

SERIES: VSUP-1K5 | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

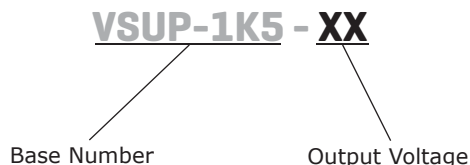
- up to 1,500 W continuous power
- universal input (90~264 Vac)
- single output from 12~60 V
- programmable output voltage
- active power correction (98%)
- current sharing capable
- power good, remote sense, remote on/off control
- built-in DC fan
- over load, over voltage, over temperature, and short circuit protections
- UL and TUV safety approvals
- efficiency up to 90%



MODEL	output voltage ¹	output current max	output power max	ripple and noise ² max	efficiency typ
	(Vdc)	(A)	(W)	(mVp-p)	(%)
VSUP-1K5-12	12	125	1,500	120	84
VSUP-1K5-15	15	100	1,500	150	85
VSUP-1K5-18	18	83.3	1,500	150	85
VSUP-1K5-24	24	62.5	1,500	150	88
VSUP-1K5-30	30	50	1,500	150	88
VSUP-1K5-36	36	41.6	1,500	150	88
VSUP-1K5-48	48	31.2	1,500	150	89
VSUP-1K5-60	60	25	1,500	150	90

Notes: 1. output voltage is measured at output power connector
 2. 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

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current	at 230 Vac		9		A
inrush current	peak measured at 230 Vac, cold start		120		A
power factor correction	at 230 Vac, full load		0.98		

OUTPUT

parameter	conditions/description	min	typ	max	units
temperature coefficient	0 ~ 50°C		±0.04		%/°C
hold-up time	230 Vac at full load			12	ms
adjustability	adjustable with built-in trim pot		±1.5		%
programming	output voltage programmable through external 1 ~ 5 V control voltage on VCI.	20		100	%
remote sense	Designated as (VS+) and (VS-). Total voltage compensation from 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

parameter	conditions/description	min	typ	max	units
over voltage protection		110		135	%
over current protection	shutdown				

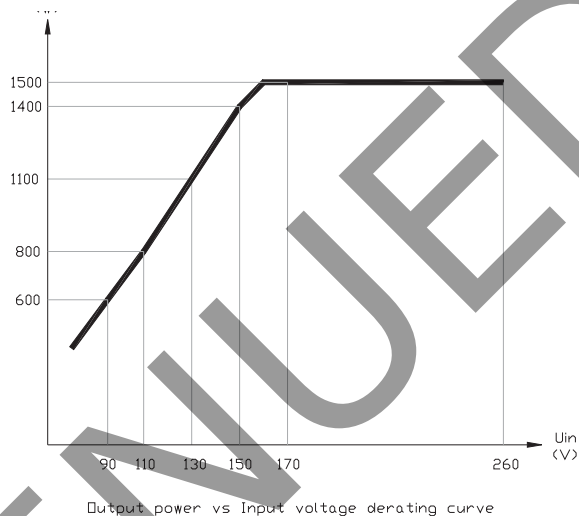
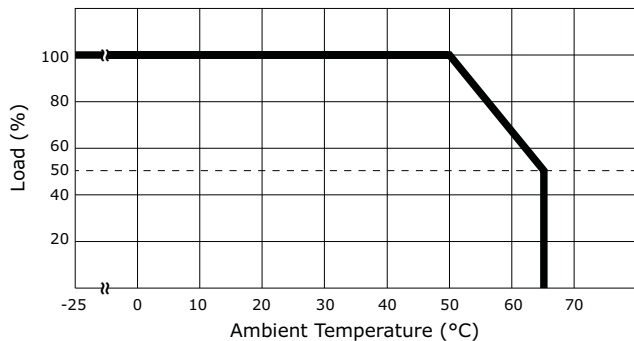
SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
safety approvals	UL/cUL 1950, TUV EN60950				
EMI/EMC	EN 55022, EN 61000-4-(2,3,4,5,6,8,11), EN 61000-3-(2,3), ENV50204				
leakage current	at 240 Vac			7.0	mA
RoHS compliant	yes				

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature		0		50	°C
storage temperature		-20		85	°C
operating humidity		20		90	%
storage humidity		10		95	%
vibration	for 60 minutes, each axis	10		200	Hz

