

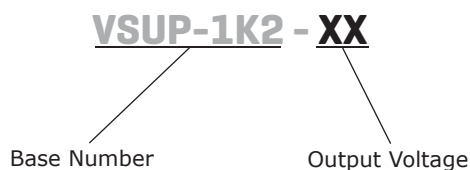
**SERIES: VSUP-1K2 | DESCRIPTION: AC-DC POWER SUPPLY**
**FEATURES**

- up to 1,200 W continuous power
- universal input (110~264 Vac)
- single output from 9~60 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 <sup>1</sup>	output current max (A)	output power max (W)	ripple and noise <sup>2</sup> max (mVp-p)	efficiency typ (%)
	(Vdc)				
VSUP-1K2-09	9	133	1,200	90	83
VSUP-1K2-12	12	100	1,200	120	84
VSUP-1K2-15	15	80	1,200	150	85
VSUP-1K2-18	18	66.6	1,200	150	85
VSUP-1K2-24	24	50	1,200	150	88
VSUP-1K2-30	30	40	1,200	150	88
VSUP-1K2-36	36	33.3	1,200	150	88
VSUP-1K2-48	48	24	1,200	150	89
VSUP-1K2-60	60	20	1,200	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  $\mu$ F ceramic capacitor and a 22  $\mu$ F electrolytic capacitor in parallel

**PART NUMBER KEY**


## INPUT

parameter	conditions/description	min	typ	max	units
voltage	9V	180		264	Vac
	12, 15, 18, 24, 30, 36, 48, 60	110		264	VAc
frequency		47		63	Hz
current	at 115 Vac		14		A
	at 230 Vac		7		A
inrush current	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		±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	variable "OVP" follows adjustable DC output	110		135	%
over current protection <sup>1</sup>	current limiting 3 times with auto recovery before shutdown				

Notes: 1. Protection mode sends a pulse, waits 1.5 seconds, sends second pulse, waits 3 seconds, sends third pulse, waits 5 seconds. If overload is still present, the unit will shutdown.

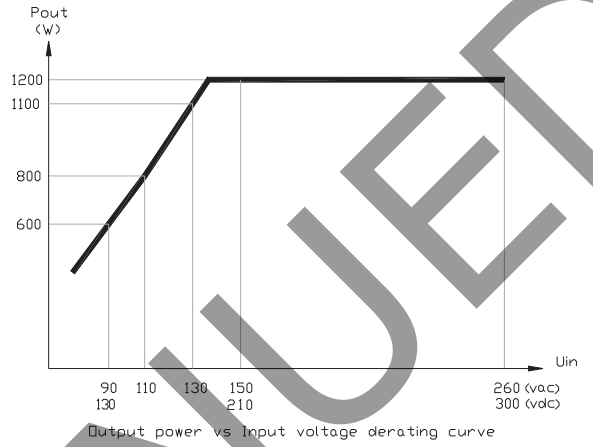
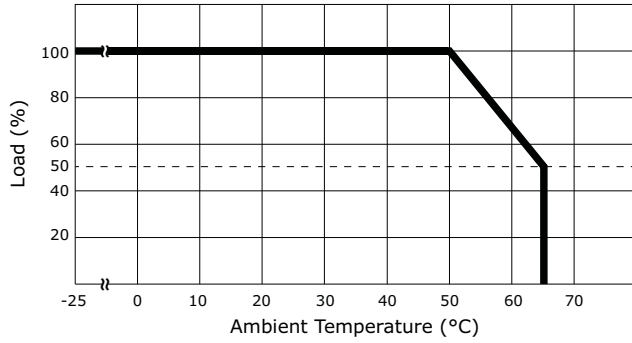
## SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
safety approvals	UL/cUL 1950, TUV EN 60950				
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



