ GSP (15kW)

Model	Output Voltage [Vdc]	Output Current [A]	Output Power [kW]
GSP10-1500	0~10	0~1500	15
GSP20-750	0~20	0~750	15
GSP30-510	0~30	0~510	15.3
GSP40-375	0~40	0~375	15
GSP60-255	0~60	0~255	15.3

Model	Output Voltage [Vdc]	Output Current [A]	Output Power [kW]
GSP80-195	0~80	0~195	15.6
GSP100-150	0~100	0~150	15
GSP150-102	0~150	0~102	15.3
GSP300-51	0~300	0~51	15.3
GSP600-25.5	0~600	0~25.5	15.3

Product Code

G		SP	-	10	-	1500	-		-		-	
Series Name				Output Voltage (0~10V)		Output Current (0~1500A)		Interface Options		AC Input Options		Accessories Options
<div>Front Panel Type</div> <div>Standard</div> <div>Blank Front Panel</div> <div>P/N: - B</div>			Interface Options (Factory installed)				P/N:		AC Input Options:		P/N:	
			LAN LX 1.5 compliant with Multi-Drop capability				-		Three Phase 170~265Vac		3P208	
			USB 2.0 compliant with Multi-Drop capability				-		Three Phase 342~460Vac		3P400	
			RS-232/RS-485				-		Three Phase 342~528Vac		3P480	
			Isolated Analogue Program/Monitor Interface (5V/10V Pgm/Mon with 600V isolation)				-		Accessories Options:		P/N:	
			Interface Options (Optional)				P/N:		Printed User Manual		M	
			IEEE (488.2 & SCPI compliant with Multi-Drop capability installed)				IEEE		(User Manual & GUI on CD as Standard)		P	
			Modbus-TCP <i>coming soon</i>				MDBS		Bus Paralleling Cable			
			EtherCat <i>coming soon</i>				ECAT					

Accessories

Accessories will be sent separately 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	PC Connector	Power Supply Connector	Communication Cable	P/N
RS-232	DB-9F	RJ-45	Shielded L=2m	GEN/232-9
RS-485	DB-9F	RJ-45	Shielded L=2m	GEN/485-9

3. Bus Paralleling cable (included with the power supply)

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

3. User Manual

Printed User Manual	GSP/M
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GENESYSTM Specifications

Specifications GENESYS+TM G (1.7kW)

Output Rating	G	10-170	20-85	30-56	40-42	60-28	80-21	100-17	150-11.2	300-5.6	600-2.8
1. Rated output voltage(*1)	V	10	20	30	40	60	80	100	150	300	600
2. Rated output current (*2)	A	170	85	56	42	28	21	17	11.2	5.6	2.8
3. Rated output power	W	1700	1700	1680	1680	1680	1680	1700	1680	1680	1680
Input Characteristics	V	10	20	30	40	60	80	100	150	300	600
1. Input voltage/freq. (*3)	---	85~265Vac, continuous, 47~63Hz, Single Phase									
2. Maximum Input current at 100% load (100/200)	A	20/10									
3. Power Factor (Typ)	---	0.99 @ 100Vac 0.98 @ 200Vac, rated output power.									
4. Efficiency (at 100 Vac/200Vac, rated output)	%	86/88	87/89	87/89	87/89	87/89	87/89	88/90	88/90	88/90	88/90
5. Inrush current (*5)	A	Less than 50A									
Constant Voltage Mode	V	10	20	30	40	60	80	100	150	300	600
1. Max. Line regulation (*6)	---	0.01% of rated output voltage									
2. Max. Load regulation (*7)	---	0.01% of rated output voltage + 2mV									
3. Ripple and noise (p-p, 20MHz) (*8)	mV	50	50	50	60	60	75	75	75	120	500
4. Ripple r.m.s. 5Hz~1MHz (*8)	mV	6	6	6	7	7	10	12	8	20	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 0.01% of rated output voltage + 2mV over 30 minutes following power on.									
8. Remote sense compensation/wire (*10)	V	1	1	1.5	2	2	3	5	5	5	5
9. Up-prog. Response time (*11)	mS	20	20	20	20	20	20	25	50	100	100
10. Down-prog.response time:											
Full load (*12)	mS	30	30	60	60	60	60	60	120	220	200
No load (*12)	mS	450	700	1000	1200	1500	1700	2600	2900	4600	4600
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	mS	16mS typical, rated output power									
Constant Current Mode	V	10	20	30	40	60	80	100	150	300	600
1. Max. Line regulation (*6)	---	0.01% of rated output current. + 2mA									
2. Max. Load regulation (*9)	---	0.02% of rated output current. + 5mA									
3. Ripple r.m.s. @ 10% rated voltage (*13)	mA	400	160	100	60	50	30	30	10	8	5
4. Ripple r.m.s. @ rated voltage. B.W. 5Hz~1MHz.	mA	250	120	70	60	50	25	15	10	8	5
5. Temperature coefficient	PPM/°C	10V~100V 100PPM/°C from rated output current, following 30 minutes warm-up. 150V~600V 70PPM/°C from rated output current, following 30 minutes warm-up.									
6. Temperature stability	---	0.01% of rated Iout over 8hrs. interval following 30 minutes warm-up. Constant line, load & temperature.									
7. Warm-up drift	---	10V~100V model: Less than +/-0.25% of rated output current over 30 minutes following power on. 150V~600V: Less than +/-0.15% of rated output current over 30 minutes following power on.									
Analogue 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 (*14)	---	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 (*14)	---	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 (*14)	---	0~5V or 0~10V, user selectable. Accuracy: +/-0.5%.									
Signals and Controls (Isolated from the Output)											
1. Power supply OK #1 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 Analogue control	---	Enable/Disable analogue programming control by electrical signal or dry contact. Remote: 0~0.6V or short. Local: 2~30V or open.									
4. LOCAL/REMOTE Analogue signal	---	Analogue programming control monitor signal. Open collector. Remote: On. Local: Off. Maximum Voltage: 30V, Maximum Sink Current: 10mA.									
5. ENABLE/DISABLE signal	---	Enable/Disable PS output by electrical signal or dry contact. 0~0.6V or short, 2~30V or open. User selectable logic.									
6. INTERLOCK (ILC) control	---	Enable/Disable 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.									
9. DAISY_IN/SO control signal	---	By electrical Voltage: 0~0.6V/2~30V or dry contact.									
10. DAISY_OUT/PS_OK #2 signal	---	4~5V=OK, 0V (500ohm impedance)=Fail									
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 programmed value. Programming via the communication ports or the front panel.									
5. Output resistance control	---	Emulates series resistance. Resistance range: 1~1000mΩ. Programming via the communication ports or the front panel.									
6. Slew rate control	---	Programmable Output rise and Output fall slew rate. Programming range: 0.0001~999.9V/mS or A/mS. 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.									

