MEGA POWER
شركة ميقا الطاقة

MPR-P20

Generating Set
(Technical Data Sheet)



Standard Specifications

01 Prime Rating:
Unlimited hours usage, with an average load factor of 80% over each 24-hour period. 10% overload is available for 24-hour in every 12 hours operation. 0 overload is permitted on standby power.

02 Standby Rating:
Limited to 500 hours annual usage, with an average load factor of 80% of the published standby power rating over 24-hour period. Up to 300 hours of annual usage may be run continuously. No overload is permitted on standby power.

03 Engine:
Perkins, including air filters, fuel filters, oil filter, starting motor and charging alternator etc.

04 Alternator:
Brushless AC Alternator.

05 Radiator:
50 °C Mounted Radiator, piping and guards.

Output Rating

PRIME:		STANDBY:	
60 Hz—1800 Rpm 400V, 3ph			
18 kVA	14.4 kW	20 kVA	16 kW

Engine Specifications

Engine Make	Perkins
Engine Model	403A-15G2
Number of cylinders	3 Vertical In-line
Aspiration	Naturally Aspirated
Cooling Method	Water Cooled
Governing Type	Mechanical
Governing Class	G2 ISO 8528
Compression Ratio	22.5:1
Displacement	1.496 Liters
Bore/Stroke	84 x 90 mm
Charging Alternator	12 Volts, 15 Amperes
Fuel Filter	Split element fuel filter
Lube Oil Filter	Spin on full flow filter
Lube Oil Capacity	6 Liters

Alternator Specifications

Alternator Make	Leroy Somer
Alternator Model	TAL-A40-D
Number of Poles	4
Number of Winding Leads	6 wires
Type of Bearing	Single Bearing
Insulation Class - Temp Rise	Cont. H – 125 K
Ingress Protection Rating	IP 23
Excitation System	Self Excited
AVR Model	R120

Alternator Operating data

Over Speed	2250 rpm
Voltage Regulation	± 1%
Total Harmonic Distortion THD	< 3.5 %

Powered By:

Perkins
Diesel Generator

LEROY SOMER

DSE

Complying with Standards
ISO 3046, BS 5514, DIN 6217, NEMA_MGI, DIN EN, BS 5000, IEC 60034, IEC 60947-2

Standard Specifications:

06 **Fuel Tank:**
Built in Tank with the Capacity of 8-10 hours running on full load.
Standard for all Gensets below 800 KVA.

07 **Circuit Breaker:**
3 Poles, Molded Case Circuit Breaker

08 **Control system alarms:**
Over and Under Speed
Low and High Battery Volt.
Start and Stop Failure
Over Current
Under / Over Generator Voltage
Low Oil Pressure
Emergency stop
High engine temperature

09 **Warranty policy:**
Mega Power products has a warranty for 12 Months or 1000 Hours whichever occurs first against any manufacturing defects Non-Genuine parts, incorrect operation, maintenance failures are excluded from the warranty policy

Closed Type Enclosure Specs:

Enclosure Type	Acoustic & Weather Proof
Drainage Provision	Fuel and Water Drainage
Transportation	Tested Single Point Lifting Facility & Forklift Pockets
Ingress Protection Rating	IP 23
Lifting	ISO Standard Lifting
Canopy RAL Color	TAL 9010
Base frame RAL Color	RAL 9011
Noise Pressure level	68 dB(A) @ 7 meter

Control System:

Large back-lit text display	Generator/load current monitoring and protection (kW)
Multiple display languages	Breaker contol via fascia buttons
DSENET expansion compatible	Fuel and start outputs, configurable using can
Data logging facility	4 configurable DC outputs
Fully configurable via PC using USB communication	4 configurable analogue/digital inputs
Front panel configuration	Automatically transfers between mains (utility) and generator
Efficient power save mode	Increased input and output expansion capability via dsenet
3 phase generator sensing	IP65 rating (with optional gasket) offers increased resistance to water ingress
Accumulated power monitoring (kWh, kVA h,kVAr h)	Digital inputs; Analogue Inputs

DSE 4520 MKIII

Auto start
AMF
CONTROL



Dimensions:

Type	Open	Closed
Length (mm)	1635	2152
Width (mm)	750	1004
Height (mm)	1260	1342
Fuel Tank (L)	92	169
Weight (KG)	495	765

* Closed Type enclosure dimensions may vary.



COOLPAC PERFORMANCE DATA	
Cooling System Design	Water-Cooled, Thermostatically Controlled
Coolant Ratio	50% ethylene gylcol; 50% water
Coolant Capacity (L)	6
Limiting Ambient Temp	50 Degree Celsius
Cooling Fan Air Flow	36.6 m3/min
Air Cleaner Type	Dry-type Air Cleaner

FUEL CONSUMPTION 1800 (60 HZ)	
Fuel Consumption @ standby	5.12 L/hr
Fuel Consumption @ 100%	4.32 L/hr
Fuel Consumption @ 75%	3.10 L/hr
Fuel Consumption @ 50%	2.25 L/hr

Engine:

Perkins heavy duty high performance industrial type diesel engine



Optional configurations:

Engine accessories:

- Heavy-duty air filter.
- Water Jacket Heater.
- Lubricant / Fuel Heater,
- Racor Filter
- Oil Drain Pump.

Alternator And Accessories:

- 12 Wires Alternator.
- Space Heater,
- Permanent Magnet PMG.
- Double bearing Alternator.
- Medium Voltage Alternator,
- RTDs for Bearing and winding

Control System:

- DSE 4520, 6020, 6120, 7320
- DSE 8610.
- DSE Gateway 890.
- Extended inputs / Outputs.
- Remote Annunciators
- Comap, Woodward, Deif

Start Battery:

- Nickel-cadmium battery.
- Disconnector Switch,
- Battery charger.
- Charging current meter.

Circuit Breaker:

- 4 Poles MCCB.
- Motorized MCCB.
- ACB / Motorized.

External Fuel Tank:

- MS Steel Fuel Tanks (500-10000 L).
- Fuel Transfer pump.
- Double Wall / UL Special Tanks.

Exhaust Muffler:

- Residential Silencer.
- Critical Silencer.
- Spark Arrestors.

Cooling System:

- 55 -degree Radiator.
- Remote Radiator.

Automatic Transfer Switch (ATS):

Contactor Type, Motorized MCCB Type, Motorized ACB Type, Motorized changeover type ATS.

Available for voltages :

400/230V, 480/277V, 380/220V, 440/254V, 416/240V,220/127V, 208/120V & 4 KV up to 13.8 KV

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