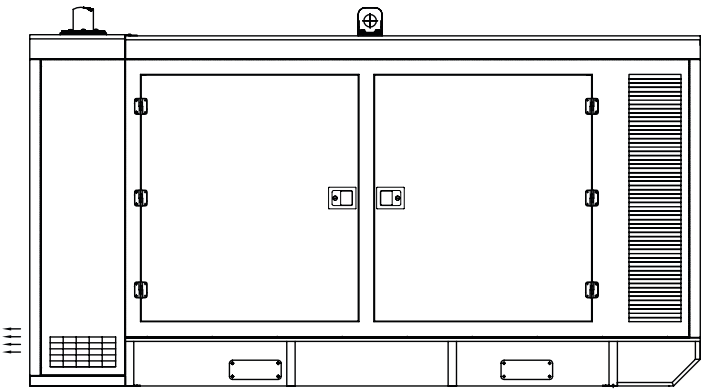
Model: KZA100

KOHLER POWER SYSTEMS

Diesel

ISO 9001 KOHLER POWER SYSTEMS NATIONALLY REGISTERED



Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessiores.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- Two-year limited warranty covers all systems and components.
- Industrial diesel engine with 12-volt battery charging alternator.
- Stamford single-bearing alternator with insulation class H.
- Unit-mounted radiator with 45 °C.
- Subbase fuel tank (8hrs @ 80% rated load).
- Vibration isolators.
- Dry type air filter.
- Fuel Water separator.
- Main line breaker.
- Starting battery and cables with inbuilt battery charger.
- CPCB certified sound enclosure.
- Conveniently located fuel level indication and fuel filling point.
- Single point lifting arrangement.
- Operation and installation literature.

Generator Set Ratings

						Prime Rating	
Genset	**Engine**	**Alternator**	**Voltage**	**PH**	**Hz**	**kW/kVA**	**Amps**
KZA100	TD226B-6II D1	UCI274C	240/415	3	50	80/100	139

RATINGS: All three-phase units are rated at 0.8 power factor.
PRIME POWER RATINGS: Prime power ratings apply to installations where utility power is unavailable or unreliable. 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, overload power in accordance with ISO-3046/1 and BS 5514. For limited running time and base load ratings,consult the factory. Obtain the technical information bulletin(TIB-101)on ratings guidelines for the complete ratings definitions.The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Alternator Specifications

- Alternator meets BS EN 60034 and the relevant section of other international standards such as BS5000, VDE 0530, NEMA MG1-32, IEC34, CSA C22.2-100, AS1359.
- Self-ventilated and dripproof of IP23 construction.
- Superior voltage waveform form a 2/3 pitch wound stator.

Specifications	Alternator
Model	UCI274C
Type	4 pole
Exciter type	Brushless
Leads, quantity type	12, Reconnectable
Voltage regulator	SX460
Insulation	
- Material	Class H
- Temperature rise	125°C, Prime
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Voltage regulation	+/- 1%
Rating voltage	415V
Standby at 163°C, kVA	110
Prime at 125°C, kVA	100
Direct axis subtransient reactance (X"d), %	11

Application Data

Engine

Engine specifications	
Engine model	TD226B-6II D1
Engine type	Turbo charged
Cylinder arrangement	6, in line
Displacement, L (cu. in.)	6.23 (380.2)
Bore and stroke, mm (in.)	105 x 120 (4.13 x 4.72)
Compression ratio	15.5:1
Piston speed, m/min. (ft./min.)	360 (1180.8)
Rated rpm	1500
Max. power at rated rpm, kWm (BHP)	101 (136)
Governor: type, make/model	Mechanical
Frequency regulation, no-load to full load	ISO 5%
Frequency regulation, steady state	+/- 1%
Frequency	Fixed
Air cleaner type, all models	Dry

Exhaust

Exhaust System	
Exhaust Manifold type	Dry
ExhaustflowatratedkW,kg/hr	440.94
Exhaust temperature at rated kW, dry exhaust, °C (°F)	550 (1022)
Maximum allowable back pressure, kPa (in.Hg)	4 (1.18)
Exhaust outlet size at engine hookup, mm (in.)	59.1 (2.32)

