

Delivering leading edge, innovative power solutions for more than 30 years....

Model:GTM968000P

May 20, 2024

GTM968000P

Information

Model Number	GTM968000P
Description	GTM968000P, ICT / ITE / Medical Power Supply, Open Frame/Internal, Regulated Switchmode AC-DC Power Supply AC Adaptor, Forced airflow for full rated power (CFM): 10CFM, Input Rating: 100-240V~, 50-60 Hz, , Output Rating: 800 Watts, Power rating with convection cooling (W) 520W, 12-54V in 0.1V increments, Approvals:
Model Picture	
Agency Documents	
CE EC-Declaration	https://www.globtek.com/pdf/ec_declaration/a0O3a00000OA4O6EAL
RoHS/RoHS2 Declaration	https://www.globtek.com/pdf/rohs_cert/a0O3a00000OA4O6EAL
REACH Declaration	https://www.globtek.com/pdf/iso_certificates/REACH.pdf
Conflict Minerals Declaration	https://www.globtek.com/pdf/conflict-minerals.pdf

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MODEL PARAMETERS

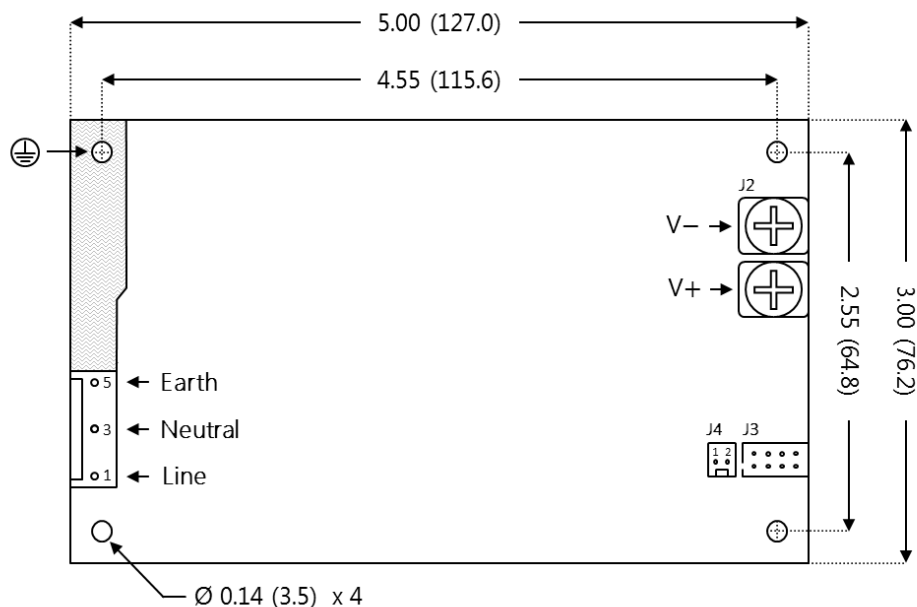
Type	Open Frame/Internal
Technology	Regulated Switchmode AC-DC Power Supply AC Adaptor
Category	ICT / ITE / Medical Power Supply
Input Voltage	100-240V~, 50-60 Hz
I/P Amps (A)	6A
Wattage (W)	800.0
Vout Range (V)	12-54
Efficiency Level	USA DOE Level VI / Eco-design Directive 2009/125/EC, (EU) 2019/1782
Ingress Protection	N/A
Size (mm)	127.0 (L) x 76.2 (W) x 34.3 (H)

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ENCLOSURE



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RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
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SPECIFICATIONS

Input

Input Voltage:	Specified: 90 - 264Vac, (85 - 264Vac with derating) Nameplate: 100 - 240Vac
Input Frequency:	Specified: 47 - 63Hz Nameplate: 50 - 60Hz
No Load Input Power:	< 1.5W @ 115V/230V
Inrush Current:	60A max @ 264Vac
Power Factor:	>0.95 @ 115Vac, >0.95 @ 230Vac, full load

Main Output

Output Power:	520W (linearly derated to 480W @ 85Vac) [natural convection, open U-frame version] 800W (linearly derated to 720W @ 85Vac) [forced air cooling, enclosed version]
Constant Current Operation:	CC/CV with a brick-wall CC limit at ~115% nominal current rating. Power supply enters auto-recovery (hiccup) mode once Vout drops to ~75% of nominal value.
Turn-on Delay:	< 2 seconds @ 85Vac (full load)
Voltage Set-Point Tolerance:	± 2.0% (measured at connector, no load, Ta = -20 to 50°C)
Load Regulation:	± 1.0% (measured at connector)
Line Regulation:	± 0.5% (measured at connector)
Ripple:	1% pk-pk (using a 47µF low-ESR cap + 0.1µF ceramic capacitor, measured @ 20MHz BW)
Transient Response:	<5% deviation (with 25-75% load step), recovery to within 1% in 1ms
Startup Overshoot:	<5% (full load)
Hold-up Time:	20ms min. (full load)

