SERIES: VSCP-2K4 | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

- up to 2,400 W continuous power
- universal input (90~260 Vac / 130~370 Vdc)
- 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

MODEL	output voltage[1] (Vdc)	output current[2] max (A)	output power max (W)	ripple and noise[3] max (mVp-p)	efficiency typ (%)
VSCP-2K4-09	9	133 / 266	2,400	90	83
VSCP-2K4-12	12	100 / 200	2,400	120	84
VSCP-2K4-15	15	80 / 160	2,400	150	85
VSCP-2K4-18	18	66 / 133.3	2,400	150	85
VSCP-2K4-24	24	50 / 100	2,400	150	88
VSCP-2K4-36	36	33 / 66.6	2,400	150	88
VSCP-2K4-48	48	25 / 50	2,400	150	89
VSCP-2K4-60	60	20 / 40	2,400	150	90

Notes: 1. output voltage is measured at output power connector
2. maximum current is measured at 100~120 V input / 200~240 V 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

PART NUMBER KEY

VSCP-2K4 - XX

Base Number — Output Voltage

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90 130		260 370	Vac Vdc
frequency		47		63	Hz
current	at 230 Vac		13.5		A
inrush current			180		A
power factor correction	at 230 Vac, full load		0.98		

OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation				±1	%
load regulation				±1	%
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	-8		+3	%
programming	output voltage programmable through external 1 ~ 5 V control voltage on VCI. Control voltage can also be obtained from VCO via a 470 KΩ pot. see application diagrams	25		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[1]	current limiting 3 times with auto recovery before shutdown	115		130	%

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	TUV EN 60950, UL/cUL 1950				
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			10.5	mA
RoHS compliant	yes				

ENVIRONMENTAL

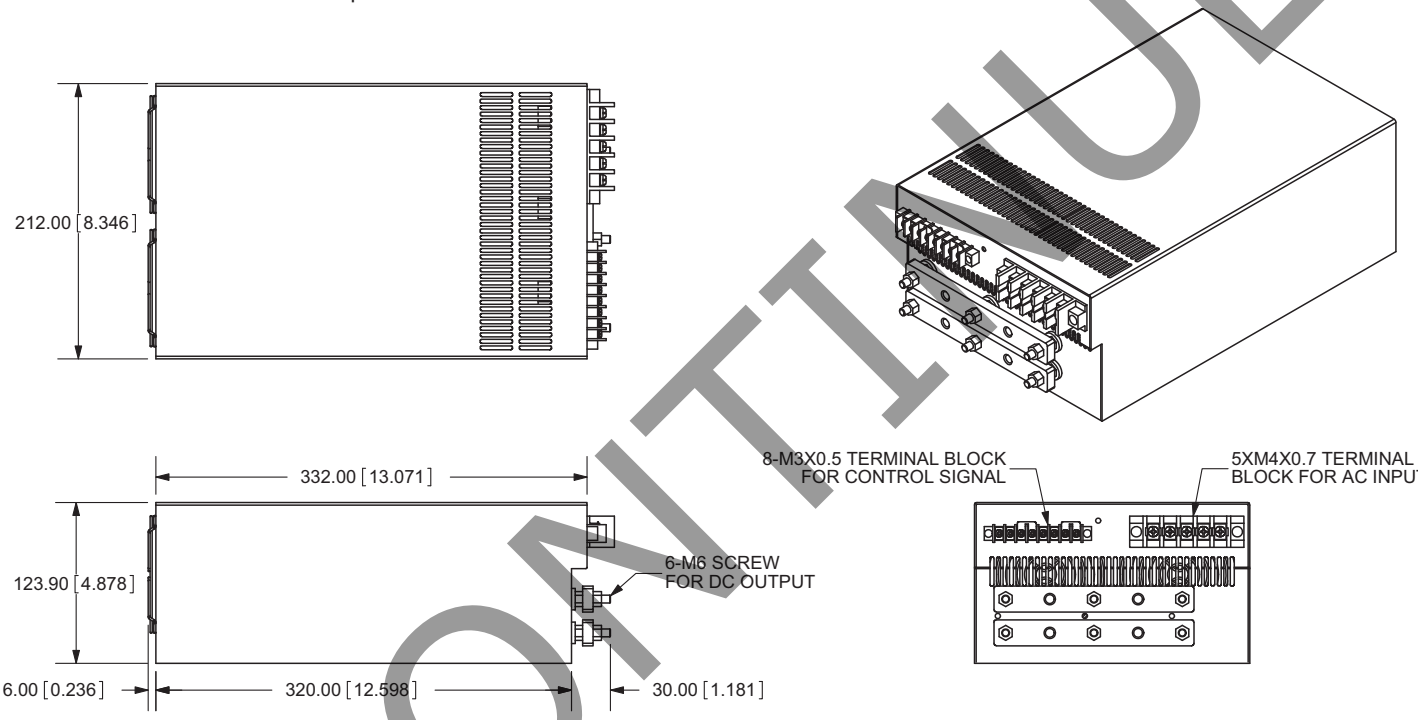
parameter	conditions/description	min	typ	max	units
operating temperature	see derating curves	0		65	°C
storage temperature		-20		85	°C
operating humidity		20		90	%
storage humidity		10		95	%
vibration	10~200Hz, 10min/cycle, 60 min for each axis			2	G