Specifications GENESYS+™ G (1.7kW)

Programming and Readback (USB, LAN, RS-232/RS-485, Optional IEEE (*16) Interface)		V	10	20	30	40	60	80	100	150	300	600
1. Vout programming accuracy (*15)		---	0.05% of rated output voltage									
2. Iout programming accuracy (*14)		---	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 (*14)		---	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)		%	0.007%	0.002%	0.003%	0.003%	0.005%	0.006%	0.007%	0.010%	0.003%	0.004%
Protective Functions		V	10	20	30	40	60	80	100	150	300	600
1. Foldback protection		---	Output shut-down when power supply changes mode from CV or Power Limit to CC mode or from CC or Power Limit to CV mode. User presetable. Reset by AC input recycle in autostart mode, by Power Switch, 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	2~44.1	5~66.15	5~88.2	5~110.25	5~165.37	5~330.75	5~661.5
4. Over-voltage programming accuracy		---	+/-1% of rated output voltage									
5. Output under voltage limit (UVL)		---	Prevents from adjusting Vout below limit. Does not apply in analogue 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 Power Switch, by OUTPUT button, by rear panel or by communication.									
Front Panel												
1. Control functions		---	Multiple options with 2 Encoders Vout/Iout/Power Limit manual adjust OVP/UVL/UVP manual adjust Protection Functions - OVP, UVL,UVP, Foldback, OCL, ENA, ILC Communication Functions - Selection of LAN,IEEE,RS-232,RS-485,USB or Optional communication interface. Output ON/OFF. Front Panel Lock. Communication Functions - Selection of Baud Rate, Address, IP and communication language. Analogue Control Functions - Selection Voltage/resistive programming, 5V/10V, 5K/10K programming Analogue Monitor Functions - Selection of Voltage/Current Monitoring 5V/10V.									
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		---	-30~85°C									
3. Operating humidity		%	20~90% RH (no condensation).									
4. Storage humidity		%	10~95% RH (no condensation).									
5. Altitude		---	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 5kg.									
3. Dimensions (WxHxD)		mm	W: 423, H: 43.6, D: 441.5 (Without busbars and busbars cover), W: 423, H: 43.6, D: 553.5 (Including busbars and busbars cover) (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, 11mS. Unit is unpacked.									
Safety/EMC												
1. Applicable standards:		Safety	---	UL60950-1, CSA22.2 No.60950-1, IEC60950-1, EN60950-1.								
1.1 Interface classification		---	Vout ≤40V Models: Output, J1,J2,J3,J4,J5,J6,J7,J8 (sense) and J9 (communication options) are SELV. 60≤ Vout ≤600V Models: Output, J8 (sense) are hazardous, J1,J2,J3,J4,J5,J6,J7 and J9 (communication options) are SELV									
1.2 Withstand voltage		---	Vout ≤40V Models: Input - Output (SELV): 4242Vdc 1min, Input - Ground: 2835Vdc 1min. 60V≤ Vout ≤100V Models: Input - Output: 4242Vdc 1min, Input - SELV: 4242Vdc 1min, Output - SELV: 850Vdc 1min, Output - Ground: 1500Vdc 1min, Input - Ground: 2835Vdc 1min. 100<Vout ≤600V Models: Input - Output: 4242Vdc 1min, Input - SELV: 4242Vdc 1min, Output - SELV: 1275Vdc 1min, Output - Ground: 2500Vdc 1min, Input - Ground: 2835Vdc 1min.									
1.3 Insulation resistance		---	100Mohm at 25°C, 70%RH.									
2. Conducted emission		---	IEC/EN61204-3 Industrial environment, Annex H table H.1 , FCC Part 15-A, VCCI-A .									
3. Radiated emission		---	IEC/EN61204-3 Industrial environment, Annex H table H.3 and H4, FCC Part 15-A, VCCI-A									
4. EMC compliance		EMC(*4)	---	According to IEC/EN61204-3 Industrial environment								

*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: For cases where conformance to various safety standards (UL, IEC, etc...) is required, to be described as 100-240Vac (50/60Hz).

*4: Signal and control ports interface cables length: Less than 3m, DC output power port cables length: Less than 30m.

*5: Not including EMI filter inrush current, less than 0.2mS.

*6: 85~132Vac or 170~265Vac. Constant load.

*7: From No-Load to Full-Load, constant input voltage. Measured at the sensing point in Remote Sense.

*8: For 10V~150V models: Measured with JEITA RC-9131C (1:1) probe. For 300~600V model: Measured with 100:1 probe.

*9: For load voltage change, equal to the unit voltage rating, constant input voltage.

*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 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.

*14: The Constant Current programming, readback and monitoring accuracy do not include the warm-up and Load regulation thermal drift.

*15: Measured at the sensing point.

*16: Maximum ambient temperature for IEEE option is 40°C.

Specifications GENESYS+™ G (5kW)

Output Rating	G	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 current 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)	%	89.5	91	91	91	91	91	91	91	92	92
5. Inrush current (*6)	A	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	1900	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. Start up delay	Sec	Less than 5 Sec									
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. Ripple r.m.s. @ 10% rated voltage (*14)	mA	1200	600	300	150	100	70	45	45	15	8
4. Ripple r.m.s. @ rated voltage. B.W. 5Hz~1MHz.	mA	700	300	150	75	50	35	23	23	7.5	4
5. Temperature coefficient	PPM/°C	10V~100V 100PPM/°C from rated output current, following 30 minutes warm-up. 150V~600V 70PPM/°C from rated output current, following 30 minutes warm-up.									
6. Temperature stability	---	0.01% of rated lout over 8hrs. interval following 30 minutes warm-up. Constant line, load & temperature.									
7. Warm-up drift	---	10V~100V model: Less than +/-0.25% of rated output current over 30 minutes following power on. 150V~600V: Less than +/-0.15% of rated output current over 30 minutes following power on.									
Analogue 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 #1 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 Analogue control	---	Enable/Disable analogue programming control by electrical signal or dry contact. Remote: 0~0.6V or short. Local: 2~30V or open.									
4. LOCAL/REMOTE Analogue signal	---	Analogue programming control monitor signal. Open collector. Remote: On. Local: Off. Maximum Voltage: 30V, Maximum Sink Current: 10mA.									
5. ENABLE/DISABLE signal	---	Enable/Disable PS output by electrical signal or dry contact. 0~0.6V or short, 2~30V or open. User selectable logic.									
6. INTERLOCK (ILC) control	---	Enable/Disable 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.									
9. DAISY_IN/SO control signal	---	By electrical Voltage: 0~0.6V/2~30V or dry contact.									
10. DAISY_OUT/PS_OK #2 signal	---	4~5V=OK, 0V (500ohm impedance)=Fail									
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 programmed value. Programming via the communication ports or the front panel.									
5. Output resistance control	---	Emulates series resistance. Resistance range: 1~1000mΩ. Programming via the communication ports or the front panel.									
6. Slew rate control	---	Programmable Output rise and Output fall slew rate. Programming range: 0.0001~999.9V/mS or A/ms. or A/mS. 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.									

