

ARTESYN LPS350 SERIES

350 Watts



Advanced Energy's Artesyn LPS350 series of enclosed AC-DC power supplies comprises four models, providing standard voltages of 5 V, 12 V, 15 V or 24 V. All four models also provide 5 V standby and 12 V fan outputs. They accept a universal input of 85 to 264 VAC or 120 to 300 VDC. Features include single wire current sharing, remote sense and remote inhibit, plus remote power fail and DC power good indication. Enclosed LPS350 power supplies can be specified with end or top mounted fans and can deliver up to 350 Watts of output power. Versions without a fan are available for applications which provide an alternative means of cooling.

AT A GLANCE

Total Power

350 Watts

Input Voltage

85 to 264 VAC
120 to 300 VDC

of Outputs

Single

SPECIAL FEATURES

- Active power factor correction
- IEC EN61000-3-2 compliance
- Remote sense
- Power fail and remote inhibit
- Single wire current sharing
- Built-in EMI filter
- Low output ripple
- Supervisory output 5 V and 12 V
- Overvoltage protection
- Overload protection
- Thermal overload protection
- DC power good
- 130 KHz switching frequency
- Optional with fan cover -CF
- Cover -C
- Optional end-mounted fan -CEF

SAFETY

- VDE 0805 / EN 62368 (IEC 950) 21310-3336-0001
- UL UL 1950 E186249
- CSA CSA 22.2-234 Level 5 LR109492C
- NEMKO EN 62368 / EMKO-TUE P98102115 (74-sec) 203
- BABT EN 62368 / BS 7002 608857, 608858, 609097
- CB Certificate and report 5734, 6280, 6281
- CE Mark (LVD)
- UKCA Mark

ELECTRICAL SPECIFICATIONS

Input	
Input range	85 to 264 VAC; 120 to 300 VDC
Frequency	47 to 440 Hz
Inrush current	38 A max, cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	FCC Class B conducted and radiated CISPR 22 Class B conducted and radiated EN55022 Class B conducted and radiated VDE 0878 PT3 Class B conducted and radiated
Power factor	0.99 typical
Safety ground Leakage current	0.5 mA @ 50/60 Hz, 264 VAC input
Output	
Maximum power	With cover: 350 W with 30 CFM forced air, (-C) (-CF) (-CEF)
Adjustment range	2:1 wide ratio
Supervisory output	5 V @ 500 mA regulated, 12 V @ 150 mA x2
Hold-up time	20 ms @ 350 W load, 115 VAC nominal line at factory voltage settings
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110% to 145% above peak rating
Overvoltage protection	5 V output: 5.7 to 6.7 VDC. Other models 10% to 25% above nominal output
Logical Control	
Power failure	TTL logic signal goes high 50 to 150 ms after 5 V output. It goes low at least 4 ms before loss of regulation
Remote on/off	Requires an external contact (N.O or N.C) to inhibit outputs
DC-OK	TTL logic goes high 50 to 150 ms after 5 V output. It goes low when there is loss of regulation
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	0° to 50°C ambient; derate each output at 2.5% per degree from 50°C to 70°C
Storage temperature	-40°C to +85°C
Temperature coefficient	± 0.4% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.7 G peak 5Hz to 500Hz, operational
MTBF demonstrated:	> 550,000 hours at full load and 25°C ambient conditions

ORDERING INFORMATION

Model Number	Output Voltage ^{1,2}	Minimum Load	Maximum Load with 30CFM Forced Air ³	Peak Load ⁴	Regulation ⁵	Ripple P/P (PARD) ⁶
LPS352-C	5 V (3 to 6 V)	0 A	70 A	80 A	± 2%	50 mV
LPS353-C	12 V (6 to 12 V)	0 A	29.2 A	33 A	± 2%	120 mV
LPS354-C	15 V (12 to 24 V)	0 A	23.3 A	26 A	± 2%	150 mV
LPS355-C	24 V (24 to 48 V)	0 A	14.6 A	16 A	± 2%	240 mV

1. Output voltage adjustment requires a 1A load.

2. Remote inhibit resets OVP latch.

3. If optional CF or CEF fans are not used, 30CFM forced air cooling needs to be provided and is required through the length of the power supply. Not convection rated.

