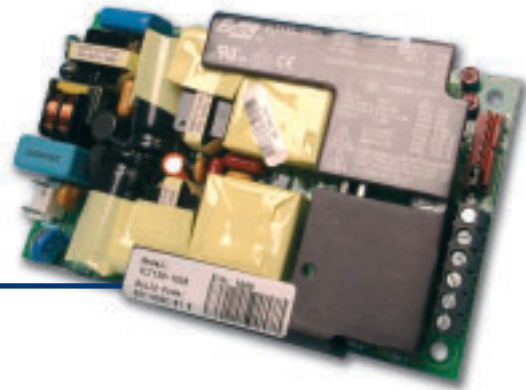


# VLT150 Series



150W single and quad output AC/DCC Power Supplies

- 150W fan cooled rating
- Smallest 150W AC/DC Power Supply
- 3x5x1 inch industry standard package
- Dual channel output
- EN55022 and FCC Part 15 Level B
- Class A and D EN61000-3-2 Harmonics



Model	Output	Output Voltage	Set Point	Current <sup>1</sup> No Fan	Current <sup>1</sup> 300 LFM
VLT150-1106 <sup>5</sup>	V1	3.3V	3.3V	20.0A	35.0A
VLT150-1100 <sup>5</sup>	V1	5V	5.1V	20.0A	29.4A
VLT150-1101 <sup>5</sup>	V1	12V	12.0V	8.33A	12.5A
VLT150-1103 <sup>5</sup>	V1	24V	24.0V	4.17A	6.25A
VLT150-1104 <sup>5</sup>	V1	48V	48.0V	2.08A	3.13A
VLT150-4100 <sup>4</sup>	V1	5V	5.1V	10.0A	16.0A
	V2	3.3V	3.3V	10.0A	19.0A
	V3	12V	13.0V	1.0A	1.0A
	V4	-12V	-13.2V	1.0A	1.0A
VLT150-4101 <sup>4</sup>	V1	5V	5.1V	10.0A	16.0A
	V2	3.3V	3.3V	10.0A	19.0A
	V3	24V	24.0V	1.0A	1.0A
	V4	-12V	-13.2V	1.0A	1.0A
VLT150-4102 <sup>4</sup>	V1	5V	5.1V	10.0A	16.0A
	V2	3.3V	3.3V	10.0A	19.0A
	V3	15V	15.0V	1.0A	1.0A
	V4	-15V	-15.0V	1.0A	1.0A
VLT80CK	Metal cover kit				

## INPUT SPECIFICATIONS

AC Input	Universal	90 to 264V
Efficiency		>85%
Input Frequency		47–63 Hz
Input Current	Full Load at Low Line	3Arms, max
Inrush Current	High Line	50A, max
Leakage Current		<3.5mA

## EMC AND SAFETY SPECIFICATIONS

CE Mark	Complies with the LVD	
EMC - Emissions	EN55022-B, CISPR22-B, FCC Part 15 Class B, EN50082-1	
EMC - Susceptibility	EN61000-4-2, EN61000-4-4, EN61000-4-5 level 3	
Harmonic Correction	EN61000-3-2 Class A and D	
Agency Approvals	VDE, UL, c-UL	
Safety Standards	IEC950, EN60950, UL1950 Class 1 SELV	
Safety File numbers	VDE: 18934-3336 UL: E150565	

## OUTPUT SPECIFICATIONS

Output Power <sup>4,5</sup>	All Outputs No Fan All Outputs 300 LFM	80W max 150W max
DC Output		See table
Hold-Up Time	115V/230V	10ms
Set Point Accuracy	V1 and V2 V3 and V4	+1% +5%
Line Regulation	Low Line to High Line	1%
Load Regulation	Min to Full Load V1 & V2 V3 & V4	+1% +5%
Minimum Load	V1 & V2 V3 & V4	0.5A 0.1A
Output Capacitance	V1 & V2 V3 & V4	3000uF 330uF
Transient Response	50% to Full Load Voltage Deviation Recovery Time	<7% <1ms
OVP	3.3V Output 5V Output	4V to 5.15V 5.8V to 6.6V
Output Overshoot	Turn on	<5%
Overload Protection	Primary Limited	215W, +35W
Short Circuit Protection	Auto Recovery <6s	Short Term
Ripple and Noise	V1 and V2 V3 and V4	50mV 1%
Power Fail Signal <sup>2</sup>	5V line	1ms warning
Remote Sense <sup>3</sup>	Line Compensation on V1 and V2	100mV
Power Good <sup>2</sup>	Delay after V1 high	30ms
Output Rise Time		<10ms
Redundancy		1+1
Paralleling Function		No

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	No derating Linear derate to 50%	0 to 40°C 41 to 70°C
Storage Temperature		-40 to 85°C
Cooling	Convection 300 LFM	80W 150W
Relative Humidity	Non condensing	95%, max
MTBF	MIL-HDBK-217F	>100,000 hrs

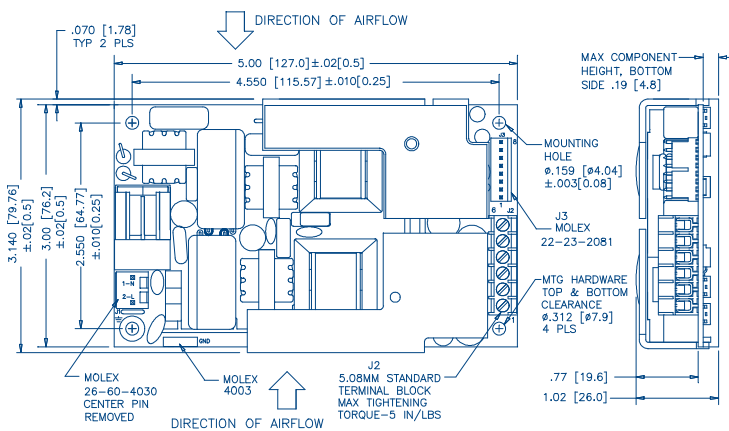
Unless stated all specifications are typical and rated at full load, nominal input voltage, convection cooling and 25°C.