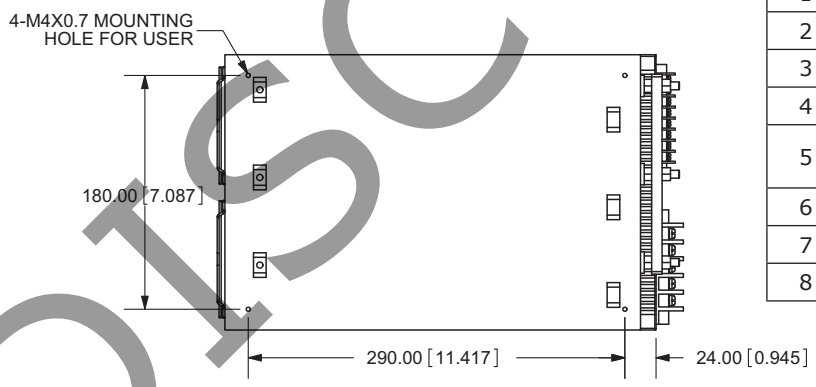
MECHANICAL

parameter	conditions/description	min	typ	max	units
weight			8.9		Kg
dimensions	332 x 212 x 123.9 (13.071 x 8.346 x 4.878 mm)				inch

MECHANICAL DRAWING

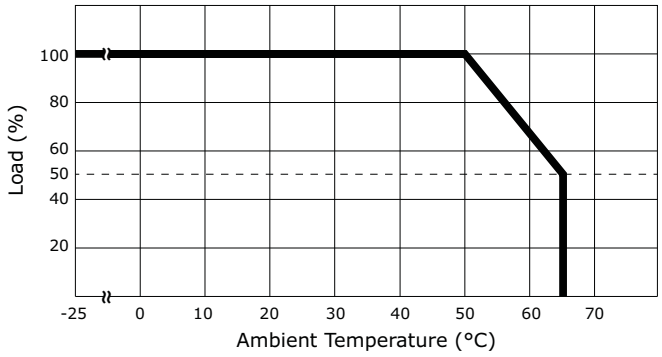
units: mm[inch]
tolerance: ±1.0mm unless otherwise specified

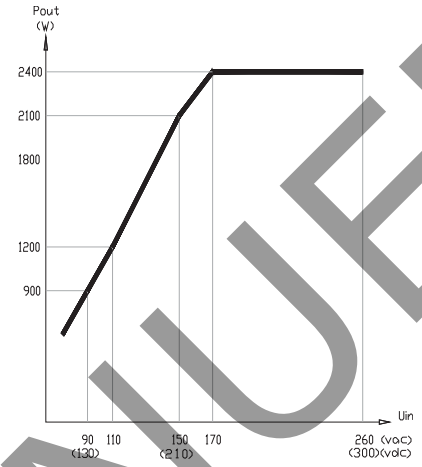




LOGIC CONNECTOR		
1	INH	remote on/off, remote inhibit
2	GND	return, output ground
3	PAR	current sharing, parallel function
4	PG	power good signal
5	VCO	reference output voltage (5.1 Vdc) to be used for output programming
6	VCI	command input voltage for output programming
7	VS(-)	remote sense (-)
8	VS(+)	remote sense (+)

