

VGP1650M 50Hz POWERED BY PERKINS SERIES



TECHNICAL SPECIFICATIONS

DIESEL GENERATING SET 400/230V-50Hz-3Phase

Model	VGP1650M	
Power(ESP)	kVA/kw	1650/1320
Power(PRP)	kVA/kw	1500/1200
Starter Voltage	V	24
Rated Current	A	2391
Rated rotation speed	r/min	1500
Power Factor		0.8
Fuel Consumption	Litre/hour	328
Fuel Tank Capacity	Litre	Open Type : L / Silent Type: L
Noise level	dB(A)@7m	Silent Type: 88±2

WEIGHT AND DIMENSIONS

GEN-Set	Dimension (L*W*H)	Weight
Open Type	4810mm*1977mm*2450mm	10261Kg
Silent Type	12192mm*2438mm*2896mm	17211Kg

STANDARDS:

Genset: GB/T2820—2009,ISO8528

Alternator: MECC ALTE, ECO46 1S4A

Diesel Engine: PERKINS , 4012-46TAG2A

Standby Power: Continues running at variable load for duration of an emergency. No overload is permitted on these ratings.

Prime Power: Continues running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period.

CONFIGURATION:

Standard: Engine, alternator, cooling system, Base frame (excluding fuel tank), shock absorber, air inlet system, control box (including mains floating charge), plastic fan blades (when the engine and water tank do not bring).

Optional: Base frame (including fuel tank), water jacket heater, fuel water separator, fuel heater, fuel level sensor (only supporting underframe tank), switch box (with switch), power switch, the water level sensor, motor anti condensation heater, automatic fueling system (only supporting base frame including fuel tank), battery frame.

Accessories: Silencer, bellow, exhaust silencing system accessories (with the matching engine), regular battery, starting cord assembly, data of gen-set, random tool (with the matching engine).



ENGINE Specification

Manufacturer: PERKINS	
Model	4012-46TAG2A
Engine speed Rated	1500
Cylinder /Arrangement	12/60°
Displacement	45.842
Bore and Stroke	160mm × 190mm
Compression ratio	13.0: 1
Max. stand by power at rated RPM	1459K
Frequency regulation , steady state	≤0.25%
Governor : type	Electric

Exhaust System

Exhaust gas flow	320L/min
Exhaust temperature	455°C
Max back pressure	5kPa

Fuel System

Fuel consumption100% (of the Prime Power)	301L / h
Fuel consumption75% (of the Prime Power)	237L / h
Fuel consumption50% (of the Prime Power)	162L / h
Fuel consumption25% (of the Prime Power)	

Oil system

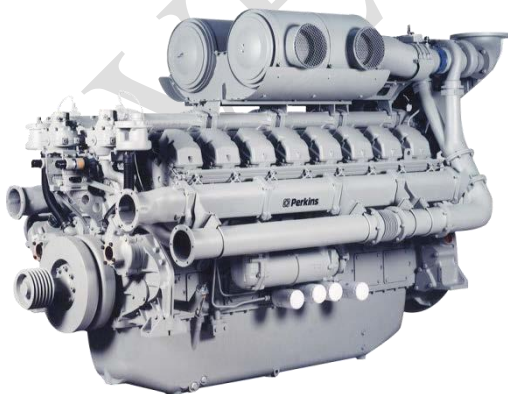
Total oil capacity w/filters	177L
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Air intake

Engine air flow	128L/min
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Coolant System

Radiator & engine capacity	210 L
Max water temperature	98°C
Thermostat	71-85°C



- ☐ Perkins engines with fast and reliable cold boost.
- ☐ Advanced technology on burning Combustion optimization, low fuel consumption and low noise, emission meets German TALuft standard.
- ☐ Reasonable coupling creates best compounding function, provides reliable and high-performance power products.
- ☐ Integrated structure of generator with fuel tank and base frame and internal high-efficiency anti-vibration.

Note: All data sheets are for reference only and subject to change without prior notice.



ALTERNATOR Specification

Manufacturer: MECC-ALTE

Type	ECO46 1S4A
Number of phase power	3
Factor (Cos Phi)	0.8
Pole	4
Bearing	1
Coupling	Direct
Exciter type	AREP
Insulation : class , temperature rise	H / H
Degree of protection	IP23
AVR model	DER-1
Altitude	≤1000m
Winding Pitch	2/3
Winding Leads	6/12

FEATURES

- Leading reality in the national scene, fortified by sixty years of experience in the electro mechanical field, MeccAlte is today at its height in the world production of synchronous alternators.
- Committed daily to research, development and updating activities, MeccAlte is a testimony to constant improvement in all areas from technology, organisation and quality with its ISO 9001 certification.

STANDARDS

- Marine certifying institutions
Korean Register of Shipping, American Bureau of Shipping, China Classification Society, Germanischer Lloyd, Nippon Kaiji Kyokai, Russian Maritime Register of Shipping.
- Product certifying institutions
CSA International
Underwriters Laboratories
Istituto Marchio di Qualità



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Control Panel

Model: DSE 7320

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

DIMENSIONS

OVERALL

240mm x 181mm x 42mm
(9.4" x 7.1" x 1.6")

PANEL CUTOOUT

220mm x 160mm
(8.7" x 6.3")

WEIGHT

400g (0.4kg)



KEY FEATURES

- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection
- 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)
- Tier 4 CAN engine support
- Integral PLC editor
- Easy access diagnostic page
- CAN and Magnetic Pick-up/Alt. sensing
- Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- Manual speed control (on compatible CAN engines)
- Manual fuel pump control
- Engine exerciser
- "Protections disabled" feature
- kW & kV Ar protection

- Reverse power (kW & kV Ar) protection
- LED and LCD alarm indication
- Power monitoring (kW h, kV Ar, kVA h, kV Ar h)
- Load switching (load shedding and dummy load outputs)
- Automatic load transfer (DSE7320)
- Unbalanced load protection
- Independent Earth Fault trip
- True dual mutual standby with load balancing timer (DSE7310 only)
- USB connectivity
- Backed up real time clock
- Fully configurable via DSE Configuration Suite PC software
- Configurable display languages
- Remote SCADA monitoring via DSE Configuration Suite PC software
- User selectable RS232 and RS485 communications
- Configurable Gencomm pages
- Advanced SMS messaging (additional external modem required)
- Start & stop capability via SMS messaging
- Additional display screens to

- help with modem diagnostics
- Idle control for starting & stopping.
- DSENet® expansion compatible

KEY BENEFITS

- 132 x 64 pixel ratio display for clarity
- Real-time clock provides accurate event logging
- Multiple date and time scheduler
- Set maintenance periods can be configured to maintain optimum engine performance
- Ethernet communications (via DSE860/865 modules), provides advanced remote monitoring at low cost
- Modules can be integrated into building management systems(BMS)
- Increased input and output expansion capability via DSENet®
- Licence-free PC software
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- PLC editor allows user configurable functions to meet specific application requirements.