Model:1800REOZM

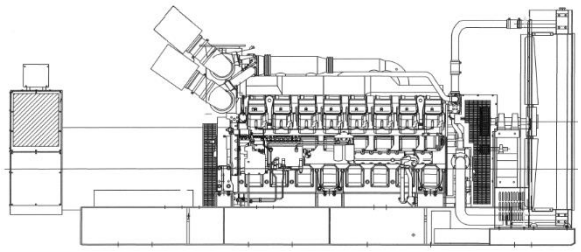
KOHLER Power Systems

380 V - 416V **Diesel**

ISO 9001 KOHLER POWER SYSTEMS NATIONALLY REGISTERED

Ratings Range

		50Hz
Standby	**kW**	1580-1600
	kVA	1975-2000
Prime	**kW**	1440-1452
	kVA	1800-1815



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

				Standby Rating		Prime Rating	
Alternator	**Voltage**	**Ph**	**Hz**	**kW/kVA**	**Amps**	**kW/kVA**	**Amps**
744RSL8054	220/380	3	50	1580/1975	3001	1440/1800	2735
	230/400	3	50	1580/1975	2851	1440/1800	2598
	240/416	3	50	1580/1975	2748	1444/1805	2511
744RSL8058	220/380	3	50	1600/2000	3039	1452/1815	2758
	230/400	3	50	1588/1985	2865	1450/1813	2616
	240/416	3	50	1588/1985	2762	1450/1813	2522

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	4pole rotating field
Exciter Type	PMG
Voltage regulator	Solid State
Insulation	NEMA MG1
Material	Class H
Temperature rise	125 ℃ prime
Bearing: quantity, type	1,sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation (no load to full load)	±0.25%
One step load acceptance	100%
Unbalanced load capability	100% rated standby current

- 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

Engine specifications	50Hz
Engine manufacturer	MHI
Engine model	S16R-Y1PTA-4
Engine turbo	Turbocharged
Cylinder arrangement	16V
Displacement, L	65.4
Bore and stroke, mm	170 x 180
Compression ratio	15:1
Piston speed, m/min	540
Rated rpm	1500
Max.power at rated rpm kWm	1701
Cylinder head material	Cast Iron
Crankshaft material	Forged Steel
Governor type	Woodward
Frequency regulation	Isochronous
Frequency regulation (steady state)	±0.25%
Frequency	Fixed
Air cleaner type	Dry

Exhaust

Exhaust system	50Hz
Exhaust flow at prime power,m^3/min	347
Exhaust temperature ℃	519
Max.allowable back pressure mmH_2O	600
Exhaust outlet size mm (in.)	See drawing

Engine Electrical

Engine Electrical system	50Hz
Battery charging alternator	
Grounding	Negative
Voltage	24V DC
Ampere rating	30A
Starter motor rated voltage	Dual, 24V DC
Battery, recommended CCA	4,1000A

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Application Data

Fuel

Fuel system	50Hz
Fuel supply line, min ID, mm	25
Fuel return line, min ID, mm	19
Max. fuel flow, Lph	510
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

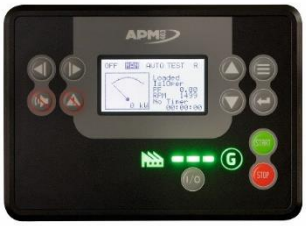
Radiator system	50Hz
Ambient temperature ℃	40
Coolant capacity (engine only) L	170
Coolant capacity (engine and radiator) L	315
Engine jacket water flow, Lpm	1650
Water pump type	Centrifugal
Fan diameter	1880mm
Fan loss kW	35
Max.restriction of cooling air, intake and discharge side of radiator, kPa	0.0996

Operation requirements

Air requirements	50Hz
Radiator cooled cooling air, m^3/min	2038.8
Combustion air, m^3/min	146
Heat rejected to ambient air	
Engine, kW (Btu/min.)	127 (7254)
Alternator, kW (Btu/min.)	82 (4663)

Air Density 1.20 kg/m3 (0.075 lbm/ft3).

Fuel Consumption	50Hz
Diesel L/h	**Standby**
100% load	410
75% load	302
50% load	208
25% load	116
Diesel L/h	**Prime**
100% load	369
75% load	227
50% load	193
25% load	112



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

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Version：2023-1

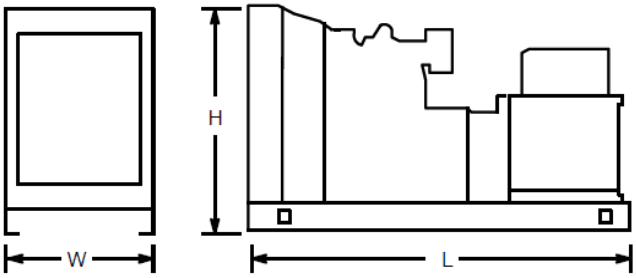
Standard Configuration

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

Option

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

Dimension and weight



With 744RSL8054
LxWxH (mm)：5933 x 2212 x 2505
Dry Weight (kg) : 12590
Wet Weight (kg) : 13500
With 744RSL8058
LxWxH (mm): 5933 x 2212 x 2505
Dry Weight (kg) : 13090
Wet Weight (kg) : 14000

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