

Single-Phase Active Voltage Conditioner 10-30kVA

This active voltage conditioner protects industrial and commercial loads from voltage disturbances. It provides voltage sag and surge correction, continuous voltage regulation, and load voltage compensation.



ADDITIONAL IMAGES



Overview



Advanced Voltage Protection

The YIY-AVC is an inverter-based system designed to protect sensitive industrial and commercial loads from voltage disturbances. It provides fast and accurate correction for voltage sags and surges, alongside continuous regulation and load voltage compensation. This system is optimally engineered to ensure equipment immunity from power quality events on the supply network without the need for batteries.

Key Performance Metrics

Performance Highlights

95 %

Typical Efficiency

0.5 ms

Transfer Time to Bypass

0.5 %

Regulation Accuracy

600 ms

Control Ride Through

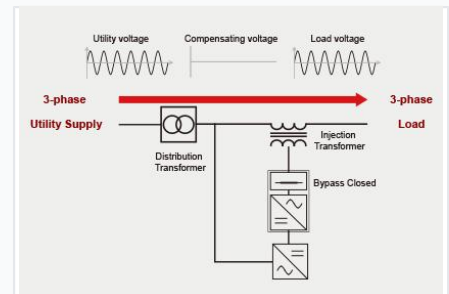
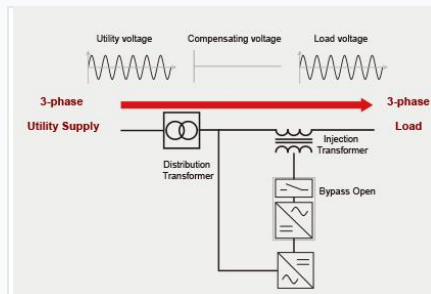
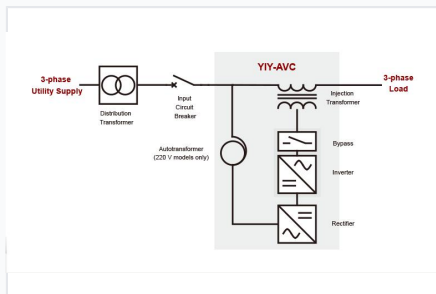
Technical Specifications

Available Power Ratings

- 10 kVA
- 15 kVA
- 20 kVA
- 30 kVA

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|----------------------------------|---------------------------------------|
| Utility Input Range | 187V - 253V (for 220V nominal) |
| Frequency Range | 50Hz/60Hz \pm 5Hz |
| Inverter Overload Capacity | 150% for 21 seconds (once every 500s) |
| Total Harmonic Distortion (THDv) | < 3% |

Operational Features



Redundant Internal Bypass

In the event of an overload or internal fault, a redundant internal bypass system ensures the load continues to be supplied directly from the utility without interruption. The transfer time to bypass is less than 0.5ms.

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| Core Functions | Voltage Sag Correction, Surge Correction, Continuous Voltage Regulation, Load Voltage Compensation |
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Protection & Interface

Safety Protections

- Input Over/Low Voltage Protection
- Output Over/Low Voltage Protection
- Input Over Current Protection
- Transformer Over-heat Protection
- Output Overload Protection

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| Control Interface | 7-inch Touch Screen with parameter control, fault logs, and history curves |
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Environmental Standards

Ingress Protection

IP20

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|-----------------------|--|
| Operating Temperature | 0°C to 50°C (Derating above 40°C) |
| Cooling System | Forced ventilation (Inverter) / Natural convection (Transformer) |
| Acoustic Noise | < 75dBA @ 2 meters |

Applications

Y1Y-AVC APPLICATION



Target Industries

- Electronics Manufacturing
- Medical Facilities (MRI/CT)
- Pharmaceutical Production
- Continuous Process Automation
- Automotive Assembly
- Food and Beverage Processing