

VGP22M 50Hz POWERED BY PERKINS SERIES



TECHNICAL SPECIFICATIONS

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

Model	VGP22M	
Power(ESP)	kVA/kw	22/18
Power(PRP)	kVA/kw	20/16
Starter Voltage	V	12
Rated Current	A	32
Rated rotation speed	r/min	1500
Power Factor		0.8
Fuel Consumption	Litre/hour	5.3
Fuel Tank Capacity	Litre	Open Type : 88L / Silent Type: 121L
Noise level	dB(A)@7m	Silent Type: 66±2

WEIGHT AND DIMENSIONS

GEN-Set	Dimension (L*W*H)	Weight
Open Type	1320mm*700mm*1155mm	544 Kg
Silent Type	1856mm*826mm*1415mm	768 Kg

STANDARDS:

Genset: GB/T2820—2009,ISO8528

Alternator: MECC ALTE, ECP28 M4A

Diesel Engine: PERKINS , 404D-22G

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).



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ENGINE Specification

Manufacturer: PERKINS

Model	404D-22G
Engine speed Rated	1500 RPM
Cylinder /Arrangement	4 / L
Displacement	2.216 L
Bore and Stroke	84 mm × 100
Compression ratio	23.3 : 1
Max. stand by power at rated RPM	20.6KW
Frequency regulation , steady state	≤0.75%
Governor : type	Electrical

Exhaust System

Exhaust gas flow	3.94L/min
Exhaust temperature	505°C
Max back pressure	10.2kPa

Fuel System

Fuel consumption100% (of the Prime Power)	5.4 L / h
Fuel consumption75% (of the Prime Power)	4.0 L / h
Fuel consumption50% (of the Prime Power)	2.9 L / h
Fuel consumption25% (of the Prime Power)	

Oil system

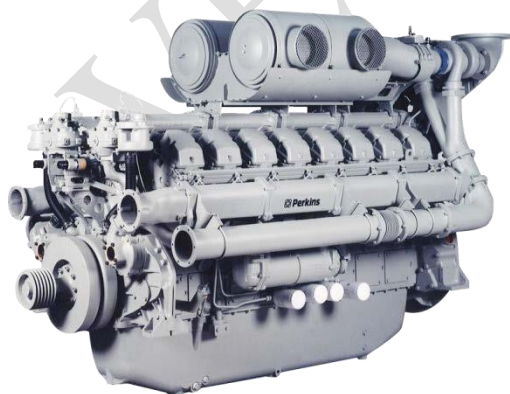
Total oil capacity w/filters	10.6 L
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Air intake

Engine air flow	10.6L/min
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Coolant System

Radiator & engine capacity	7.0 L
Max water temperature	112°C
Thermostat	82-95°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	ECP28 M4A
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	DSR
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: AMF 20

AUTOMATIC MAINS FAILURE CONTROLLER

InteliLite® controllers are equipped with a powerful graphic display. Icons, symbols and bar graphs for intuitive operation together with high functionality set new standards in gen-set control.

Special low temperature (IL-AMF 20-LT or IL-AMF 25-LT) version is also available, allowing the display to work up to -300C.



KEY FEATURES

- ☐ Support of engines equipped with Electronic Control Unit (J1939 interface)
- ☐ Comprehensive diagnostic messages; SPN/FMI codes; KWP2000 support
- ☐ Automatic or manual start/stop of the gen-set
- ☐ Push buttons for simple control, lamp test
- ☐ Graphic back-lit LCD display 128x64 pixels
- ☐ 6 LED indicators
- ☐ Parameters adjustable via keyboard or PC
- ☐ Mains measurements (50/60 Hz): U1-U3, Hz
- ☐ Generator measurements (50/60 Hz): U1-U3, I1-I3, Hz, kW, kVAr, kWh
- ☐ Selectable protections alarm/shutdown
- ☐ 3 phase Generator protections
 - Over-/under voltage
 - Over-/under frequency
 - Current/voltage asymmetry
 - Overcurrent/overload
- ☐ 3 phase AMF function
 - Over-/under frequency
 - Over-/under voltage
 - Voltage asymmetry
- ☐ Configurable analog inputs
- ☐ Battery voltage, engine speed (pick-up) measurement
- ☐ Configurable programmable binary inputs and outputs
- ☐ Warm-up and cooling functions
- ☐ Generator C.B. and Mains C.B. control with feedback and return timer
- ☐ RS232 interface (AT-LINK CONV cable is necessary for IL-AMF 20)
- ☐ Modem communication support (IL-AMF 25 only)
- ☐ Dimensions 180x120 mm (front panel)
- ☐ Sealed to IP65

KEY BENEFITS

- ☐ Less wiring and components
- ☐ Integrated solution
- ☐ Less engineering and programming
- ☐ Perfect price/performance ratio