DERATING CURVES



Output power vs Input voltage derating curve

DISCONTINUED

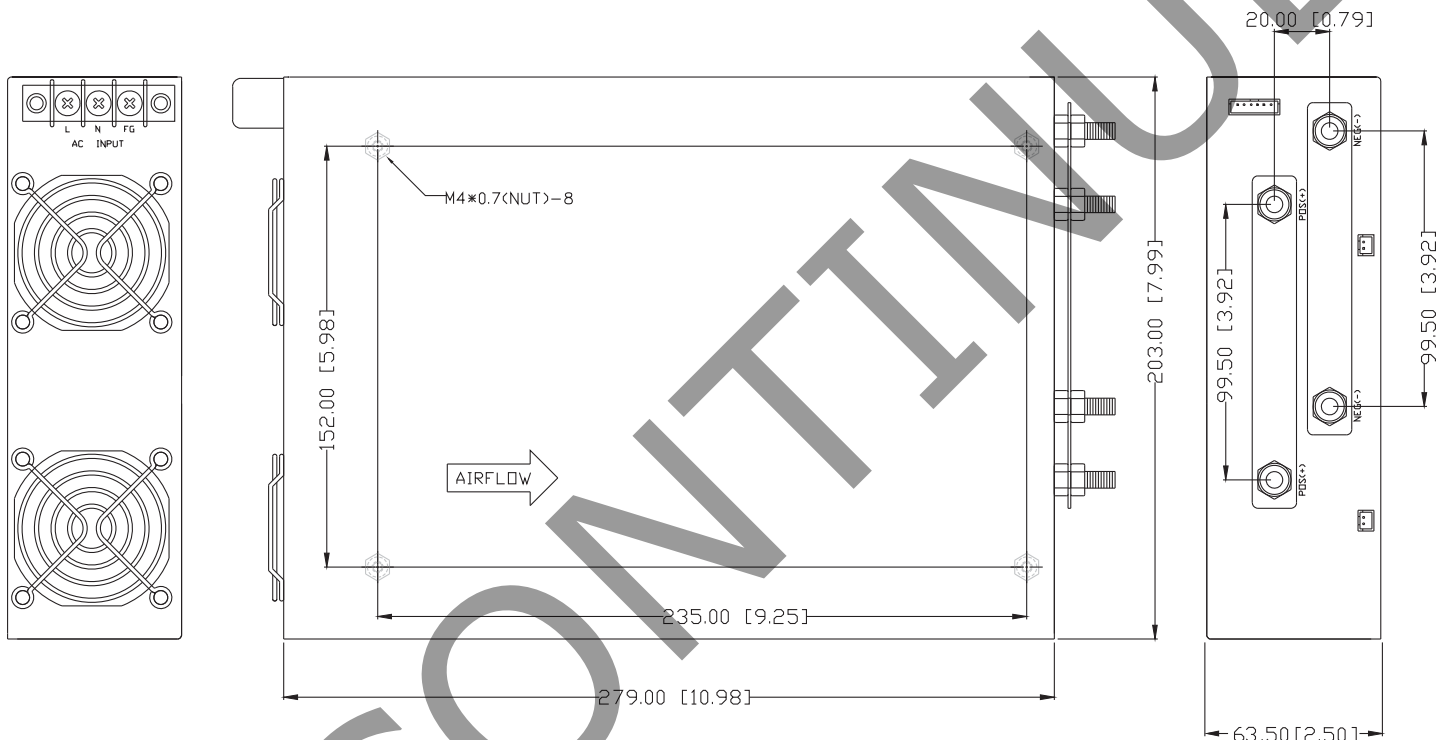
MECHANICAL

parameter	conditions/description	min	typ	max	units
weight			3.8		Kg
dimensions	10.98 x 7.99 x 2.5 (279 x 203 x 63.5 mm)				inch

MECHANICAL DRAWING

units: mm[inch]

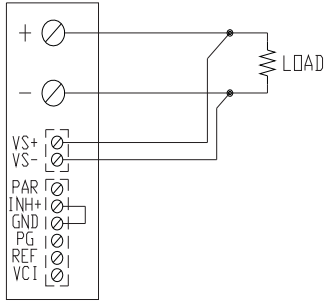
tolerance: ±1.0mm unless otherwise specified



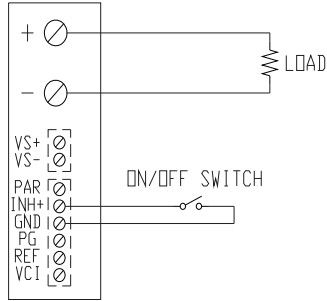
LOGIC CONNECTOR (CN1)		
1	VCI	command input voltage for output programming
2	REF	5 Vdc reference output, can be used to derive VCI
3	PG	power good signal
4	GND	return / output ground
5	INH	inhibit / remote on-off
6	PAR	current sharing / parallel function

