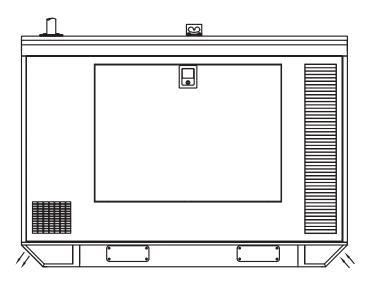
## **KOHLER** POVVER SYSTEMS

Diesel





#### **Standard Features**

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototypetested, factory-built, and production-tested.
- Two-year limited warranty covers all systems and components.
- Industrial diesel engine with 12-volt battery charging alternator.
- Single-bearing alternator with class H insulation.
- · Fully Programmable Digital AVR.
- · MAUX Winding for Excellent Motor starting capability.
- 50°C (122°F) ambient radiator.
- Subbase fuel tank.
- · 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 arrangements.
- · Operation and installation literature.

## **Generator Set Ratings**

						Prime F	Rating
Genset	Engine	Alternator	Voltage	PH	Hz	kW/kVA	Amps
KE25	G25	ECO 28-2LN/4	240/415	3	50	20/25	35
KES25	G25	ECO 32-3S	240	1	50	20/25	104

**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.
- Sustained short circuit current of upto 300% of the rated current for upto 20 sec.

Specifications	Alternator
Туре	4 Pole
Exciter type	Brushless
Leads, quantity type	12, Reconnectable
Voltage regulator	DSR
Insulation	
- Material	Class H
- Temperature rise, Prime	125°C
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Voltage regulation	+/- 1%
Voltage rating, V	
- KE25	415
- KES25	240
Standby at 163°C, kVA	27.5
Prime at 125°C, kVA	25
Direct axis subtransient reactance (	X"d), %
- KE25	8.55
- KES25	9.29

## **Application Data**

## **Engine**

Engine specifications	
Engine model	G25
Engine type	Natural Aspiration
Cylinder arrangement	3, inline
Displacement, L (cu. in.)	3.12 (190.4)
Bore and stroke, mm (in.)	105 x 120 (4.13 x 4.72)
Compression ratio	17.5
Piston speed, m/min. (ft./min.)	360 (1181)
Rated rpm	1500
Max.power at rated rpm, kWm (BHP)	27.6 (37)
Governor: type	Mechanical
Frequency regulation, no-load to full load	ISO 5%
Frequency regulation, steady state	+/- 2.5%
Frequency, Fixed, Hz	50
Air cleaner type, all models	Dry

#### **Exhaust**

Exhaust System			
Exhaust Manifold type	Dry		
ExhaustflowatratedkW,kg/hr	137.3		
Exhaust temperature at rated kW, dry exhaust,			
°C (°F)	550 (1022)		
Maximum allowable back pressure, kPa (in.Hg) 6 (1.77)			
Exhaust outlet size at engine hookup, mm (in.) 45 (1.77)			

## **Engine Electrical**

Engine Electrical System	
Battery charging alternator	12 Volt
Ground (negative/positive)	Negative
Volts, VDC	12
Amps, Ah	20
Battery type - sealed maintenance free (PLT)	
- Qty.	1
Battery voltage, VDC	12
Ground (negative/positive) Volts, VDC Amps, Ah Battery type - sealed maintenance free (PLT) - Qty.	Negative 12 20

#### **Fuel**

Fuel System	
Fuel supply line, min. ID, mm (in.)	4 (0.15)
Fuel return line, mm. ID, mm (in.)	6 (0.23)
Fuel prime pump	MICO/Bosch
Fuelfilter:quantity,type	1,Dualelement
Recommended fuel	#2 Diesel
Fuel tank capacity, L	93

#### Lubrication

Lubricating System			
Туре	Full pressure		
Oil pan capacity, L (qt.)	6 (6.3)		
Oilpancapacitywithfilter,L(qt.)	6.5(6.9)		
Oilfilter:quantity,type	1,Spinon		

