

### Ratings Range

400V-50 Hz

Standby:	kW	1600
	kVA	2000
Prime:	kW	1455
	kVA	1818



### Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- Approved for use with certified renewable Hydrotreated Vegetable Oil (HVO)/Renewable Diesel (RD) fuels compliant with EN15940/ASTM D975.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The generator set accepts rated load in one step.
- A standard three-year or 1000-hour limited warranty for standby applications in Europe, Middle East and Africa..
- A standard two-year or 8700-hour limited warranty for prime power applications.
- A worldwide product support
- Other features:
  - Kohler designed controllers for one-source system integration and remote communication. See Controllers on page 4.

### General Specifications

Manufacturer	Kohler
Engine: model	KD62V12A
Alternator Choices	KH04404T KH04406T KH05460T KH07280T KH05460T KH06280T
Performance Class	G3, Per ISO 8528-5
One Step Load Acceptance	100%
Voltage	400V, 10.5kV, 11kV
Controller	M80-D, APM403, APM802
Fuel Consumption, L/h 100% at Standby *	407
Fuel Consumption, L/h 100% at Prime Power *	369
Emission Level Compliance	-
Open Unit Noise Level @ 7 m dB(A) at Rated Load	-
Data Center / Mission Critical Rating	Same as the Standby Rating below
Type of cooling	Unit mounted Radiator Remote Radiator
Factory installed enclosures	CPU40
* Volumetric Fuel consumption is up to 4% higher when using HVO/RD than Diesel Fuel.	

### Conscious Care™ Qualified

- Reduce operating costs, fuel consumption, and greenhouse gas emissions with Conscious Care™ maintenance program.

### Generator Set Ratings

Alternator	Voltage	Ph	Hz	Without radiator			Standard Unit mounted Radiator		
				kVA	kW	A	kVA	kW	A
KH04404T	400V	3	50	2046	1637	2363	2000	1600	2309
KH04406T	400V	3	50	2079	1663	2401	2000	1600	2309
KH05460T	10500V	3	50	2105	1684	93	2000	1600	88
KH07280T	10500V	3	50	2110	1688	93	2000	1600	88
KH05460T	11000V	3	50	2108	1686	89	2000	1600	84
KH06280T	11000V	3	50	2110	1688	89	2000	1600	84

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.

Reference Conditions: 25°C Air Inlet Temperature, 40°C Fuel Inlet Temperature, 100 kPa Barometric Pressure; 10.7 g/kg of dry air Humidity. Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back pressure set to maximum allowable limit.

The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

#### Engine Specifications

Manufacturer	Kohler
Engine model	KD62V12A
Engine type	4-Cycle, Turbocharged, Intercooled
Cylinder arrangement	16-V
Displacement, L	62
Bore and stroke, mm	175 x 215
Compression ratio	16.0:1
Rated rpm	1500
Max. power at rated rpm, kWm	1760
Governor: type, make/model	KODEC Electronic Control
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.25%

#### Lubricating System

Type	Full Pressure
Oil filter: quantity, type §	6, Cartridge
Oil cooler	Water-Cooled
§ Kohler recommends the use of Kohler Genuine oil and filters.	

#### Fuel System

Max. fuel flow, L/h	589
Maximum diesel fuel lift, m	3.5
Fuel filter: quantity, type	3, Primary Engine Filter 2, Fuel/Water Separator
Recommended fuel	#2 Diesel ULSD/HVO/RD

#### Fuel Consumption

At % load of Engine power rating	g/kWh	l/h**
100%	196	406
75%	196	304
50%	205	212
25%	240	124

\*\* Assumed volumetric fuel consumption with diesel fuel having an LHV of 42.7kJ/kg and weighing 0.85kg/l.

#### Radiator System

Ambient temperature, °C	40
Type of coolant	Kohler Genuine coolant
Radiator system capacity, including engine, L	-
<b>Engine coolant</b>	
Engine jacket water capacity, L	180
Heat rejected to cooling water at rated kW, dry exhaust, kW	595
Engine jacket water flow, L/min	1695
<b>Charge-air coolant</b>	
Charge cooler water capacity, L	80
Heat rejected to charge cooling water at rated kW, dry exhaust, kW	470
Charge cooler water flow, L/min	460
Fan diameter, including blades, mm	2007
Fan, kWm	82
Max. restriction of cooling air, intake and discharge side of radiator, kPa at	0.250
Nominal cooling airflow	

#### Remote Radiator Connection

Exhaust manifold type	Dry
Connection sizes:	
Water inlet/outlet, mm (in.)	See drawing
Intercooler inlet/outlet, mm (in.)	Without radiator
Static head allowable above engine, kPa	250

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.

