! NEW - 200V model !

! NEW - All models available with 480VAC Input !

Genesys™

Programmable DC Power Supplies
Full-Rack 3.3kW in 2U Height
Built in RS-232 & RS-485 Interface
Parallel Operation (Basic or Advanced)

Optional Interfaces:
LAN (LXI compliant w/ Multi-Drop)
IEEE (488.2 & SCPI compliant w/ Multi-Drop)
USB (2.0 w/ Multi-Drop)
Isolated Analog (5V/10V or 4-20mA Pgm/Mon)

Genesys™ Family
GENH-1U 750W Half-Rack
GEN-1U 750W/1.5kW/2.4kW Full-Rack
GEN-2U 3.3kW/5.0kW Full-Rack
GEN-3U 10kW/15kW Full-Rack

TDK·Lambda

www.us.tdk-lambda.com/hp

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

Features include:

- **High Power Density 3.3kW in 2U**
- **Wide Range of popular worldwide AC inputs: 1Ø (230VAC); 3Ø (208VAC, 400VAC, 480VAC)**
- **Active Power Factor Correction (for Single-Phase & Three-Phase AC Inputs)**
- **Output voltage up to 600V, Output current up to 400A**
- **Built-in RS-232/RS-485 Interface Standard**
- **Global Commands for RS-232/RS-485 Interfaces**
- **Auto Re-Start / Safe-Start (user-selectable)**
- **Last-Setting Memory; Front Panel Lock/Unlock**
- Continuous Encoders for Voltage and Current Adjustment
- Constant Voltage/Constant Current with Auto-Crossover
- Parallel Operation (Basic or Advanced) with Active Current Sharing (up to four identical units)
- Independent Remote Shut-Off and Remote ENABLE/DISABLE
- Remote Analog Program/Monitor/Control (0-5V & 0-10V, user-selectable)
- 19" Rack Mount capability for ATE and OEM applications (with zero-stacking)
- Optional Program/Monitor/Control Interfaces
  - LAN (LXI 1.5 compliant with Multi-Drop capability)
  - IEEE (488.2 & SCPI compliant with Multi-Drop capability)
  - USB (2.0 with Multi-Drop capability)
  - Isolated Analog Program/Monitor: 0-5V/0-10V (user-selectable)
  - Isolated Aalog Program/Monitor: 4-20mA
- LabView™ and LabWindow™ Software Drivers
- Five Year Warranty

Worldwide Safety Agency Approvals; CE Mark (LV, EMC and RoHS Directives)

Applications

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

Test & Measurement Systems using the LAN (IEEE or USB) Interface may achieve significant cost savings by incorporating the optional LAN Multi-Drop Interface in a Master unit with up to thirty RS-485 Multi-Drop Slave units.

Automated System designers will appreciate new, standard remote programming features such as Global commands. Also, new high-speed status monitoring is available for the RS-485 Interface as well as the optional LAN or USB Interfaces.

Industrial & Military high power systems can be configured with up to four identical units in parallel (up to 60kW) using the Basic or Advanced Parallel Master/Slave setup. No space is required above or below each power supply (zero-stack) and the Master unit can be configured by the user to report the total Output current of the parallel system. Applications include heaters, magnets and laser diodes.

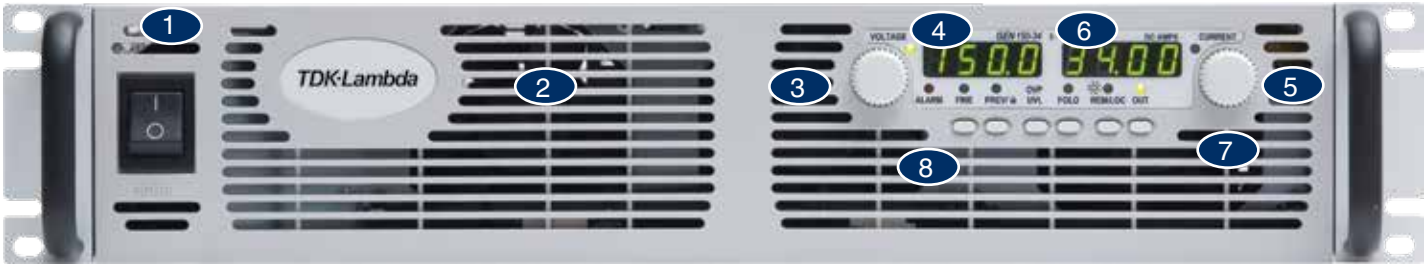
Aerospace & Satellite Testing systems can use the complete **Genesys™** family: 1U Half-Rack **750W**, 1U Full-Rack **750W/1.5kW/2.4kW**, 2U Full-Rack **3.3kW/5.0kW** and 3U Full-Rack 1**0kW/15kW**. All platforms have identical front and rear panel interfaces and Digital Interface commands/queries. A wide variety of Outputs (voltage and current) allows flexibility for product testing in different applications.

Component Device Testing is simplified becuase of the many user-friendly digital and analog control options (LAN, IEEE, USB, RS-232/RS-485 and Isolated Analog (5V/10V or 4-20mA). Lamps, capacitors, motors and actuators are typical devices tested.

Medical Imaging and Treatment Systems require relaible power. Modular construction, the use of SMT and thoroughly proven designs assure continuous performance at full rated Output power.

Semiconductor Processing & Burn-In equipment designers appreciate the wide variety of worldwide AC inputs (single-phase and three-phase) and Outputs from which to select depending on the application. Selectable Safe and Auto-Restart protects loads and process integrity. Typical applications include magnets, filaments and heaters.

