

GECA40

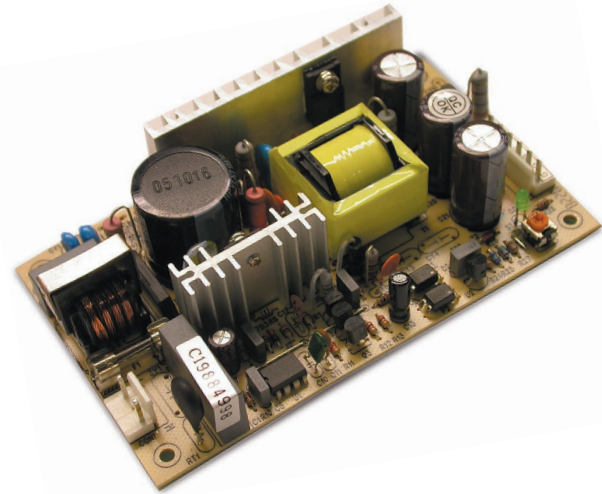
40 Watt Series



Commercial Wide-Range Input

2 Year Warranty

- Wide-Range AC Input 90-264 VAC
- Industry Standard Footprint - 3"x 5"x 1.25"
- Conducted EMI Exceeds FCC Class B and CISPR 22 Class B
- Single and Multiple Outputs
- Approved to UL60950-1: 2003, CSA-22.2 No. 60950-1-03, IEC and EN60950-1
- CB Report Available
- RoHS Compliant
- CE Marked to LVD



CONDOR

Specifications

Unless otherwise noted, all parameters are nominal values measured at 120 VAC @25°C and 0-95% relative humidity, non-condensing. For limits at unusual operating conditions, consult factory.

AC Input

Universal Input 90-264 VAC, 47-63 Hz single phase.

Input Current

Maximum input current at 120 VAC, 60 Hz with full rated output load:
Multiple models 1.7 A, Single models 1.0 A.

Hold-Up Time

10 ms minimum with 40 W load, nominal line (120 VAC).

Output Power

40 W continuous, 45 W peak. Peak ratings are for 60 s maximum duration, 10% duty cycle. During peak load condition, output regulation may exceed total regulation limits.

Overload Protection

Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit on V1 and V2, foldback type on V3.

Overvoltage Protection

On V1 is 120% to 160%. See chart.

Efficiency

75 to 80% at full rated load, nominal input voltage, depending on model and load distribution.

Turn-on Time

Less than 2 seconds.

Input Protection

Internal AC fuse provided. Designed to blow only if a catastrophic failure occurs in the unit. Fuse does not blow on overload or short circuit.

Inrush Current

Inrush is limited by internal thermistors. Inrush at 240 VAC under cold start conditions will not exceed 37A.

Temperature Coefficient

0.03%/°C typical on all outputs.

Temperature Range

Designed for 0 to 45°C operation at full rated output power; derate output current and total output power by 2.5% per °C above 45°C.

Output Noise

0.5% rms, 1% pk-pk typical (see chart), 20 MHz bandwidth, differential mode. Measured with noise probe directly across output terminals of the power supply with load terminated with 0.1 µF capacitor.

Transient Response

Main output—500 µs typical response time for return to within 0.5% of final value for a 50% load step change. $\Delta i / \Delta t < 0.2 \text{ A}/\mu\text{s}$. Maximum voltage deviation is 3.5%. Startup/ shutdown overshoot less than 3%.

Switching Frequency

70 kHz +/-10 kHz.

Voltage Adjustment

Provided on V1. Adjustable voltages are preset at factory. Outputs are capable of minimum +/- 5% change from nominal setting. Multiple output models - V2 voltage will track V1 adjustment.

EMI/EMC Compliance

All models include built-in EMI filtering to meet the following emissions requirements:

EMI SPECIFICATIONS

Conducted Emissions
Static Discharge
RF Field Susceptibility
Fast Transients/Bursts
Surge Susceptibility

COMPLIANCE LEVEL

EN55022 Class B; FCC Class B
EN61000-4-2, Level 3
EN61000-4-3, Level 3
EN61000-4-4, Level 3
EN61000-4-5, Level 3

Safety Approvals

SL Power Electronics, Corp. declares under our sole responsibility that all GECA models are in conformity with the applicable requirements of EN60950 following the provisions of the Low Voltage Directive 73/23/EEC.

All GECA models are approved to UL60950-1: 2003, CSA-22.2 No. 60950-1-03, IEC and EN60950-1

MTBF

120kHrs.