DERATING CURVES

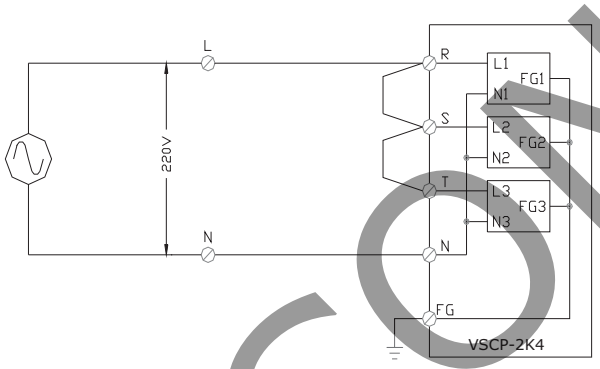




Output power vs. Input voltage derating curve

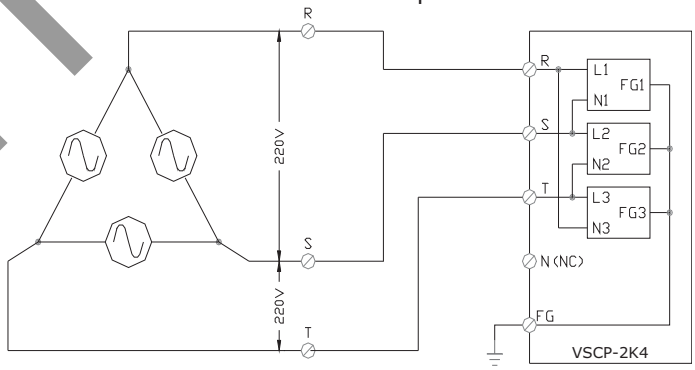
WIRING CONFIGURATIONS

Standard



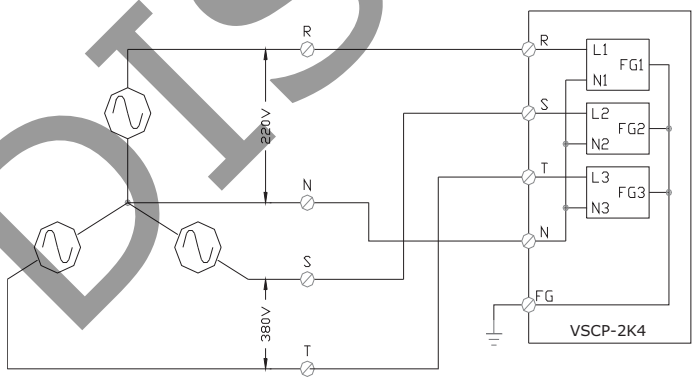
1ø 220VAC SYSTEM

Optional



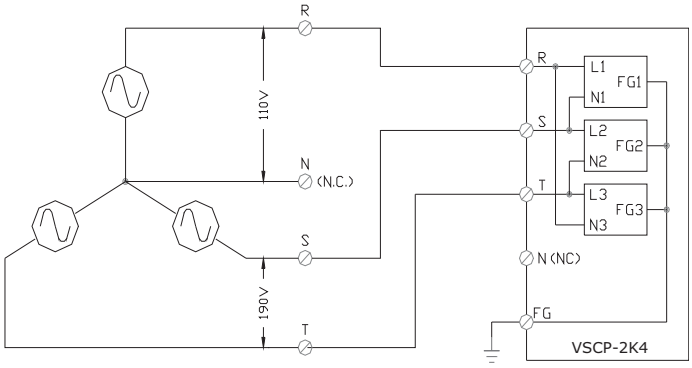
3ø 3W 220VAC SYSTEM

Optional



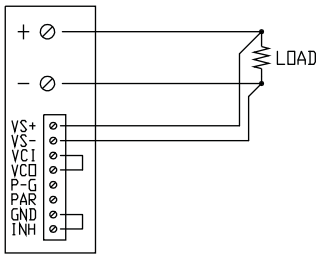
3ø4W 220/380VAC SYSTEM

Optional

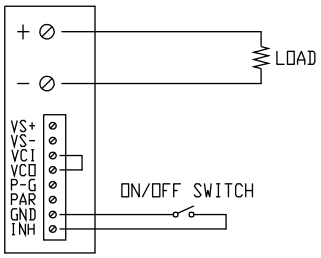


3ø4W 110/190VAC SYSTEM

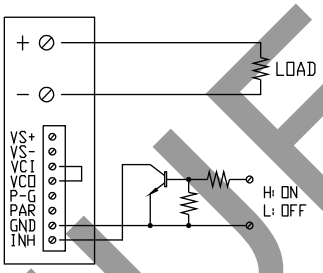
LOGIC CONNECTIONS



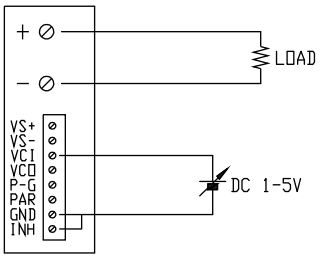
REMOTE SENSING



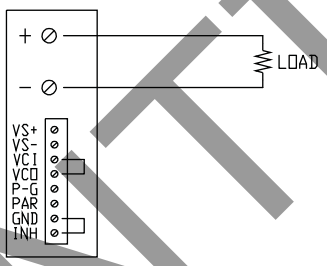
ON/OFF CONTROL BY SWITCH