Front Panel Description



1. ON/OFF Switch
2. Air Intake allows zero stacking for maximum system flexibility and power density.
3. Reliable encoder controls Output voltage, unit Address, OVP and UVL settings.
4. VOLTAGE display shows Output voltage and directly displays OVP, UVL and unit Address settings.
5. Reliable encoder controls Output current, sets Baud rate and Advanced Parallel mode.
6. CURRENT display shows Output current and displays Baud rate. Displays total current in Advanced Parallel mode.
7. Function/Status LED's:
   - **ALARM**
   - **FINE Control**
   - **PREView Settings**
   - **FOLDback Mode**
   - **REMote Mode**
   - **OUTput On**
8. Pushbuttons allow flexible user configuration
   - Coarse and Fine adjustment of Output voltage/current and setup for Advanced Parallel operation
   - Preview settings and set Voltage/Current with Output OFF, Front Panel Lock/Unlock
   - Advanced Parallel Master/Slave setup
   - Set Output OVP and UVL Limits
   - Set Current Foldback Protection
   - Go to Local Mode and select unit Address and Baud rate
   - Output ON/OFF and Auto/Safe Re-Start Mode setup

Rear Panel Description

1. Remote/Local Output voltage sense connections.
2. DIP-Switches select 0-5V or 0-10V Program/Monitor and other functions.
3. DB25 (Female) connector allows Remote Analog Program/Monitor (non-isolated) and other functions.
4. RS-485 OUT to other ***Genesys™*** Power Supplies (for RS-485 communication and Multi-Drop setup).
5. RS-232/RS-485 IN Remote Serial Programming.
6. Output Connections: Rugged busbars (shown) for **Vout ≤ 100V**; wire clamp connector for **Vout >100V**.
7. Rear panel exit air slots assure reliable operation when zero-stacked.
8. AC Inputs: **230VAC** (single-phase, 50/60Hz); **208VAC**, **400VAC** and **480VAC** (three-phase, 50/60Hz)
   AC Input Connector: PHOENIX CONTACT Power Combicon PC 6/... Series with custom strain relief.
9. Optional Interface Position for **LAN, IEEE** 488.2 (shown), **USB** or **Isolated Analog** (5V/10V or 4-20mA).

LAN Interface is LXI 1.5 compliant

Genesys™ 2U 3.3kW Specifications

1.0 MODEL	GEN	8-400	10-330	15-220	20-165	30-110	40-85	60-55	80-42	100-33	150-22	200-16.5	300-11	600-5.5
1. Rated Output voltage **(*1)**	V	8	10	15	20	30	40	60	80	100	150	200	300	600
2. Rated Output current **(*2)**	A	400	330	220	165	110	85	55	42	33	22	16.5	11	5.5
3. Rated Output power	W	3200	3300	3300	3300	3300	3400	3300	3360	3300	3300	3300	3300	3300

1.1 CONSTANT VOLTAGE MODE

1. Line Regulation, max (0.01% of Vo(rated) + 2mV) **(*6)**	mV	2.8	3	3.5	4	5	6	8	10	12	17	22	32	62
2. Load Regulation, max (0.015% of Vo(rated) + 5mV) **(*7)**	mV	6.2	6.5	7.25	8	9.5	11	14	17	20	27.5	35	50	95
3. Ripple and Noise (p-p, 20MHz) **(*8)**	mV	60	60	60	60	60	60	60	80	100	100	275	300	500
4. Ripple (RMS, 5Hz~1MHz)	mV	8	8	8	8	8	8	8	8	8	25	70	100	120
5. Remote Sense Compensation (per wire)	V	2	2	2	2	5	5	5	5	5	5	5	5	5
6. Temperature Coefficient	ppm/°C	100ppm/°C of Vo(rated), following 30 minutes warm-up												
7. Temperature Stability		0.05% of Vo(rated) over 8hr interval following 30 minutes warm-up. Constant AC line, DC load & ambient temperature												
8. Warm-up Drift		Less than 0.05% of Vo(rated) + 2mV over 30 minutes following Output power On												
9. Up-Programming Response Time, 0~Vo(rated) **(*9)**	ms	80						150				200		250
10. Down-Prog Response Time — Full-load **(*9)**	ms	20	100			160			300					500
10. Down-Prog Response Time — No-load **(*10)**	ms	500	600	700	800	900	1000	1100	1200	1500	2000	3000	3500	4000
11. Transient Response TIme	ms	Less than 1ms for models up to and including 100V. Less than 2ms for models above 100V Time for Output voltage to recover within 0.5% of Vo(rated). for a load current change of 10~90% of Io(rated). Output setpoint: 10% - 100%, local sense												

1.2 CONSTANT CURRENT MODE

1. Line Regulation, max (0.01% of rated Io + 2mA) **(*6)**	mA	42	35	24	18.5	13	10.5	7.5	6.2	5.3	4.2	3.7	3.1	2.6
2. Load Regulation, max (0.02% of rated Io + 5mA) **(*11)**	mA	85	71	49	38	27	22	16	13.4	11.6	9.4	8.3	7.2	6.1
3. Ripple (RMS, 5Hz~1MHz) **(*12)**	mA	1300	1200	880	660	300	200	100	80	70	60	40	20	10
4. Load Regulation Thermal Drift		Less than 0.1% of Io(rated) over 30 minutes following load change												
5. Temperature Coefficient	ppm/°C	200ppm/ºC of Io(rated), following 30 minutes warm-up												
6. Temperature Stability		0.05% of Io(rated) over 8hr interval following 30minutes warm-up. Constant AC line, DC oad & ambient temperature												
7. Warm-up Drift		**8V~20V models**: Less than ± 0.5% of Io(rated) over 30 minutes following Output power On **30V~600V models**: Less than ± 0.25% of Io(rated) over 30 minutes following Output power On												

1.3 PROTECTIVE FUNCTIONS

1. OCP	0~105%; constant current											
2. Foldback Protection (**FOLD**)	Output shutdown when Power Supply Output changes from CV mode to CC mode. User-selectable											
3. Over-Voltage Protection (**OVP**)	Inverter shut-down. Manual reset by AC input recycle, by OUT button or by communication port command											
4. OVP Trip Point	0.5~10V	0.5~12V	1~18V	1~24V	2~36V	2~44V	5~66V	5~88V	5~110V	5~165V	15~220V	5~330V	5~660V
5. Output Under-Voltage Limit (**UVL**)	Preset by front panel or communication port. Prevents from adjusting Vout below UV limit.											
6. Over-Temperature Protection (**OTP**)	User-selectable; Latched or non-latched											

