

# 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
- Brownouts
- Severe waveform distortion
- Swells
- Sags



## Suitable Applications

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

## Features & Benefits


- Superior voltage regulation of  $\pm 1\%$
- Surge protection tested to ANSI/IEEE C62.41, Class A & B waveform
- Harmonic filtering
- Hardwired
- Acts as a step-up/step-down transformer
- Galvanic isolation provides exceptional circuit protection
- 25 year typical mean time between failure
- Low maintenance required

## Certifications and compliances

-  Listed
  - UL 1012
  - CSA C22.2 No. 107.1
- RoHS Compliant

## 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
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 <sup>Ⓢ</sup>	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

<sup>Ⓢ</sup> This unit is  Listed only.

For more information:  
[www.Emerson.com/SolaHD](http://www.Emerson.com/SolaHD)

**SOLAHD™**

  
**EMERSON™**

# CVS Hardwired series: Constant voltage transformers

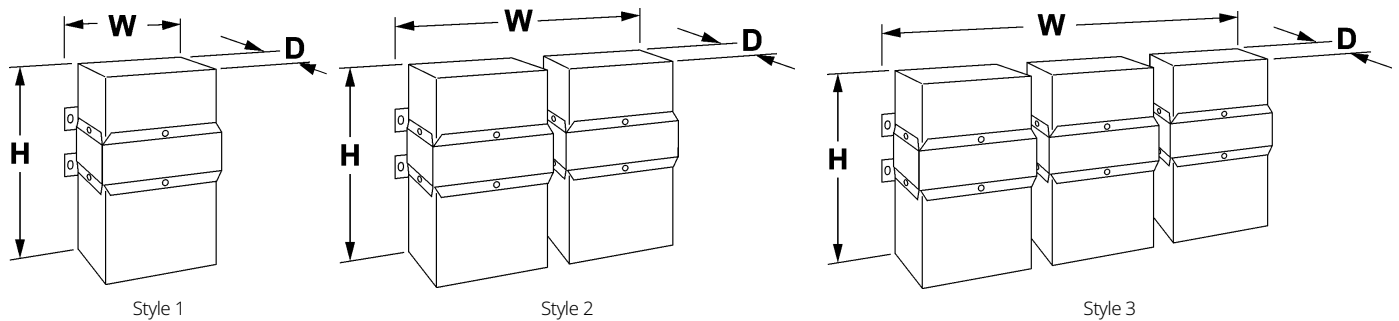
## Specifications

Parameter	Condition	Value
<b>Input</b>		
Voltage	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
Current $\Phi$	at Full Load & 80% of nominal input voltage	$I_{in} \cong (VA/.87)/(V_{in} \times 80\%)$
Frequency	Please refer to catalog for more details.	60 Hz
<b>Output <math>\ominus</math></b>		
Line Regulation	$V_{in} > 80\%$ and $< 110\%$ of nominal	$\pm 1\%$
Overload Protection	At Nominal Input Voltage	Current limited at 1.65 times rated current
Output Harmonic Distortion	At Full Load within Input Range	3% total RMS content
Noise Attenuation	-Common Mode	40 dB
	-Transverse Mode	40 dB
<b>General</b>		
Efficiency	At Full Load	Up to 92%
Storage Temperature	Humidity $< 95\%$ non-condensing	$-20^{\circ}$ to $80^{\circ}\text{C}$
Operating Temperature	Humidity $< 95\%$ non-condensing	$-20^{\circ}$ to $50^{\circ}\text{C}$
Audible Noise	Full Resistive Noise	32 dBA to 65 dBA
Warranty	10 year limited warranty	

$\Phi$  Consult user manual for fuse sizing.

$\ominus$  It is recommended that the unit run at a minimum of 40-50% load. Please refer to catalog for more details.

## Design Styles $\Phi$ (CVS and MCR Hardwired)



$\Phi$  These styles are single phase only.

The Emerson logo is a trademark and service mark of Emerson Electric Co. Brand logotype are registered trademarks of one of the Emerson family of companies. All other marks are the property of their respective owners. ©2024 Emerson Electric Co. All rights reserved.