

SERIES: VSCP-2K0 | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

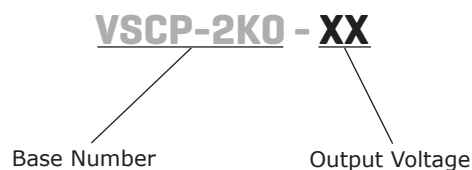
- up to 2,000 W continuous power
- universal input (90~260 Vac / 130~370 Vdc)
- single output from 9~60 V
- programmable output voltage
- active power correction (98%)
- current sharing capable
- power good, remote sense, remote on/off control
- built-in DC fan
- over load, over voltage, over temperature, and short circuit protections
- UL and TUV safety approvals
- efficiency up to 90%



MODEL	output voltage ¹	output current ²	output power	ripple and noise ³	efficiency
	(Vdc)	max (A)	max (W)	max (mVp-p)	typ (%)
VSCP-2K0-09	9	133 / 222	2,000	90	83
VSCP-2K0-12	12	100 / 166	2,000	120	84
VSCP-2K0-15	15	80 / 133	2,000	150	85
VSCP-2K0-18	18	66 / 111.1	2,000	150	86
VSCP-2K0-24	24	50 / 83	2,000	150	88
VSCP-2K0-36	36	33 / 55.5	2,000	150	88
VSCP-2K0-48	48	25 / 41	2,000	150	89
VSCP-2K0-60	60	20 / 33	2,000	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 μ F ceramic capacitor and a 22 μ F electrolytic capacitor in parallel

PART NUMBER KEY


INPUT

parameter	conditions/description	min	typ	max	units
voltage		90 130		260 370	Vac Vdc
frequency		47		63	Hz
current	at 230 Vac		11.5		A
inrush current	peak measured at 230 Vac, cold start		180		A
power factor correction	at 230 Vac, full load		0.98		

OUTPUT

parameter	conditions/description	min	typ	max	units
temperature coefficient	0 ~ 50°C		±0.02		%/°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				

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.

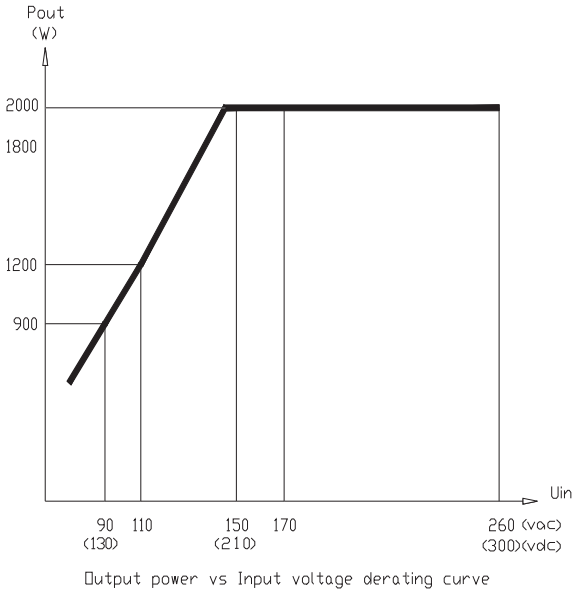
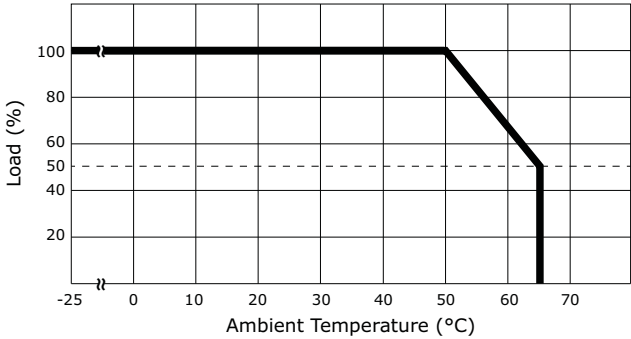
SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
safety approvals	UL/cUL 1950, TUV 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			10.5	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

