

ACTIVE VOLTAGE CONDITIONER (AVC)

25kVA to 75kVA, High Performance Digital Voltage Conditioning Solution.



Description

The Active Voltage Conditioner (AVC) from Vectek Electronics is an inverter based system that protects sensitive industrial and commercial loads from voltage disturbances. It provides fast, accurate voltage sag correction plus continuous voltage regulation and load voltage compensation. The AVC provides the required equipment immunity from the level of voltage sags expected on the AC supply network. This model of AVC is available in load capacities of 25kVA - 75kVA and has

an operating efficiency exceeding 98%. It offers extremely fast response to three-phase sags down to 50%, and single-phase sags down to 25% on the ac supply network.

All AVC models provide continuous regulation within -10% of the nominal mains voltage and remove voltage unbalance from the supply. Optionally models can be configured to remove flicker and harmonic voltages from the supply.

Options

- 208VAC 60Hz Supply
- 600VAC 60Hz Supply
- Consult factory for larger options
- Flicker correction

Key Features

- Three-phase sag correction down to 50%
- Single-phase sag correction down to 25%
- Continuous voltage regulation
- Unbalanced voltage correction
- User adjustable set point
- Fast (sub-cyclic) response
- Compact Footprint
- Load dedicated solution
- Simple user controls
- Plain English 4x20 character LCD display
- Rugged overload capability
- Fuse clearing ability
- Short circuit protected
- Extensive diagnostics
- Fault log
- Voltage event log

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Technical Specifications

Load Capacity

- | | |
|---------|-------|
| 480V | 400V |
| • 25kVA | 21kVA |
| • 50kVA | 42kVA |
| • 75kVA | 63kVA |

Rated Voltage

Nominal Supply Voltage

- 208/460/480/600V, 60Hz
- 380/400/415/440V, 50Hz
- 3 phase, 3 or 4 wire plus ground

Maximum Supply Voltage

- 110% of nominal supply voltage

Minimum Supply Voltage

- 50% of nominal (running)
- 75% of nominal (starting)

Correction

- +30% 3-phase, +50% 1-phase back to 100% for 10 sec plus
- +10% three-phase continuous

Voltage Regulation

- +/- 1%, up to 10% correction continuously
- +/- 2.5% at 30% correction
- Output voltage set point adjustable

Response (to sag event)

- Initial correction provided within 1ms, completed within 8 milliseconds.

Efficiency

- 98 - 99%

Environment

- Operating temperature: 0 - 40° (50°C maximum with 20% derating)
- Cooling: Forced ventilation
- Relative humidity 0 - 90% (non condensing)

Bypass

- AVC Load rating (kVA) *1
- 125% for 10 minutes
- 150% for 1 minute
- inverter to bypass <0.5ms

*1 The AVC provides continuous correction and only transitions to and from bypass under fault or overload conditions, or when manually starting and stopping.

Protection

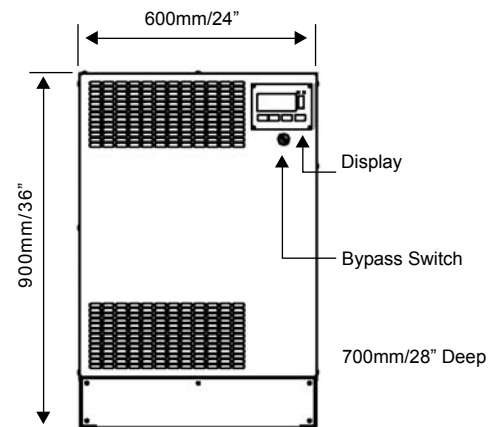
- Inverter input semiconductor fuses
- Inverter and transformer thermal protection
- Input voltage out of tolerance protection
- Output overload protection
- Output short circuit protection

Controls

- 4 line LCD with input and output voltage and current displayed
- Full parameter control from keypad
- Voltage set point adjustable in 0.1% steps
- RUN control to start and stop converter
- Dry contacts indicating fault, run and overload status
- External customer enable

Standards Compliance

SEMI F47 for 40% units



Cabinet Dimensions



tame your power—keep your profits

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