1.4 ANALOG PROGRAMMING AND MONITORING

1. Vout Voltage Programming	0~100%, 0~5V or 0~10V, User-selectable. Accuracy and linearity: ±0.5% of Vo(rated)
2. Iout Voltage Programming **(*13)**	0~100%, 0~5V or 0~10V, User selectable. Accuracy and linearity: ±1% of Io(rated)
3. Vout Resistor Programming	0~100%, 0~5kohms/10kohms full-scale, User-selectable, Accuracy and linearity: ±1% of Vo(rated)
4. Iout Resistor Programming **(*13)**	0~100%, 0~5kohms/10kohms full-scale, User-selectable, Accuracy and linearity: ±1.5% of Io(rated)
5. On/Off control (rear panel)	By **Voltage**: 0~0.6V = Disable, 2~15V = Enable (default) or **Dry Contact**: Open = ENA, Short = DIS, User-selectable logic
6. Output Current Monitor **(*13)**	0~5V or 0~10V, Accuracy: ±1%, User-selectable
7. Output Voltage Monitor	0~5V or 0~10V, Accuracy:±1%, User-selectable
8. Power Supply OK (**PS_OK**) signal	TTL high (4~5V) = OK, 0V = Fail (500ohm series resistance)
9. CV/CC Indicator	Open-collector. **CV mode**: Off/Open (Max voltage = 30V, Max Isource = 10mA), **CC mode**: On (Max Isink = 10mA)
10. Enable/Disable	Dry contact. Open = Off, Short = On. Maximum voltage at Enable/Disable Input = 6V
11. Local/Remote Analog Control	By electrical signal or Open/Short. 0~0.6V or Short: **Remote Mode**, 2~15V or Open: **Local Mode**
12. Local/Remote Analog Control Indicator	Open-collector. **Local Mode** = Off/Open (Maximum voltage = 30V), **Remote Mode** = On (Maximum Isink = 10mA)

1.5 FRONT PANEL

1.Control Functions	Vout/ Iout manual adjust by separate encoders (COARSE and FINE adjustment selectable) OVP/UVL manual adjust by VOLTAGE Adjust encoder, Front Panel LOCK/UNLOCK Output ON/OFF, Foldback control (CV to CC), Go-to-Local control Unit Address selection by VOLTAGE (or CURRENT) Adjust encoder. Number of Unit Addresses = 31 Re-start modes (Auto-Restart mode, Safe-Start mode), User-selectable Baud rate selection: 1200, 2400, 4800, 9600 and 19,200, by CURRENT Adjust encoder Advanced Parallel Master Slave: **Hx** = Master unit where x = # total units (0 to four), **S** = Slave unit
2.Display	Voltage: 4 digits, Accuracy: ±0.5% of Vo(rated) ±1 count Current: 4 digits, Accuracy: ±0.5% of Io(rated) ±1 count VOLTAGE meter displays voltage at Power Supply Output (Local sense) or at load (Remote sense)
3.Indications	**Green** LED's: PREVIEW, FOLD, REM/LOCAL, OUT ON, CV/CC, FINE, V/A **Red** LED: ALARM (OVP, OTP, FOLD, AC FAIL, ENA, SO

1.6 DIGITAL PROGRAMMING & READBACK (LAN, IEEE, USB, RS-232/RS-485)

1. Remote Voltage Programming (16 bit)	V	**8**	**10**	**15**	**20**	**30**	**40**	**60**	**80**	**100**	**150**	**200**	**300**	**600**
Resolution (0.012% of Vo(rated))	mV	0.96	1.2	1.8	2.4	3.6	4.8	7.2	9.6	12	18	24	36	72
Accuracy (0.05% of Vo(rated) + 0.05% of Vo(actual)), **(*14)**	mV	8	10	15	20	30	40	60	80	100	150	200	300	600
2. Remote Current Programming (16 bit)	I	**400**	**330**	**220**	**165**	**110**	**85**	**55**	**42**	**33**	**22**	**16.5**	**11**	**5.5**
Resolution (0.012% of Io(rated))	mA	48	39.6	26.4	19.8	13.2	10.2	6.6	5	4	2.6	2.0	1.3	0.7
Accuracy (0.2% of Io(rated) + 0.1% of Io(actual), **(*13)**	mA	1200	990	660	495	330	255	165	126	99	66	50	33	16.5
3. Readback Voltage (Monitor)	V	**8**	**10**	**15**	**20**	**30**	**40**	**60**	**80**	**100**	**150**	**200**	**300**	**600**
Resolution (0.012% of Vo(rated))	mV	0.96	1.2	1.8	2.4	3.6	4.8	7.2	9.6	12	18	24	36	72
Accuracy (0.1% of Vo(rated) + 0.1% of Vo(actual))	mV	16	20	30	40	60	80	120	160	200	300	400	600	1200
4. Readback Current (Monitor)	I	**400**	**330**	**220**	**165**	**110**	**85**	**55**	**42**	**33**	**22**	**16.5**	**11**	**5.5**
Resolution (0.012% of Io(rated))	mA	48	39.6	26.4	19.8	13.2	10.2	6.6	5.0	4.0	2.6	2.0	1.3	0.7
Accuracy (0.3% of Io(rated) + 0.1% of Io(actual)), **(*13)**	mA	1600	1320	880	660	440	340	220	168	132	88	50	44	22
5. OVP/UVL Programming	V	**8**	**10**	**15**	**20**	**30**	**40**	**60**	**80**	**100**	**150**	**200**	**300**	**600**
Resolution (0.1% of Vo(rated))	mV	8	10	15	20	30	40	60	80	100	150	200	300	600
Accuracy (1% of Vo(rated))	mV	80	100	150	200	300	400	600	800	1000	1500	2000	3000	6000

Genesys™ 2U 3.3kW Specifications

2.1 INPUT CHARACTERISTICS		GEN	8-400	10-330	15-220	20-165	30-110	40-85	60-55	80-42	100-33	150-22	200-16.5	300-11	600-5.5
1. AC Input voltage/frequency, **(*3)**		VAC	Single-phase 230VAC models: 170VAC~265VAC, 47~63Hz												
			Three-phase 208VAC models 170VAC~265VAC, 47~63Hz												
			Three-phase 400VAC models, 342VAC~460VAC, 47~63Hz												
			Three-phase 480VAC models: 432VAC~528VAC, 47~63Hz												
2. Maximum AC Input current (100% load)	Single-phase 230VAC	Arms	24.0	24.0	24.0	23.0	24.0	23.0	23.0	23.5	23.0	23.0	23.0	23.0	23.0
	Three-phase 208VAC		14.5	14.5	14.5	14.5	14.0	14.5	13.6	14.0	13.7	13.7	13.7	13.8	13.9
	Three-phase 400VAC		7.2	7.2	7.2	7.2	7.0	7.2	6.8	7.0	6.8	6.8	6.8	6.9	7.0
	Three-phase 480VAC		5.0	5.0	5.0	5.0	5.0	5.0	4.8	4.8	4.8	4.8	4.8	5.0	5.0
3. Power Factor, (typical)			Single-phase models: 0.99@230VAC (rated output power) Three-phase models: 0.94@200VAC/380VAC/432VAC (rated output power)												
4. Efficiency, **(*4)**		%	82	83	83	83	86	86	88	88	88	87	87	87	87
5. Inrush Current, **(*5)**		Apk	Single-phase 230VAC and Three-phase 208VAC models: Less than 50Apk.												
			Three-phase 400VAC/480VAC models: Less than 20Apk.												
6. Hold-Up time (typical)		ms	10ms for Single-phase 230VAC and Three-phase 208VAC models, rated Output power. 6ms for Three-phase 400VAC/480VAC models, rated Output power.												
7. Phase Imbalance		%	≤ 5%												

