

LCC600

Data Sheet

600 Watts Convection/Conduction Mounting

Total Power: 600 W
of Outputs: Single
Outputs: 28 V

Preliminary

SPECIAL FEATURES

- 600 W Full power at elevated temperatures
- Wide Operating Temperature Range (-40 to 85 °C Baseplate)
- Wide Output Adjust
- Remote Output On/Off
- AC_OK; DC_OK Signals
- 5V Standby Voltage
- Conduction-cooled
- I²C / PMBus
- Optional IP64 variant
- Optional 277 VAC input variant

COMPLIANCE

- EMI Class B
- EN61000 Immunity

SAFETY

- UL + CSA: 60950-1 2nd Ed. ANSI ES60601-1
- TUV: 60950-1 2nd Ed. 60601-1 3rd Ed.
- CB Scheme: IEC 60950-1 IEC 60601-1
- China CCC
- CE Mark



Electrical Specifications

Input	
Input range:	90 - 264 VAC ("U" Suffix) 180 - 305 VAC ("H" Suffix)
Frequency:	47 - 63 / 440 Hz
Input fusing:	Internal 12.5 A fuse on both L and N lines
Inrush current:	≤ 25 A peak
Power factor:	0.99 typical, meets EN61000-3-2
Harmonics:	Meets EN61000-3-2 Class B
Input current:	5.6 A @ 100 VAC typical
Hold up time:	20 ms min for Main Output (230 VAC)
Efficiency:	93.3% typical @ 230 VAC; 100% Load; 28 VDC
Leakage current:	< 400 uA @ 264 VAC / 60 Hz (U Suffix)
Isolation voltage:	PRI-SEC: 4,000 VAC, 2X MOPP PRI-Chassis: 1,500 VAC, 1X MOPP SEC-Chassis: 1,500 VAC, 1X MOPP
Auxilliary voltage:	5 VDC @ 1.5 A

Electrical Specifications

Output		
Output rating:	See Table 1	
Set point:	$\pm 0.5\%$	Factory set point
Total regulation:	Main Output: $\pm 2.0\%$ 5 Vsb: $\pm 5\%$	Combined Line / Load / Temperature
Rated load:	600 W maximum	From -40 to 85 °C Baseplate Temp / Derate TBD% up to 95 °C Baseplate Temp
Minimum load:	0 A	For both Main and 5 Vsb Outputs
Output voltage adjust range:	23.5 - 30.0 VDC	Maximum output power limited to 600 W. Output adjust range for other voltage variants are TBD.
Output noise:	Main Output: 1.0% max p-p 5 Vsb: 50 mV max p-p	Measured with 0.1 μ F Ceramic and 10 μ F Tantalum Cap, 20 MHz BW
Remote sense:	Compensation up to 500 mV	SK2 Pin 10: +Vout_RS / Pin4: -Vout_RS
Over current protection:	105 – 125%	Auto-recovery
Over voltage protection:	125 – 145% Vo, nom Main Output TBD 5Vsb	Latching / AC Recyle required for PSU restart
Over temperature protection:	> 95 °C Baseplate Temp	Output Shutdown / Auto-recovery
AC_OK	Open Collector; 0.7 VDC max / 10 mA	Active low when AC is present
DC_OK	Open Collector; 0.7 VDC max / 10 mA	Active low when Main Output is within regulation
Remote inhibit	Contact Closure	SK2 Pin 19: Open/Float = ON; Close/Ground = OFF
# Units in Parallel Operation:	TBD	SK2 Pin 5: IShare pin

Environmental Specifications

Operating temperature range:	-40 °C to +85 °C Baseplate Temperature
Storage temperature:	-40 °C to +85 °C
Humidity:	10% to 95%
Altitude:	Operating: 15,000 feet
Shock:	MIL-STD-810F 516.5 Procedure I, VI
Vibration:	MIL-STD-810F 514.5 Cat. 4, 10
Ingress Protection:	IP64 (for suffix "-4P")
MTBF (Calculated):	TBD

