# **KOHLER**. Power Systems

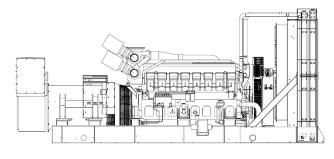
380 V - 415V

Diesel



### Rating - 50Hz

DCP	kW	2000	
	kVA	2500	



#### Standard Features:

- Kohler Co. provides one-source responsibility for the generating system and accessories
- The generator set and its components are prototypedtested, factory-built and production tested
- A one-year limited warranty covers all systems and components.
- The generator set accepts 100% one step load
- The generator set complies with ISO8528 G3
- Generator features:
  - The brushless, rotating-field generator has broadrange reconnectability
  - PMG provides superior short-circuit capability

# **Generator Rating**

# 150°C Rise DCP Rating

Alternator	Voltage	Ph	Hz	kW	kVA	Amps
LSA52.3 L9	220/380	3	50	2000	2500	3798
	230/400	3	50	2000	2500	3609
	240/416	3	50	2000	2500	3478

RATINGS: All three-phase units are rated at 0.8 power factor. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. DCP: Data center power is defined as being the maximum power which a generating set is capable of delivering while supplying a variable or continuous electrical load and during unlimited run hours. Depending on the sites to supply and the availability of reliable utility, the generating set manufacturer is responsible to define what power level is able to supply to fulfil that requirement including hardware or software or maintenance plan adaptation. Obtain technical information bulletin (TIB-101) for rating guidelines and complete ratings definitions. GENERAL GUIDELINES FOR DERATION: Altitude: Derate 5.0 % per 500 m (1640 ft) elevation above 1000 m(3280 ft) up to maximum altitude of 4000 m (13120 ft). Temperature: Derate 6.0 % per 10°C (18°F) temperature above 40°C (104°F) up to maximum temperature of 60°C (140°F).

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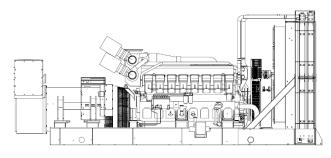
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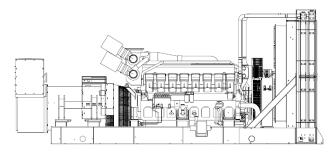
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### **Alternator Specification**

Specification	Generator
Type	4 pole rotating field
Rating	2500 kVA / 2000 kW
Exciter Type	AREP
Voltage regulator	Solid State
Insulation	NEMA MG1
Material	Class H
Temperature rise	150 °C DCP
Bearing: quantity, type	1,sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation (no load to full	.0.259/
load)	±0.25%
Efficiency Power factor - Lagging:	96.11%

0,8 (full load)

- NMEA 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 dirpproof construction
- Digital solid-state, volts-per-hertz voltage regulator with ±0.25% no load to full load regulation

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### **Application Data**

Engine		Exhaust	
<b>Engine Specification</b>	50Hz	Exhaust system	50Hz
Engine Manufacturer	MHI	Exhaust flow at DCP, $m^3/min$	498
Engine Model	S16R2-PTAW	Exhaust temperature °C	508
Engine Type	Turbo Charged	Max. allowable back pressure $(mmH^20)$	600
Cylinder	16V	Exhaust outlet size mm (in.)	See ADV
Displacement, L	79.9		
Bore and Stroke mm	170 x 220		
Compression Ratio	14.0:1		
Piston Speed m/min	660		
Rated Speed	1500		
Max Speed kWm	2167		
Governor type	Woodward		
Frequency regulation	±0.25%		

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### **Application Data**

	• •	
Lubrication		Operation requirements
Lubrication system	50Hz	Air requirements
Oil pan capacity L	260	Radiator cooled cooling air, m3/min
Oil capacity with filter L	290	Combustion air, m3/min
Min oil pressure(bar)	2~3	Heat rejected to ambient air
Max oil pressure(bar)	4~6	Engine, kW
		Alternator, kW
Cooling		Air Density 1.20 kg/m3 (0.075 lbm/ft3).
Coolant capacity (engine only) L	190	
Coolant capacity (engine and radiator) L	450	
Fan loss kW	78	Controller
Max.restriction of cooling air, intake and discharge side of radiator, kPa Radiator cooling air flow $m^3/min$	0.125 2640	ADMINISTRATION OF THE PROPERTY
Fuel Consumption	50Hz	<b>₩ •••</b> © <b>8</b>
Diesel L/h 100% load	DCP	The APM403 is a versatile con
75% load	542	allows operation in manual or
50% load	399	<ul> <li>Measurements: voltage and curr</li> </ul>
30 /0 load	268	<ul> <li>kW/kWh/kVA power meters</li> </ul>

146

25% load

## e control unit which al or automatic mode

50Hz 2640

164

144 97

- nd current
- kW/kWh/kVA power meters
- J1939 CAN ECU engine control
- Alarms and faults: Oil pressure, Coolant temperature,
- Overspeed, Start-up failure, alternator min/max,
- Emergency stop button.
- Engine parameters: Fuel level, hour counter
- Mains and genset protection
- Clock management
- USB connections, USB Host and PC,
- Communications: RS485 INTERFACE
- ModBUS protocol /SNMP

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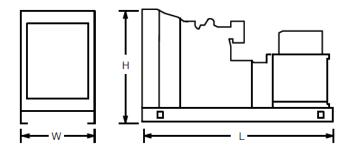
# **Standard Configuration**

- Diesel engine
- · Mechanical cooling system
- IP23 alternator:
  - R449
  - AREP
- APM403 Controller (with battery charger)
- Fuel Hose
- Air filter indicator

# **Option**

- Alternator Space heater
- Bearing PT100
- Winding PT100
- Droop CT
- Muffler (18-25dBA)
- Coolant and oil
- Exhaust bellow
- · Starting battery group
- Spring isolator

# **Dimension and weight**



L x W x H (mm): 6188 x 2244 x 2896

Dry Weight (kg): 15946

Wet Weight (kg): 16696

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