Engine Electrical

Engine Electrical System	
Battery charging alternator	12 Volt
Ground (negative/positive)	Negative
Volts, VDC	12
Amps, Ah	32
Battery type - sealed maintenance free (PLT)	
- Qty.	1
Battery voltage, VDC	12 Volt

Fuel

Fuel System	
Fuel supply line, min. ID, mm (in.)	9 (0.35)
Fuel return line, mm. ID, mm (in.)	7 (0.27)
Max. lift engine-driven fuel pump, m (ft.)	0.012 (0.039)
Max.fuelflow,Lph(gph)	5.2(1.37)
Fuel prime pump	Manual
Fuelfilter:quantity,type	2,Primary
Recommended fuel	#2 Diesel
Fuel tank capacity, L (gal)	220 (58.1)

Lubrication

Lubricating System	
Type	Full pressure
Oil pan capacity, L (qt.)	13 (13.7)
Oilpancapacitywithfilter,L(qt.)	13.72(14.5)
Oilfilter:quantity,type	1,Spiralpaperelement
Oil cooler	Water cooled

Application Data

Cooling

Radiator System	
Ambient temperature, °C (°F)	45°C (113°F)
Engine jacket water capacity, L (gal.)	8 (2.1)
Radiator system capacity, including engine, L (gal.)	26 (6.8)
Enginejacketwaterflow,Lpm(gpm)	148(39.1)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	35 (1989)
Water pump type	Centifugal
Fan diameter, including blades, mm (in.)	540 (21.2)
Fan, kWm (HP)	2.1 (2.8)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in_2O)	0.13 (0.5)

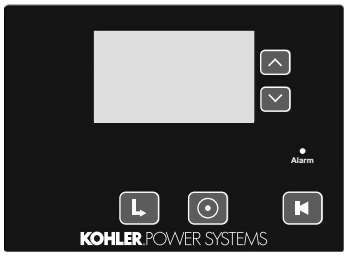
Operation Requirements

Air Requirements	
Radiator-cooled cooling air, m^3/min (scfm)	220.1 (7772)
Combustion air, kg/hr	420.8
Heat rejected to ambient air :	
Engine, kW (Btu/min.)	16.58 (942)
Generator, kW (Btu/min.)	10.38 (590)
Air density, kg/m^3 (lbm/ft^3)	1.20 (0.075)

Fuel Consumption	
Diesel, Lph (gph) at % load	**Prime Rating**
100%	21.2 (5.6)
75%	15.9 (4.2)
50%	10.6 (2.8)

Exhaust Emissions	
Per ISO 8178-5 mode cycle	CPCB Norms
Noise level	Conforms to CPCB Norms

Controller



Advance Digital Control (ADC 2300)

Compact Controller

LCD display:

- Runtime hours
- Current
- Voltage
- Frequency
- Engine Temperature
- Engine oil pressure
- Battery V
- Kilowatt
- Fuel Level
- KVAR / PF

LCD display faults:

- High engine temperature
- Low oil pressure
- Over & under speed
- Over & under voltage
- Over & under frequency
- E-stop
- Low Fuel level
- Over Load
- High Coolant temperature
- Low Coolant level
- E-S lock out
- Auxiliary fault

Display warning:

- Low battery voltage
- High battery voltage

Standard Features and Accessories

Standard Features

- Ease of reading with wide screen LCD
- Master switch: Run/Off-Reset/Auto
- Remote two-wire start/stop capability
- Superior electronics
- Factory-built and production-tested
- One-source responsibility for the generating system and accessories
- Automatic start with programmed cranking cycle
- Field software upgrade possibility

Environmental Specifications

- Operating temperature: -20°C to 70°C (-4°F to 158°F)
- Storage temperature:-60°C to 70°C (-76°F to 158°F)
- Humidity: 0-95% condensing