Reference Conditions: 25°C Air Inlet Temperature, 40°C Fuel Inlet Temperature, 100 kPa Barometric Pressure; 10.7 g/kg of dry air Humidity. Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back pressure set to maximum allowable limit.

The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

#### Exhaust System

Heat rejected to exhaust, kW	1120
Exhaust temperature at rated kW at 25°C ambient, dry exhaust, °C	375
Exhaust flow at rated kW, l/s.	5392
Maximum allowable backpressure, kPa	8.67
Exh. outlet size at eng. hookup, mm	See ADV drawing

#### Electrical System

Battery charging alternator:	
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	140
Starter motor qty. at starter motor power rating, rated voltage (DC)	Standard: 2 @ 9 kW, 24; Redundant (optional); 2 @ 15 kW, 24
Battery, recommended cold cranking amps (CCA):	
Quantity, CCA rating each, type (with standard starters)	4, 1110, AGM
Quantity, CCA rating each, type (with redundant starters)	8, 1110, AGM
Battery voltage (DC)	12

#### Air Requirements

Radiator-cooled cooling air, m³/s.‡	35.2
Cooling air required for generator set when equipped with remote radiator, based on 14°C rise, m³/s.‡	11.8
Combustion air, l/s.	2400
Max. air combustion restriction, kPa	5
Heat rejected to ambient air:	
Engine, kW	80
Alternator, kW	61
‡ Air density = 1.20 kg/m³	

#### Alternator Specifications

Type	4-Pole, Rotating-Field
Exciter type	Brushless, PMG
Voltage regulator	Yes
Insulation system:	Class H, Synthetic, Non-hygroscopic
Ingress Protection rating	IP23
Bearing: quantity, type	1, Sealed
Number of wire	12
Coupling type	Direct
Overspeed (rpm)	2250
Voltage regulation, no-load to full-load	±0.5%
Unbalanced load capability	8%

#### Alternator Standard Features

- The AVR voltage regulator provides superior short-circuit capability.
- All models are brushless, rotating-field alternators.
- NEMA 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 alternator field.
- Self-ventilated and dripproof construction.
- Superior voltage waveform from two-thirds pitch windings and skewed stator.
- Brushless alternator with brushless pilot exciter for excellent load response.

#### NOTE:

See Alternator Data Sheets for alternator application data and ratings, efficiency curves, voltage dip with motor starting curves, and short circuit decrement curves.

### Controllers



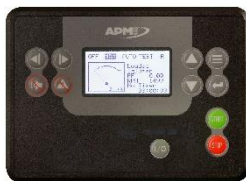
#### APM802 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- 12-inch graphic display with touch screen and menu control provide easy local data access
- Measurements are selectable in metric or English units
- User language selectable
- Two USB ports allow connection of a flash drive, mouse, or keypad
- Electrical data, mechanical data, and system settings can be saved to a flash drive
- Ethernet port allows connection to a PC type computer or Ethernet switch
- The controller supports Modbus® RTU and TCP protocols

Refer to G6-152 for additional controller features and accessories.

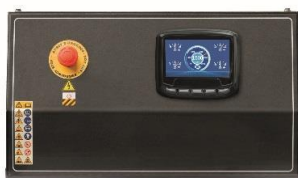
Modbus® is a registered trademark of Schneider Electric.



#### APM403 Controller

Provides a versatile control unit for single or parallel application.

- graphic display provides easy local data view.
- User language selectable
- Event log and management of the last 300 events; data and system settings can be saved to a flash drive.
- On-board communication and control ports on board (USB, USB host, CAN, RS485)
- The controller supports Modbus® RTU protocols (TCP protocol as option)



#### M80-D

Provides a basic terminal block for connecting a remote-control unit. Intuitive LCD screen for basic generator parameters (coolant and fuel temperatures, engine speed,...)

