

ZYGOPTERAS MDV-60 (GPU)

This is a trailer-type AC/DC power supply vehicle, a mobile ground support unit designed to provide reliable electrical power for aircraft during ground operations. Powered by a diesel engine, it delivers both AC (115/200V, 400Hz) and DC (28.5V) outputs, ensuring flexibility for aircraft startup, system testing, and onboard equipment support. Built for demanding environments, it features a rugged trailer structure, forced fan cooling, and multiple protection systems for safe and stable operation.

Technical Specifications

Parameter	AC (Exchange)	DC (Direct Current)
Capacity	60 KVA	18 KW
Voltage	115V/200V	28.5V
Voltage Range	90–138V (Phase)	22–30V
Frequency	400 Hz	–
Current	–	600A (Impulse 1500A)
Frequency Stability	$\leq 0.5\%$	–
Voltage Stabilization Rate	$< \pm 1\%$	CV $\leq \pm 1\%$
Load Stability	$< \pm 1\%$	CV $\leq \pm 1\%$
Waveform Distortion	Sine wave $\leq 2\%$	Ripple VRMS $\leq 1\%$

Dual Output:

- **AC:** 115V/200V (400Hz, three-phase)
- **DC:** 28.5V

Instrumentation

- Voltage (phase-to-phase / phase-to-line)
- Current (L1, L2, L3)
- Engine oil pressure (psi/bar)
- Engine temperature (°C / °F)
- Unit frequency (Hz)
- Factory battery voltage
- Running hour meter
- Kilowatt ampere, kilowatt hour, % rated power
- Power factor (Cos Ø)

Engine Spec

- Engine Diesel Cummins
- Rated power : 58 kw
- Rated speed : 1500 rpm
- Cylinder : 4
- Displacement : 3.900 cc
- Type : water-cooled, vertical, in-line, four stroke

Alarm Prompts

- Start/stop failed
- Charge fail
- Overcurrent
- Voltage too high / too low
- Low oil pressure
- Emergency stop
- High engine temperature
- Unit overload

Product features

- Diesel engine driven, trailer-type AC/DC power supply.
- Generator produces intermediate frequency power, converted to DC via commutator.
- Independent AC and DC outputs available.

- Complete generator set and electrical system mounted on trailer chassis.



Common Application



- 28.5V DC Mode: Provides direct current for powering and starting aircraft systems.

- 115/200V AC 400Hz Mode: Simultaneous dual-side AC output for aircraft startup, plus 36V detection power.

Combined Mode (115/200V AC + 28.5V DC):

- Supports both AC and DC output simultaneously.
- If one unit starts with DC 28.5V, the other continues until startup is complete.

Usage Environment

Maximum altitude: **4000m**

Temperature range: **-30°C to +50°C** (cold start device required below -10°C)

Relative humidity: **≤ 95% (at 25°C)**

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