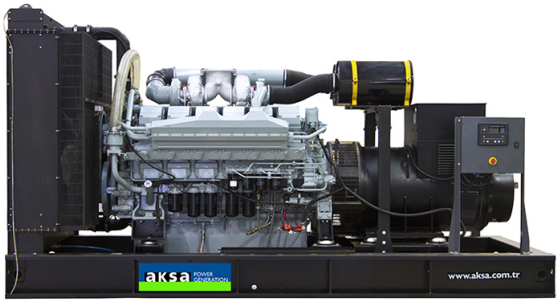
APD 825 M



INTRODUCTION

Aksa power generation system, providing optimum performance, and reliability, for stationary standby, prime power, and continuous duty applications. All generator sets are factory build, and production tested.

Power (kVA)

3 Phase,50 Hz, PF 0.8

Voltage	STANDBY RATING (ESP)		PRIME RATING (PRP)		Standby Amper
	kW	kVA	kW	kVA	
400/231	660,00	825,00	600,00	750,00	1190,82

STANDBY RATING (ESP) Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. ESP is in accordance with ISO 8528-1. Overload is not allowed.

PRIME RATING (PRP) Applicable for supplying power to varying electrical load for unlimited hours. PRP is in accordance with ISO 8528-1. 10 % overload capability is available for a period of 1 hour within 12-hour perod of operation.

General Characteristics

Model Name	APD 825 M
Frequency (Hz)	50
Fuel Type	Diesel
Engine Made and Model	MITSUBISHI S6R2-PTAA
Alternator Made and Model	ECO 40-VL/4 C
Control Panel Model	DSE 7320
Canopy	MS 86 TRP

ENGINE SPECIFICATIONS

Engine	MITSUBISHI
Engine Model	S6R2-PTAA
Number of Cylinder (L)	6 cylinders - in line
Bore (mm.)	170
Stroke (mm.)	220
Displacement (lt.)	29.96
Aspiration	Turbo Charged and AfterCooled
Compression Ratio	14.0:1
RPM (d/dk)	1500

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Oil Capacity (Total With Filter) (lt)	94
Standby Power (kW/HP)	730/978
Prime Power	665/892
Block Heater QTY	1
Block Heater Power (Watt)	3000
Fuel Type	Diesel
Injection Type and System	Direct
Type of Fuel Pump	Mitsubishi PS6 (In-Line)
Governor System	Electronic
Operating Voltage (Vdc)	24 Vdc
Battery and Capacity (Qty/Ah)	2x143
Charge Alternator (A)	30
Cooling Method	Water Cooled
Cooling Fan Air Flow (m3/min)	726
Coolant Capacity (engine only / with radiator) (lt)	14.5/132
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (lt/hr)	156.7
Fuel Cons. Prime With %75 Load (lt/hr)	119.2
Fuel Cons. Prime With %50 Load (lt/hr)	81.5

ALTERNATOR CHARACTERISTICS

Manufacturer	Mecc Alte
Alternator Made and Model	ECO 40-VL/4 C
Frequency (Hz)	50
Power (kVA)	750
Voltage (V)	400
Phase	3
A.V.R.	DER1
Voltage Regulation	(+/-)0.5%
Insulation System	H
Protection	IP23
Rated Power Factor	0.8
WEIGHT COMP. GENERATOR (Kg)	1750
COOLING AIR (m^3/min)	54

Open Gen.Set Dimensions (mm)

LENGTH	4100
WIDTH	1800
HEIGHT	2181
DRY WEIGHT (kg.)	6360
TANK CAPACITY (lt.)	1300

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Gen.Set Canopy Dimensions (mm)

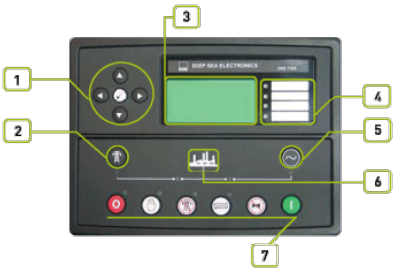
LENGTH	5350
WIDTH	1800
HEIGHT	2503
DRY WEIGHT (kg.)	7680
TANK CAPACITY (lt.)	1300

INTRODUCTION

Sound-attenuated and weather protective enclosures for generating sets from Aksa, meet event the sound requirements and provide optimum protection from inclement weather and development by our specialist acoustic engineers. Our modular designed sound insulated canopies provide ease of access for servicing and general maintenance and interchangeable components permitting on-site repair. Enclosures are designed to optimize genset cooling performance, providing you with confidence that genset ratings and ambient capability.

Control Panel

Control Module	DSE
Control Module Model	DSE 7320
Communication Ports	MODBUS



1. Menu navigation buttons
2. Close mains button
3. Main Status and instrumentation display
4. Alarm LED's
5. Close generator button
6. Status LED's
7. Operation selecting buttons

Devices

DSE, model 7320 Auto Mains Failure control module Static battery charger Emergency stop push button and fuses for control circuits

CONSTRUCTION and FINISH

Comonents installed in sheet steel enclosure.

