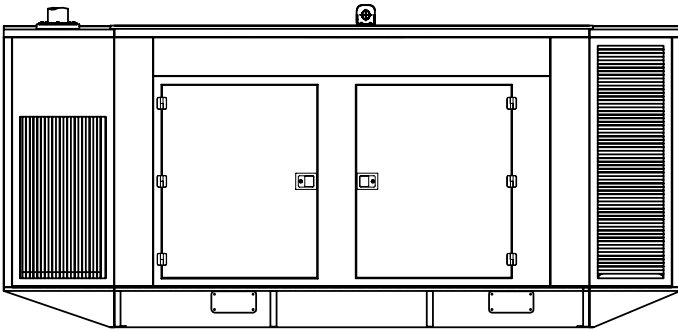




Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- 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 24-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

Genset	Engine	Alternator	Voltage	PH	Hz	Prime Rating	
						kW/kVA	Amps
KZA180	WD10D260E21	UCI 274G	240/415	3	50	144/180	250

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	UCI274G
Type	4 pole
Exciter type	Brushless
Leads, quantity type	12, Reconnectable
Voltage regulator	Mx341
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	194
Prime at 125°C, kVA	180
Direct axis subtransient reactance (X ^d), %	11

Application Data

Engine

Engine specifications

Engine model	WD10D260E21
Engine type	Turbo charged
Cylinder arrangement	6, in line
Displacement, L (cu. in.)	9.726(593.5)
Bore and stroke, mm (in.)	126 x 130 (4.96 x 5.11)
Compression ratio	17:1
Piston speed, m/min. (ft./min.)	390(1279)
Rated rpm	1500
Max.power at rated rpm, kWm (BHP)	224.4(300.8)
Governor: type, make/model	Electronic
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	1054.09
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.)	79.2 (3.12)

Engine Electrical

Engine Electrical System

Battery charging alternator	24 Volt
Ground (negative/positive)	Negative
Volts, VDC	24
Amps, Ah	32
Battery type - sealed maintenance free (PLT)	
- Qty.	2
Battery voltage (DC)	24 Volt

Fuel

Fuel System

Fuel supply line, min. ID, mm (in.)	9 (0.35)
Fuel return line, mm. ID, mm (in.)	9 (0.35)
Max. lift engine-driven fuel pump, m (ft.)	0.012 (0.039)
Max.fuelflow,Lph(gph)	12.2(3.2)
Fuel prime pump	Manual
Fuelfilter:quantity,type	1, Secondary
Recommended fuel	#2 Diesel
Fuel tank capacity, L (gal)	398 (87.54)

Lubrication

Lubricating System

Type	Full pressure
Oil pan capacity, L (qt.)	21 (22.19)
Oilpancapacitywithfilter,L(qt.)	21.72(22.9)
Oilfilter:quantity,type	1, Spiral paper element
Oil cooler	Water cooled

Application Data

Cooling

Radiator System

Ambient temperature, °C (°F)	45°C (113)
Engine jacket water capacity, L (gal.)	22(5.8)
Radiator system capacity, including engine, L (gal.)	51(13.5)
Engine jacket water flow, Lpm(gpm)	193(51)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	72(4094)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	760(29.9)
Fan, kWm (HP)	5.1(6.83)
Max. restriction of cooling air, intake and discharge side of radiator, Pa (in.H ₂ O)	0.12 (0.48)

Operation Requirements

Air Requirements

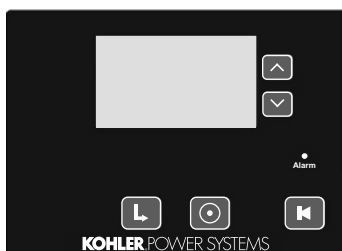
Radiator-cooled cooling air, m ³ /min (scfm)	466.1(16460)
Combustion air, kg/hr	1012
Heat rejected to ambient air :	
Engine, kW (Btu/min.)	24.74(1407)
Generator, kW (Btu/min.)	13.9(794)
Air density, kg/m ³ (lbm/ft ³)	1.20 (0.075)

