V·INFINITY

VSCP-800 Series Switching Power Supply

Rev 7-2007

Features

- Current Sharing capability
- Programmable Output Voltage
- Universal AC Input
- Short Circuit, overload, over voltage, over temperature protected
- Forced air cooling by built-in DC fan
- Power Failure Signal
- Built-in Remote Sense
- Built-in Remote Inhibit
- 2 year warranty

	Output Current				Ripple & Noise [3]		
Model	Output[1]	Minimum	Maximum[2]	Max. Power	Regulation	(Vpp)	Efficiency
VSCP-800-09	9 V	0 A	44/88 A	800 W	<1%	1%	83%
VSCP-800-12	12 V	0 A	33/66 A	800 W	<1%	1%	84%
VSCP-800-15	15 V	0 A	26/53 A	800 W	<1%	1%	85%
VSCP-800-18	18 V	0 A	22/44.4 A	800 W	<1%	1%	85%
VSCP-800-24	24 V	0 A	16/33 A	800 W	<1%	1%	88%
VSCP-800-36	36 V	0 A	11/22.2 A	800 W	<1%	1%	88%
VSCP-800-48	48 V	0 A	8/16 A	800 W	<1%	1%	89%
VSCP-800-60	60 V	0 A	6/13 A	800 W	<1%	1%	90%

Notes:

1 Output voltage is measured at output power connector.

2 Maximum current is measured at 100-120V input / 200-240V input

3 Ripple and noise is measured from 10 KHz to 20 MHz at output terminals with 0.1 µF ceramic capacitor and a 22 µF electrolytic capacitor in parallel.

Input

Parameter	Conditions/Description	Min	Nom	Max	Units
Input frequency		47		63	Hz
Input voltage	100~120 / 200~240 VAC (see derating curve)	100		240	VAC
	(130~185 / 260~370 VDC) (see derating curve)	130		370	VDC
Inrush Current	Peak measured at 230 VAC at full load, cold start			60	A
Input Current	at 230 VAC		4.5		A

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Output

Parameter	Conditions/Description	Min	Nom	Max	Units
Hold-up time	Full load at 230 VAC			12	mS
Programming	Output voltage programmable through external 0~5V control voltage on VCI. Control voltage can also be obtained from VCO via a 470 KOhm pot. See application diagrams.	25		100	%
Voltage adjustability	Typical adjustment by potentiometer 25%-100% Adjustment by 1-5Vdc external control	-7.5		+7.5	%
Temp. coefficient			0.04		%/ºC
Remote Sense	Designated as (VS+) and (VS-). Total voltage compensation for cable losses with respect to the main output.				
Remote Inhibit	Designated as (INH), requires a low signal to inhibit the output.				
Current Sharing	Designated as (PAR), use in parallel for forced current sharing function.				

Protection Circuit

Parameter	Conditions/Description	Min	Nom	Max	Units
Overload	Current limiting 3 times (1.5", 3.0", 5.0"), then intelligent auto recovery before shutdown				
Overvoltage		110		135	%

General and Safety

Parameter	Conditions/Description	Min	Nom	Max	Units
Operating temp.		0		50	ºC
Operating humid.		20%		90%	RH
Storage temp.		-20		85	ºC
Storage humid.		10		95%	RH
EMC	EN55022, EN610000-4-2,3,4,5,6,8,11, EN61000-3-2-3 ENV50204				
Safety regulation	Approved to UL/cUL 1950, TUV EN60950				
Leakage current	at 240 VAC			3.5	mA

Mechanical

Parameter	Conditions/Description	Min	Nom	Max	Units
Weight			2.3		Kg
Enclosure	290(L) x 120(W) x 67.5(H)				mm

Logic Connector

Parameter	Conditions/Description
Pin Assignments:	1. INH - Remote On-Off / Remote Inhibit
	2. GND - Return / Output Ground
	3. PAR - Current Sharing / Parallel function
	4. FAL - AC Fail Detect (must use 2KΩ pull up resistor)
	5. VCO - Reference output voltage (5-10 VDC) to be used for output programming
	6. VCI - Command input voltage for output programming
	7. VS(-) - Remote Sense (-)
	8. VS(+) - Remote Sense (+)

