

LPQ142 Series

145 Watts

Data Sheet

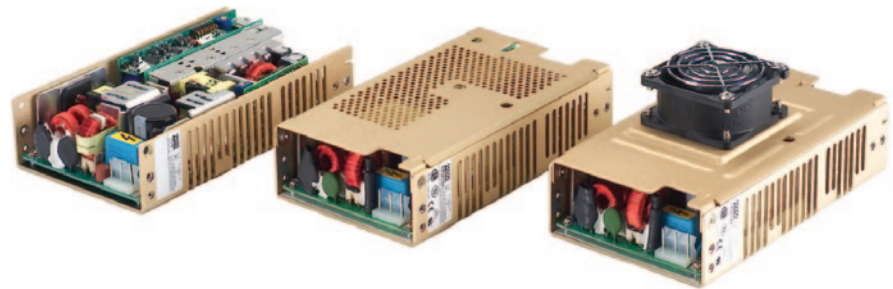
Total Power: 110-145 Watts
Input Voltage: 85-264 VAC
120-300 VDC
of Outputs: Quad

SPECIAL FEATURES

- Active power factor correction
- IEC EN61000-3-2 compliance
- Adjustable outputs on 1, 3 & 4
Remote sense on main output
- Single wire current sharing
- Power fail and remote inhibit
- Built-in EMI filter
- Low output ripple
- Overvoltage protection
- Overload protection
- Thermal overload protection
- Adjustable floating 4th output
- Optional cover (-C suffix)
- Optional fan cover (-CF suffix)

SAFETY

- VDE 60950
- UL 60950
- CB Certificate and report
- CSA 60950
- CE Mark (LVD)
- NEMKO EN 60950/EMKO-TUE



Electrical Specifications

Input

Input range: 85-264 VAC; 120-300 VDC

Frequency: 47-67 Hz

Inrush current: 38 A max, cold start @ 25°C

Efficiency: 75% typical at full load

EMI filter: Meets FCC Class B conducted
CISPR 22 Class B conducted
EN55022 Class B conducted
VDE 0878 PT3 Class B conducted

Power Factor: 0.99 typical

Safety ground leakage current: 1.0 mA @ 50/60 Hz, 264 VAC input

Output

Maximum power: 80 W convection (60 W with cover -C)
145 W with 30 CFM forced air
(100 W with cover -C)

Adjustment range: 3.3 - 5.5V on main; -12 - 15V on 3rd output
3.3 - 25 V on 4th output

Hold-up time: 20 ms @175 W load at nominal line

Overload protection: Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating

Overvoltage protection: Tracks outputs 1, 3 & 4; 10 to 35%



Logic Control

AC power failure:	TTL logic signal goes high 100 - 500 msec after V1 output; It goes low at least 4 msec before loss of regulation
Remote inhibit:	Requires contact closure to inhibit outputs
Remote sense:	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.
DC - OK:	TTL logic signal goes high after main output is in regulation. It goes low when there is a loss of regulation

Environmental Specifications

Operating temperature:	0° to 50 °C ambient. Derate each output 2.5% per degree from 50° to 70 °C (except for -C version).
Storage temperature:	-40 °C to +85 °C
Temperature coefficient:	±0.4% per °C
Electromagnetic susceptibility:	Designed to meet IE61000-4, -2, -3, -4, -5, -6, -8, -11, 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 0.75G peak 5Hz to 500Hz, operational
MTBF demonstrated:	>550,000 hours at full load and 25°C ambient conditions

Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30CFM Forced Air	Peak Load ¹	Regulation ²	Ripple P/P (PARD) ³
LPQ142	5 V (3.3 - 5.5 V)	0 A	12 A	25 A	27 A	±2%	50 mV
	12 V	0 A	5 A	6 A	9 A	±3%	120 mV
	-12V (-12 -15 V)	0 A	1 A	1.5 A	2 A	±3%	<1%
	±3.3-25 V	0.5 A	1.5 A	4.5 A	5 A	±3%	<50mV or 1%

1. Peak current lasting <30 seconds with a maximum 10% duty cycle.
2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
3. 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.
4. 4th output adjustable 3.3-25 V factory set at 5 V.
5. *Minimum loads are required when output set below 5 Volts
6. Remote inhibit resets OVP latch

Note: -C suffix added to the model number indicates cover option.

-CF suffix added to the model number indicates fan cover option.