Standby Output

Output Voltage:	5V
Output Current:	1A
Line/Load Regulation + Set-Point Tolerance:	± 4%
Ripple:	1% pk-pk (using a 47µF low-ESR cap + 0.1µF ceramic capacitor, measured @ 20MHz BW)
Always on?	Yes

Fan Output

Output Voltage:	12V
Output Current:	0.6A

PROPRIETARY INFORMATION

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Line/Load Regulation + Set-Point Tolerance: $\pm 4\%$

Always on? On or off depending on internal sensed temperature

Other Control & Signaling Features

Remote On/Off (EN)	Yes
Remote Voltage Sense:	Yes, voltage drop compensation up to 500mV of total drop, short and reverse polarity protected
Power Good (PG)	Yes
Automatic On/Off Fan Control:	Yes, dependent on internal temperature, with hysteresis
Main output voltage adjustment:	Yes, $\pm 10\%$ adjustment range via trimmer potentiometer (special option)

Protections

Fusing:	Dual, high-breaking-capacity fuses compliant to IEC60601-1, $\geq 1,500\text{A}$ breaking capacity
Over-Voltage Protection:	110 - 130%. Latched-off, cycle AC to reset
Over-Current Protection:	115% typical, CC operation when Vout is between 75 - 100% of nominal value, auto-recovery hiccup-mode when Vout collapses to $<75\%$ of nominal value
Short Circuit Protection:	Auto-recovery
Over-Temperature Protection:	Latched-off, cycle AC to reset
AC Under-Voltage Protection:	Brown-out trip @ 70Vac (nom.), Restore @ 75 - 80Vac

Environmental

Operating Temperature:	-20°C to 50°C (full output power), -20°C to 70°C (linearly derated to 50% power rating @ 70°C)
Storage Temperature:	-30°C to 85°C
Humidity:	0% to 95% relative humidity, non-condensing
Altitude:	5000m max.
Vibration:	Conforms to EN60068-2-6, ISO80601-2, EN1789

Safety

Certifications:	IEC60601-1 IEC62368-1 IEC60335-1
Dielectric Withstand Voltage:	4000VAC or 5656VDC, primary-to-secondary 3000VAC or 4242VDC, primary-to-earth 3000Vac or 4242VDC, secondary-to-earth (Class II FE models only, N/A for Class I)
Suitable Medical Applications:	Type-B (Class I) or Type-BF (Class II with FE)
Output Touch Current:	NC: $<80\mu\text{A}$, SFC: $<400\mu\text{A}$ (open neutral, open earth)
Earth Leakage Current	NC: $<300\mu\text{A}$, SFC: $<1.0\text{mA}$ (open neutral) 2 x MOPP (primary-to-secondary), 1xMOPP (primary-to-earth), 1xMOPP

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Means of Protection: (secondary-to-earth, Class II FE models only)

EMC

Certifications:	IEC60601-1-2 EN55032 (CISPR32) EN55035 (CISPR35)
Conducted Emissions:	Class B, FCC Part 15, Class B (with resistive load, Class I and Class II FE configurations)
Radiated Emissions:	Class B, FCC Part 15, Class B (with resistive load, Class I and Class II FE configurations)
Harmonic Current Voltage Distortion:	EN61000-3-2, Class A
Voltage Fluctuations/Flicker:	EN61000-3-3
Electrostatic Discharge (ESD) Immunity:	EN61000-4-2, 10KV contact discharge, 18KV air discharge (applied to output terminals, and to horizontal/vertical coupling planes [HCP/VCP] with power supply sitting on HCP)
Radiated RF Immunity:	EN61000-4-3, 20V/m 80-2700MHz, 80% 1KHz AM, 80% 5Hz AM
EFT/Burst Immunity:	EN61000-4-4, 4KV/100kHz.
Line Surge Immunity:	EN61000-4-5, 2KV differential, 4KV common-mode
Conducted RF Immunity:	EN61000-4-6, 3VRMS, 80% 1KHz AM
Power Frequency Magnetic Field Immunity:	EN61000-4-8, 30A/m
Voltage Dip Immunity:	EN61000-4-11

Mechanical

Dimensions:	U-Frame version: 6.00" x 4.00" x 1.69" (152.3mm x 101.6mm x 43.0mm) Enclosed version with top-side fan: 6.00" x 4.00" x 2.40" (152.3mm x 101.6mm x 61.0mm)
Fan Audible Noise Specification:	28.5dB(A) (Enclosed version with fan only)