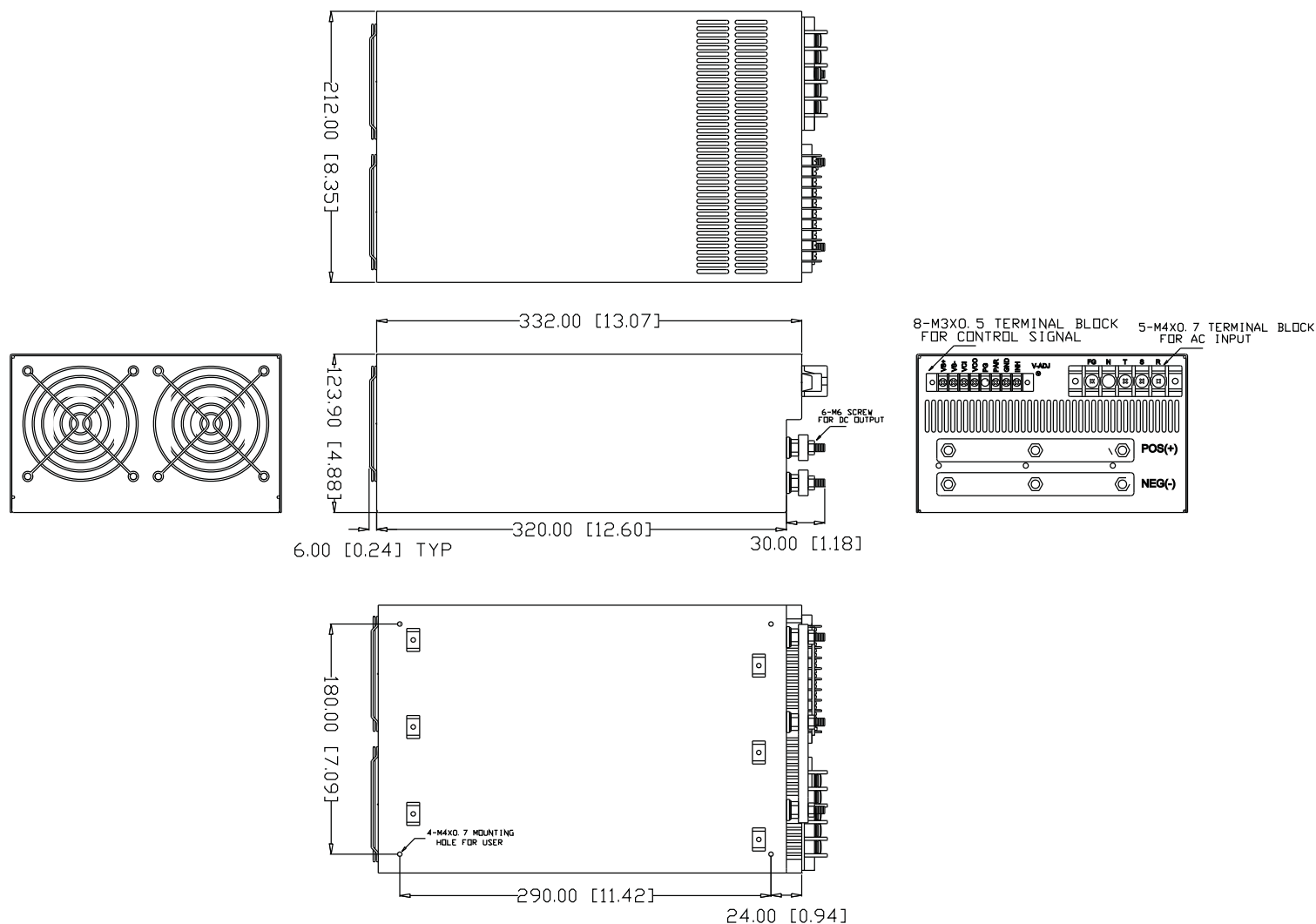


MECHANICAL

parameter	conditions/description	min	typ	max	units
weight			8.9		Kg
dimensions	13.07 x 8.35 x 4.88 (332 x 212 x 123.9 mm)				inch

MECHANICAL DRAWING

units: mm[inch]

tolerance: $\pm 1.0\text{mm}$ unless otherwise specified

LOGIC CONNECTOR

Pin	Signal	Description
1	VS+	output voltage remote sense+
2	VS-	output voltage remote sense-
3	VCI	command input voltage for output programming
4	VCO	5.1V Vdc reference for output programming
5	PG	power good signal
6	PAR	current sharing / parallel function
7	GND	return / output ground
8	INH	inhibit / remote on-off

