



LBE POWERING YOUR WORLD
anytime. anywhere

P-245
Powered By Perkins

Perkins

Diesel Power



MODEL			P-245
Power Pf.0.8	Standby	kVA	270
		kW	215
	Prime	kVA	245
		kW	196
	Frequency	Hz	60
	Voltage	V	220/380
	Rated speed	rpm	1800

Temperature (Celsius) Derate Curves
Unit: kVA

Standard Features

- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60Hz generator set offers a AUS 2012 listing and CE 2015 listing.
- The generator set complies with ISO 8528-5, Class G3 requirements for transient performance.
- The generator set accepts rated load in one step.
- The 60Hz generator set engine is certified by the Environmental Protection Agency (EU or MEP) to conform to EU2, EU3 nonroad emissions regulations.(≤560KW)
- A one-year limited warranty covers all systems and components. Two-, five-, and ten-year extended warranties are also available.

Generator Features

- The brushless, rotating-field generator has broadrange reconnectability.
- The pilot-excited, permanent-magnet generator (PMG) provides superior short-circuit capability
- Controllers are available for all applications. See controller features inside.
- The low coolant level shutdown prevents overheating (standard on radiator models only)
- Integral vibration isolation eliminates the need for under-unit vibration spring isolators
- An electronic, isochronous governor delivers precise frequency regulation.
- Electronic engine controls and a generator microprocessor controller combine to deliver one of the most advanced control systems in today's generator market.

RATINGS: All three-phase units are rated at 0.8 power factor. **Standby ratings:** Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271. **Prime power ratings:** Prime power ratings apply to installations where utility power is unavailable or unreliable. At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve.



3473 As Sayyidah Khadijah Street – 6461 Al Faisaliyah District
23441 Jeddah, Kingdom Of Saudi Arabia

C.R. 7023514651
VAT No. 310940679600003
Phone 0530371038
E-mail INFO@LBE-KSA.COM
Website WWW.LBE-KSA.COM

٣٤٧٣ شارع السيدة خديجة – ٦٤٦١ حي الفيصلية
٢٣٤٤١ جدة، المملكة العربية السعودية
السجل التجاري ٧٠٢٣٥١٤٦٥١
الرقم الضريبي ٣١٠٩٤٠٦٧٩٦٠٠٠٣
الهاتف ٠٥٣٠٣٧١٠٣٨
بريد الكتروني INFO@LBE-KSA.COM
موقع الكتروني WWW.LBE-KSA.COM



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1506A-E88TAG2

222 kWm standby @ 1500 rpm
239 kWm standby @ 1800 rpm

1500

Series

Basic technical data

Number of cylinders	6
Cylinder arrangement	Inline
Cycle	4 stroke
Induction system	Air to air aftercooled, turbocharged
Compression ratio	16.1:1
Bore	112 mm (4.41 inches)
Stroke	149 mm (5.87 inches)
Displacement	8.8 litres (537.0 inches ³)
Direction of rotation	Anticlockwise facing flywheel
Firing order (number 1 cylinder furthest from flywheel) ..	1, 5, 3, 6, 2, 4
Estimated total weight of ElectropaK (dry)	1156 kg
Estimated total weight of ElectropaK (wet)	1235 kg

Overall dimensions

Length, front of radiator to rear of air cleaner	1941 mm
Width	1013 mm
Height, including radiator support brackets	1366 mm

Moments of rotational inertia (mk²)

Engine	0.7361 Nms ²
Flywheel SAE14	1.667 Nms ²

Centre of gravity

Forward of rear face of cylinder block	413 mm
Above crankshaft centre line	231 mm
Offset RHS of centre line	-1 mm

Performance

All ratings certified to within	± 3%
Speed variation at constant load	± 0.25%

Note: Data based on ISO/TR14396, SAE J1995 3.1, ISO3046-1.

Note: Engine speed control in accordance with BS5514 pt.4; ISO3046-4 and ISO8528-5.

Note: Electrical ratings are based on average alternator efficiency and are for guidance only.

Test conditions

Air temperature	25°C
Barometric pressure	100 kPa
Relative humidity	35%
Air inlet restriction at maximum power (nominal)	3.7 kPa
Exhaust back pressure at maximum power (nominal)	10 kPa
Fuel temperature (inlet pump)	40°C

Note: If the engine is to operate in ambient conditions other than those of the test conditions, suitable adjustments must be made for these changes.

For full details, contact Perkins Technical Service Department.