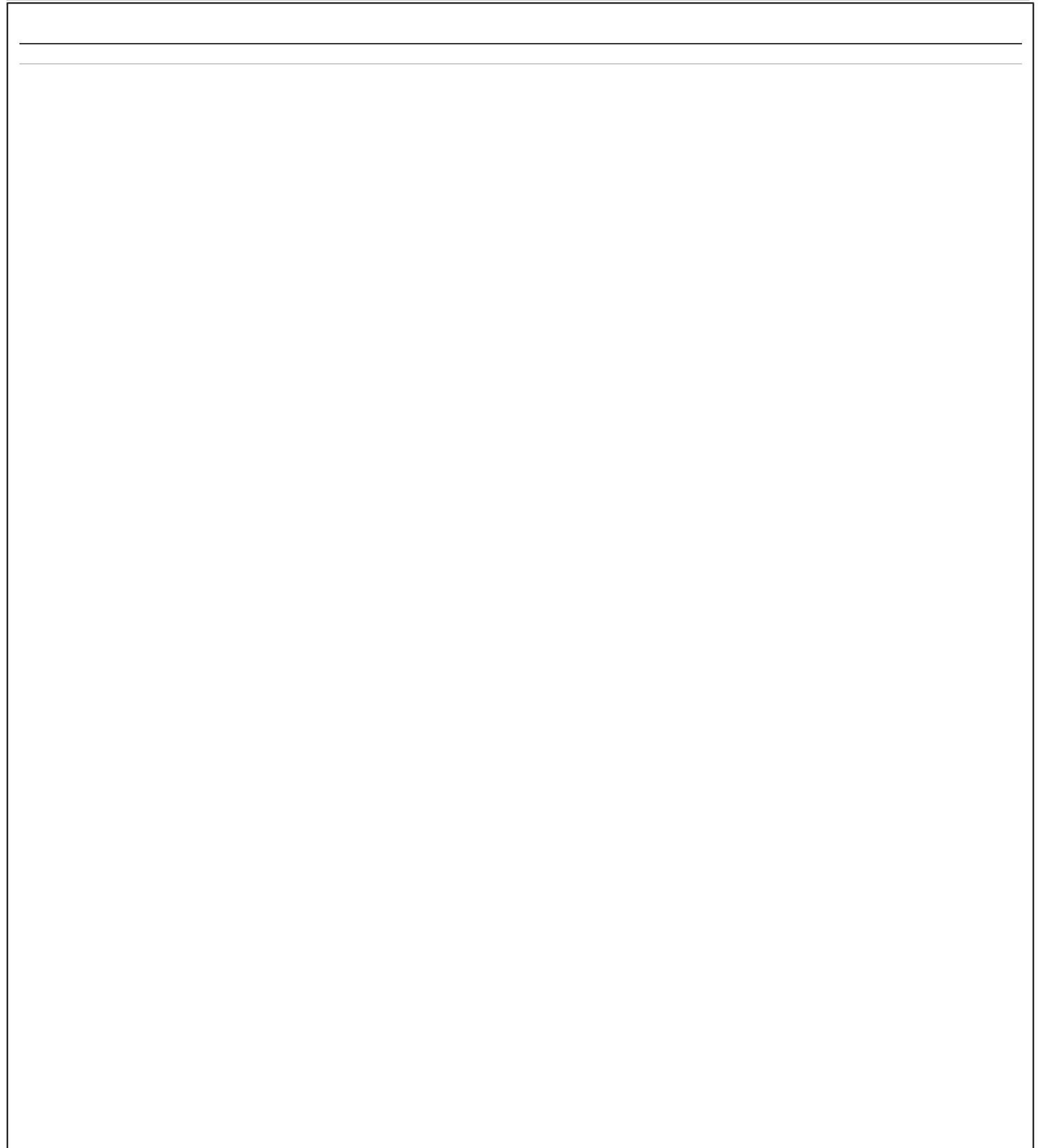
Input/Output Connectors

Input Connector (J1):	Connector on PCB: TE Connectivity/AMP 641966-1 Recommended mate: TE Connectivity/AMP 350766-1 Pinout: 1: Neutral 2: Not used 3: Line
Main Output Connectors (J2, J3):	Connector on PCB: CNNT ACTB207 (M5 ring terminal), Recommended mounting torque: 2.0Nm Recommended mate: Various, depends on required wire size Pinout: J2: V+ J3: V- (GND)
Standby/Control Output Connector (J4):	Connector on PCB: Molex 0705550005 Recommended mate: Molex 0014562062 Pinout: 1: SNS+ 2: SNS- 3: PGOOD 4. EN 5. GND 6. +5VSB
Fan Output Connector: (J5):	Connector on PCB: Molex 22-04-1021 Recommended mate: Molex 22-01-1022 Pinout: 1: GND 2: +FAN
Earth Connector (J6):	Connector on PCB: Kang Yang PCH250 (0.250" x 0.031" Faston) Recommended mate: TE Connectivity/AMP 2-520184-2