Ordering Information

Model Number*	Input	Vout	Output Current		Standby Output	Combined Line/ Load Regulation	Output Ripple
			Min	Max			
LCC600-28U-9P	90 - 264	28	0	21.4	5 V @ 1.5 A	2%	1%
LCC600-48U-9P	90 - 264	48	0	12.5	5 V @ 1.5 A	2%	1%
LCC600-36U-9P	90 - 264	36	0	16.7	5 V @ 1.5 A	2%	1%
LCC600-12U-9P	90 - 264	12	0	50.0	5 V @ 1.5 A	2%	1%

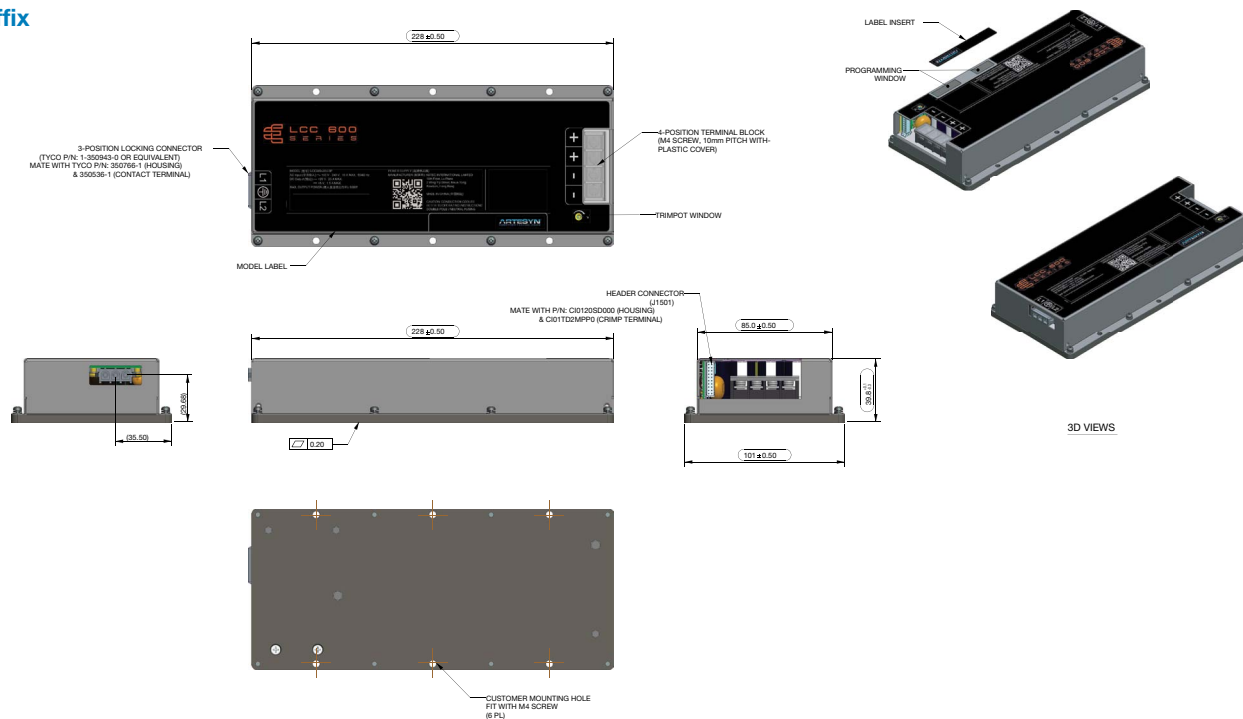
* Change "U" to "H" for 277 VAC input (180 - 305 VAC range)

