

Industrial Generator Set

208-480 V

Rental[™] is a Trademark of AC Business Media

Ratings Range

kW

kVA

Prime:





Mobile Generator Set

- 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 prototypetested, factory-built, and production-tested.
- A three-year, 3000-hour limited warranty covers all generator set systems and components. The trailer has a one-year limited warranty.

Generator set features:

• Unit-mounted radiator with 45°C (113°F) ambient air capability at the prime rating.

• Engine features:

- Heavy-duty air cleaner with electronic air restrictor indicator switch.
- The generator set engine is certified by the Environmental Protection Agency (EPA) to conform to Tier 4 Final nonroad emissions regulations.
- Uses cooled Exhaust Gas Regeneration (EGR) and Diesel Oxidation Catalyst (DOC) to meet Tier 4 Final without a Diesel Particulate Filter (DPF).
- $\circ~$ Battery disconnect switch.

Enclosure/tank features:

- Durable steel, sound-attenuating housing with quiet operation of 68 dB(A) log average @ 7 m (23 ft.) with full load at the prime rating.
- o Stainless steel hinges and lockable latches on doors.
- o 100% secondary containment tank for fuel.
- Single-point lifting eye and four-point tie down system.
- Subbase fuel tank for 25-hour run time with full load at prime rating (minimum).

Customer connection panel features:

- Decision-Maker[®] 3500 controller with potted circuitry for protection from vibration and debris.
- o Externally mounted, recessed emergency stop switch.
- o Adjustable trip main line circuit breaker.
- $\circ~$ 1 load lug per phase #6-350MCM, 400 amp.
- Remote start/stop capabilities.
- Shore power connection points to front of junction box for block heater and battery charger.

Generator Set Ratings

				125°C Rise Prime Rating	
Alternator	Voltage	Ph	Hz	kW/kVA	Amps
	120/208	3	60	24/30	84
ECP32 S4 C US	120/240	1	60	24/24	100
	277/480	3	60	28/35	43

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. *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 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.



Industrial Generator Set 208-480 V

Alternator Specifications

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Alternator	
Mecc Alte	
4-Pole, Rotating-Field	
Brushless, Wound-Field	
12, Reconnectable	
Solid State, Volts/Hz	
NEMA MG1	
Class H	
150°C, Standby	
1, Sealed	
Flexible Disc	
Full	
±0.5%	
100% of Rating	
100% of Rated Standby	
Current	
(35% dip for voltages	
below)	
140	

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Capable of sustained line-to-neutral short-circuit current of up to 300% of the rated current for up to 2 seconds. (IEC 60092-301 short-circuit performance.)
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Windings are vacuum-impregnated with polyester resin for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.