2.2 POWER SUPPLY CONFIGURATION	
1. Parallel Operation	Up to four (4) identical units may be connected in Master/Slave Mode with "Two-Wire" connection. In "Advanced Parallel" mode, the current of the Master unit, multiplied by number of units connected in parallel, is available via Digital interface and displayed on the front panel of the Master unit. Remote Analog Current Monitor of the Master unit is scaled to Output current of the Master unit (only).
2. Series Operation	Up to two identical units (with external clamping diodes). Total Output voltage not to exceed +/-600V from Chassis ground.

2.3 ENVIRONMENTAL CONDITIONS	
1. Operating Temperature	0°C ~ +50°C (+32°F ~ +122°F), 100% load
2. Storage Temperature	-20°C ~ +85°C (-4°F ~ +185°F)
3. Operating Humidity	20 ~ 90% RH (non-condensing)
4. Storage Humidity	10~95% RH (non-condensing)
5. Vibration	MIL-STD-810F, method 514.5, The EUT is fixed to the vibrating surface (unpackaged).
	ASTM D4169, Standard Practice for Performance Testing of Shipping Containers and Systems, Shipping Unit: Single Package Assurance Level: Level II; Acceptance Criteria: Criterion 1 - No product damage Criterion 2 - Packaging is intact, Distribution Cycle: 12 - Air (intercity) and motor freight (local), unitized is used
6. Shock	Less than 20G , half-sine, 11ms per axis. Unit is unpacked.
7. Altitude	**Operating**: 10000ft (3000m), Derate output current by 2%/100m (2%/328ft) above 2000m (6562ft) Alternatively, derate maximum ambient temperature by 1ºC/100m (3.2ºF/328ft) above 2000m (6562ft) **Non-Operating**: 40000ft (12000m)

2.4 EMC	
Applicable Standards **(*15)**	**IEC/EN 55032, IEC/EN 55024, IEC/EN 61000-3-3, FCC part 15-subpart B, VCCI**
1. ESD	IEC1000-4-2 (Air discharge: 8kV, Contact discharge: 4kV)
2. Fast Transients	IEC1000-4-4 (2kV)
3. Surge Immunity	IEC1000-4-5 (1kV line-to-line, 2kV line-to-ground)
4. Conducted Immunity	IEC1000-4-6 (3V)
5. Radiated Immunity	IEC1000-4-3 (3V/m)
6 Magnetic Field Immunity	EN61000-4-8 (1A/m)
7. Voltage Dips	EN61000-4-11
8. Conducted Emissions	EN55032A Class A, FCC Class A, VCCI Class A
9. Radiated Emissions	EN55032A Class A, FCC Class A, VCCI Class A

2.5 SAFETY	
1. Applicable Standards	**UL60950-1, CSA22.2 No. 60950-1, IEC60950-1, EN60950**-1
2. Interface Classification	**Models with Vout < 60V:** Output and Remote Sense are **SELV**; RS-232/RS-485, LAN, IEEE, USB, Isolated Analog and J1 Remote Analog are **SELV.**
	Models with 60V ≤ Vout ≤ 300V: Output and Remote Sense are **Hazardous**; RS-232/RS-485, LAN, IEEE, USB, Isolated Analog and J1 Remote Analog (pins 1-3, 14-16) are **SELV**; J1 Remote Analog (pins 8-13, 21-25) are **Hazardous.**
	Models with 300V < Vout ≤ 600V: a) **Floating Output or Output "-" connected to Chassis ground**: Output and Remote Sense are **Hazardous**; RS-232/RS-485, LAN, IEEE, USB, Isolated Analog and J1 Remote Analog (pins 1-3, 14-16) are **SELV**; J1 Remote Analog (pins 8-13, 21-25) are **Hazardous.** b) **Output "+" connected to Chassis ground and Vout > 400V**: Output and Remote Sense are **Hazardous**; RS-232/RS-485, LAN, IEEE, USB, Isolated Analog and J1 Remote Analog (all pins) are **Hazardous**.
3. Withstand Voltage	**Models with Vout < 60V**: Input-Output (SELV): 4242VDC for 60s, Input-SELV: 4242VDC for 60s, Input-Ground: 2828VDC for 60s
	Models with 60V ≤ Vout ≤ 100V: Input-Output (Hazardous): 2600VDC for 60s, Input-SELV: 4242VDC for 60s, Input-Ground: 2828VDC for 60s, Output (Hazardous)-SELV: 1900VDC for 60s, Output(Hazardous)-Ground:1200VDC for 60s.
	Models with 150V ≤ Vout ≤ 600V: Input-Output (Hazardous): 4000VDC for 60s, Input-SELV: 4242VDC for 60s, Input-Ground: 2828VDC for 60s, Output (Hazardous)-SELV: 3550VDC for 60s. Output (Hazardous)-Ground: 2670VDC for 60s.
4.Insulation Resistance	Greater than 100Mohms (Output-to-Ground), Ta = +25°C, 70% RH

2.6 MECHANICAL CONSTRUCTION	
1. Cooling	Forced air flow from front to rear. No ventilation holes at the top or bottom of the chassis; Variable fan speed.
2. Dimensions (WxHxD)	**W:** 423mm (16.65in), **H:** 88mm (3.46in), **D:** 442.5mm (17.42in); excluding connectors, encoders, handles, etc. (Refer to Outline Drawing).
3. Weight	Less than 13kg (28.6lbs).
4. AC Input connector (with Protective Cover)	Single-phase 230VAC models: Power Combicon PC 6-16/3-GF-10,16 series with custom strain relief.
	Three-phase, 208VAC/400VAC/480VAC models: Power Combicon PC 6-16/4-GF-10,16 series with custom strain relief..
5.Output connectors	**8V to 100V models**: Bus-bars (hole Ø = 10.5mm). **150V to 600V models**: Wire clamp connector, Phoenix P/N: FRONT-4-H-7.62.