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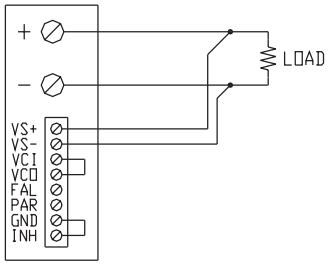
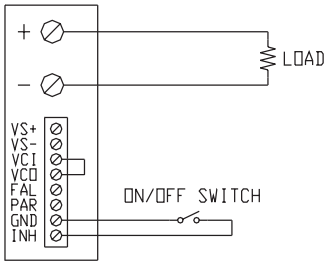
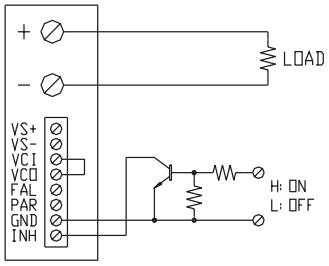
Logic Connections



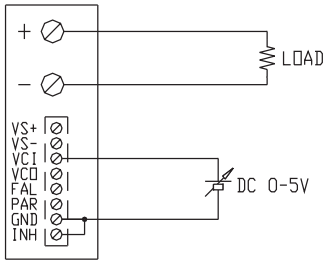
REMOTE SENSING



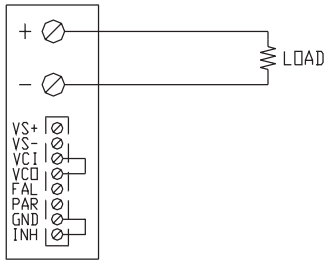
ON/OFF CONTROL BY SWITCH



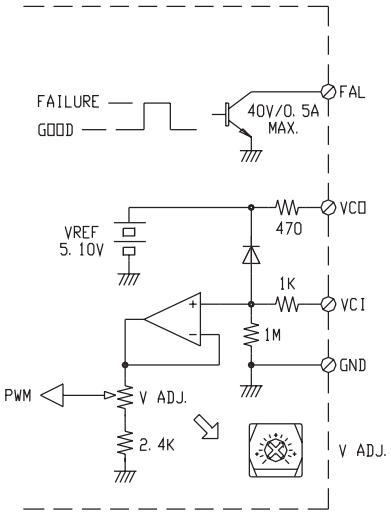
ON/OFF CONTROL BY TRANSISTOR