DISCONTINUED

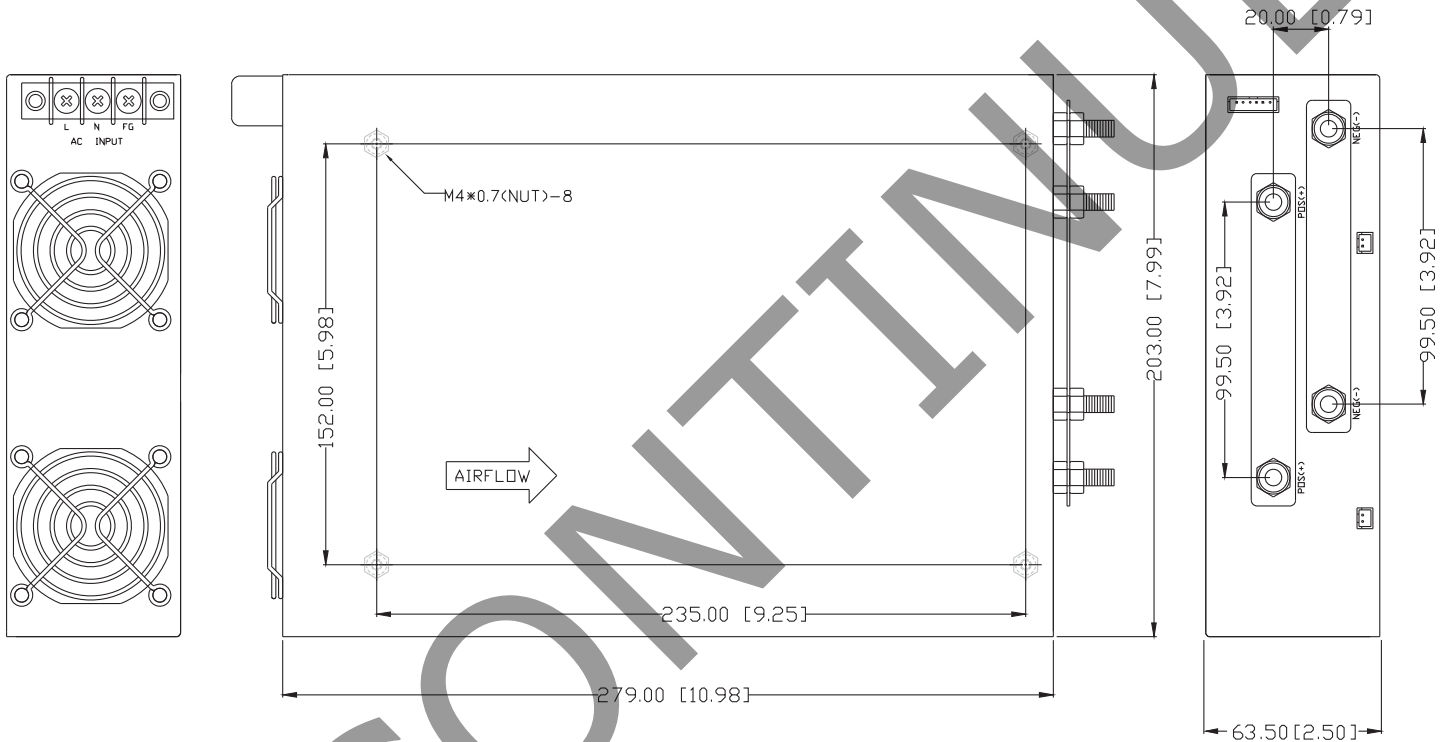
## MECHANICAL

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



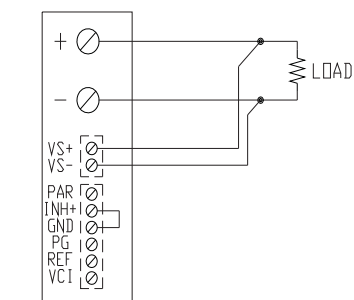
### LOGIC CONNECTOR

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

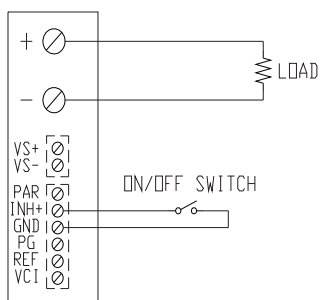
### REMOTE SENSE

1	VS+	output voltage remote sense+
2	VS-	output voltage remote sense-

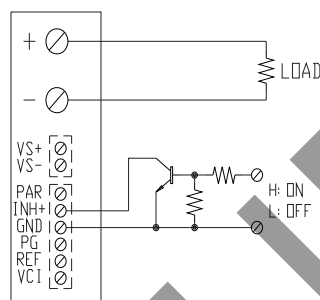
## LOGIC CONNECTIONS



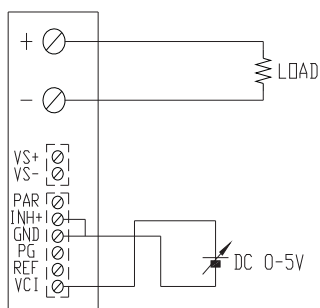
REMOTE SENSING  
(FOR REMOTE SENSING MODEL ONLY)



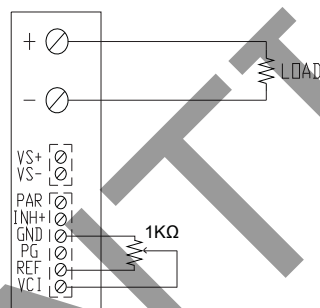
ON/OFF CONTROL BY SWITCH



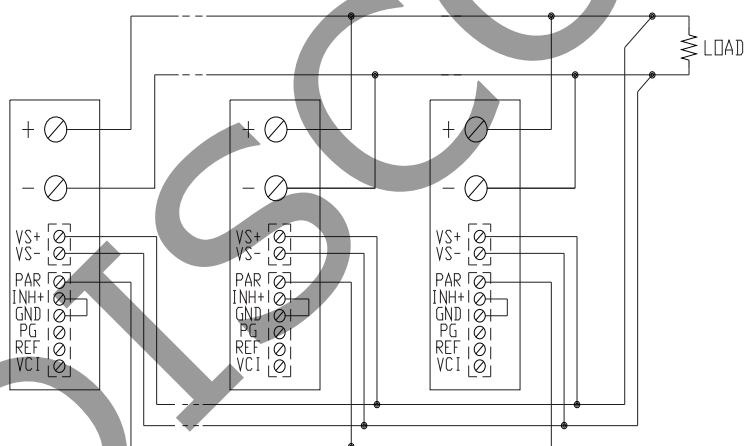
ON/OFF CONTROL BY TRANSISTOR



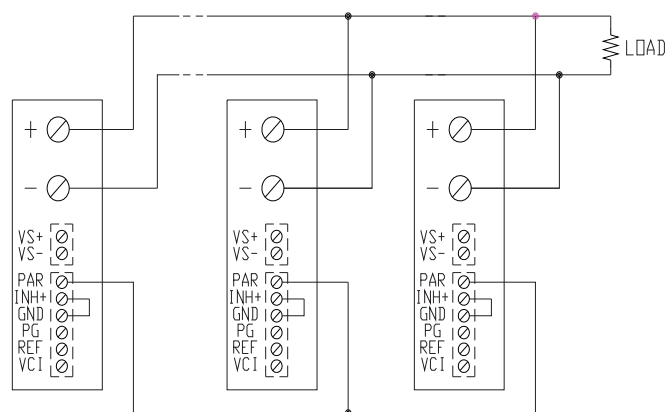
OUTPUT VOLTAGE ADJUST WITH DC 0-5V



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, 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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