Specifications GENESYS+™ G (5kW)

Programming and Readback (USB, LAN, RS-232/RS-485, Optional IEEE(*19)(*20) 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%
Protective Functions		V	10	20	30	40	60	80	100	150	300	600
1. Foldback protection		---	Output shut-down when power supply changes mode from CV or Power Limit to CC mode or from CC or Power Limit to CV mode. User presetable. Reset by AC input recycle in autostart mode, by Power Switch, 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	2~44.1	5~66.15	5~88.2	5~110.25	5~165.37	5~330.75	5~661.5
4. Over-voltage programming accuracy		---	+/-1% of rated output voltage									
5. Output under voltage limit (UVL)		---	Prevents from adjusting Vout below limit. Does not apply in analogue 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 Power Switch, by OUTPUT button, by rear panel or by communication.									
Front Panel												
1. Control functions		---	Multiple options with 2 Encoders Vout/Iout/Power Limit manual adjust OVP/UVL/UVP manual adjust Protection Functions - OVP, UVL,UVP, Foldback, OCL, ENA, ILC Communication Functions - Selection of LAN,IEEE,RS-232,RS-485,USB or Optional communication interface. Output ON/OFF. Front Panel Lock. Communication Functions - Selection of Baud Rate, Address, IP and communication language. Analogue Control Functions - Selection Voltage/resistive programming, 5V/10V, 5K/10K programming Analogue Monitor Functions - Selection of Voltage/Current Monitoring 5V/10V.									
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		---	-30~85°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 (Without busbars and busbars cover), W: 423, H: 43.6, D: 553.2 (Including busbars and busbars cover) (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, 11mS. Unit is unpacked.									
Safety/EMC												
1. Applicable standards:		Safety	---	UL60950-1, CSA22.2 No.60950-1, IEC60950-1, EN60950-1.								
1.1 Interface classification		---	Vout ≤40V Models: Output, J1,J2,J3,J4,J5,J6,J7,J8 (sense) and J9 (communication options) are SELV. 60≤ Vout ≤600V Models: Output, J8 (sense) are hazardous, J1,J2,J3,J4,J5,J6,J7 and J9 (communication options) are SELV									
1.2 Withstand voltage		---	Vout ≤40V Models: Input - Output (SELV): 4242Vdc 1min, Input - Ground: 2835Vdc 1min. 60V≤ Vout ≤100V Models: Input - Output: 4242Vdc 1min, Input - SELV: 4242Vdc 1min, Output - SELV: 850Vdc 1min, Output - Ground: 1500Vdc 1min, Input - Ground: 2835Vdc 1min. 100<Vout≤600VModels: Input - Output: 4242Vdc 1min, Input - SELV: 4242Vdc 1min, Output - SELV: 1275Vdc 1min, Output - Ground: 2500Vdc 1min, Input - Ground: 2835Vdc 1min.									
1.3 Insulation resistance		---	100Mohm at 25°C, 70%RH.									
2. Conducted emission		---	IEC/EN61204-3 Industrial environment, Annex H table H.1 , FCC Part 15-A, VCCI-A .									
3. Radiated emission		---	IEC/EN61204-3 Industrial environment, Annex H table H.3 and H4, FCC Part 15-A, VCCI-A									
4. EMC compliance		EMC(*18)	---	According to IEC/EN61204-3 Industrial environment								

*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 200V models, 380~415Vac (50/60Hz) for 3-Phase 400V models and 380~480Vac (50/60Hz) for 3-Phase models.

*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 0.2mS.

*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-9131C (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.

*18: Signal and control ports interface cables length: Less than 3m,
DC output power port cables length: Less than 30m.

*19: Max. ambient temperature for using IEEE is 40°C.

*20: For 10V model only: Max. output current for using IEEE is 400A up to 40°C and 450A up to 30°C.

Specifications GENESYS+™ GSP (10kW)

Output Rating	GSP	10-1000	20-500	30-340	40-250	60-170	80-130	100-100	150-68	300-34	600-17
1. Rated output voltage(*1)	V	10	20	30	40	60	80	100	150	300	600
2. Rated output current (*2)	A	1000 (*3)	500	340	250	170	130	100	68	34	17
3. Rated output power	kW	10	10	10.2	10	10.2	10.4	10	10.2	10.2	10.2
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 current at 100% load	---	3-Phase, 200V models: 35A @ 200Vac 3-Phase, 400V models: 18.4A @ 380Vac 3-Phase, 480V models: 18.4A @ 380Vac									
3. Power Factor (Typ)	---	0.94 @ 200/380Vac, rated output power.									
4. Efficiency (*5)	%	89.5	90	91	91	91	91	91	91	92	92
5. Inrush current (*6)	A	Less than 100A									
6. AC line phase imbalance	%	< 5%									
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)	50	50	80	80	80	100	100	100	100	200
	No load (*12)	300	600	800	900	1000	1200	1900	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. Start up delay	Sec	Less than 7 Sec									
Constant Current Mode	---	0.05% of rated output current.									
1. Max. Line regulation (*7)	---	0.08% of rated output current.									
2. Max. Load regulation (*13)	---	0.08% of rated output current.									
3. Ripple r.m.s. @ 10% rated voltage (*14)	mA	1500	1200	600	300	150	100	70	45	15	10
4. Ripple r.m.s. @ rated voltage. B.W. 5Hz~1MHz.	mA	1200	700	300	150	75	50	35	23	7.5	6
5. Temperature coefficient	PPM/°C	10V~100V 100PPM/°C from rated output current, following 30 minutes warm-up. 150V~600V 70PPM/°C from rated output current, following 30 minutes warm-up.									
6. Temperature stability	---	0.01% of rated Iout over 8hrs. interval following 30 minutes warm-up. Constant line, load & temperature.									
7. Warm-up drift	---	10V~100V model: Less than +/-0.25% of rated output current over 30 minutes following power on. 150V~600V: Less than +/-0.15% of rated output current over 30 minutes following power on.									
Analogue Programming and Monitoring (Isolated from the Output)	---	0~100%, 0~5V or 0~10V, user selectable. Accuracy and linearity: +/-0.15% of rated Vout.									
1. Vout voltage programming	---	0~100%, 0~5V or 0~10V, user selectable. Accuracy and linearity: +/-0.4% of rated Iout.									
2. Iout voltage programming (*15)	---	0~100%, 0~5/10Kohm full scale, user selectable. Accuracy and linearity: +/-0.5% of rated Vout.									
3. Vout resistor programming	---	0~100%, 0~5/10Kohm full scale, user selectable. Accuracy and linearity: +/-0.5% of rated Iout.									
4. Iout resistor programming (*15)	---	0~5V or 0~10V, user selectable. Accuracy: +/-0.5%.									
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)	---	Power supply output monitor. Open collector. Output On: On. Output Off: Off. Maximum Voltage: 30V, Maximum Sink Current: 10mA.									
1. Power supply OK #1 signal	---	CV/CC Monitor. Open collector. CC mode: On. CV mode: Off. Maximum Voltage: 30V, Maximum Sink Current: 10mA.									
2. CV/CC signal	---	Enable/Disable analogue programming control by electrical signal or dry contact. Remote: 0~0.6V or short. Local: 2~30V or open.									
3. LOCAL/REMOTE Analogue control	---	Analogue programming control monitor signal. Open collector. Remote: On. Local: Off. Maximum Voltage: 30V, Maximum Sink Current: 10mA.									
4. LOCAL/REMOTE Analogue signal	---	Enable/Disable PS output by electrical signal or dry contact. 0~0.6V or short, 2~30V or open. User selectable logic.									
5. ENABLE/DISABLE signal	---	Enable/Disable PS output by electrical signal or dry contact. Remote: 0~0.6V or short. Local: 2~30V or open.									
6. INTERLOCK (ILC) control	---	Two open drain programmable signals. Maximum voltage 25V, Maximum sink current 100mA (Shunted by 27V zener)									
7. Programmed 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.									
8. TRIGGER IN / TRIGGER OUT signals	---	By electrical Voltage: 0~0.6V/2~30V or dry contact.									
9. DAISY_IN/SO control signal	---	4~5V=OK, 0V (500ohm impedance)=Fail									
10. DAISY_OUT/PS_OK #2 signal	---										
Functions and Features	---	Consult with Factory									
1. Parallel operation	---	Consult with Factory									
2. Series operation	---	Power supplies can be connected in Daisy chain to synchronize their turn-on and turn-off.									
3. Daisy chain	---	Limits the output power to a programmed value. Programming via the communication ports or the front panel.									
4. Constant power control	---	Emulates series resistance. Resistance range: 1~1000mΩ. Programming via the communication ports or the front panel.									
5. Output resistance control	---	Programmable Output rise and Output fall slew rate. Programming range: 0.0001~999.9 V/mS or A/mS.									
6. Slew rate control	---	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.									