2.7 WARRANTY	
1. Warranty	5 years

All specifications subject to change without notice.

***1**: Minimum voltage is guaranteed to maximum 0.2% of rated Output voltage.
***2**: Minimum current is guaranteed to maximum 0.4% of rated Output current.
***3**: For cases where conformance to safety standards (UL, IEC, etc.) is required, to be described as 190-240VAC (50/60Hz) for single-phase 230VAC and three-phase 208VAC models, 380~415VAC (50/60Hz) for three-phase 400VAC models and 432~528VAC (50/60Hz) for three-phase 480VAC models.
***4**: Single-phase 230VAC and three-phase 208VAC models: At 208VAC AC input voltage; three-phase 400VAC models: At 380VAC AC input voltage; three phase 480VAC models: At 432VAC AC input voltage. With rated Output power.
***5**: Not including EMI filter inrush current, less than 0.2ms.
***6**: Single-phase 230VAC and Three-phase 208VAC models: 170~265VAC, constant load. Three-phase 400VAC models: 342~460VAC, constant load. Three-phase 480VAC models: 432~528VAC, constant load.
***7**: From no-load to full-load, constant AC input voltage. Measured at the sensing point in Remote Sense.
***8**: For 8V~300V models: Measured with JEITA RC-9131A (1:1) probe. For 600V model: Measured with 10:1 probe.
***9**: From 10% to 90% or 90% to 10% of rated Output voltage, with rated, resistive load.
***10**: From 90% to 10% of rated Output voltage.
***11**: For load voltage change, equal to the unit voltage rating, constant AC input voltage.
***12**: For 8V~15V models ripple is measured from 2V to rated Output voltage and rated Output current. For other models, the ripple is measured at 10~100% of rated Output voltage and rated Output current.
***13**: The Constant-Current programming readback and monitoring accuracy does not include the Warm-Up and Load Regulation thermal drift.
***14**: Measured at the sensing point.
***15**: Signal and control ports interface cable length: less than 3m (9.8ft).

Genesys™ Power Parallel and Series Configurations

Parallel Operation - Master/Slave:

Active current sharing allows up to four identical units to be connected in an Auto-parallel configuration for four times the output power. In Advanced Parallel Master/Slave Mode, total Output current is programmed and reported by the Master unit. Up to four power supplies act like a single power supply.

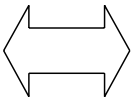
Series Operation

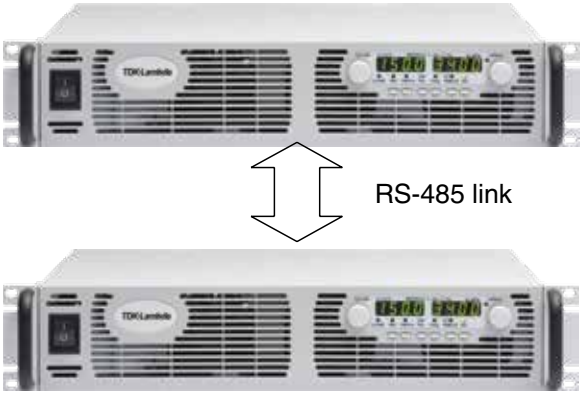
Up to two units may be connected in series to increase the Output voltage or to provide bipolar output. (Max. 600V to Chassis Ground).

Remote Programming via RS-232 & RS-485 Interface

Standard Serial Interface allows Daisy-Chain control of up to 31 power supplies on the same digital communication bus with built-in RS-232 & RS-485 Interface.

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





RS-485 link

Programming Options (Factory installed)

LAN Interface (LXI 1.5 w/ Multi-Drop) — P/N: LAN

- Meets all LXI 1.5 requirements
- IP and MAC address viewable on front panel
- Fixed and Dynamic addressing
- Compatible with most standard Networks
- VISA/TCP/UDP Socket programming
- VISA & SCPI compatible
- LAN Fault indicators
- Auto-detects LAN cross-over cable
- Fast Startup
- Multi-Drop capability (31 units)

IEEE Interface (488.2 w/ Multi-Drop) — P/N: IEMD

- Allows IEEE Master unit to control up to 30 (standard) Slave units over RS-485 daisy-chain
- Only the Master unit needs be equipped with an IEEE Interface
- IEEE 488.2 & SCPI Compliant
- Program Voltage
- Measure Voltage
- Over Voltage setting and shutdown
- Error and Status Messages
- Program Current
- Measure Current
- Current Foldback shutdown
- Multi-Drop capability (31 units)

USB Interface (2.0 w/ Multip-Drop) — P/N: USB

- Allows Serial connection to USB port on computer
- Serial commands same as (standard) RS-232/RS-485 Interface
- Multi-Drop capability (31 units)

Isolated Analog Programming (5V/10V or 4-20mA) — P/N: IS510

P/N: IS420

- Four Channels to Program and Monitor Voltage and Current
- Isolation allows operation with floating references in harsh electrical environments
- Choose between programming with voltage (5V/10V) or current (4-20mA)
- Connection via removable terminal block: Phoenix MC1,5/8-ST-3.81
- Voltage Program/Monitor: 0-5V or 0-10V signal (user-selectable)
  - Voltage and Current Programming Accuracy: ±1%
  - Voltage and Current Monitoring Accuracy: ±1.5%
- Current Program/Monitor: 4-20mA signal
  - Voltage and Current Programming Accuracy: ±1%
  - Voltage and Current Monitoring Accuracy: ±1.5%

Power Supply Identification / Accessories

How to Order

GEN **8** - **400** - **LAN** - **3P480**

Series Name	Output Voltage (0~8V)	Output Current (0~400A)	Factory Options	AC Input Options
			Option: **LAN**	**1P230** (Single-phase 170~265VAC)
			IEMD	**3P208** (Three-phase 170~265VAC)
			USB	**3P400** (Three-phase 342~460VAC)
			IS510	**3P480** (Three-phase 342~528VAC)
			IS420	

Models 3.3kW

Model	Output Voltage (V)	Output Current (A)	Output Power (W)
GEN 8-400	0~8	0~400	3200
GEN 10-330	0~10	0~330	3300
GEN 15-220	0~15	0~220	3300
GEN 20-165	0~20	0~165	3300
GEN 30-110	0~30	0~110	3300
GEN 40-85	0~40	0~85	3400