GECA40

40 Watt Series

Commercial Wide-Range Input

| Commercial Model | Output No. | Output (V) | Current Minimum | Current Maximum | Line Regulation | Load Regulation | V1 OVP Set Point | Ripple & Noise(P-P) |
|------------------|------------|------------|-----------------|-----------------|-----------------|-----------------|------------------|---------------------|
| GECA40AG | V1 | +5 V | 0.35 A | 3.5 A | +/-0.5% | +/-3% | 6.6 +/-0.9 V | 50 mV |
| | V2 | +12 V | 0 A | 2 A | +/-1% | +/-10% | | 120 mV |
| | V3 | -12 V | 0 A | 0.3 A | +/-1% | +/-5% | | 120 mV |
| GECA40BG | V1 | +5 V | 0.35 A | 3.5 A | +/-0.5% | +/-3% | 6.6 +/-0.9 V | 50 mV |
| | V2 | +12V | 0 A | 2 A | +/-1% | +/-10% | | 120 mV |
| | V3 | -5 V | 0 A | 0.3 A | +/-1% | +/-5% | | 50 mV |
| GECA40HG | V1 | +3.3 V | 0.4 A | 4 A | +/-0.5% | +/-3% | 4.4 +/-0.6 V | 50 mV |
| | V2 | +12 V | 0 A | 2 A | +/-1% | +/-10% | | 120 mV |
| | V3 | -12 V | 0 A | 0.3 A | +/-1% | +/-5% | | 120 mV |
| GECA40DG | V1 | +5 V | 0.35 A | 3.5 A | +/-0.5% | +/-3% | 6.6 +/-0.9 V | 50 mV |
| | V2 | +24 V | 0 A | 1.2 A | +/-1% | +/-10% | | 240 mV |
| | V3 | -12 V | 0 A | 0.3 A | +/-1% | +/-5% | | 120 mV |
| GECA40-5G | V1 | 5 V | 0 A | 7 A | +/-0.5% | +/-3% | 7.0 +/-1.0 V | 50 mV |
| GECA40-12G | V1 | 12 V | 0 A | 3.3 A | +/-0.5% | +/-3% | 16.8 +/-2.4 V | 120 mV |
| GECA40-15G | V1 | 15 V | 0 A | 2.7 A | +/-0.5% | +/-3% | 21.0 +/-3.0 V | 150 mV |
| GECA40-24G | V1 | 24 V | 0 A | 1.7 A | +/-0.5% | +/-3% | 33.6 +/-4.8 V | 240 mV |

Environmental Specifications

| ENVIRONMENT | OPERATING | NON-OPERATING |
|-----------------|--|---|
| Temperature (A) | 0 to 45°C | -40 to +85°C |
| Humidity (A) | 20 to 90% RH | 10 to 95% RH |
| Shock (B) | 20 g _{pk} | 40 g _{pk} |
| Altitude | -500 to 10,000 ft | -500 to 40,000 ft |
| Vibration (C) | 1.5 g _{rms} 0.0032 g ² /Hz | 5 g _{rms} 0.026 g ² /Hz |

- A. Units should be allowed to warm up/operate under non-condensing conditions before application of power.
- B. Shock testing—half-sinusoidal, 10 ± 3 ms duration, ± direction, 3 orthogonal axes, total 6 shocks.
- C. Random vibration—10 to 2000Hz, 6dB/octave roll-off from 350 to 2000Hz, 3 orthogonal axes. Tested for 10 min./axis operating and 1 hr./axis non-operating.

GECA40 Series Mechanical Specifications

CON 1:
MOLEX P/N 26-60-4030, w/center PIN Removed
0.156 [3.96 mm] CTR Header

CON 2:
MOLEX P/N 26-60-4060, 0.156 [3.96 mm] CTR Header

Input J1
PIN 1) AC Line
PIN 3) AC Neutral

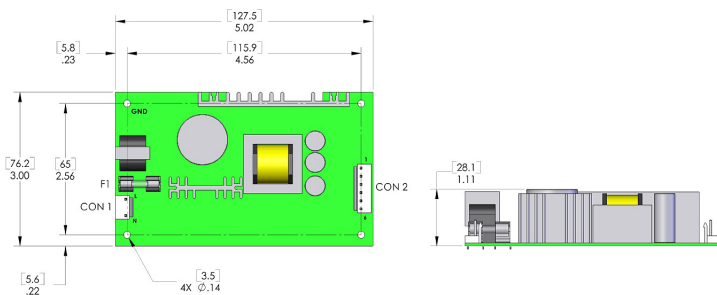
| Output J2 | Multiple Output Models | Single Output Models |
|-----------|------------------------|----------------------|
| PIN 1) | Output 2 | Output 1 |
| PIN 2) | Common | Output 1 |
| PIN 3) | Common | Output 1 |
| PIN 4) | Output 1 | Common |
| PIN 5) | Output 1 | Common |
| PIN 6) | Output 3 | Common |

| Mating Connector | Housing P/N | Contacts P/N |
|------------------|-------------|--------------|
| MOLEX | | |
| Input | 09-50-3031 | 08-52-0072 |
| Output | 09-50-3061 | 08-52-0072 |

Note: 5A maximum recommended current per Connector PIN

Weight
1.0 lbs Max [0.45 kg Max.]

Tolerance
X.XX=0.030
X.XXX=0.010 [0.mm]



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