REMOTE SENSE (CN2)		
1	VS+	output voltage remote sense+
2	VS-	output voltage remote sense-

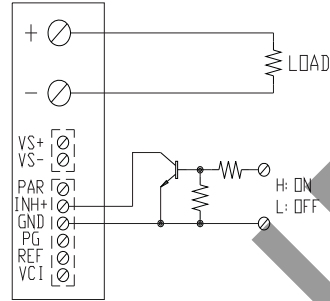
LOGIC CONNECTIONS



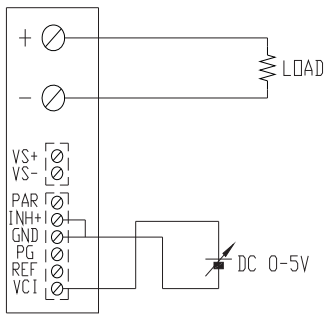
REMOTE SENSING
(FOR REMOTE SENSING MODEL ONLY)



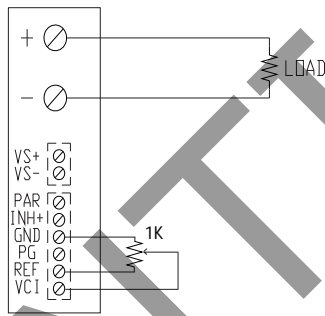
ON/OFF CONTROL BY SWITCH



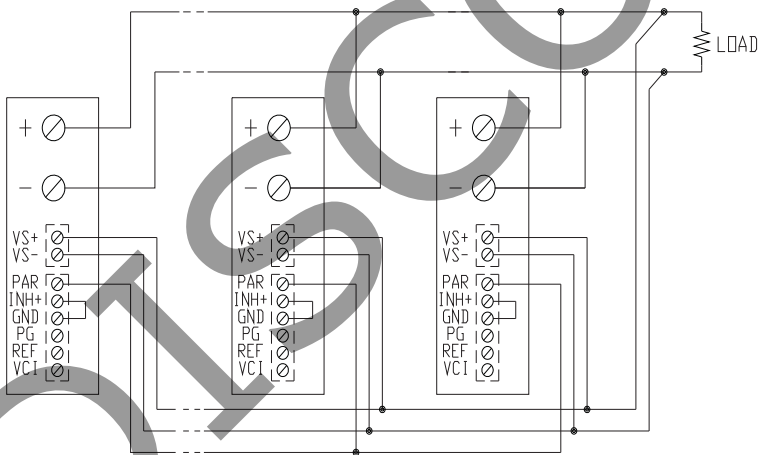
ON/OFF CONTROL BY TRANSISTOR



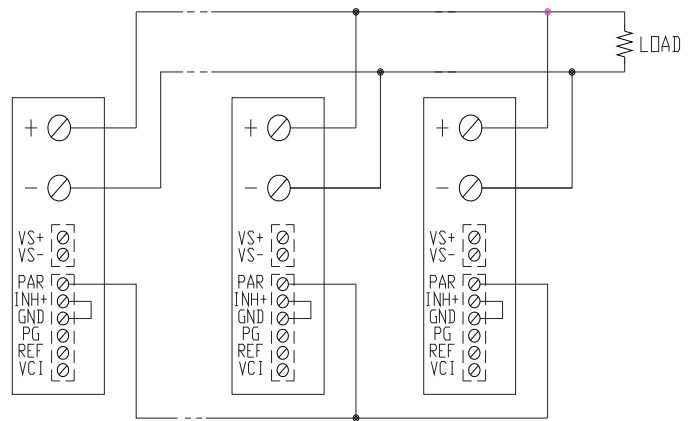
OUTPUT VOLTAGE ADJUST WITH DC 0-5V



USING INTERNAL VOLTAGE CONTROL



PARALLEL OPERATION WITH REMOTE SENSING



PARALLEL OPERATION WITHOUT REMOTE SENSING

REVISION HISTORY

rev.	description	date
1.0	initial release	02/07/2007
1.01	new template applied	07/02/2009
1.02	V-Infinity branding removed	08/28/2012

The revision history provided is for informational purposes only and is believed to be accurate.



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