Model	Output Voltage (V)	Output Current (A)	Output Power (W)
GEN 60-55	0~60	0~55	3300
GEN 80-42	0~80	0~42	3360
GEN 100-33	0~100	0~33	3300
GEN 150-22	0~150	0~22	3300
GEN 200-16.5	0~200	0~16.5	3300
GEN 300-11	0~300	0~11	3300
GEN 600-5.5	0~600	0~5.5	3300

Factory Options

	P/N
RS-232/RS-485 Interface (built-in standard)	-
LAN Interface (LXI 1.5 w/ Multi-Drop capability)	**LAN**
IEEE Interface (488.2 w/ Multi-Drop capability)	**IEMD**
USB Interface (2.0 w/ Multi-Drop capability)	**USB**
Isolated Analog Interface (5V/10V Pgm/Mon)	**IS510**
Isolated Analog Interface (4-20mA Pgm/Mon)	**IS420**

Accessories

1. Serial Communication cable

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

Mode	RS-485	RS-232	RS-232
PC Connector	DB-9F	DB-9F	DB-25F
Communication Cable	Shield Ground, L=2m	Shield Ground, L=2m	Shield Ground, L=2m
Power Supply Connector	EIA/TIA-568A (RJ-45)	EIA/TIA-568A (RJ-45)	EIA/TIA-568A (RJ-45)
P/N	GEN/485-9	GEN/232-9	GEN/232-25

2. Serial link cable*

Daisy-chain up to 31 Genesys™ power supplies.

Mode	Power Supply Connector	Communication Cable	P/N
RS-485	EIA/TIA-568A (RJ-45)	Shield Ground, L=50cm	GEN/RJ45

