

## CVS Hardwired Series – Constant Voltage Transformers

Superior voltage regulation of  $\pm 1\%$  sets the CVS series apart from other power conditioning technologies on the market. Extremely tight regulation is accomplished by SolaHD's ferroresonant transformer technology. The CVS recreates a well regulated sinusoidal waveform that is well isolated from input disturbances including:

- Impulses
- Swells
- Brownouts
- Sags
- Severe waveform distortion

No other power conditioning technology provides as complete a solution against these power quality disturbances. The CVS series is ideal for applications where even a small change in voltage level can lead to unscheduled downtime, misoperation, incorrect data or scrapped production.

### Applications

- Industrial automation and control equipment PLCs
- Analytical laboratory and factory automating equipment
- Photo processing equipment
- Sound/recording systems
- Photographic enlargers
- Broadcast equipment

### Features

- Superior voltage regulation of  $\pm 1\%$
- Surge protection tested to ANSI/IEEE C62.41, Class A & B waveform
- Harmonic filtering

### Selection Tables: Single Phase

#### Group 1 – CVS Series, 60 Hz

VA	Catalog Number	Voltage Input	Voltage Output	Height in (mm)	Width in (mm)	Depth in (mm)	Ship Weight lbs (kg)	Design Style	Elec Conn
30	23-13-030-2	120	120	7.00 (177.8)	4.00 (101.6)	5.00 (127.0)	9.0 (4.08)	1	J
60	23-13-060-2	120	120	7.00 (177.8)	4.00 (101.6)	5.00 (127.0)	9.0 (4.08)	1	J
120	23-22-112-2	120, 240	120	8.00 (203.2)	4.00 (101.6)	5.00 (127.0)	13.0 (5.90)	1	J
250	23-23-125-8	120, 240, 480	120	11.00 (279.4)	6.00 (152.4)	8.00 (203.2)	29.0 (13.15)	1	G
500	23-23-150-8	120, 208, 240, 480	120, 240	13.00 (330.2)	9.00 (228.6)	7.00 (177.8)	42.0 (19.05)	1	H
1000	23-23-210-8	120, 208, 240, 480	120, 240	17.00 (431.8)	9.00 (228.6)	7.00 (177.8)	65.0 (29.48)	1	H
2000	23-23-220-8	120, 208, 240, 480	120, 240	18.00 (457.2)	13.00 (330.2)	10.00 (254.0)	111.0 (50.35)	1	H
3000	23-23-230-8	120, 208, 240, 480	120, 240	19.00 (482.6)	13.00 (330.2)	10.00 (254.0)	142.0 (64.41)	1	H
5000	23-23-250-8	120, 208, 240, 480	120, 240	28.00 (711.2)	13.00 (330.2)	10.00 (254.0)	222.0 (100.70)	1	H
7500 *	23-28-275-6	240, 480	120, 240	27.00 (685.8)	25.00 (635.0)	9.00 (228.6)	365.0 (165.56)	2	J

\* This unit is  Listed only.



- Hardwired
- Acts as a step-up/step-down transformer
- Galvanic isolation provides exceptional circuit protection
- 25 year typical mean time between failure
- No maintenance required

### Certifications and Compliances

-  Listed
  - UL 1012
  - CSA C22.2 No. 66
- RoHS Compliant

### Related Products

- On-line UPS (S4K Industrial)
- Surge Protection
- Three Phase Power Conditioners
- Active Tracking® Filters

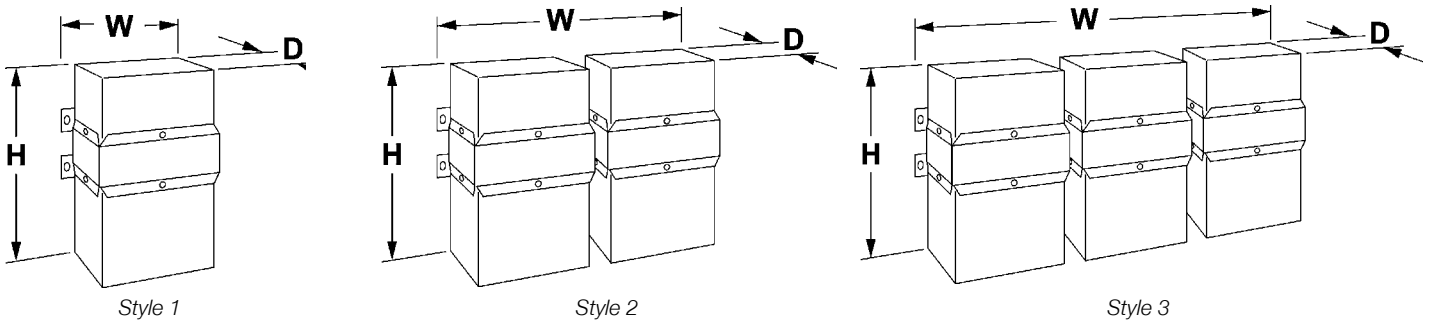
Specifications

Parameter	Condition	Value
<b>Input</b>		
<b>Voltage</b>	Continuous at full load (lower input voltage possible at lighter load)	+10% to -20% of nominal
	For temporary surge or sags	+20% to -35% of nominal
<b>Current</b> <sup>1</sup>	at Full Load & 80% of nominal input voltage	$I_n \cong (VA/.87)/(V_{in} \times 80\%)$
<b>Frequency</b>	See Operating Characteristics section for details.	60 Hz
<b>Output</b> <sup>2</sup>		
<b>Line Regulation</b>	$V_{in} >80\%$ and $<110\%$ of nominal	$\pm 1\%$
<b>Overload Protection</b>	At Nominal Input Voltage	Current limited at 1.65 times rated current
<b>Output Harmonic Distortion</b>	At Full Load within Input Range	3% total RMS content
<b>Noise Attenuation</b>	-Common Mode	40 dB
	-Transverse Mode	40 dB
<b>General</b>		
<b>Efficiency</b>	At Full Load	Up to 92%
<b>Storage Temperature</b>	Humidity $<95\%$ non-condensing	$-20^\circ$ to $80^\circ\text{C}$
<b>Operating Temperature</b>	Humidity $<95\%$ non-condensing	$-20^\circ$ to $50^\circ\text{C}$
<b>Audible Noise</b>	Full Resistive Noise	32 dBA to 65 dBA
<b>Warranty</b>	10 year limited warranty	

Notes:

- 1 - Consult user manual for fuse sizing.
- 2 - It is recommended that the unit run at a minimum of 40-50% load.  
See the Operating Characteristics section for more details.

Design Styles (CVS and MCR Hardwired)



These styles are single phase only.