

Model:2000REOZM

KOHLER Power Systems

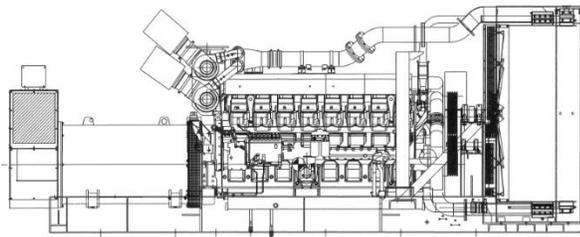
380 V - 416V

Diesel



Ratings Range

		50Hz
Standby	kW	1800
	kVA	2250
Prime	kW	1635
	kVA	2044



Standard Features:

- Kohler Co. provides one-source responsibility for the generating system and accessories
- The generator set and its components are prototyped-tested, factory-built and production tested
- The generator set accepts 100% one step load
- The generator set complies with ISO8528-5, G3 requirement for transient performance
- A one-year limited warranty covers all systems and components.
- **Generator features:**
 - The brushless, rotating-field generator has broadrange reconnectability
 - PMG provides superior short-circuit capability

Alternator	Voltage	Ph	Hz	Standby Rating		Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps
744RSL8056	220/380	3	50	1800/2250	3419	1635/2044	3105
	230/400	3	50	1800/2250	3248	1635/2044	2950
	240/416	3	50	1800/2250	3130	1635/2044	2843

RATINGS: All three-phase units are rated at 0.8 power factor. Standby Ratings: The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Prime Power Ratings: At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Alternator Specification

Specification	Generator	
Type	4 pole rotating field	<ul style="list-style-type: none"> • 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 $\pm 0.25\%$ no load to full load regulation
Exciter Type	PMG	
Voltage regulator	Solid State	
Insulation	NEMA MG1	
Material	Class H	
Temperature rise	125 °C prime	
Bearing: quantity, type	1,sealed	
Coupling	Flexible Disc	
Amortisseur windings	Full	
Voltage regulation	$\pm 0.25\%$	
One step load acceptance	100%	
Unbalanced load capability	100% rated standby current	

RATINGS: All three-phase units are rated at 0.8 power factor. Standby Ratings: The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Prime Power Ratings: At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Version: 2023-1

Application Data

Engine		Exhaust	
Engine specifications	50Hz	Exhaust system	50Hz
Engine manufacturer	MHI	Exhaust flow at prime power, m^3/min	390
Engine model	S16R-Y1PTAA2-3	Exhaust temperature °C	536
Engine turbo	Turbocharged	Max. allowable back pressure mmH_2O	600
Cylinder arrangement	16V	Exhaust outlet size mm (in.)	See drawing
Displacement, L	65.4		
Bore and stroke, mm	170 x 180	Engine Electrical	
Compression ratio	14:1	Engine Electrical system	50Hz
Piston speed, m/min	540	Battery charging alternator	
Rated rpm	1500	Grounding	Negative
Max. power at rated rpm kW/m	1939	Voltage	24V DC
Cylinder head material	Cast Iron	Ampere rating	30A
Crankshaft material	Forged Steel	Starter motor rated voltage	Dual, 24V DC
Governor type	Woodward	Battery, recommended cold cranking amps	4,1000A
Frequency regulation	Isochronous		
Frequency regulation (steady state)	±0.25%		
Frequency	Fixed		
Air cleaner type	Dry		

RATINGS: All three-phase units are rated at 0.8 power factor. Standby Ratings: The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Prime Power Ratings: At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Version: 2023-1

Application Data

Fuel

Fuel system	50Hz
Fuel supply line, min ID, mm	25
Fuel return line, min ID, mm	19
Max. fuel flow, Lph	560
Max, fuel pump restriction, kPa	10
Fuel filter: quantity, type	4, secondary

Lubrication

Lubrication system	50Hz
Type	Full pressure
Oil pan capacity, L	200
Oil pan capacity with filter, L	230
Oil filter: quantity, type	4, Cartridge
Oil cooler	Water-cooled

Cooling

Radiator system	50Hz
Ambient temperature °C	40
Coolant capacity (engine only) L	170
Coolant capacity (engine and radiator) L	350
Engine jacket water flow, Lpm	1650
Water pump type	Centrifugal
Fan diameter	1880mm
Fan loss kW	42
Max.restriction of cooling air, intake and discharge side of radiator, kPa	0.125

Operation requirements

Air requirements	50Hz
Radiator cooled cooling air, $m^3/min.$	2208.3
Combustion air, m^3/min	164
Heat rejected to ambient air	
Engine, kW	144
Alternator, kW	97
Air Density $1.20 kg/m^3$ ($0.075 lbm/ft^3$).	

Fuel Consumption

Diesel L/h	50Hz Standby
100% load	462
75% load	338
50% load	231
25% load	128
Diesel L/h	Prime
100% load	415
75% load	309
50% load	214
25% load	122



The APM403 is a versatile control unit which allows operation in manual or automatic mode

- Measurements: voltage and 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

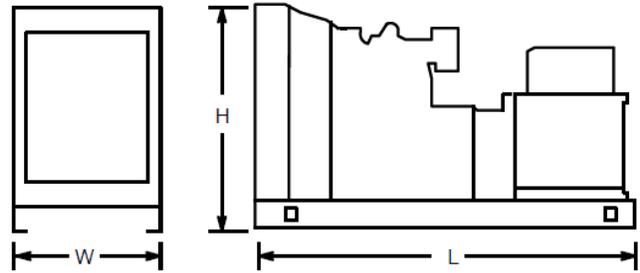
RATINGS: All three-phase units are rated at 0.8 power factor. Standby Ratings: The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Prime Power Ratings: At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Version: 2023-1

Standard Configuration

- Diesel engine
- Mechanical cooling system
- Alternator:
 - DVR2400
 - PMG
- APM403 Controller (with battery charger)
- Fuel Hose
- Air filter indicator

Dimension and weight



L x W x H (mm): 6296 x 2170 x 3252

Dry weight (kg): 14400

Wet weight (kg): 15500

Option

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

RATINGS: All three-phase units are rated at 0.8 power factor. Standby Ratings: The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Prime Power Ratings: At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Version: 2023-1