Pin Assignments

SK1	PIN 1	Ground
	PIN 3	Neutral
	PIN 5	Line
SK2	PIN 1	+12 V
	PIN 2	Common
	PIN 3	-12 V
	PIN 4	Common
	PIN 5	+5 V to +25 V (float)
	PIN 6	Common (float)
SK4	TB-1	Common
	TB-2	+5 V

Pin Assignments

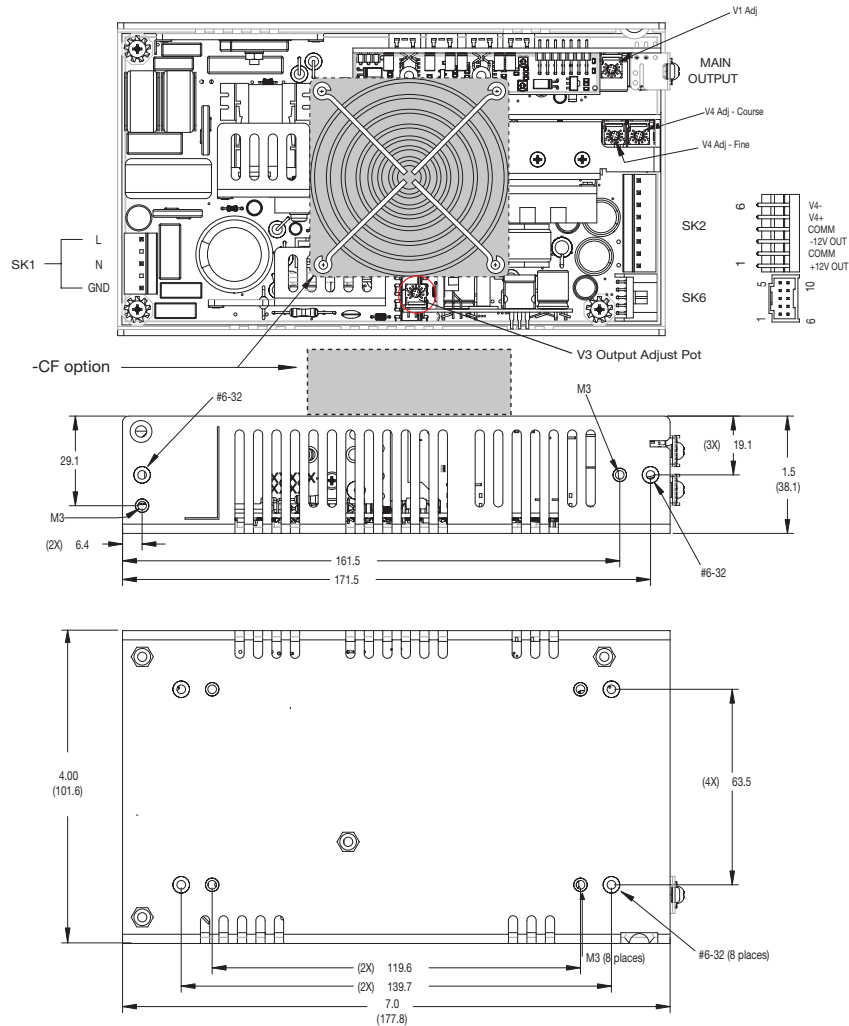
SK6	PIN 1	N/C
	PIN 2	DC OK
	PIN 3	N/C
	PIN 4	V1 SWP
	PIN 5	Common
	PIN 6	+V1 sense
	PIN 7	Sense common
	PIN 8	+ inhibit
	PIN 9	- inhibit
	PIN 10	Power fail

Mating Connectors

(SK1) AC Input:	Molex 09-50-8051 (USA) Molex 09-91-0500 (UK) PINS: 08-58-0111
(SK2) Aux DC Output:	Molex 09-50-8061 (USA) Molex 09-91-0600 (UK) PINS: 08-58-0111
(SK6) Control Signals:	Molex 90142-0010 (USA) PINS: 90119-2110 or Amp: 87977-3 PINS: 87309-8
(SK4) Main output:	Molex BB-19141-0058

Artesyn Embedded Technologies connector kit #70-841-017, includes all of the above.

Mechanical Drawing



Notes:

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ± 0.02 ".
3. Specifications are for convection rating at factory settings unless otherwise stated.
4. Mounting screw maximum insertion depth is 0.12".
5. Warranty: 2 year
6. Weight: 1.63 lb/0.74 kg

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