## **Application Data**

#### Cooling

Radiator System			
Ambient temperature, °C (°F)	50 (122)		
Engine jacket water capacity, L (gal.)	6 (1.6)		
Radiator system capacity, including engine, L (gal.) 12.4 (3.2			
Heat rejected to cooling water at rated kW, dry			
exhaust, kW (Btu/min.)	22.48		
Water pump type	Impeller		
Fan diameter, including blades, mm (in.)	406.5 (16)		
Fan, kWm (HP)	0.55 (0.75)		

## **Operation Requirements**

Air Requirements	<u> </u>
Radiator-cooled cooling air, m/min (scfm)	65 (2292)
Combustion air, kg/hr	130
Heat rejected to ambient air :	
Generator, kW (Btu/min.)	3.47 (197.3)
Fuel Consumption	
Diesel, Lph (gph) at % load	Prime Rating
100%	6.5 (1.7)
75%	4.8 (1.2)
50%	3.5 (0.9)
Exhaust Emissions	
Per ISO 8178-5 mode cycle	CPCB norms
Noise Level	
Measured at 1m per CPCB norms, db(A)	73.8

### **Controller**

## **Standard Features and Accessories**

#### **Standard Features**

- Master switch: Run/Off-Reset/Auto
- Remote two-wire start/stop capability
- Event log
- 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:-40°C to 85°C (-40°F to 185°F)
- Humidity: 0-95% condensing

## **Power Requirements**

- 12 or 24 VDC with fuse protection
- 250 mA @ 12 VDC
- 125 mA @ 24 VDC

#### **Accessories**

- Battery charger 12 V
- Mains sensing relay
- Earth leaking protection



# Advance Digital Control (ADC 2200) Compact Controller

LCD display:

- · Runtime hours
- Current
- Voltage
- Frequency
- Engine Temperature
- Engine oil pressure
- Battery V
- Kilowatt

#### LCD display faults:

- · High engine temperature
- · Low oil pressure
- Overspeed
- Over & under voltage
- Over & under frequency
- E-stop
- Auxiliary fault
- Low Fuel level
- Over Load

#### Display warning:

- · Low battery voltage
- · High battery voltage

Kohler Power Systems KOHLER CO., Kohler, Wisconsin 53044 USA Phone 920-565-3381, Fax 920-49-1646 KohlerPower.com

Raj Mahal Vilas Extension Sadashivnagar Bangalore 560 080, India Phone +91 80 2361 6208 / 6831 / 0231 Fax +01 80 2361 5972

Fax +01 80 2361 5972 E-mail: info@kohlerindia.com

#### **Dimensions and Weights**

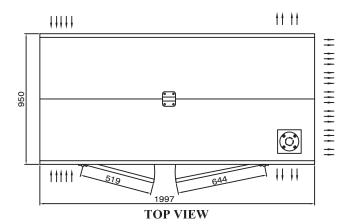
Overall Size, L x W x H, mm (in.) 1997 x 950 x 1485 (78.6 x 37.4 x 58.5)

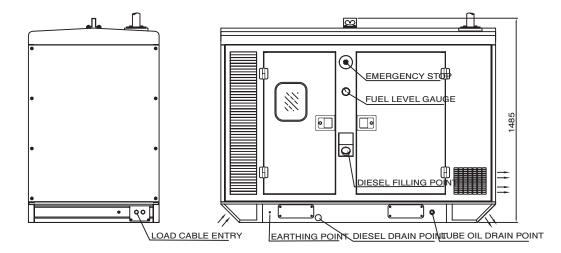
Wet, max., kg (lb.)

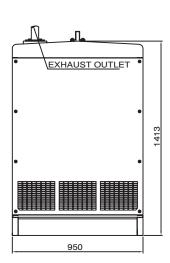
- KE25 1066 (2350) - KES25 1083 (2388)

Dry, max., kg (lb.)

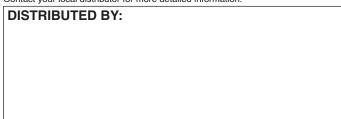
- KE25 906 (1997) - KES25 923 (2035)







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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