

400Hz Power Supply / Ground Power Unit



AMV series is a new generation of ground power unit which designed for aviation and military industry. Its compact size and light weight make it suitable for airport, flight test station, aircraft maintenance station, hangar, product assembly line and other places. It provides a stable 400Hz power (optional 800Hz available), with good environmental proof design and outdoor capability.

The output voltage of AMV series are 115 / 200V or 115 / 200V \pm 10% which is easy for voltage djustment. AMV series comes with two kinds of output frequency, 400Hz fixed or 300-500Hz adjustable.

Robust overload capacity can handle the inrush current of military or aviation equipment. Enclosure protection level is up to IP54 and it has stand-alone or trailer model available for different applications.

Product Features

- VFD operation interface: intuitive, easy to use and high protection level and phase angle adjustment.
- Overload Capacity : 125% for 600 secs, 150% for 30 secs, 200% for 10 secs, and extended overload is optional.
- EF signal chain function.
- Enclosure protection rating is up to IP54; all parts are treated with salt corrosion-resisting, damp-resisting and mold-resisting coat; the working temperature can be up to -40°C ~ 55°C.
- Complied with MIL-STD-704.
- Optional dual outputs for multiple load applications.
- Emergency stop button to stop the output quickly.
- Comprehensive protections which include output undervoltage /overvoltage, overcurrent, overload, input undervoltage/overvoltage, overheat and other more than twenty fault conditions.
- Modularized inverter which is compact, smaller, high power density and easy to maintain.

Output Power

30kVA~180kVA

Interfaces

Standard **RS-485**

Applications

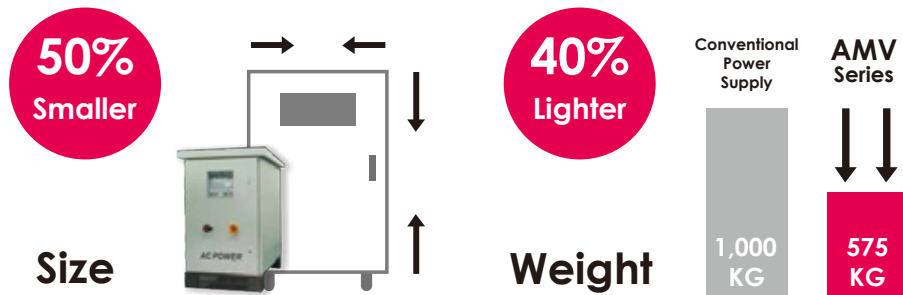
- ☐ Aerospace & Defense
- ☐ Repair Station
- ☐ Hangar
- ☐ Avionic Laboratory

QR Code



**Product
Info.**

Compact & Lighter



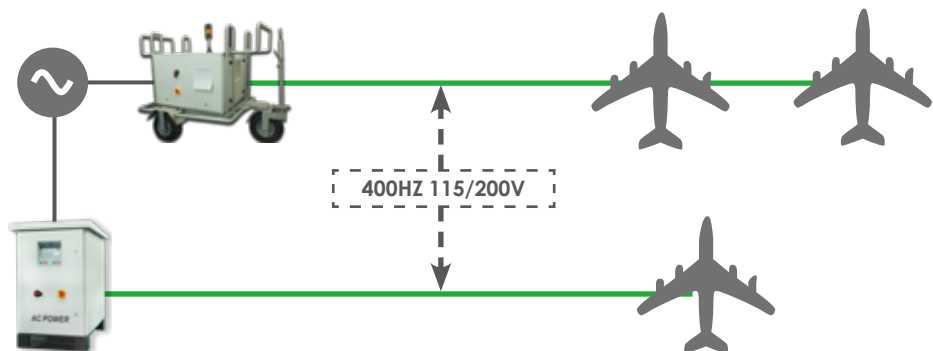
Preen's latest ground power unit, the AMV series, has been greatly improved on size and weight. Compared to the previous version ground power unit, the AMV series can be up to 50% smaller and 40% lighter. This leading power density makes it easier on installation and relocation, providing a great flexibility.

High Overload Capability & Rugged Design



With the protection level up to IP 54, the AMV series is a ground power unit designed for outdoor usage. The overall design and main components have been ruggedized for harsh environments. For inductive type of DUT, such as motor or compressor, the AMV series has standard overload capability of 125%, 150% and 200%, and it is extensible up to 300%, which makes it suitable for DUT with high startup inrush current and can further reduce the cost on scaling up the power unit.

Ground Power Applications



The AMV series has been widely installed at hangars, airports, aircraft repair stations and factories to deliver stable 400Hz or up to 800Hz power to aircraft or components. User can also select dual outputs to power up multiple units with one AMV series. The AMV series can be installed on a trailer for easy relocation and to provide user with great convenience.