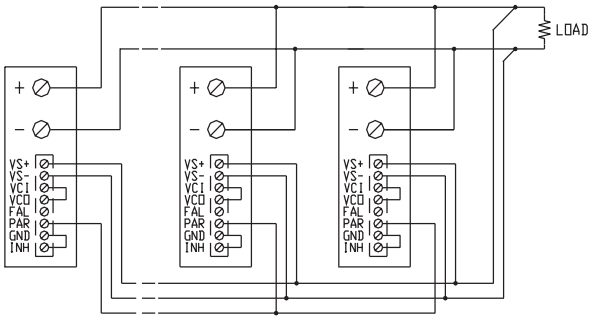
OUTPUT VOLTAGE ADJUST WITH DC 0-5V



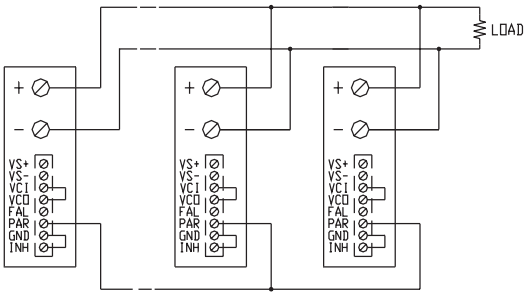
USING INTERNAL VOLTAGE CONTROL



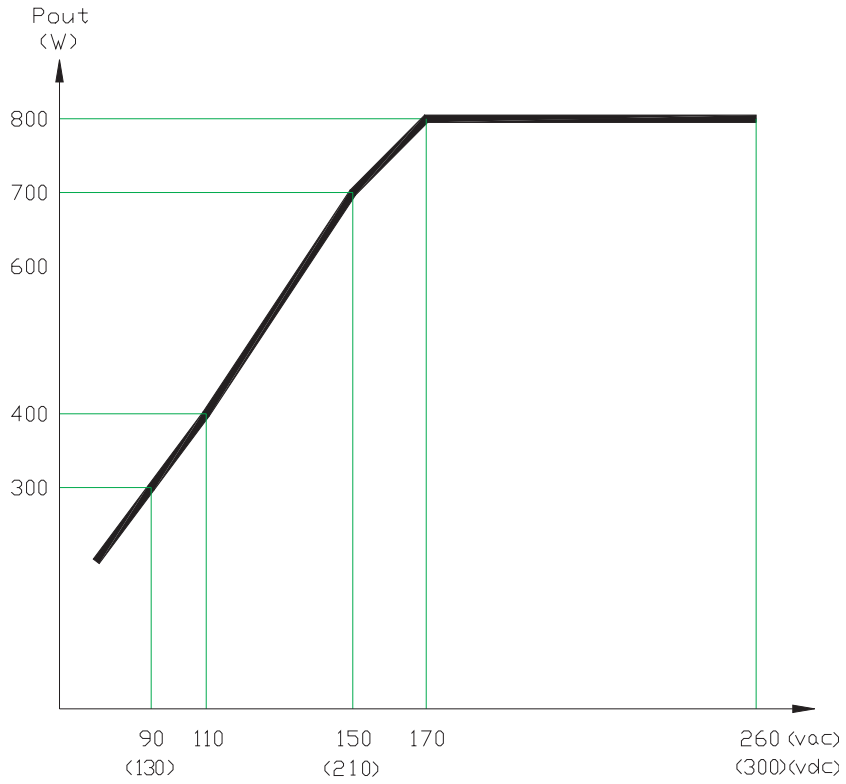
VCI AND VCO SIGNAL



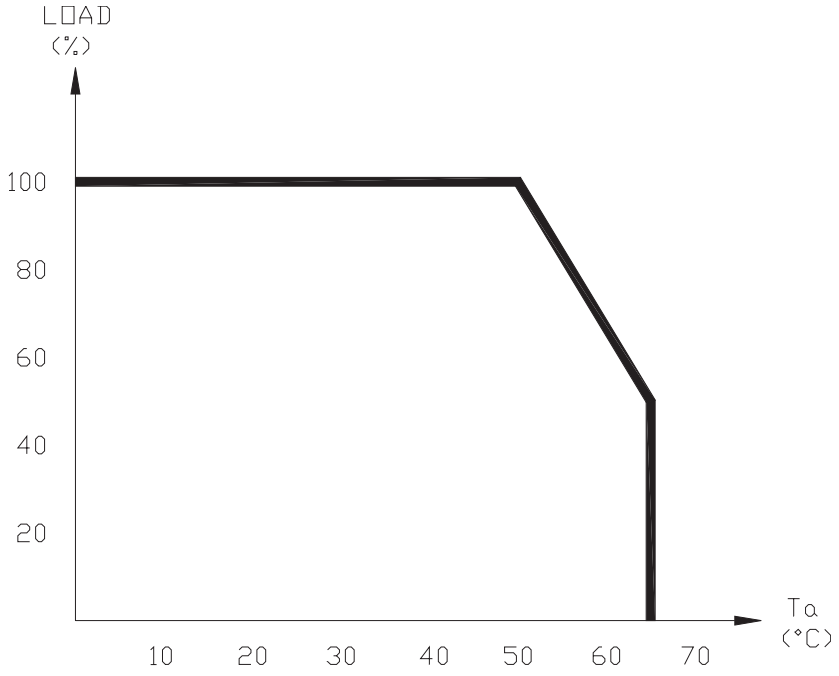
PARALLEL OPERATION WITH REMOTE SENSING



PARALLEL OPERATION WITHOUT REMOTE SENSING



Output Power vs. Input Voltage derating curve



Derating Curve