* Included with power supply

Genesys™

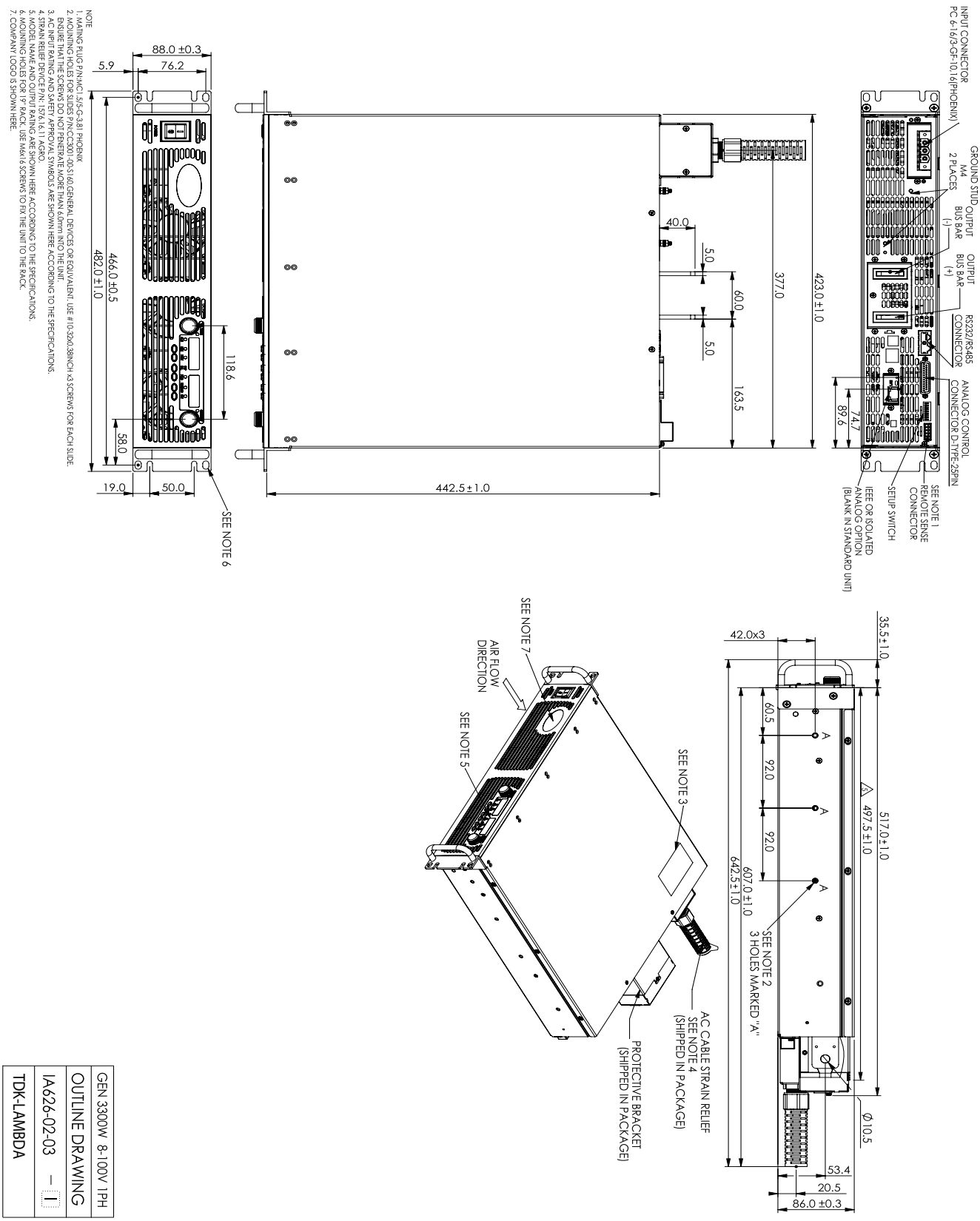
1U Half-Rack 750W

1U Full-Rack 750W/1.5kW/2.4kW

2U Full-Rack 5kW

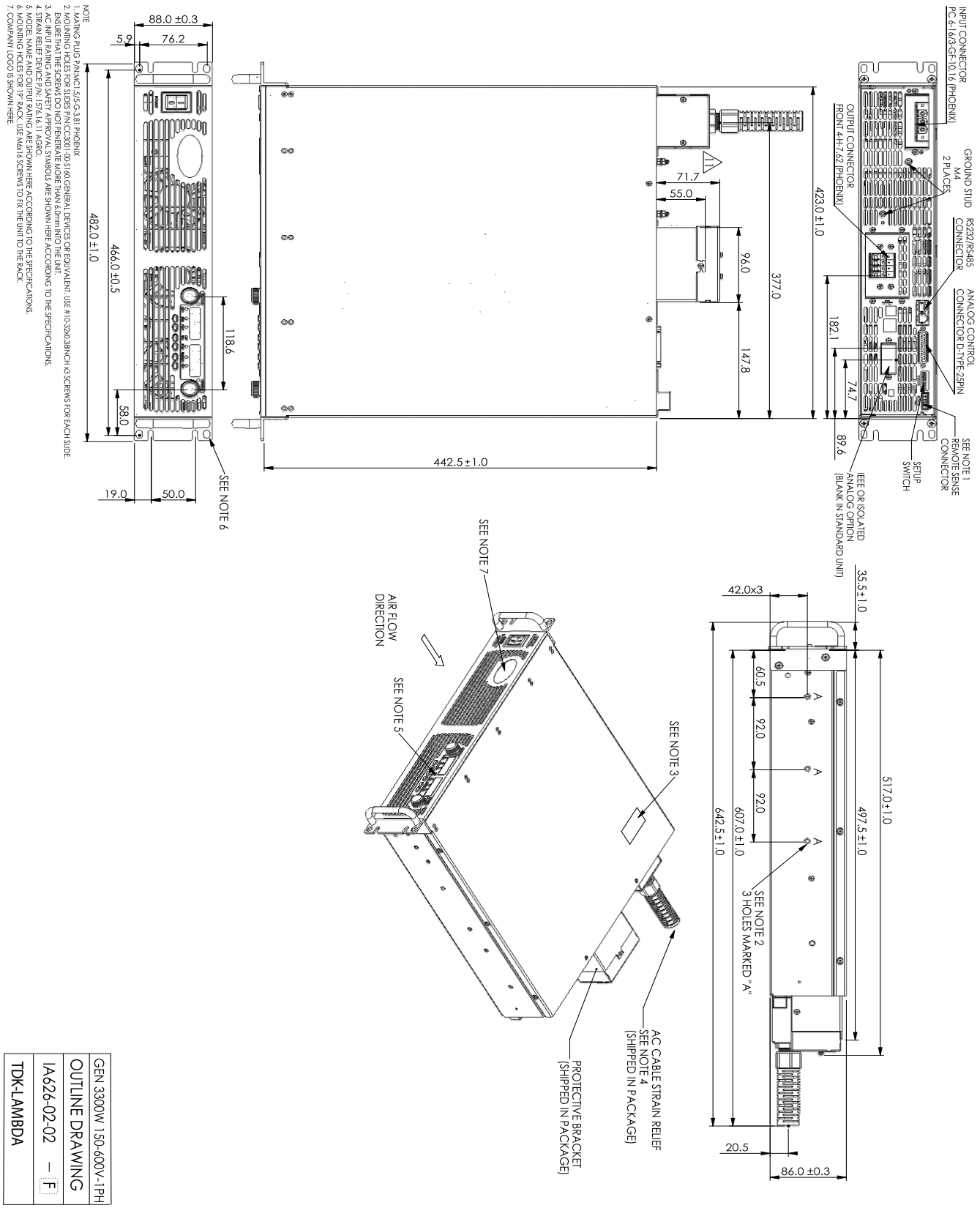
3U Full-Rack 10kW/15kW

Genesys™ 2U 3.3kW Outline Drawing (Vout ≤ 100V, Single-Phase)



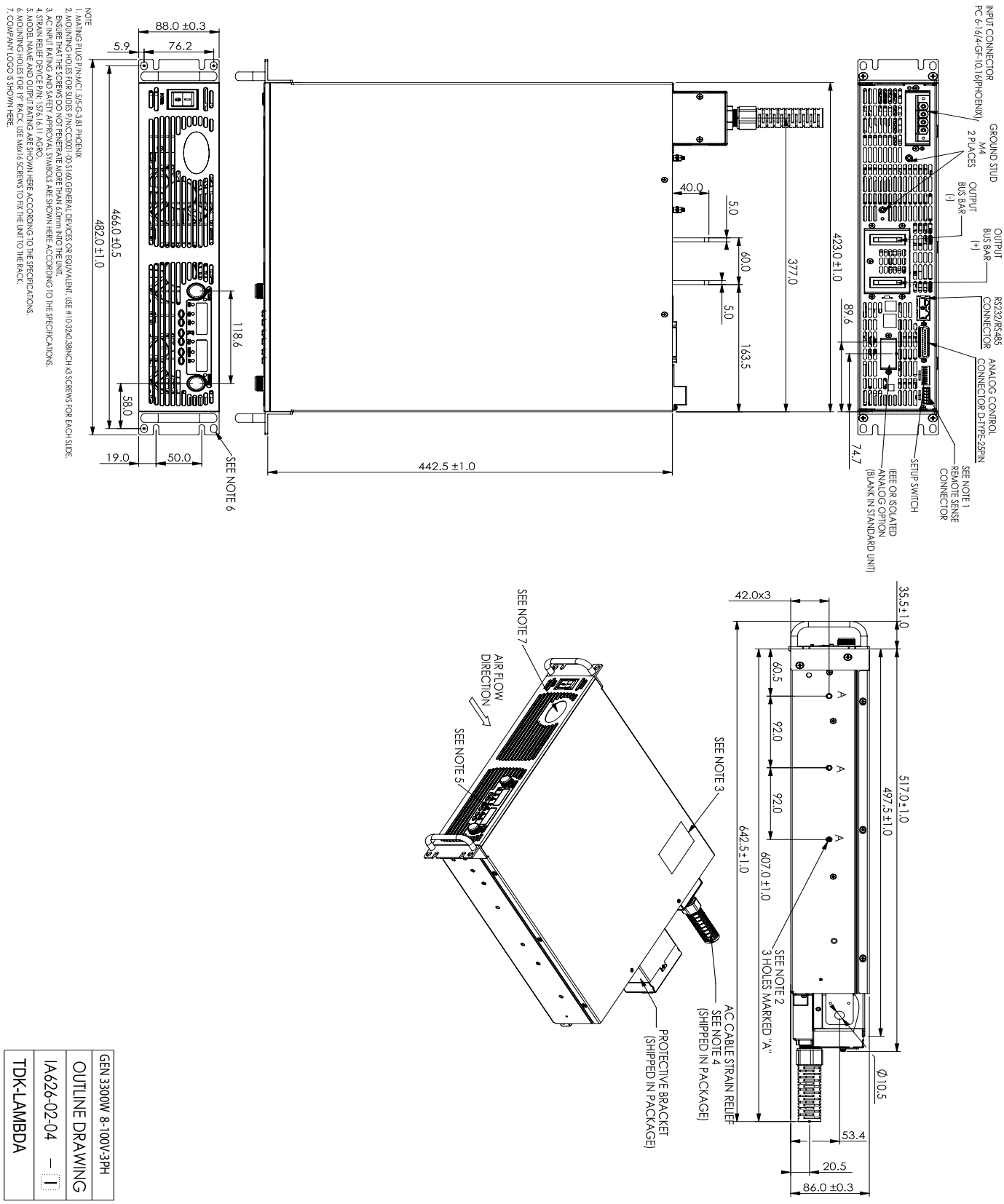
GEN 3300W 8-100V 1PH	
OUTLINE DRAWING	
IA626-02-03	– 1
TDK-LAMBDA	