# VLT150 Series

Single and quad output AC/DC Power Supplies

## MECHANICAL SPECIFICATIONS

AC Input Connector J1	Molex 3 position, 0.156 center header 26-60-4030 or equivalent
Ground Connector	Spade connector
Output Connector J2	Molex 85506 terminal block
Output Connector J3	Molex 22-23-2081 or equivalent
Size	3x5x1.07" (76.2x126.9x27.2mm)
Weight	12oz (340g)



## INPUT CONNECTOR J1

Pin 1	Neutral
Pin 2	Line

## INPUT SPADE CONNECTOR

GND	AC Ground
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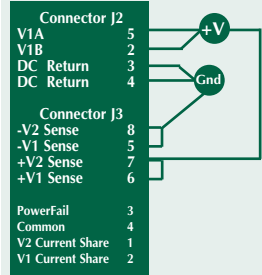
## OUTPUT CONNECTOR J2

	Single Output	Quad Output
Pin 1	No Connection	V3
Pin 2	V1B	V2
Pin 3	DC Return	DC Return
Pin 4	DC Return	DC Return
Pin 5	V1A	V1
Pin 6	No Connection	V4

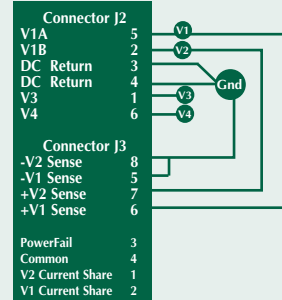
## OUTPUT CONNECTOR J3

	Single Output	Quad Output
Pin 1	V1 Current Share	V2 Current Share
Pin 2	V1 Current Share	V1 Current Share
Pin 3	No Connection	Power Fail
Pin 4	Common	Common
Pin 5	-V1A Sense	-V1 Sense
Pin 6	+V1A Sense	+V1 Sense
Pin 7	+V1B Sense	+V2 Sense
Pin 8	-V1B Sense	-V2 Sense

## Single Output Connection



## Quad Output Connection

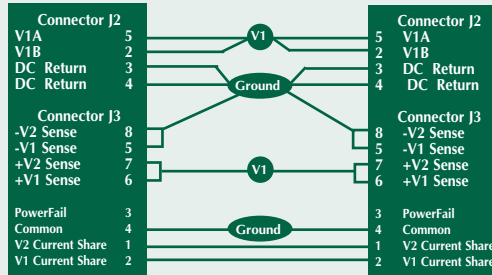


- To connect the voltage sense pins 5,6,7 and 8 on connector J3 to the load, it is recommended to use 0.22 gauge twisted pair wire.
- For single output units, an internal 0 ohm resistor shunt is used to internally connect the current share pins V1A Current Share (J3-2) and V1B Current share (J3-1).
- Pins J3-4, Common, should be connected to ground for correct operation.
- The Power Fail signal J3-3 is a TTL active high signal. The maximum source current is 0.45mA and the maximum sink current is 0.25mA

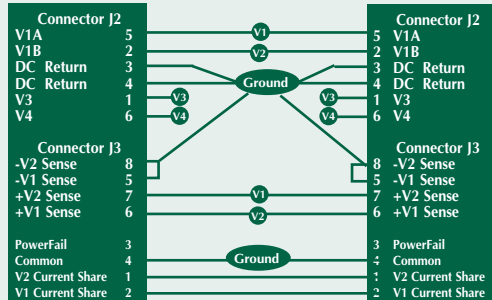
## Notes

- Maximum current per output . Do not exceed maximum output power rating.
- Power Good and Power Fail signal on quad output models only.
- The use of the Remote Sense function requires 15CFM / 180 LFM airflow.
- Quad Output Models: The output section of the VLT150-4xxx is split into 2 independently regulated channels. Channel A consists of the main output V1 and auxiliary output V4. Channel B consists of the main output V2 and auxiliary output V3. The maximum output power that may be drawn per channel is 55W with convection cooling or 75W with fan cooling.
- Single Output Models: The output section of the VLT150-1xxx is split into 2 independently regulated channels. Channel A consists of the main output V1A. Channel B consists of the main output V1B. An internal shunt resistor of value 0 ohms connects both channels of the power supply. In an event whereby this shunt resistor is removed, the maximum output power that may be drawn per channel is 55W with convection cooling or 75W with fan cooling

## Single Output 1+1 Redundant Configuration



## Quad Output 1+1 Redundant Configuration



- To connect the voltage sense pins, 5,6,7 and 8 on connector J3 to the load, it is recommended to use 0.22 gauge twisted pair wire.
- The Power Fail signal J3-3 is a TTL active high signal. The maximum source current is 0.45mA and the maximum sink current is 0.25mA.
- Pin J3-4, Common, should be connected to ground for correct operation.
- For single output units, an internal 0 ohm resistor shunt is used to internally connect the current share pins V1A Current Share (J3-2) and V1B Current share (J3-1).