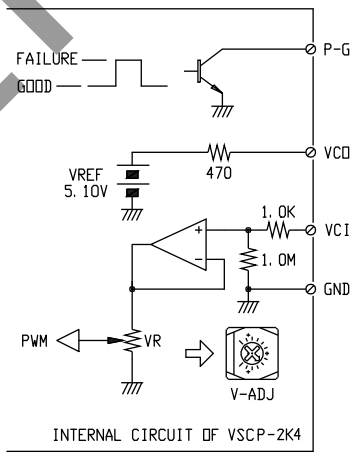
ON/OFF CONTROL BY TRANSISTOR



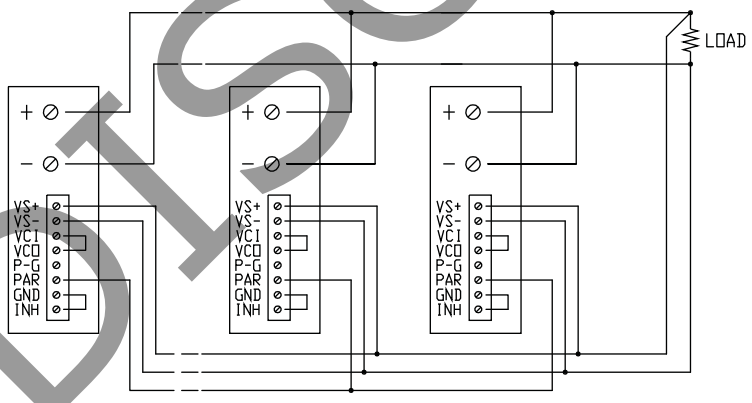
OUTPUT VOLTAGE ADJUST WITH DC 1-5V



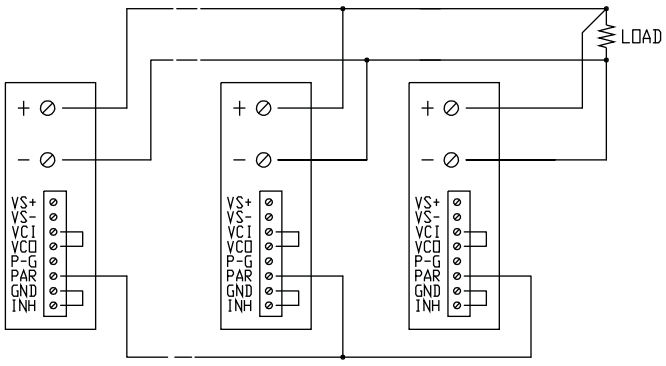
USING INTERNAL VOLTAGE CONTROL



VCI, VCO AND P-G SIGNAL



PARALLEL OPERATION WITH REMOTE SENSING



PARALLEL OPERATION WITHOUT REMOTE SENSING

REVISION HISTORY

rev.	description	date
1.0	initial release	08/20/2007
1.01	applied new spec template	08/07/2008
1.02	applied new spec template, corrected over current protection	09/26/2011
1.03	spec updated	02/13/2012
1.04	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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