4. Peak current lasting < 30 seconds with a maximum 10% duty cycle.

5. At 25°C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.

6. Peak-to-peak with 20 MHz bandwidth and 10 µF in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.

Note: -CF suffix added to the model number indicates cover with fan,

-CEF suffix added to model number indicates end-mounted fan chassis.

PIN ASSIGNMENTS

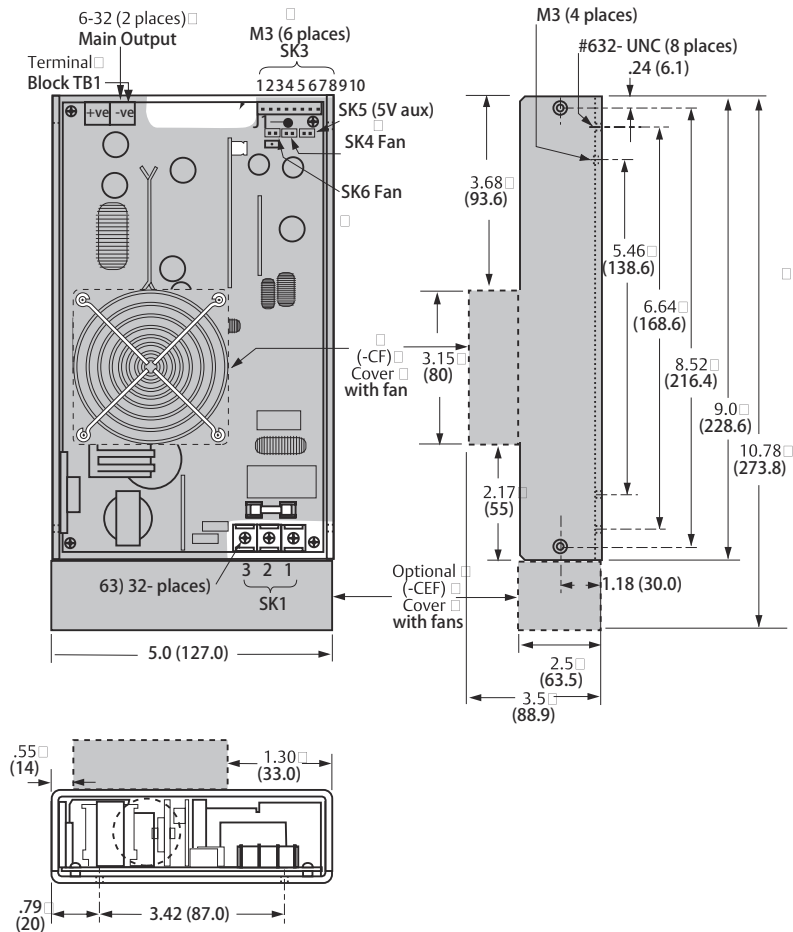
SK1	PIN 1	NEUTRAL
	PIN 2	LINE
	PIN 3	GROUND
SK3	PIN 1	N/C
	PIN 2	N/C
	PIN 3	+ SENSE
	PIN 4	- SENSE
	PIN 5	POK
	PIN 6	C. SHARE
	PIN 7	DC - OK
	PIN 8	INHIBIT (N.O.)
	PIN 9	INHIBIT (N.C.)
	PIN 10	COM
SK4	PIN 1	+ FAN 1 (12V@150mA)
	PIN 2	- COMMON
SK5	PIN 1	+ 5V AUX (5V@100mA)
	PIN 2	- COMMON
SK6	PIN 1	+ FAN 2 (12V@150mA)
	PIN 2	- COMMON

MATING CONNECTORS

SK3	Molex: 22-01-1104
	PINS: 08-70-0057
SK4	Molex 22-01-3027
	PINS: 08-50-0114
SK5	Molex: 22-01-3027
	PINS: 08-50-0114
SK6	Molex: 22-01-3027
	PINS: 08-50-0114

Artesyn Connector Kit #70-841-011, includes all of the above.

MECHANICAL DRAWING



- Notes:
- Specifications subject to change without notice.
 - All dimensions in inches (mm), tolerance is $\pm .02$ ".
 - Specifications are at factory settings
 - To enable normally closed Remote Inhibit, cut jumper J1.
 - Mounting maximum insertion depth is 0.12".
 - Warranty: 2 year
 - Weight: 3.6 lb. / 1.64 kg.



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ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

PRECISION | POWER | PERFORMANCE

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