Specifications GENESYS+™ GSP (15kW)

Output Rating	GSP	10-1500	20-750	30-510	40-375	60-255	80-195	100-150	150-102	300-51	600-25.5
1. Rated output voltage(*1)	V	10	20	30	40	60	80	100	150	300	600
2. Rated output current (*2)	A	1500 (*3)	750	510	375	255	195	150	102	51	25.5
3. Rated output power	kW	15	15	15.3	15	15.3	15.6	15	15.3	15.3	15.3
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 current at 100% load	---	3-Phase, 200V models: 52.5A @ 200Vac 3-Phase, 400V models: 27.6A @ 380Vac 3-Phase, 480V models: 27.6A @ 380Vac									
3. Power Factor (Typ)	---	0.94 @ 200/380Vac, rated output power.									
4. Efficiency (*5)	%	89.5	90	91	91	91	91	91	91	92	92
5. Inrush current (*6)	A	Less than 150A									
6. AC line phase imbalance	%	< 5%									
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	1900	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. Start up delay	Sec	Less than 7 Sec									
13. 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. Ripple r.m.s. @ 10% rated voltage (*14)	mA	2000	1200	600	300	180	100	70	45	15	10
4. Ripple r.m.s. @ rated voltage. B.W. 5Hz~1MHz.	mA	1200	700	300	150	90	60	35	23	7.5	6
5. Temperature coefficient	PPM/°C	10V~100V 100PPM/°C from rated output current, following 30 minutes warm-up. 150V~600V 70PPM/°C from rated output current, following 30 minutes warm-up.									
6. Temperature stability	---	0.01% of rated Iout over 8hrs. interval following 30 minutes warm-up. Constant line, load & temperature.									
7. Warm-up drift	---	10V~100V model: Less than +/-0.25% of rated output current over 30 minutes following power on. 150V~600V: Less than +/-0.15% of rated output current over 30 minutes following power on.									
Analogue 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%, 0~5/10KΩ full scale, user selectable. Accuracy and linearity: +/-0.5% of rated Vout.									
4. Iout resistor programming (*15)	---	0~100%, 0~5/10KΩ 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 Analogue control	---	Enable/Disable analogue programming control by electrical signal or dry contact. Remote: 0~0.6V or short. Local: 2~30V or open.									
4. LOCAL/REMOTE Analogue signal	---	Analogue programming control monitor signal. Open collector. Remote: On. Local: Off. Maximum Voltage: 30V, Maximum Sink Current: 10mA.									
5. ENABLE/DISABLE Signal	---	Enable/Disable PS output by electrical signal or dry contact. 0~0.6V or short, 2~30V or open. User selectable logic.									
6. INTERLOCK (ILC) control	---	Enable/Disable 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	---	Consult with Factory									
2. Series operation	---	Consult with Factory									
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 programmed value. Programming via the communication ports or the front panel.									
5. Output resistance control	---	Emulates series resistance. Resistance range: 1~1000m. Programming via the communication ports or the front panel.									
6. Slew rate control	---	Programmable Output rise and Output fall slew rate. Programming range: 0.0001~999.9V/mS or A/mS. 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.									

Specifications GENESYS+™ GSP (10/15kW)