WIRING CONFIGURATIONS

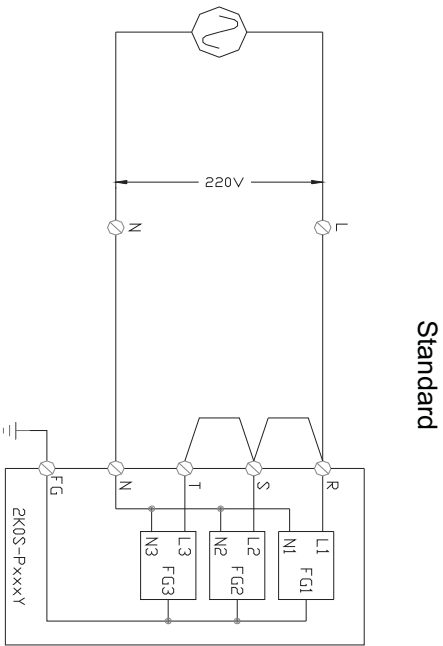


FIG. B: 1Ø 220VAC SYSTEM

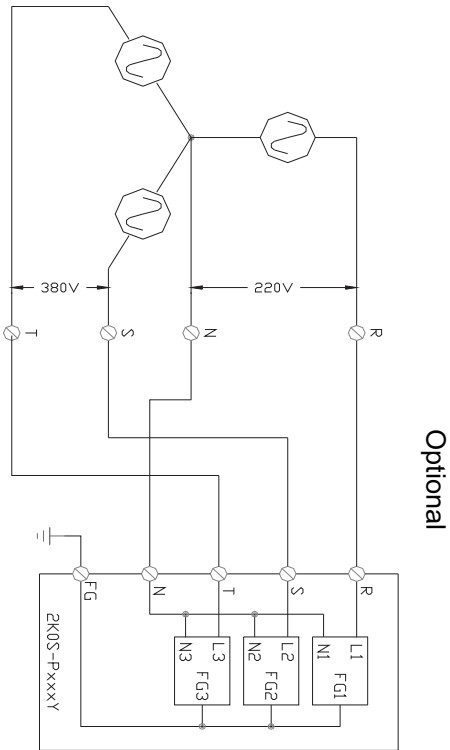


FIG. A: 3Ø4W 220/380VAC SYSTEM

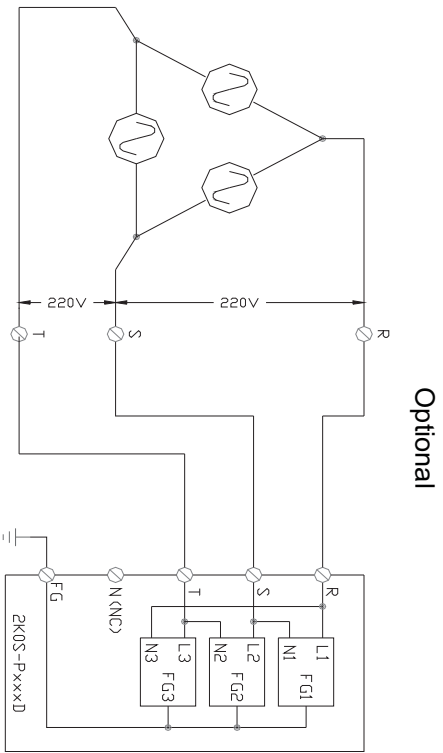


FIG. C: 3Ø 3W 220VAC SYSTEM

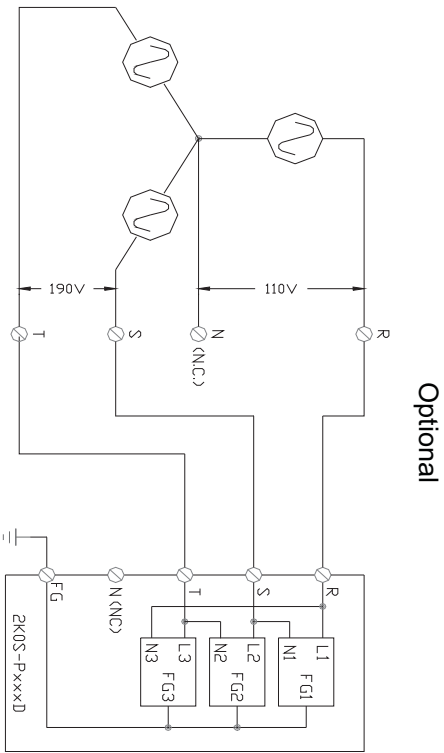
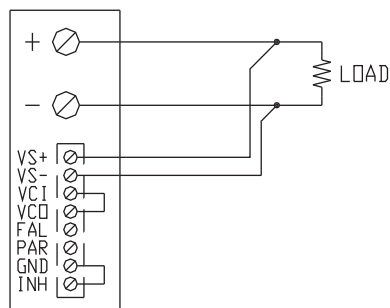
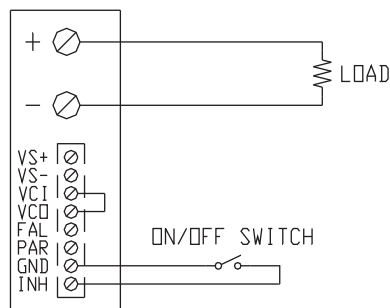