SPECIFICATIONS

AMV Series Three-Phase Output (30kVA - 180kVA)

Model		AMV-33030	AMV-33045	AMV-33060	AMV-33090	AMV-33120	AMV-33150	AMV-33180
INPUT								
Phase		3Ø / 3 Wire + G						
Voltage ^{*1}		380V±15%						
Frequency		50 Hz ± 3Hz · 60Hz ± 3Hz						
Max. Current ^{*2}		61.8A	92.8A	123.7A	185.5A	247.3A	309.2A	371A
Power Factor		≥ 0.94 (Max. Power)						
OUTPUT								
Power	VA	30kVA	45kVA	60kVA	90kVA	120kVA	150kVA	180kVA
Phase		3Ø / 4 Wire + G						
Voltage Ranges		115 / 200V ±10%						
Voltage Resolution		0.1V						
Voltage Accuracy		0.5% F.S.+4 counts						
Frequency Range		AMV-T : 400Hz (Trailer) & AMV-F : 300-500 Hz (Stand-Alone)						
Frequency Resolution		0.1Hz						
Frequency Accuracy		±0.02% F.S.						
Max. Current (RMS)		87A	130.4A	173.9A	260.9A	347.8A	434.8A	521.7A
Power Factor		0.7 lagging to 0.95 leading						
Line Regulation		≤ 1%						
Load Regulation		< 1% (Resistive Load)						
Total Harmonic Distortion(THD)		≤ 2% (Resistive Load)						
Response Time		≤ 2ms						
Phase Angle		For Balanced Load: 120°±1° ; For 30% Unbalanced Load: 120°±1.5° ; For 100% Unbalanced Load: 120°±2°						
MEASUREMENT								
Voltage Range		0V-300.0V						
Voltage Resolution		0.1V						
Voltage Accuracy		0.5% F.S.+4 counts						
Frequency Range		300.0-500.0Hz						
Frequency Resolution		0.1 Hz						
Frequency Accuracy		±0.1% F.S.						
Current Range(RMS)		0-9999A						
Current Resolution(RMS)		0.1A						
Current Accuracy(RMS)		0.5% F.S.+4 counts						
GENERAL								
Efficiency		≥ 92% at Max. Power						
HMI		VFD HMI						
Overload Capacity		Standard : 125%(600s) / 150% (30s) / 200% (10s) Option : 150%(60s) / 200% (30s) / 250% (10s) / 300% (1s)						
Protection		Class D Lighting Protection, Input LVP, Input Phase Loss, OVP, LVP, OCP, OPP, Short Circuit, OTP, OFP						
Remote Interface		RS-485						
Operational Temperature		-40°C ~ +55°C						
Storage Temperature		-45°C ~ +65°C						
Humidity		0~90% (Non condensing)						
IP Level		IP54						
EF Signal		Standard						
STAND-ALONE								
Dimensions (H x W x D)		1205 x 780 x 1045 mm				1555 x 780 x 1095 mm		1600 x 820 x 1195 mm
		47.44 x 30.7 x 41.14 inch				61.22 x 30.7 x 43.11 inch		62.99 x 32.28 x 47.04 inch
Weight		330kg	410kg	493kg	575kg	780kg	850kg	980kg
		727.5lbs	903.9lbs	1086.9lbs	1267.7lbs	1719.6lbs	1873.9lbs	2160.5lbs
TRAILER								
Dimensions (H x W x D)		1460 x 2013 x 1358 mm				1460 x 2945 x 1430 mm		1510 x 3045 x 1530 mm
		57.48 x 79.25 x 53.46 inch				57.48 x 115.94 x 56.29 inch		59.44 x 119.88 x 60.23 inch
Weight		480kg	560kg	643kg	725kg	850kg	1020kg	1170kg
		1058.2lbs	1234.6lbs	1417.6lbs	1598.4lbs	1873.9lbs	2248.7lbs	2579.4lbs

*1 Please contact for other voltage specification.

*2 The rated input voltage is 380V.

* all specifications are subject to change without notice.

ORDERING INFORMATION

AMV-T Series Three-Phase Output (30kVA - 180kVA)

Model Number	Description
AMV-T-33030	Ground Power Unit(30kVA/115V/400Hz)-Trailer
AMV-T-33045	Ground Power Unit(45kVA/115V/400Hz)-Trailer
AMV-T-33060	Ground Power Unit(60kVA/115V/400Hz)-Trailer
AMV-T-33090	Ground Power Unit(90kVA/115V/400Hz)-Trailer
AMV-T-33120	Ground Power Unit(120kVA/115V/400Hz)-Trailer
AMV-T-33150	Ground Power Unit(150kVA/115V/400Hz)-Trailer
AMV-T-33180	Ground Power Unit(180kVA/115V/400Hz)-Trailer

AMV-F Series Three-Phase Output (30kVA - 180kVA)

Model Number	Description
AMV-F-33030	Ground Power Unit(30kVA/115V/400Hz)-Stand-Alone
AMV-F-33045	Ground Power Unit(45kVA/115V/400Hz)-Stand-Alone
AMV-F-33060	Ground Power Unit(60kVA/115V/400Hz)-Stand-Alone
AMV-F-33090	Ground Power Unit(90kVA/115V/400Hz)-Stand-Alone
AMV-F-33120	Ground Power Unit(120kVA/115V/400Hz)-Stand-Alone
AMV-F-33150	Ground Power Unit(150kVA/115V/400Hz)-Stand-Alone
AMV-F-33180	Ground Power Unit(180kVA/115V/400Hz)-Stand-Alone