Programming and Readback (USB, LAN, RS-232/RS-485, Optional IEEE(*19)(*20) 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)		---	0.3% 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		%	0.012%	0.003%	0.004%	0.005%	0.007%	0.009%	0.012%	0.002%	0.003%	0.006%
(of rated output current)			GSP 10kW	0.012%	0.003%	0.003%	0.004%	0.005%	0.006%	0.008%	0.012%	0.003%
GSP 15kW												
Protective Functions		V	10	20	30	40	60	80	100	150	300	600
1. Foldback protection		---	Output shut-down when power supply changes mode from CV or Power Limit to CC mode or from CC or Power Limit to CV mode. User presetable. Reset by AC input recycle in autostart mode, by Power Switch, 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	2~44.1	5~66.15	5~88.2	5~110.25	5~165.37	5~330.75	5~661.5
4. Over-voltage programming accuracy		---	+/-1% of rated output voltage									
5. Output under voltage limit (UVL)		---	Prevents from adjusting Vout below limit. Does not apply in analogue 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 Power Switch, by OUTPUT button, by rear panel or by communication.									
Front Panel												
1. Control functions		---	Multiple options with 2 Encoders • Vout/Iout/Power Limit manual adjust • OVP/UVL/UVP manual adjust • Protection Functions: OVP, UVL, UVP, Foldback, OCL, ENA, ILC • Communication Functions: Selection of LAN, IEEE, RS-232, RS-485, USB or Optional communication interface • Output ON/OFF, Front Panel Lock • Communication Functions: Selection of Baud Rate, Address, IP and communication language • Analogue Control Functions: Selection Voltage/resistive programming, 5V/10V, 5K/10K programming • Analogue Monitor Functions: Selection of Voltage/Current Monitoring 5V/10V									
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		---	-30~85°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		GSP 10kW	kg	Less than 15.5kg.								
3. Dimensions (WxHxD)		GSP 10kW	mm	W: 423, H: 88, D: 441.5 (Without busbars and busbars cover), W: 423, H: 88, D: 640 (Including busbars and busbars cover) (Refer to Outline drawing).								
2. Weight		GSP 15kW	kg	Less than 23.5kg.								
3. Dimensions (WxHxD)		GSP 15kW	mm	W: 423, H: 132.5, D: 441.5 (Without busbars and busbars cover), W: 423, H: 132.5, D: 640 (Including busbars and busbars cover) (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, 11mS. Unit is unpacked.									
Safety/EMC												
1. Applicable standards:		Safety	---	UL60950-1, CSA22.2 No.60950-1, IEC60950-1, EN60950-1.								
1.1 Interface classification		---	Vout ≤40V Models: Output, J1,J2,J3,J4,J5,J6,J7,J8 (sense) and J9 (communication options) are SELV. 60≤ Vout ≤600V Models: Output, J8 (sense) are hazardous, J1,J2,J3,J4,J5,J6,J7 and J9 (communication options) are SELV									
1.2 Withstand voltage		---	Vout ≤40V Models: Input - Output (SELV): 4242Vdc 1min, Input - Ground: 2835Vdc 1min. 60V≤ Vout ≤100V Models: Input - Output: 4242Vdc 1min, Input - SELV: 4242Vdc 1min, Output - SELV: 850Vdc 1min, Output - Ground: 1500Vdc 1min, Input - Ground: 2835Vdc 1min. 100< Vout ≤600V Models: Input - Output: 4242Vdc 1min, Input - SELV: 4242Vdc 1min, Output - SELV: 1275Vdc 1min, Output - Ground: 2500Vdc 1min, Input - Ground: 2835Vdc 1min.									
1.3 Insulation resistance		---	100MΩ at 25°C, 70%RH.									
2. Conducted emission		---	IEC/EN61204-3 Industrial environment, Annex H table H.1 , FCC Part 15-A, VCCI-A .									
3. Radiated emission		---	IEC/EN61204-3 Industrial environment, Annex H table H.3 and H4, FCC Part 15-A, VCCI-A									
4. EMC compliance		EMC(*18)	---	According to IEC/EN61204-3 Industrial environment								

*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 10A/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 200V models, 380~415Vac (50/60Hz) for 3-Phase 400V models and 380~480Vac (50/60Hz) for 3-Phase 480V models.

*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 0.2mS.

*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-9131C (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.

*18: Signal and control ports interface cables length:

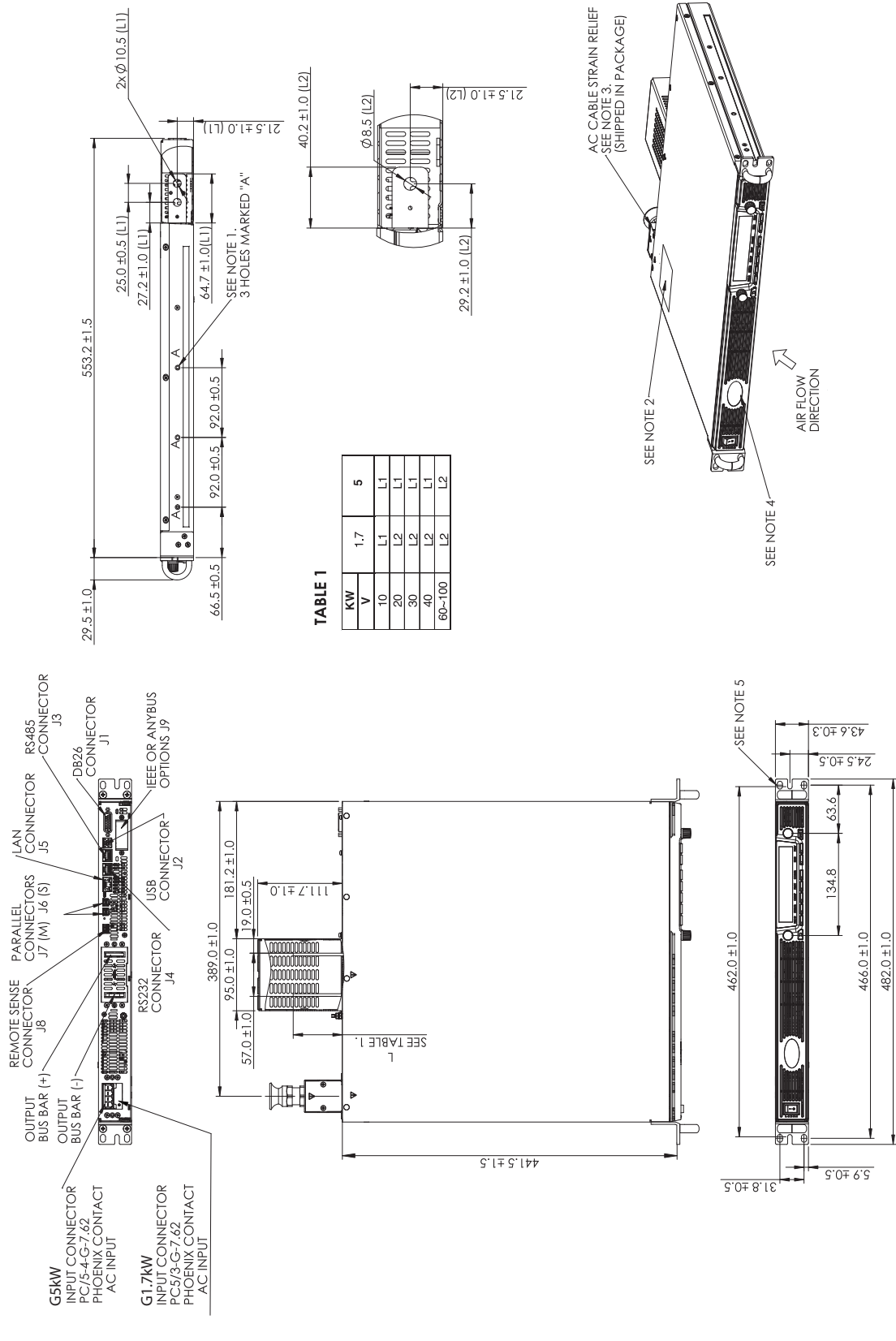
Less than 3m, DC output power port cables length: Less than 30m.

*19: Max. ambient temperature for using IEEE is 40°C.

