

DIESEL GENERATING SET 480/277 V, 208/120V - 60 Hz

	MODEL		APD-EPAM30
Power Pf. 0.8	Standby	kVA	37.5
		kW	30
	Prime	kVA	35
		kW	28

Standby : Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046 .

Prime : Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528,ISO 3046.

· High quality, reliable and complete power unit

- Compact design
- · Easy start and maintenance possibility
- Every generating set is subject to a comprehensive test program which includes full load testing and checking and providing of all control and safety shut down functions testing
- · Full engineered with a wide range of options and accessories: Canopy, sound proof canopy and on road trailer

ENGINE

- Heavy duty Mitsubishi diesel engine
- · Four stroke, water cooled, turbocharged
- Direct injection fuel system
- Mechanical governor system
- Replaceable fuel filter, oil filter and dry element air filter
- · Cooling radiator and fan
- Starter battery (with lead acid) including Rack and Cables
- Flexible fuel connection hoses and manual oil sump drain valve
- · Industrial capacity exhaust silencer and steel bellows
- · Jacket water heater(at automatic models)
- · Operation manuals and circuit diagram documents

ALTERNATOR

- · Brushless, single bearing system, flexible disc, 4 poles
- Insulation class H
- Standard degree of protection IP21 (*IP22/IP23 is avail.)
- · Self-exciting and self-regulating

- Impregnation with tropicalised epoxy varnish
- Solid state Automatic Voltage Regulator
- Stator winding with 2/3 pitch for improved harmonics



Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.

CENIERATIO

ENGINE

	MITSUB	ISHI
Model		\$4\$
EPA Certification		INTERIM TIER 4
Engine Power Output at rated rpm	BHP kWm HP	48.9 36.5 49.7
Aspiration and Cooling		Turbocharged
Total Displacement	Cu.in. Litre	203.27 3.331
No. of Cylinders and Build		4-Inline
Engine Speed	rpm	1800
Bore and Stroke	inches mmxmm	3.70x4.72 94x120
Compression Ratio		17:1
Governor		Mechanical
Starter Motor Voltage	-	12 V
Fuel Consumption @ 100 % load		2.67
Fuel Consumption @ 75% load	gal/hr	2.0
Fuel Consumption @ 50% load	gai/Ti	1.33
Fuel Consumption @ 25% load		0.67
Fuel Tank Capacity	gal. Litre	21.16 80.09
Oil Capacity	gal. Litre	2.64 10
Coolant Capacity	gal. Litre	1.45 5.5
Radiator Cooling Air	cfm m³/min	N/A
Air Intake – Engine	cfm m³/min	88.28 2.5
Exhaust Gas Flow	cfm m³/min	247.2 7
Standard operating temp degree of radiator	°C	40
Sound Level @1 meter / @ 7 meter	dB	N/A

ALTERNATOR

Model	Marathon-GM-24-4
Size(mm)	520x356x475
Design	Brushless single bearing, revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation System	Class H
Standard Temperature Rise	125 °C Prime / 150 °C Stand by
Exciter Type	Self Excited(PMG excitation is optional)
Phase Rotation	A (U), B (V), C (W)
Alternator Cooling	Direct drive centrifugal blower fan
AC Waveform Total Harmonic Distortion	No load < 1.5%. Non distorting balanced linear load < 5%
Telephone Influence Factor (TIF)	<50 per NEMA MG1-22.43
Telephone Harmonic Factor (THF)	<2%

CONTROL SYSTEM

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

1. Auto Mains Failure Control Panel

Panel equipments:

- ✓ Control with AMF module
- ✓ Static battery charger ✓ Emergency stop push button

a) Generating set control module DSE 7320 features:

- The module is used to monitor a mains supply and starts and stops a standby generating set
- ✓ Micro-processor based design
- ✓ Automatic control of mains and generator contactors
- ✓ Monitors engine performance and AC power output
- ✓ LED alarm indication
- ✓ Front panel conguration of timers and alarm trip points
- ✓ Easy push button control STOP/RESET - MANUAL -TEST- AUTO - MUTE ALARM - START

b) Metering via LED display:

