# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## **Commercial Wide-Range Input**

- 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
- € Marked to LVD

# 2 Year Warranty





### **Specifications**

#### **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.

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 operatiing conditions, consult factory.

#### **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  $\mu F$  capacitor.

#### Transient Response

Main output—500  $\mu s$  typical response time for return to within 0.5% of final value for a 50% load step change.  $\Delta i/\Delta t$ <0.2 A/ $\mu s$ . 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**

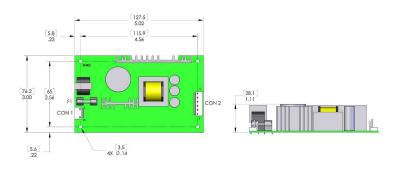
Commercial Model	Output No.	Output (V)	Current Minimum	Current Maximum	Line Regulation	Load Regulation	V1 OVP Set Point	Ripple & Noise(P-P)
GECA40AG	V1	+5 V	0.35 A	3.5 A	+/-0.5%	+/-3%	6.6 +/-0.9 V	50 mV
	V2	+12 V	0 A	2 A	+/-1%	+/-10%		120 mV
	V3	-12 V	0 A	0.3 A	+/-1%	+/-5%		120 mV
GECA40BG	V1	+5 V	0.35 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) Humidity (A) Shock (B) Altitude Vibration (C)	0 to 45°C 20 to 90% RH 20 g <sub>pk</sub> -500 to 10,000 ft 1.5 g <sub>.me</sub> 0.0032 g²/Hz	-40 to +85°C 10 to 95% RH 40 g <sub>pk</sub> -500 to 40,000 ft 5 g <sub>rms</sub> , 0.026 g <sup>2</sup> /Hz						

A. Units should be allowed to warm up/operate under non-condensing conditions before application of power.

B. Shock testing—half-sinusoidal,  $10 \pm 3$  ms duration,  $\pm$  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** Single Output Models 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.XX=0.030 X.XXX=0.010 [0.mm]



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