FIG. D: 3Ø4W 110/190VAC SYSTEM

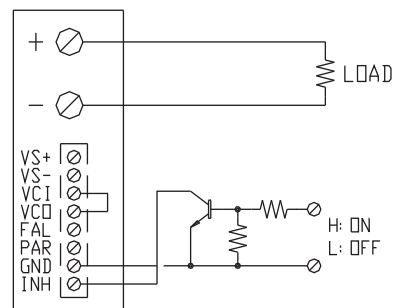
LOGIC CONNECTIONS



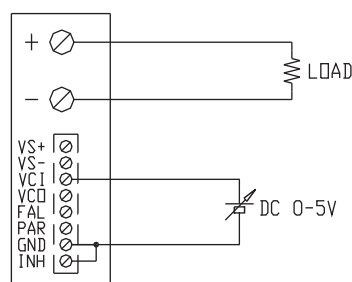
REMOTE SENSING



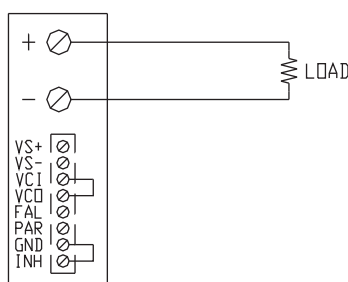
ON/OFF CONTROL BY SWITCH



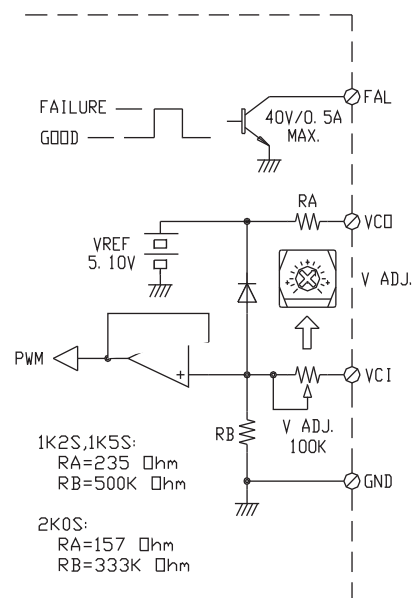
ON/OFF CONTROL BY TRANSISTOR



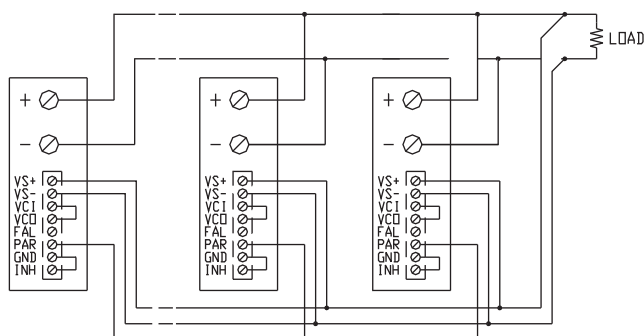
OUTPUT VOLTAGE ADJUST WITH DC 0-5V



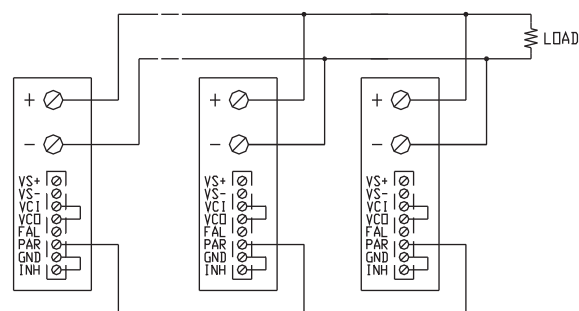
USING INTERNAL VOLTAGE CONTROL



VCI AND VCO SIGNAL



PARALLEL OPERATION WITH REMOTE SENSING



PARALLEL OPERATION WITHOUT REMOTE SENSING

REVISION HISTORY

rev.	description	date
1.0	initial release	07/12/2006
1.01	new template applied	08/07/2008
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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