* Change "9" to "4" for IP64 rated enclosure with fly leads

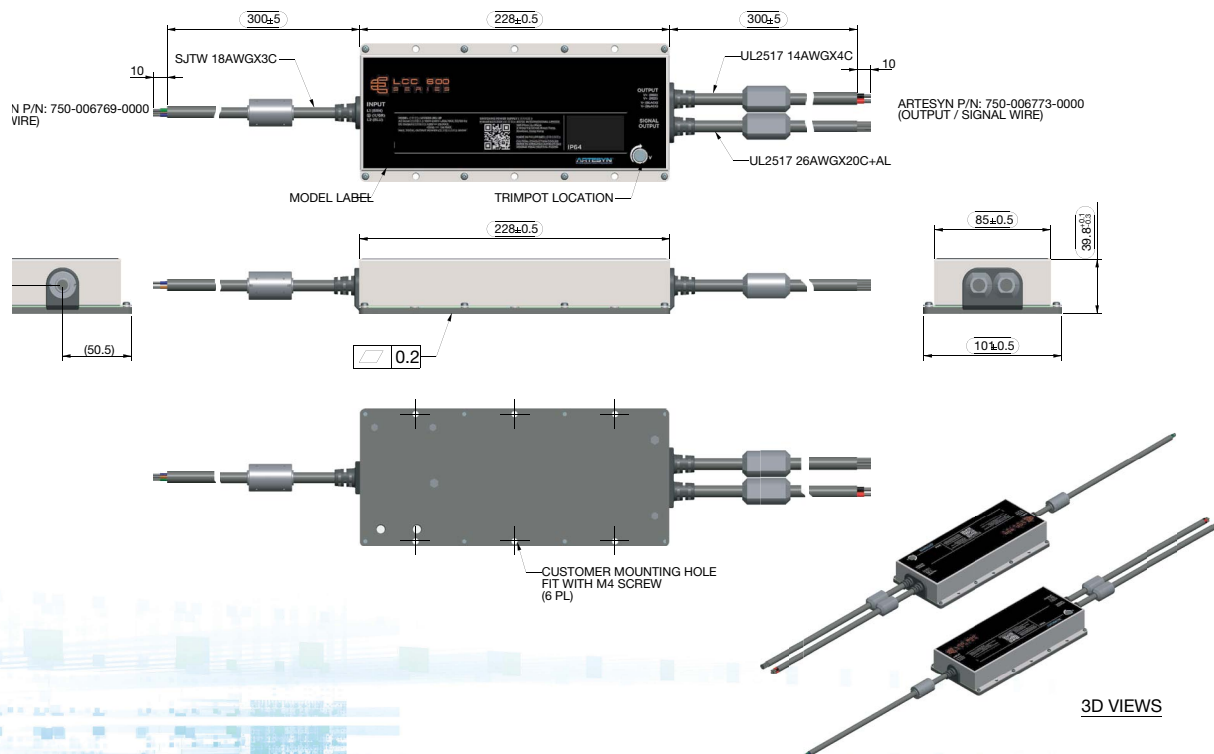
* Please contact factory for products' availability

Mechanical Drawings

-9P Suffix



-4P Suffix



Pin Assignment (INPUT)

Signals	Description	Notes
L	Live	Mating Connector: 350766-1 (Housing) 350536-1 (Contact Terminal)
N	Neutral	
G	Ground	

Pin Assignment (MAIN OUTPUT)

Signals	Description	Notes
+Vout	Positive Main Output	Terminal Block / M4 Screw / 12kgf-cm Torque / 14-22 AWG
+Vout		
+Vout		
-Vout	Return GND for -Vout Main Output	
-Vout		
-Vout		

Pin Assignment (SK2 – Signal & Control)

Signals	Description	Pin #
A2_Out	EEPROM Address	1
-VPROG	Return GND for ext voltage programming	2
A1_Out	EEPROM Address	3
-VOUT_RS	Remote Sense Return (Main O/P)	4
ISHARE	Load Share Voltage	5
A0_Out	EEPROM Address	6
SDA	Serial Data (I ² C)	7
+VPROG	Positive connection for ext voltage programming	8
SCL	Serial Clock Signal (I ² C)	9
+VOUT_RS	Remote Sense (Main O/P)	10
5VSB	5 V Standby Output	11
SGND	5 V Standby Return	12
5VSB	5 V Standby Output	13
G_DCOK_C	Global DC_OK Collector	14
WP	EEPROM Write Protect	15
G_DC_OK_E	Global DC_OK Emitter (GND)	16
SYS GND	Return GND for O/P Signal and I ² C Communication	17
G_AC_OK_C	Global AC_OK Collector	18
INH_EN#	Output Inhibit_Enable pin	19
G_AC_OK_E	Global AC_OK Emitter (GND)	20

Notes:

1) This is a preliminary datasheet subject to change.

SK2 Mating Connector: JST PN PHDR-20VS

Contact Pins: JST PN SPHD-001T-P0.5

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