Controls and records the main engine functions for quick diagnosis (starting, speed adjustment)

### Codes and Standards

- Engine-generator set is designed and manufactured in facilities certified to ISO 9001 and ISO14001.
- Generator set meets NEMA MG1, BS5000, ISO, DIN EN, and IEC standards,.
- Engine generator set is tested to ISO 8528-5 for transient response.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- Machinery Directive 2006/42/EC of May 17th 2006
- EMC Directive 2014/30/UE
- Safety objectives set out in the Low Voltage Directive 2014/35/UE
- EN ISO 8528-13, EN 60034-1, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 55011, EN 1679-1 et EN 60204-1

### Warranty Information

- A standard three-year from the commissioning date, 1000 running hours warranty for standby applications in Europe, Middle East and Africa.
- A standard two-year from the commissioning date or 8700-hour limited warranty for prime power applications.
- Five-year basic, five-year comprehensive, and ten-year extended limited warranties are also available

#### Available Warranties for Standby Applications

- ☐ 5-Year Basic Limited Warranty
- ☐ 5-Year Comprehensive Limited Warranty
- ☐ 10-Year Major Components Limited Warranty

### Standard Features

- Industrial water cooled internal combustion Engine
- Single electric starter
- Charging alternator 24Vdc
- Single bearing alternator IP23, T°rise / Insulation class H/H
- Welded steel skid
- M80-D controller
- Closed Crankcase Ventilation (CCV) Filters
- Standard air filter
- Local Emergency Stop Switch
- Oil Drain and Coolant Drain Extension
- Fuel/Water Separator
- Generator Heater
- Compensators and flanges for exhaust outlets
- Spring Isolation Under the Skid
- Packaging under plastic film
- Operation and Installation Literature
- Delivered with initial oil fill

**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. Reference Conditions: 25°C Air Inlet Temperature, 40°C Fuel Inlet Temperature, 100 kPa Barometric Pressure; 10.7 g/kg of dry air Humidity. Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back pressure set to maximum allowable limit.

The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

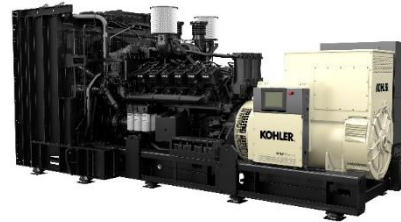
### Dimensions and Weights

#### Compact version without cooling

Overall Size, max., L x W x H, mm:	4573 x 2242 x 2721
Weight, max. wet, kg :	14173
Fuel tank capacity, L	0

#### Compact version with unit mounted radiator

Unit-mounted radiator for easy installation, high functional reliability, and operation in harsh conditions	
Overall Size, max., L x W x H, mm:	6214 x 2798 x 2888
Weight, radiator model, max. wet, kg :	17013
Fuel tank capacity, L	0



#### CPU40 soundproofed version

An integrated solution in a 40-foot high-cube container suitable for harsh environments, for a silent, ready-to-use and easy-to-maintain installation.

Overall Size, max., L x W x H, mm:	12192 x 2438 x 5167
Weight, max. wet, kg :	-
Fuel tank capacity, L	500
Sound Power level LwA in dB(A) 50Hz, 75% PRP	109
Sound Pressure level LpA @1m in dB(A) 50Hz, 75% PRP	86
Sound Pressure level LpA @7m in dB(A) 50Hz, 75% PRP	78



#### CPU40 super soundproofed version

An integrated solution in a 40-foot high-cube container suitable for harsh environments, for an even more silent, ready-to-use and easy-to-maintain installation.

Overall Size, max., L x W x H, mm:	12192 x 2438 x 5167
Weight, max. wet, kg :	-
Fuel tank capacity, L	500
Sound Power level LwA in dB(A) 50Hz, 75% PRP	103
Sound Pressure level LpA @1m in dB(A) 50Hz, 75% PRP	80
Sound Pressure level LpA @7m in dB(A) 50Hz, 75% PRP	72



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.

Reference Conditions: 25°C Air Inlet Temperature, 40°C Fuel Inlet Temperature, 100 kPa Barometric Pressure; 10.7 g/kg of dry air Humidity. Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back pressure set to maximum allowable limit.

The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.