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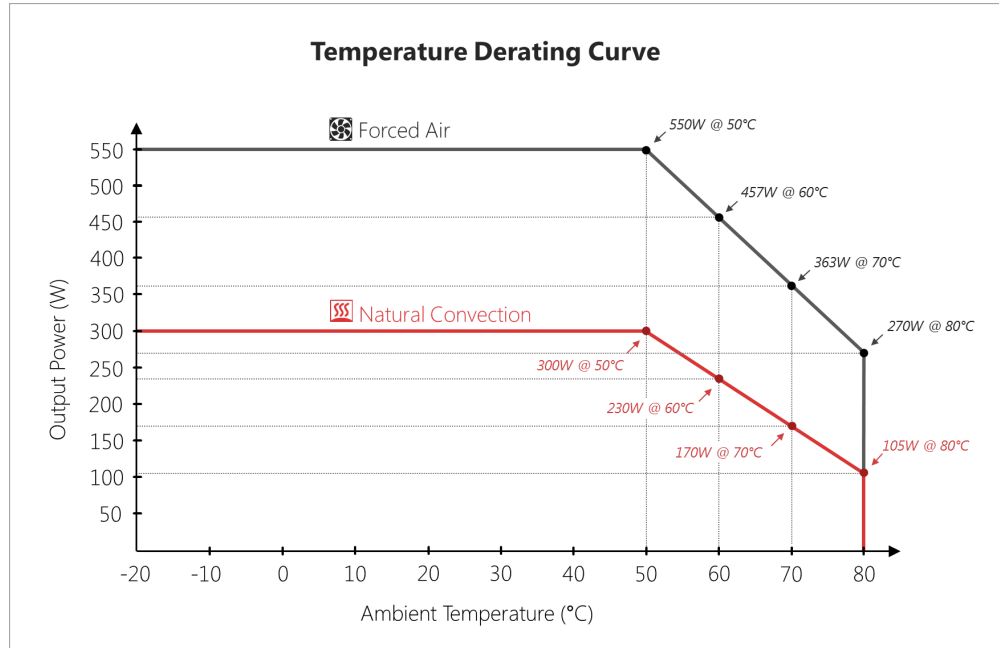
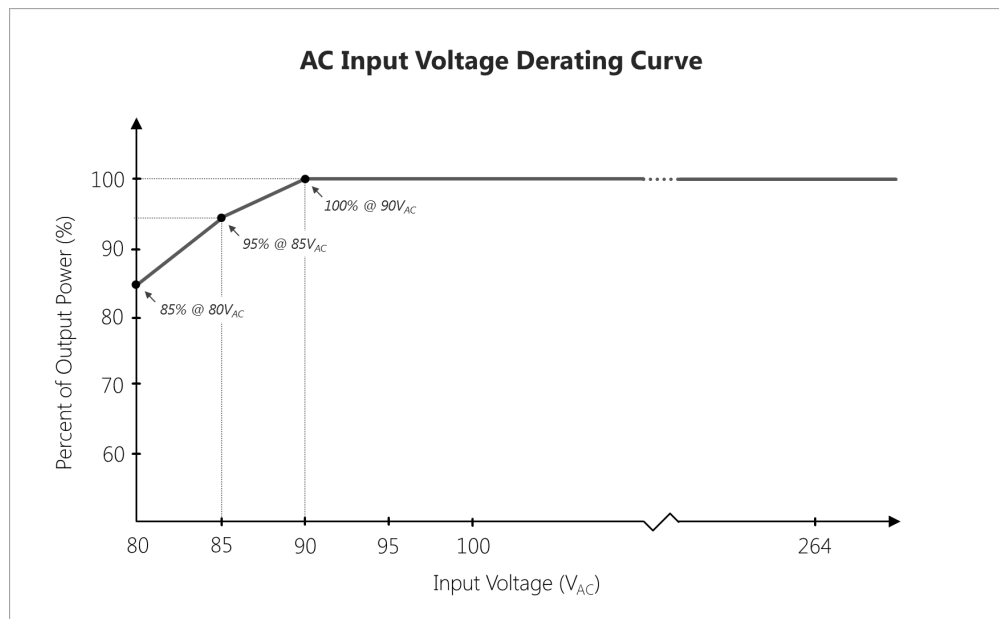
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DERATING CURVE



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INPUT CONFIGURATION

Description



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Approvals

Logo	
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