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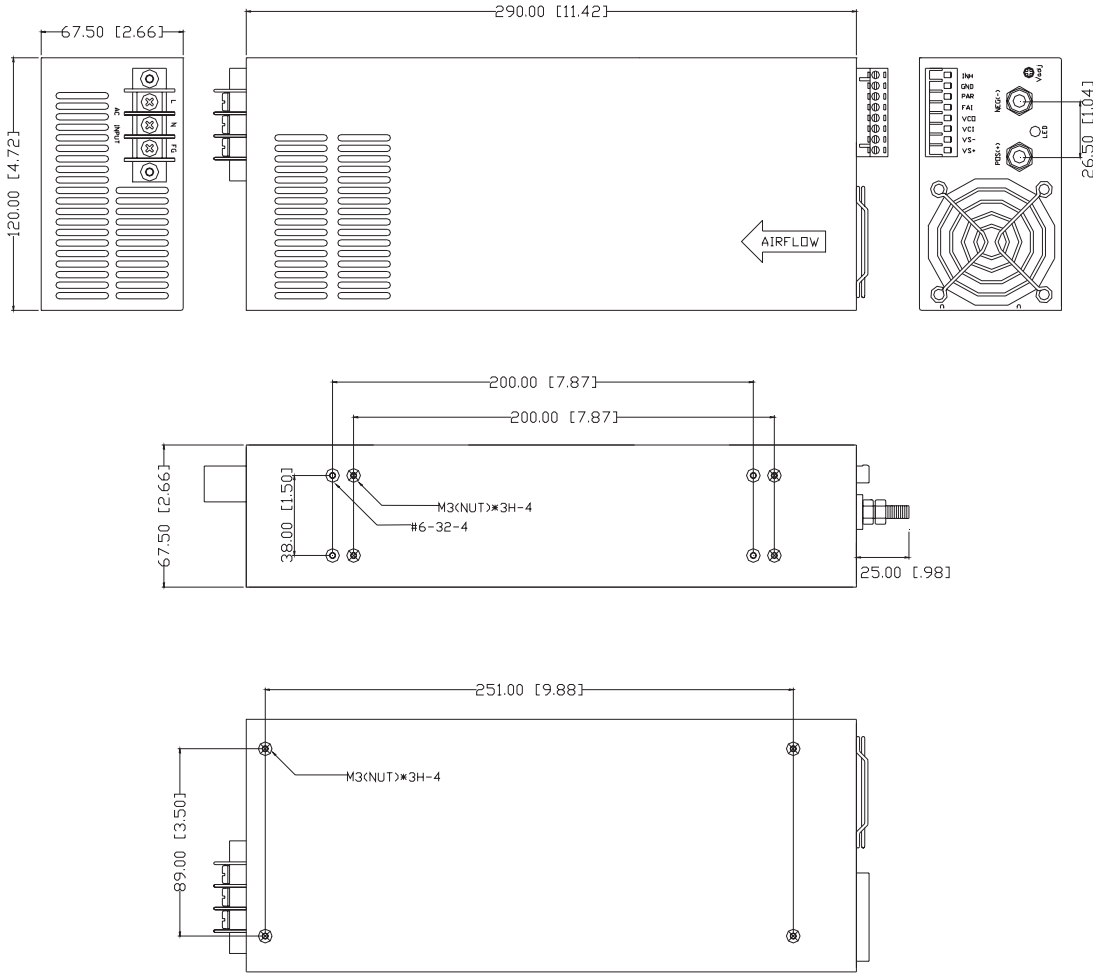
Mechanical Drawing



CONTROL PIN ASSIGMENT

VS+	Output Voltage Remote Sense+
VS -	Output Voltage Remote Sense -
VCI	Command input voltage for output programming
VCO	5-10 VDC reference for output programming
FAL	Power Failure detect
PAR	Current Sharing / Parallel function
GND	Return / Output Ground
INH	Inhibit / Remote On-Off