*20: For 10V model only: Max. output current for using IEEE is 800A up to 40°C and 900A up to 30°C (GSP10KW); 1200A up to 40°C and 1350A up to 30°C (GSP15kW)

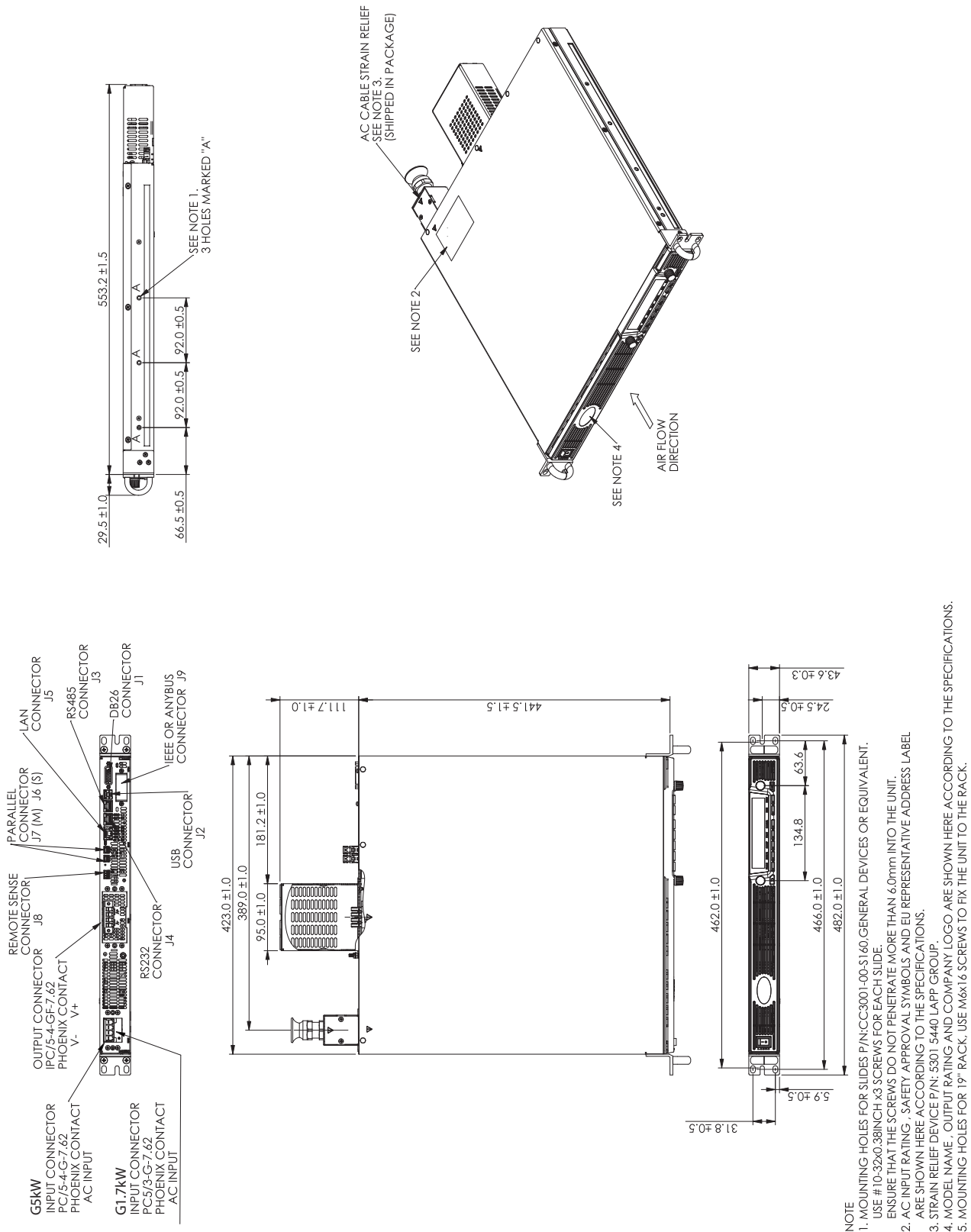
GENESYS™ Outline Drawings

Outline Drawing GENESYS+™ G (1.7/5kW)

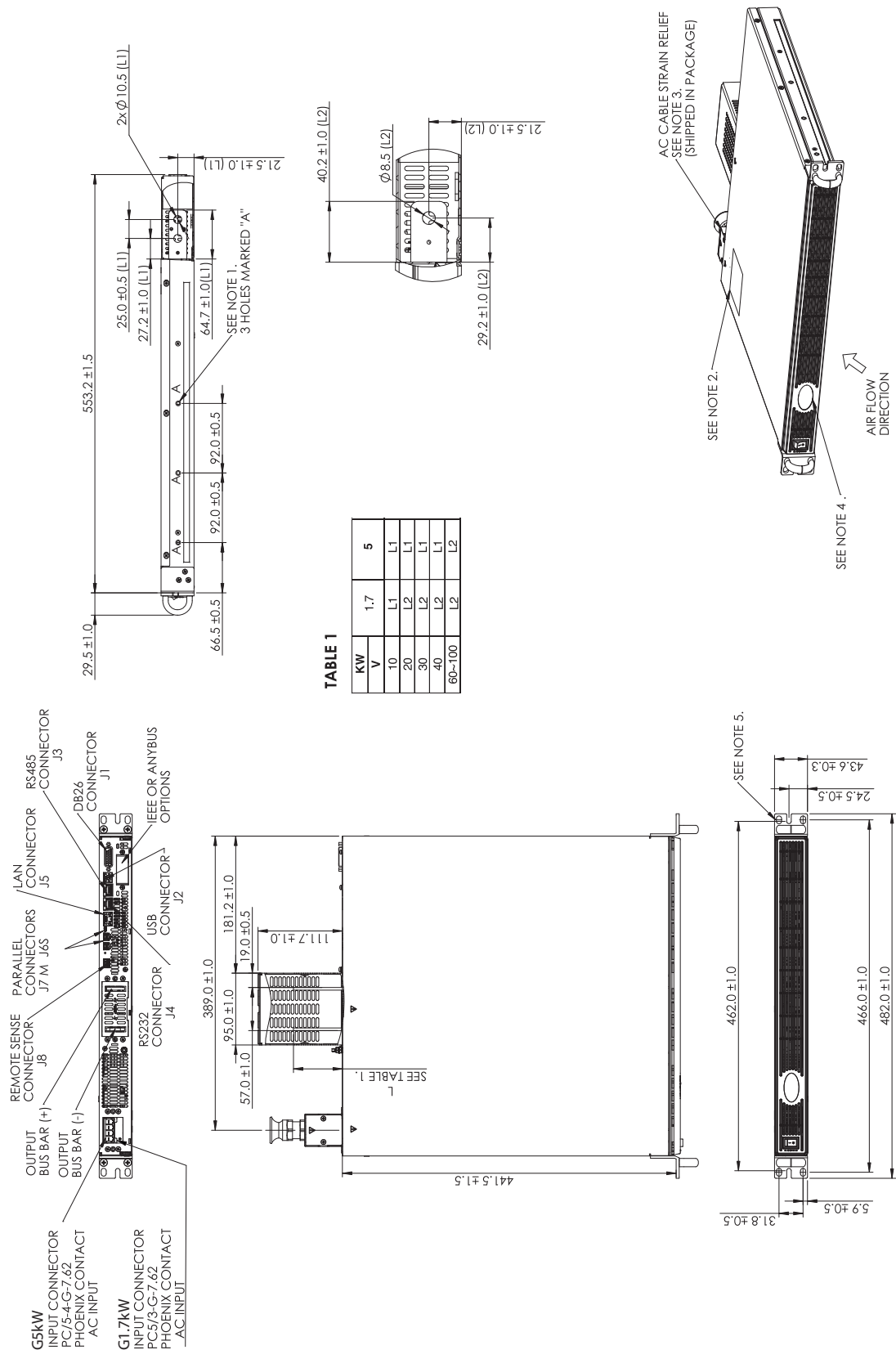


Outline Drawing GENESYS+™ G (1.7/5kW)

