MEGA POWER
شركة ميقا الطاقة

MPR-K20

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:**
Kubota , 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 480V, 3ph			
18 kVA	14.4 kW	20 kVA	16 kW

Powered By: Kubota

Engine Specifications

Engine Make	Kubota
Engine Model	D1703-E2-BG
Number of cylinders	3 Vertical In-line
Aspiration	Naturally Aspirated
Cooling Method	Water Cooled
Governing Type	Isochoronous Electronic
Governing Class	G2 ISO 8528
Compression Ratio	22.6
Displacement	1.647 Liters
Bore/Stroke	87 x 92.4
Lube Oil Capacity	5.6 Liters

Alternator Specifications

Alternator Make	Leroy Somer
Alternator Model	TAL-040-F
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

LEROY SOMER

Alternator Operating data

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

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 @	66 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)	1650	2000
Width (mm)	775	950
Height (mm)	1175	1495
Fuel Tank (L)	100	100
Weight (KG)	800	1300

* Closed Type enclosure dimensions may vary.



Engine:

Kubota heavy duty high performance industrial type diesel engine



COOLING SYSTEM	
Coolant Capacity (L)	5.5
Cooling fan Air Flow	0.07 m3/min
Radiator Fan Load	0.61

EXHAUST SYSTEM	
Muffler Type	Industrial Grade
Max. Back Pressure	7.1
Exhaust Gas Flow (PRP/ESP)	3.87
Exhaust Gas Temperature	500

FUEL CONSUMPTION 1800 (60 HZ)	
Fuel Consumption @ 100%	3.9 L/hr
Fuel Consumption @ 75%	2.925 L/hr
Fuel Consumption @ 50%	1.95 L/hr
Fuel Consumption @ 25%	0.975 L/hr

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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