Alternator

Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet, Pilot Exciter
Voltage regulator	Solid-State, Volts/Hz
Insulation	NEMA MG1, Class H
Material	Synthetic, Nonhygroscopic
Temperature rise	130°C, 150°C Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Rotor balancing	125% 60 Hz, 150% 50 Hz
Voltage regulation, no-load to full-load(with < 0.5% drift due to temp. variation	3-Phase Sensing, $\pm 0.25\%$
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the generator field.
- Self-ventilated and drip-proof construction.
- Superior voltage waveform from two-thirds pitch windings and skewed stator.
- Digital solid-state volts-per-hertz voltage regulator with $\pm 0.25\%$ no-load to full-load regulation.
- Brushless alternator with brushless pilot exciter for excellent load response.

Controller



Audiovisual annunciation with NFPA 110 Level 1 capability. Programmable microprocessor logic and digital display features. Safeguard circuit protection standard. 12- or 24-volt engine electrical system capability. Remote start, remote annunciation, and remote communication options. Refer to M6-46 for additional controller features and accessories

Key Features

- 4-line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection
- LED and LCD alarm indication
- Customisable status screens
- Power save mode
- Support for up to three remote display units
- 9 configurable inputs
- 8 configurable outputs
- Flexible sender inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time scheduler
- Configurable event log (250)
- Control logic facilities
- Easy access diagnostic page
- CAN and Magnetic Pick-up / Alt. Sensing
- Fuel usage monitor and low fuel alarms
- Charger alternator failure alarm
- Manual speed control
- Manual fuel pump control
- Engine exerciser
- "protections disabled" feature
- kW overload protection
- Power monitoring
- Load switching (load shedding and dummy load outputs)
- Automatic load transfer
- Unbalanced load protection
- Independent Earth Fault trip
- USB connectivity
- Backed up real time clock
- Configurable display languages
- User selectable RS232 and RS485 communications
- SMS Messaging (additional external modem required)
- Additional display screens to help with modem diagnostics
- Integral PLC editor



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Generating Sets Standard and Optional Features

Engine

- 4-stroke, water-cooled diesel engine
- Standard air filter
- Standard fuel filter
- Standard oil filter
- Oil temperature sensor
- Low coolant level sensor
- Radiator with blowing fan
- Industrial silence
- Fuel water separator (optional)
- Water jacket heater (optional)

Alternator

- Class H insulation
- IP23 Protection
- Automatic Voltage Regulator (AVR)
- PMG excitation(optional)
- Single bearing alternator
- Class F or class B temperature rise (optional)
- Digital Voltage Regulator (optional)
- Double bearing (optional)
- Condensed heater (optional)
- IP41 Protection (optional)

Electrical system

- Maintenance-free and anti-explosion battery
- Standard breaker
- ABB breaker (optional)
- ATS (optional)
- Battery charger (optional)
- GMS monitoring (optional)

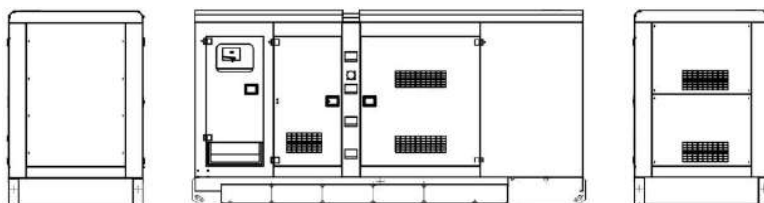
Baseframe

- Forklift pockets
- Pulling slots
- Earth wire protection
- Built-in anti vibration mountings
- Fuel outlet valve
- Standard fuel tank
- Enlarged fuel tank (optional)
- Separated fuel tank (optional)

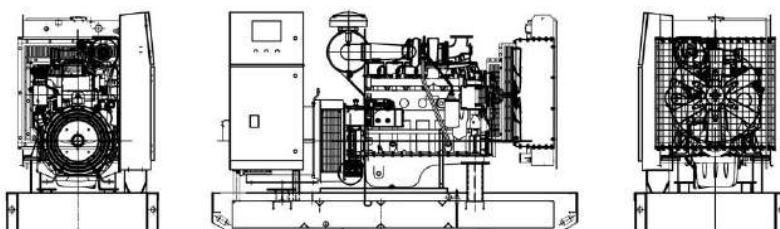
Canopy

- Weatherproof & sound-attenuated canopy
- Sound-absorbing material
- Lifting lug
- Emergency stop button
- Inside silencer

Overview Dimension & Weight



(Silent type)					
Configuration	L= Length (mm)	W= Width (mm)	H= Height (mm)	Weight (kg)	Fuel Tank Capacity (L)
Silent Type	3620	1232	2000	2830	575



(Open type)					
Configuration	L= Length (mm)	W= Width (mm)	H= Height (mm)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2780	1200	1770	2400	340