

UPG-450KVA-PK@50Hz



**450 kVA / 360 kW
POWERED by Perkins**

DIESEL GENERATING SET 440/254V, 415/240V, 400/230V, 380/220V - 50 Hz

MODEL		UPG-450kVA-PK@50 Hz	
Power Pf. 0.8	Standby	kVA	495
		kW	396
	Prime	kVA	450
		kW	360

Standby : Power available in the event of a main power network failure up to a maximum of 500 hr. / year of which 300 hours may be run continuously, load factor may be up to 100 % of standby power. No overload is permitted.
Prime : Power available at variable load with a load factor not exceeding 80% of rated power. Overload of 10% is permitted for 1 hour every 12 hours.

- 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, checking and provision of all control and safety shut down functions testing
- Fully engineered with a wide range of options and accessories: Canopy, sound proof canopy and on - road trailer



ENGINE

Perkins		
Model		2506A-E15TAG1
Engine Power Output at rated rpm	kWm	451
	HP	604.6
Aspiration and Cooling		Turbocharged
Total Displacement	Litre	15
No. of Cylinders and Build		6 - Inline
Engine Speed	rpm	1500
Bore and Stroke	mmxmm	137x171
Compression Ratio		16:1
Governor		ELECTRONIC
Fuel Consumption at full load	L/hr	99
Fuel Tank Capacity	Litre	8 Hours
Oil Capacity	Litre	62
Coolant Capacity	Litre	58
Radiator Cooling Air	m³/min	722
Air Intake – Engine	m³/min	35.8
Exhaust Gas Flow	m³/min	94

- Heavy duty Perkins diesel engine
- Four stroke, water, cooled, turbo charged
- Direct injection fuel system
- Mechanical Governor system
- 12/24 V D.C. starter and charge alternator
- Replaceable fuel filter, oil filter and dry element air filter

- Cooling radiator and fan
- Starter battery (maintenance free) 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



Design	Brushless single bearing, revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation System	Class H
Standard Temperature Rise	125 - 163°C Continuous
Exciter Type	Self Excited
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%

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

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

CONTROL SYSTEM

Control supervision and protection panel is mounted on the genset base frame. The control panel varies depending on requirement, in general Meico power generators are equipped with DSE 6010 MKII. The main features for DSE 6610 MKII are as follows:

KEY BENEFITS

- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored simultaneously which are clearly displayed on a large back-lit icon display
- The module can be configured to suit a wide range of applications
- Compatible with a wide range of CAN engines, including tier 4 engine support
- Uses DSE Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress

KEY FEATURES

- Large back-lit icon display
- Heated display option available
- Fully configurable via the fascia or PC using USB communication
- Efficient power save mode
- 3 phase generator sensing
- 3 phase mains (utility) sensing (DSE6620 only)
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Generator overload protection
- Generator/load current monitoring and protection
- Breaker control via fascia buttons
- Fuel and start outputs (configurable when using CAN)
- 4 configurable DC outputs
- 4 configurable analogue/digital inputs
- 6 configurable digital inputs
- Configurable staged loading outputs

- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel pump control
- Real time clock options available
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD and LED alarm indication
- Configurable event log (50)



Also Gensets can be equipped with different control panels depending on usage such as:
 DSE 6610: Basic Autostart operation with stand alone application
 DSE 7310: advanced Autostart operation with high protections
 DSE 7320: advanced auto mains failure operation with high protection
 DSE 8610: for synchronization application/solution

OPTIONAL EQUIPMENTS

Diesel Engine

- Oil heater

Alternator

- 3/4 Pole Output Circuit Breaker
- Anti - condensation Heater

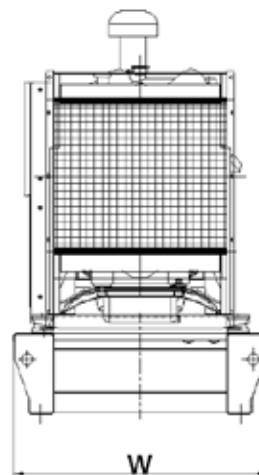
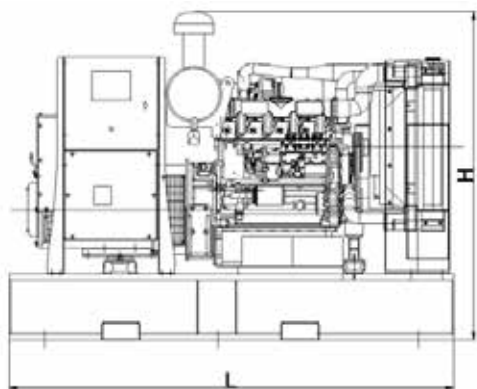
Panel

- Charge ammeter
- Transfer Switch 3 Pole
- Transfer Switch 4 Pole
- Earth Fault, single set

Accessories

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

CHASSIS



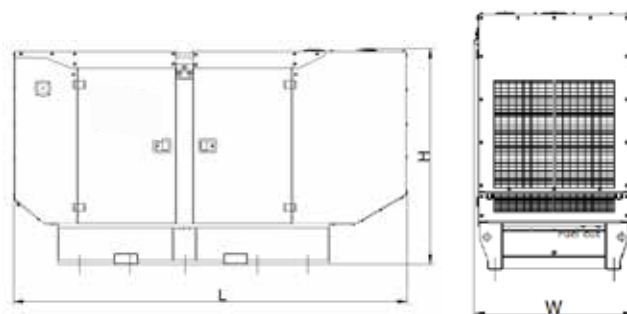
- ✦ The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✦ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✦ Base frame design incorporates an integral fuel tank (Up to 750 kVA)
- ✦ The generating set can be lifted or carefully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

DIMENSIONS

OPEN TYPE		
DIMENSIONS (LxWxH)	cm	350X145X215
DRY WEIGHT	kg	3741
SOUND ATTENUATED TYPE 75dBA @ 3m in open space		
DIMENSIONS (LxWxH)	cm	530x152x253
DRY WEIGHT	kg	6094

CANOPY

- ✦ All canopy parts are designed with modular principles
- ✦ Doors on each side
- ✦ All metal canopy parts are powder coated
- ✦ Exhaust silencer is protected against environment influences
- ✦ Easy lifting and moving
- ✦ Easy maintenance and operation



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