- Generator Volts (L-L / L-N)
- ✓ Engine oil pressure (PSI-Bar)
- ✓ Generator Ampere (L1,L2,L3)
- ✓ Engine temperature (° C&° F)
- ✓ Generator Frequency (Hz)
- ✓ Plant battery volts
- ✓ Engine hours run ✓ Mains Volts (Ph-Ph/Ph-N)
- ✓ Generator kVA, kWh
- ✓ Generator kW as % of rated kW setting
- ✓ Generator Cos (σ)



DSE 7320

c) Alarms:

- ✓ Over and Under Speed
- Low and High Battery Volt.
- ✓ Start and Stop Failure
- ✓ Charge fail
- ✓ Over Current
- ✓ Under / Over Generator Voltage
- ✓ Low Oil Pressure
- ✓ Emergency stop
- ✓ High engine temperature
- ✓ kW overload
- ✓ Unbalanced load
- ✓ Independent earth fault trip

d) LED Indications

- Four configurable LED's like:
- ✓ Mains available
- ✓ Generator available
- ✓ Mains on load
- ✓ Generator on load

2. Power Outlet Terminal Board Mounted on the Gen-set Base frame

OPTIONAL EQUIPMENTS

Diesel Engine

✓ Oil heater

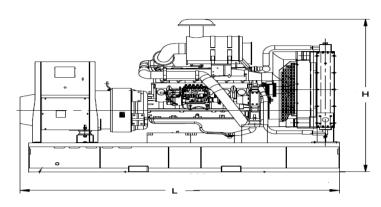
Alternator

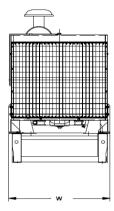
- ✓ 3/4 Pole Output Circuit Breaker
- ✓ Anti-condensation Heater
- Panel
- ✓ Charge ammeter
- Transfer Switch 3 Pole
- Transfer Switch 4 Pole \checkmark
- ✓ Earth Fault ,single set

Accessories

- ✓ Bulk fuel tank
- Automatic filling system
- ✓ Low fuel level alarm
- ✓ Residential silencer
 - ✓ Enclosure or sound proof canopy
 - ✓ Trailer
 - ✓ Manual oil drain pump
 - ✓ Tool kit for maintenance
- ✓ Fuel-water separator

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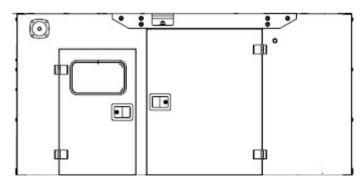


- \checkmark The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✓ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 750 kVA) NON -UL
- ✓ The generating set can be lifted or carefully pushed/ pulled by the base frame
- $\checkmark\,$ Dial type fuel gauge and drain plug on the fuel tank
- ✓ Forklift pockets within base frame (up to 500kVA)

DIMENSIONS

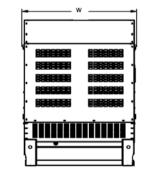
OPEN TYPE						
DIMENSIONS (LxWxH)	inches mm	68.1x35.4x44.2 1730x900x1122				
DRY WEIGHT	Lb. Kg	1543 700				
SOUND ATTENUATED TYPE						
SOUN	D ATTENU	ATED TYPE				
SOUN DIMENSIONS (LxWxH)	D ATTENU inches mm	ATED TYPE 88.8x35.7x50.2 2255x906x1275.1				

CANOPY



✓ All canopy parts are designed with modular principles

- ✓ Without welding assembly
- ✓ Doors on each side
- ✓ All metal canopy parts are painted by electrostatic polyester powder paint



- ✓ Exhaust silencer is protected against environment influences
- ✓ Thermally insulated engine exhaust system
- ✓ Emergency stop push button is installed outside of the canopy
- ✓ Easy lifting and moving
- ✓ Easy maintenance and operation

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