Power Requirements

- 12 VDC with fuse protection
- 250 mA @ 12 VDC

Accessories

- Battery charger 12 V
- Mains sensing relay
- Earth leaking protection
- KWH meter
- Earth fault relay
- CBCT
- Multi-function meter

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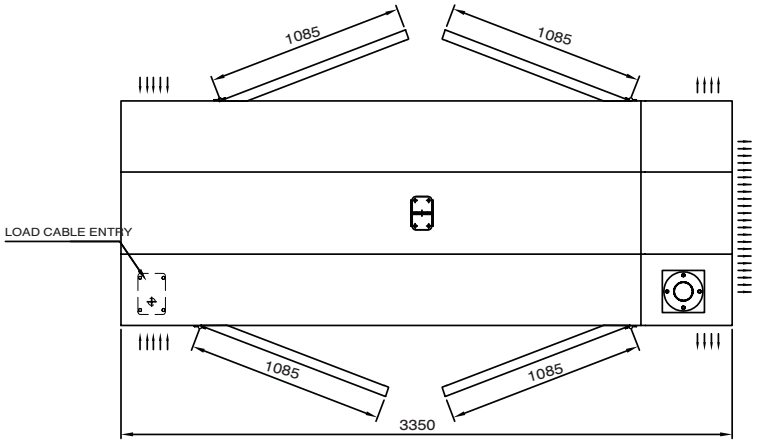
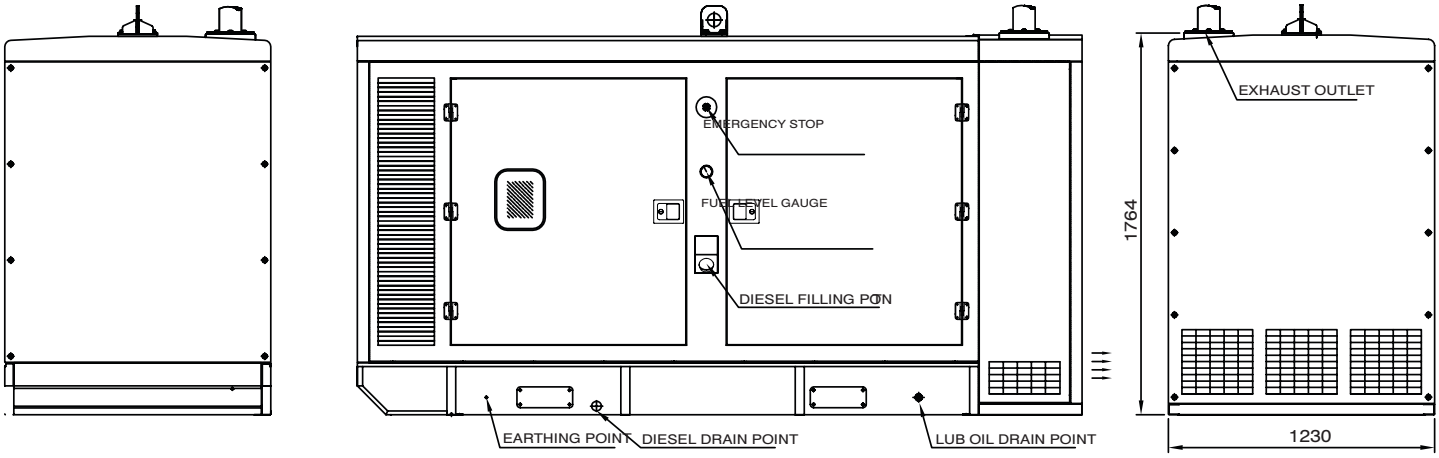
Dimensions and Weights

Overall Size, L x W x H, mm (in.)	3350 x 1230 x 1764 (131.9 x 48.4 x 69.5
Wet, max., kg (lb.)	2310 (5092.7)
Dry, max., kg (lb.)	2075 (4574.6)



TOP VIEW



LHS **FRONT VIEW** **RHS**

NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

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