

CVS Hardwired Series – Constant Voltage Transformers

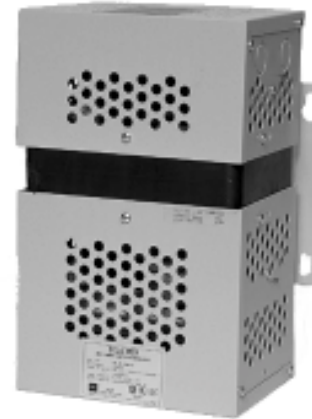
Superior voltage regulation of $\pm 1\%$ sets the CVS series apart from other power conditioning technologies on the market. Extremely tight regulation is accomplished by Sola/Hevi-Duty's patented ferroresonant transformer technology. The CVS recreates a well regulated sinusoidal waveform that is well 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.

Features

- Superior voltage regulation of $\pm 1\%$.
- Surge suppression 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 Before Failure.
- No maintenance required.



CVS Hardwired Series

Applications

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

Related Products

- On-line UPS (S4K Industrial)
- Surge Suppression
- Three Phase Power Conditioners

Selection Tables: Single Phase

Group 1 – CVS Series, 60 Hz



| VA | Catalog Number | Voltage Input | Voltage Output | Height (inch) | Width (inch) | Depth (inch) | Ship Weight (lbs) | Design Style | Elec Conn |
|-------|----------------|--------------------|----------------|---------------|--------------|--------------|-------------------|--------------|-----------|
| 30 | 23-13-030-2 | 120 | 120 | 6 | 4 | 5 | 7 | 1 | J |
| 60 | 23-13-060-2 | 120 | 120 | 7 | 4 | 5 | 9 | 1 | J |
| 120 | 23-22-112-2 | 120, 240 | 120 | 8 | 4 | 5 | 13 | 1 | J |
| 250 | 23-23-125-8 | 120, 240, 480 | 120 | 11 | 6 | 8 | 29 | 1 | G |
| 500 | 23-23-150-8 | 120, 208, 240, 480 | 120, 240 | 13 | 9 | 7 | 42 | 1 | H |
| 1000 | 23-23-210-8 | 120, 208, 240, 480 | 120, 240 | 17 | 9 | 7 | 65 | 1 | H |
| 2000 | 23-23-220-8 | 120, 208, 240, 480 | 120, 240 | 18 | 13 | 10 | 111 | 1 | H |
| 3000 | 23-23-230-8 | 120, 208, 240, 480 | 120, 240 | 19 | 13 | 10 | 142 | 1 | H |
| 5000 | 23-23-250-8 | 120, 208, 240, 480 | 120, 240 | 28 | 13 | 10 | 222 | 1 | H |
| 7500* | 23-28-275-6 | 240, 480 | 120, 240 | 27 | 25 | 9 | 365 | 2 | J |

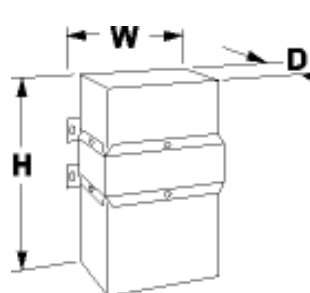
*This unit is not CSA Certified.

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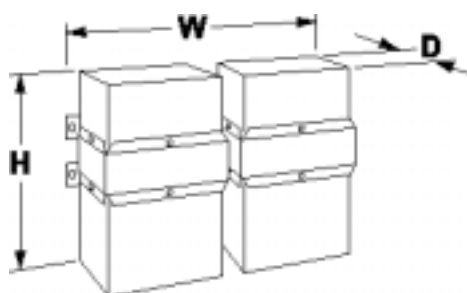
Specifications

| Parameter | Condition | Value |
|--|--|---|
| Input | | |
| 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 ¹ | at Full Load & 80% of nominal input voltage | $I_{in} \cong (VA / .87) / (V_{in} * 80\%)$ |
| Frequency | See Operating Characteristics section for details. | 60 Hz |
| Output | | |
| 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 | 3% total RMS content at full load. | |
| Noise Attenuation | -Common Mode | 40 dB |
| | -Transverse Mode | 40 dB |
| General | | |
| Efficiency | at Full Load | |
| Storage Temperature | Humidity < 95% non-condensing | -20° to 85°C |
| Operating Temperature | Humidity < 95% non-condensing | -20° to 50°C |
| Audible Noise | | 32 dBA to 65 dBA |
| Approvals | 60 Hz Models | UL1012, CSA ² |
| Warranty | See General Information section for details | 10 + 2 Years |
| Notes: 1 - Consult user manual for fuse sizing. 2 - Applies to all models except 23-28-275-6. | | |

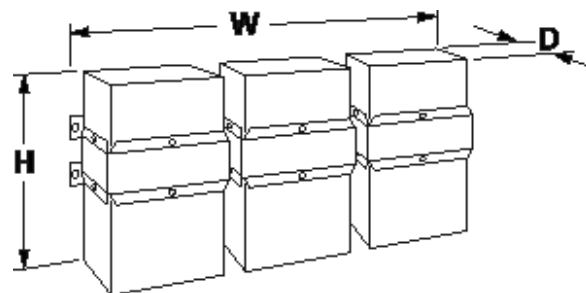
Design Styles (CVS and MCR Hardwired)



Style 1



Style 2



Style 3

These styles are single phase only.