Phosphate chemical, pre-coating of steel provides corrosion resistant surface

Polyester composite powder topcoat forms high gloss and extremely durable finish

Lockable hinged panel door provides for easy component access

INSTALLATION

Control panel is mounted generating set baseframe on robust steel stand or power module. Located at side of generating set with properly panel visibility.

GENERATING SET CONTROL UNIT

The DSE 7320 conrol module is a standard addition to our generator sets from 220 kVA upwards and it has been designed to start and stop diesel andgas generating sets that include electronic and non electronic engines.

The DSE 7320 includes the additional capability of being able to monitor a mains (utility) supply and is therefore suitable for controlling a standby generating set in conjunction with an automatic transfer switch.

The DSE7320 also indicates operational status and fault conditions, automatically shutting down the generating set and indicating faults by means of its LCD display on the front panel.

STANDARD SPECIFICATIONS

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Microprocessor controlled

- 132 x 64 pixel LCD display makes information easy to read
- Front panel programming and also via PC software
- Soft touch membrane keypad and five key menu navigation
- Remote communications via RS232, RS485 and ethernet.
- Event logging (50) showing date and time
- Multiple date and time engine exercise mode and maintenance scheduler
- Engine block heater control.
- Controls; stop, manuel, auto, test, start, mute lamb test/transfer to generator, transfer to mains, menu navigation.

Instruments

ENGINE

Engine speed

Oil pressure

Coolant temperature

Run time Battery volts

Engine maintenance due

GENERATOR

Voltage (L-L, L-N)

Current (L1-L2-L3)

Frequency

Earth current

kW

Pf

kVAr

kWh, kVAh, kVArh

Phase sequence

MAINS

Voltage (L-L, L-N)

Frequency

WARNING

Charge failure

Battery under voltage

Fail to stop

Low fuel level (opt.)

kW over load

Negative phase sequence

Loss of speed signal

PRE-ALARMS

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	Low oil pressure
	High engine temperature
	Low engine temperature
	Over /Under speed
	Under/over generator frequency
	Under/over generator voltage
	ECU warning
	SHUT DOWNS
	Fail to start
	Emergency stop
	Low oil pressure
	High engine temperature
	Low coolant level
	Over /Under speed
	Under/over generator frequency
	Under/over generator voltage
	Oil pressure sensor open
	Phase rotation
	ELECTRICAL TRIP
	Earth fault
	kW over load
	Generator over current
	Negative phase sequence
Options	
	High oil temperature shut down
	Low fuel level shut down
	Low fuel level alarm
	High fuel level alarm
	EXPANSION MODULES
	Editional LED module (2548)
	Expension relay module (2157)
	Expansion input module (2130)
Standards	
	Elecrical Safety / EMC compatibility
	BS EN 60950 Electrical business equipment
	BS EN 61000-6-2 EMC immunity standard
	BS EN 61000-6-4 EMC emission standard

STATIC BATTERY CHARGER

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Battery charger is manufactured with switching-mode and SMD technology and it has high efficincy.

Battery charger models' output V-I characteristic is very close to square

2405 has fully output shot circuit protection and ıt can be used as a current source.

2405 charger has high efficiency, long life, low failure rate, light weight and low heat radiated in accordance with linear alternatives.

The charger is fitted with a protection diode across the output.

Charge fail output is available.

Connect charge fail relay coil between positive output and CF output.

Input: 196-264V.

Output: 27,6V 5A or 13,8V 5A.

STANDARD SPECIFICATIONS

- Heavy duty, water cooled diesel engine
- Radiator with mechanical fan
- Protective grille for fan and rotating parts
- Electric starter and charge alternator
- Starting battery (with lead acid) including rack and cables
- Engine jacket water heater
- Steel base frame and anti-vibration isolators
- Fuel tank under the base frame
- Flexible fuel connection hoses
- Single bearing, class H alternator
- Industrial exhaust silencer and steel bellows supplied separately
- Static battery charger
- Manual for application and installation
- Generators Sets' voltage and frequency regulation comply with ISO 8528-5
- Generators Sets' can take 100% load at one step according to NFPA110

OPTIONAL EQUIPMENTS

ENGINE

Remote Radiator Cooling

Fuel-Water Seperator Filter

Oil heater

ALTERNATOR

Anti-Condensation Heater

Main line circuit breaker

CONTROL SYSTEM

Automatic synchronising and power control system (multi gen-set Parallel)

Paralel system with mains.

Transition synchronization with mains

Remote relay output

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Alarm output relays
Remote communication with modem
Earth fault, single set
Charge Ammeter
TRANSFER SWITCH
Three or four pole contactor
Three or four pole motor operated circuit breaker
OTHER ACCESSORIES
Main Fuel Tank
Automatic or manual fuel filling system
Manual oil drain pump
Low and high fuel level alarm
Residential silencer
Enclosure: weater protective or sound attenuated
Duct adapter (on radiator)
Inlet and outlet motorised louvers
Inlet and outlet acoustic baffles
Tool kit for maintenance
1500/3000 hours maintenance kit
Supplied with oil and coolant - 30 °C

AKSA CERTIFICATES

- TS ISO 8528
- TS ISO 9001-2008
- CE
- SZUTEST
- 2000/14/EC

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