Genesys™ 2U 3.3kW Outline Drawing (150V ≤ Vout ≤ 600V, Single-Phase)



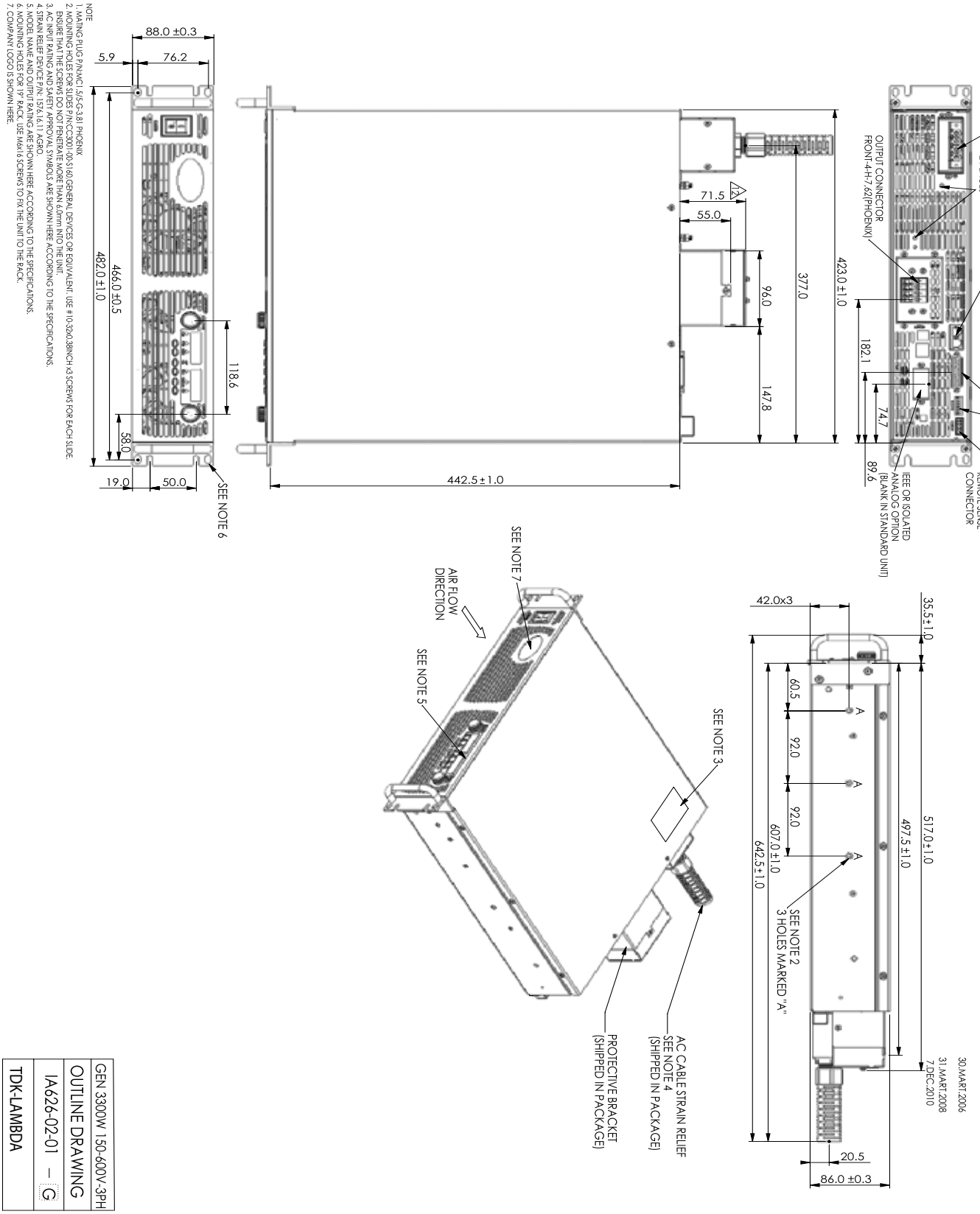
TDK-LAMBDA	GEN 3300W 150-600V-1PH
IA626-02-02 — F	OUTLINE DRAWING

Genesys™ 2U 3.3kW Outline Drawing (Vout ≤ 100V, Three-Phase)



GEN 3300W 8-100V-3PH	
OUTLINE DRAWING	
IA626-02-04	I
TDK-LAMBDA	

Genesys™ 2U 3.3kW Outline Drawing (150V ≤ Vout ≤ 600V, Three-Phase)



NOTE
1. MATING PLUG P/N:MC1.5/5-G-3.81 PHOENIX
2. MOUNTING HOLES FOR SLIDES P/N:CCC3001-1205.9160.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.
3. AC INPUT RATING AND SAFETY APPROVAL SYMBOLS ARE SHOWN HERE ACCORDING TO THE SPECIFICATIONS.
4. STRAIN RELIEF DEVICE P/N: 1376.1611 AGRO.
5. MODEL NAME AND OUTPUT RATING ARE SHOWN HERE ACCORDING TO THE SPECIFICATIONS.
6. MOUNTING HOLES FOR 19" RACK. USE M6x1.6 SCREWS TO FIX THE UNIT TO THE RACK.
7. COMPANY LOGO IS SHOWN HERE.

GEN 3300W 150-600V-3PH	
OUTLINE DRAWING	
IA626-02-01	G
TDK-LAMBDA	

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