(Models 150V/300V/600V)



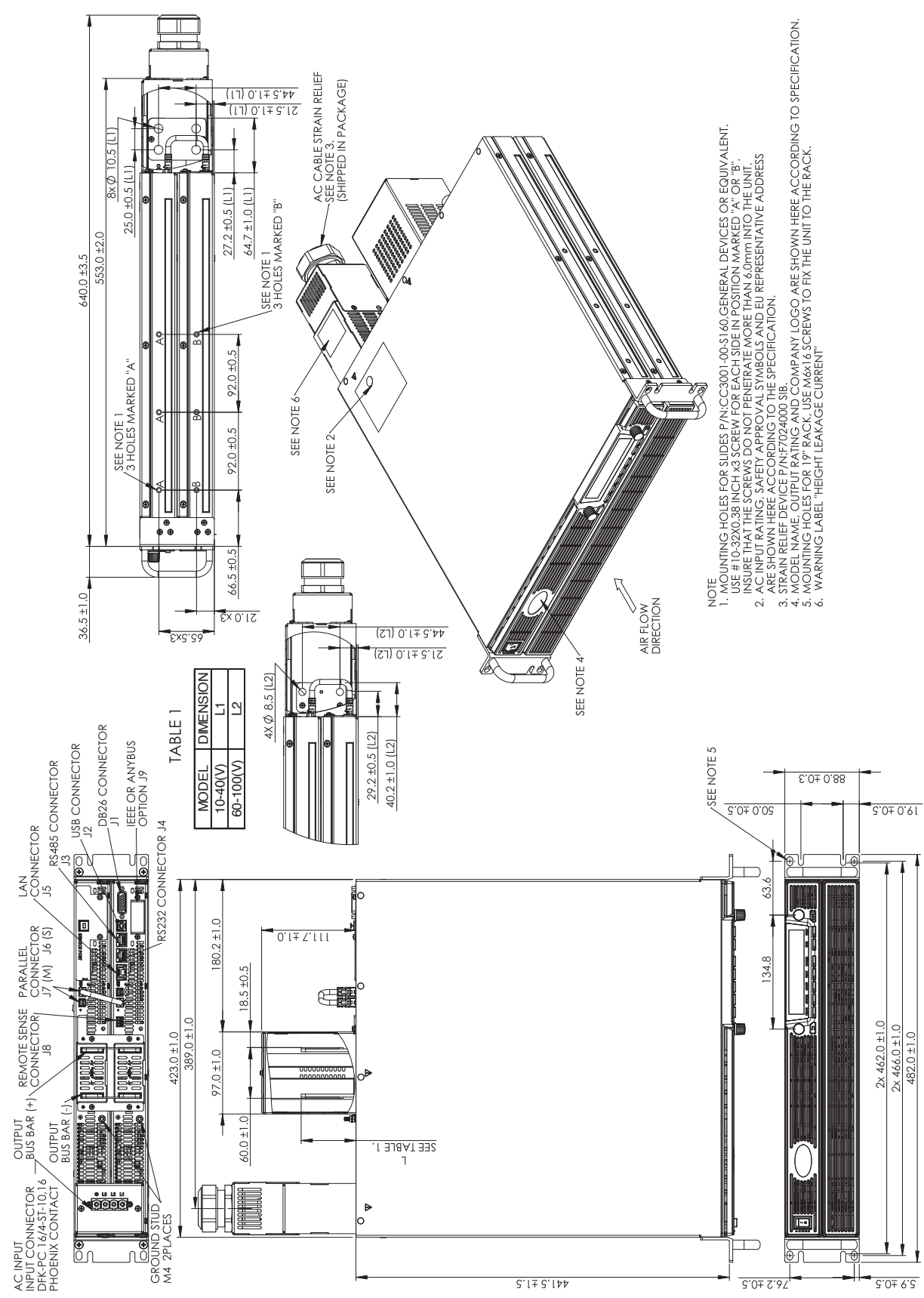
Outline Drawing GENESYS+™ GB (1.7/5kW)



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. AC INPUT RATING AND SAFETY APPROVAL SYMBOLS ARE SHOWN HERE ACCORDING TO THE SPECIFICATIONS.
3. STRAIN RELIEF DEVICE P/N: 5301 5440 LAPP GROUP.
4. MODEL NAME , OUTPUT RATING AND COMPANY LOGO ARE SHOWN HERE ACCORDING TO THE SPECIFICATIONS.
5. MOUNTING HOLES FOR 19" RACK, USE M6X16 SCREWS TO FIX THE UNIT TO THE RACK.

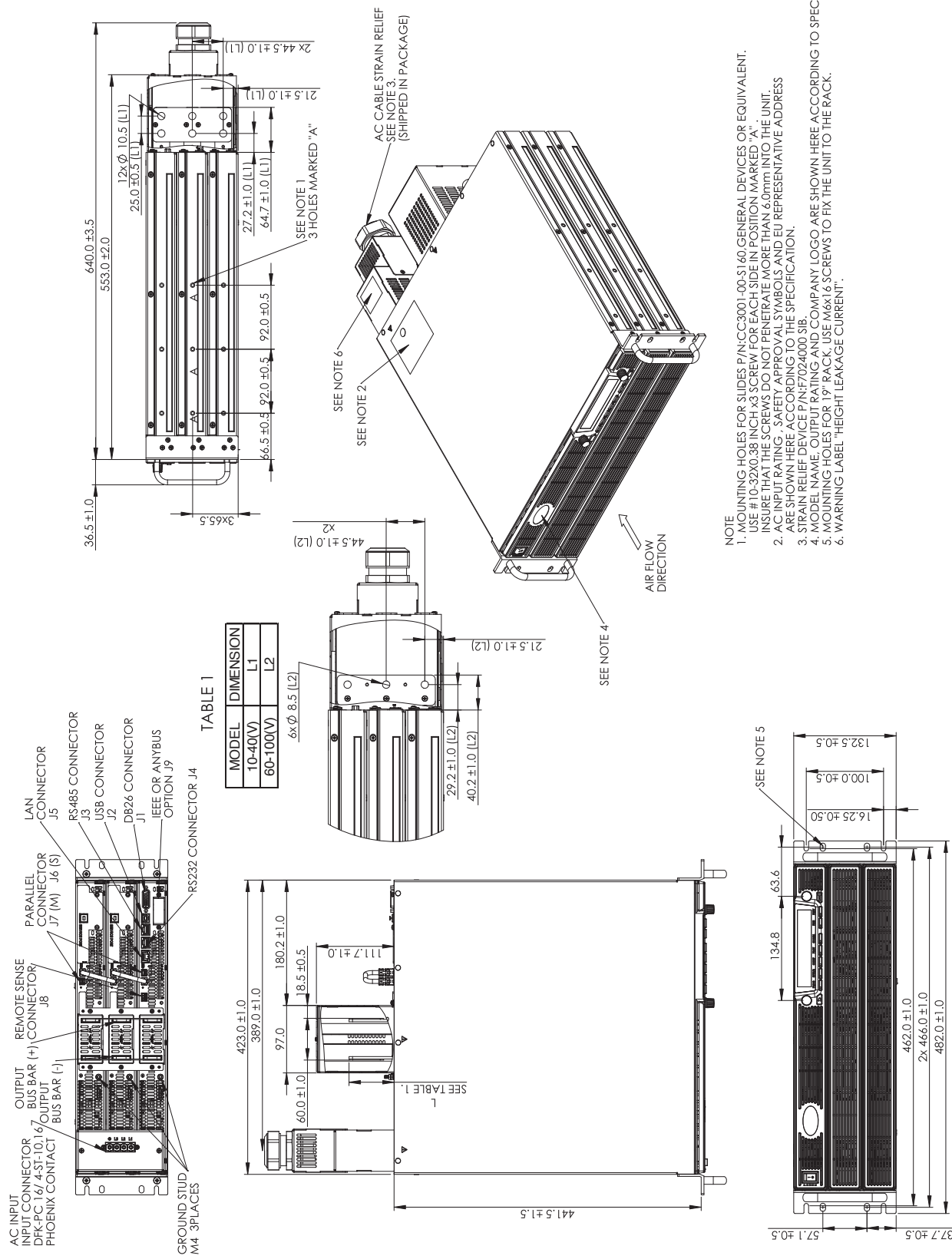
Outline Drawing GENESYS+™ GSP (10kW)