Fuel Consumption

Diesel, Lph (gph) at % load	Prime Rating
100%	37.2(9.8)
75%	27.9(7.4)
50%	18.6(4.9)

Exhaust Emissions

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



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

Controller

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

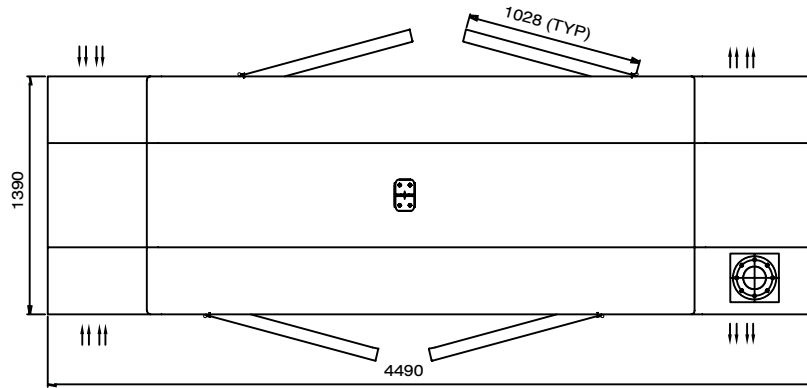
- 12 VDC with fuse protection
- 250 mA @ 12 VDC

Accessories

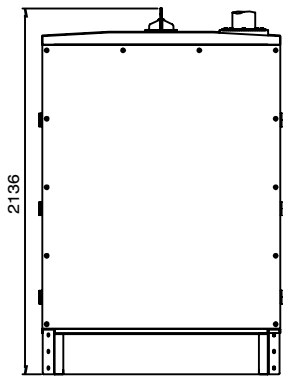
- Battery charger 12 V
- Mains sensing relay
- Earth leaking protection
- KWH meter
- Earth fault relay
- CBCT
- Multi-function meter

Dimensions and Weights

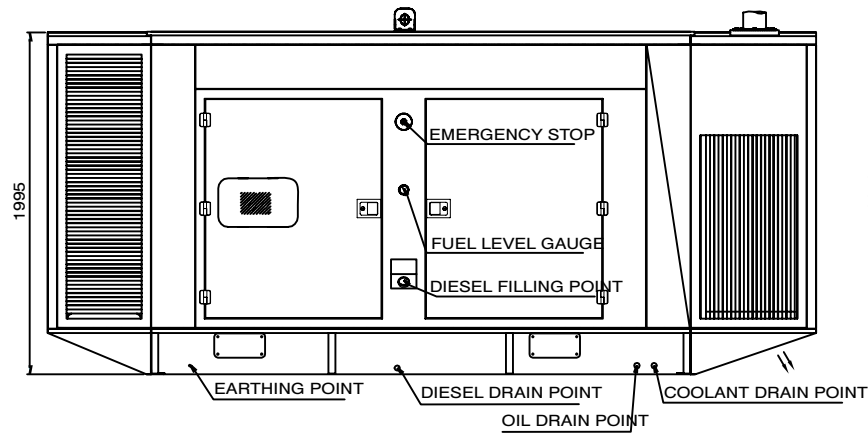
Overall Size, L x W x H, mm (in.)	4490 x 1390 x 2136 (176.8 x 54.7 x 84.1)
Weight (Radiator model) :	
Wet, max., kg	3537
Dry, max., kg	3465



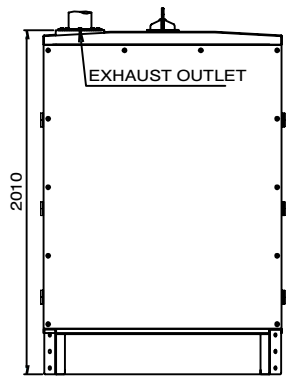
TOP VIEW



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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