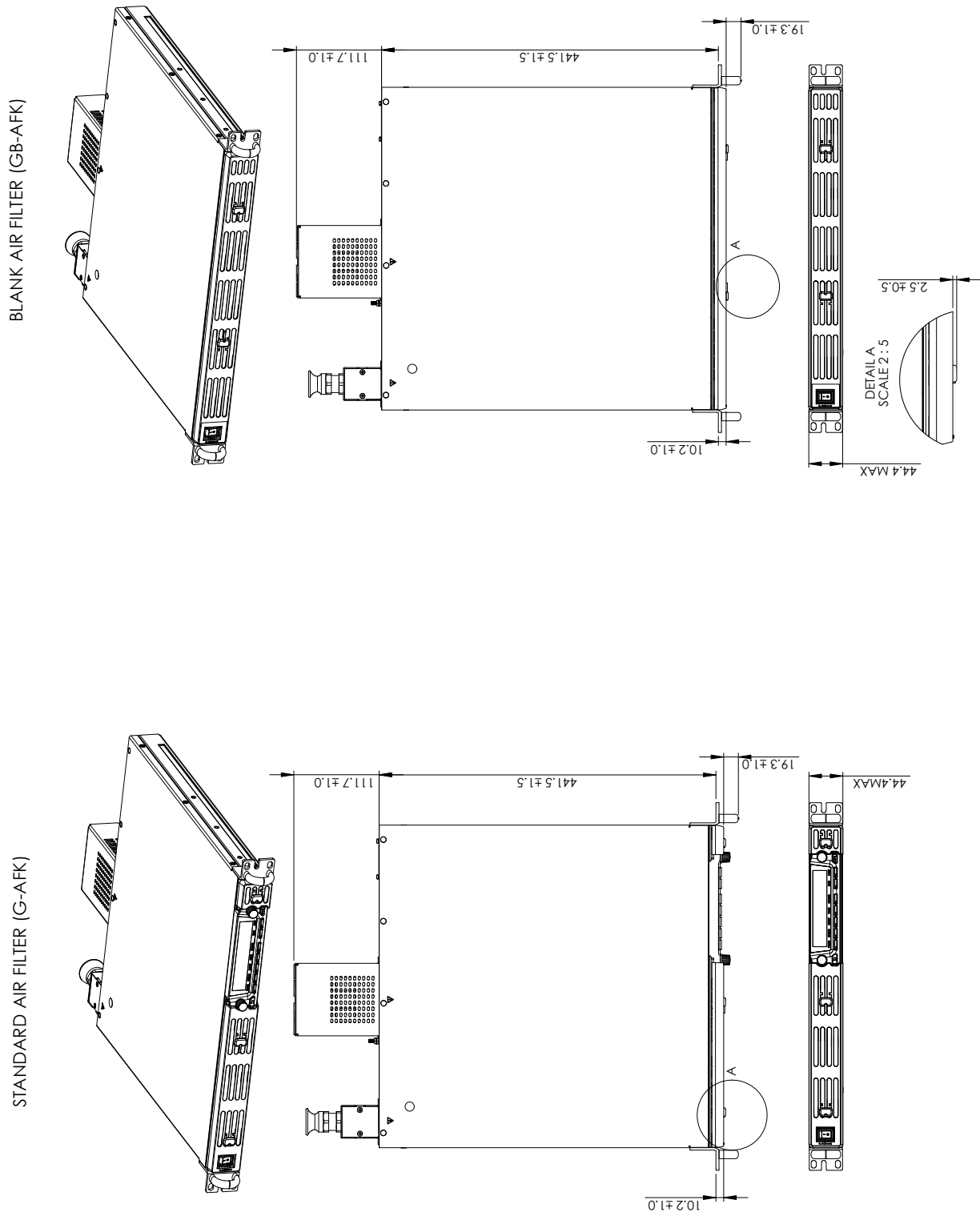
NOTE

1. MOUNTING HOLES FOR SLIDES P/N CC3001-00-S1 40 GENERAL DEVICES OR EQUIVALENT. USE # 10-32X0.38 INCH X3 SCREW FOR EACH SIDE IN POSITION MARKED "A" OR "B". INSURE THAT THE SCREWS DO NOT PENETRATE MORE THAN 6.0mm INTO THE UNIT.
2. AC INPUT RATING. SAFETY APPROVAL SYMBOLS AND EU REPRESENTATIVE ADDRESS ARE SHOWN HERE ACCORDING TO THE SPECIFICATION.
3. STRAIN RELIEF DEVICE P/N F7024000 SIB.
4. MODEL NAME, OUTPUT RATING AND COMPANY LOGO ARE SHOWN HERE ACCORDING TO SPECIFICATION.
5. MOUNTING HOLES FOR 19" RACK. USE M6x16 SCREWS TO FIX THE UNIT TO THE RACK.
6. WARNING LABEL "HEIGHT LEAKAGE CURRENT"

Outline Drawing GENESYS+™ GSP (15kW)



Outline Drawing GENESYS+™ Air Filter Kit



Get in contact to find the best
solution to your application.



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