Application Data

Engine

Fuel SystemEngine : model, typeKDI 1903 TCR 4-Cycle, Turbocharged 3 InlineFuel SystemCylinder arrangement3 InlineFuel SystemDisplacement, L(cu, in,)19 (113.6)Max. fuel flow, rph. (ml,)6.3 (0.25)Bore and stroke, mm (in.)88 x 102 (3.46 x 4.01)Max. fuel flow, tph (gph)35.9 (9.3)Compression ratio17.0.1Yate (stopph)35.9 (9.3)Piston speed, mmin, (ft/min.)275 (905)Max. fuel flow, tph (gph)35.9 (9.3)Rated typm1800Max. return fine restriction, kPa (in. Hg)20 (5.9)Max. power at rated rpm, kW (HP)37 (49)Water separatorYesStainless SteelElectronicPrimary5 Microns @ 98%Engine ElectronicIsochronousWater separatorYesFrequency regulation, no-load to full-loadIsochronousUtbricating SystemExhaust stimelist stanifiess DryDryLubricating SystemExhaust temperature at rated kW, dry exhaust, iffer (Hg)7-12 (2.1-3.5)8.4 (8.9)Back pressure, kPa (in, Hg)1.64 (0.48)Dil pan capacity, with filter, L (qt.) §8.9 (9.4)ColingRadiator systemRadiator systemRadiator systemEngine ElectricalEngine ElectricalProve far (deca)Max fuel filter is is recommended.Engine Electrical80Northerate Models (CC)12Battery, charging alternator: Ground (negative/positive)NegativeNegativeVolts (CC)12Arit RequirementsArappere r	Engine		Fuel		
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Allowable back pressure, kPa (in. Hg) 7-12 (2.1-3.5) Back pressure available after losses due to exhaust aftertreatment system, kPa (in. Hg) 7-12 (2.1-3.5) Engine Electrical 1.64 (0.48) Engine Electrical System Radiator System capacity, including engine, L (gal.) Battery charging alternator: Ground (negative/positive) Negative Volts (DC) Ampere rating 80 Starter motor rated voltage (DC) 12 Battery, recommended cold cranking amps (CCA): Qty., rating for -18°C (0°F) One, 1000 Battery voltage (DC) 12 Battery voltage (DC) 12 Atternator, kW (Btu/min.) 28 (1592) Alternator, kW (Btu/min.) 4.2 (239)	Exhaust temperature at rated kW, dry		Oil pan capacity with filter, L (qt.) §	8.9 (9.4)	
kPa (in. Hg) 7-12 (2.1-3.5) Back pressure available after losses due to exhaust aftertreatment system, kPa (in. Hg) 1.64 (0.48) Engine Electrical Radiator System Engine Electrical System Radiator system capacity, including engine, L (gal.) 11.5 (12.2) Battery charging alternator: Ground (negative/positive) Negative Volts (DC) 12 Ampere rating Radiator-cooled cooling air, m³/min. (scfm)† 87.8 (3100) Starter motor rated voltage (DC) 12 Radiator-cooled cooling air, m³/min. (scfm)† 87.8 (3100) Battery, recommended cold cranking amps (CCA): Qty., rating for -18°C (0°F) One, 1000 Heat rejected to ambient air: Engine, kW (Btu/min.) 28 (1592) Battery voltage (DC) 12 Alternator, kW (Btu/min.) 4.2 (239)	exhaust, °C (°F)	382 (720)	Oil filter: quantity, type §	One, Cartridge	
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Battery voltage (DC) 12 Alternator, kW (Btu/min.) 4.2 (239)	amps (CCA):		-	00 (4500)	
	Qty., rating for -18°C (0°F)	One, 1000	- · · · · · · · · · · · · · · · · · · ·		
† Air density = $1.20 \text{ kg/m}^3 (0.075 \text{ lbm/ft}^3)$	Battery voltage (DC)	12			
			† Air density = 1.20 kg/m ³ (0.075 lbm	/tt ^s)	



Industrial Generator Set

Customer Connection Panel

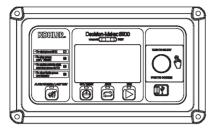
KD35MT Diese

Fuel Consumption**

Diesel, Lph (gph) at % load	Prime Ratings
100%	9.0 (2.4)
75%	7.1 (1.9)
50%	5.2 (1.4)
25%	3.2 (0.8)

** Volumetric Fuel consumption is up to 4% higher when using HVO/RD than #2 ULSD.

Controller



Decision-Maker[®] 3500 Paralleling Controller

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

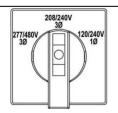
- Paralleling capability with bus sensing, first-on logic, synchronizer, and (isochronous, droop, and external controlled) load sharing
- Digital display with adjustable contrast and menu control provides easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Potted circuitry for protection from vibration and debris .
- Built-in alternator thermal overload protection ٠
- NFPA 110 Level 1 capability

Fuel Tank

- Subbase fuel tank for 25-hour run time with full load at prime rating (minimum).
- Fuel tank includes the fuel level gauge, fuel fill with lockable cap, and an atmospheric vent.
- The secondary containment tank's construction protects against fuel leaks or ruptures. The inner (primary) tank is inside the outer (secondary) tank. The outer tank contains the fuel if the inner tank leaks or ruptures.
- 9

 Dyked open-top containment construction 			Ũ
Fuel Tank Specifications		Wheels	
Fuel tank capacity	237 L (63 gal.)		
Available Voltage Selector Switch			

(Available Options, see page 4)



- Voltage selector switch, 3-position lockable, wired for:
 - o 120/208 volt, 3 phase
 - o 120/240 volt, 1 phase
 - o 277/480 volt, 3 phase

0

Viewable generator set controller with security cover

208-480 V

- Emergency stop switch
- Shore power connector, 120 V, 15 amp (for battery charger and block heater)
- Remote start connection
- Mobile paralleling box connection
- Main line circuit breaker
- Rating 100 amps, field adjustable based on voltage selected Two 20-amp 120 V, 1 phase, GFCI duplex receptacles
- (includes circuit breakers)
- Two 50-amp 240 V twistlock receptacles (includes circuit breakers)
- Color-coded camlock connectors

Available Trailer

- (Available Options, see page 4)
- Single-axle trailer with electric brake system and battery back-up breakaway system.
- DOT and TC (Transport Canada) compliant per current specifications published by both agencies, at the time of trailer manufacture.
- 2 in. pintle hitch coupler.
- Running lights with 7-wire harness and connector. .
- Front tongue jack. ٠

Trailer Specifications

iner tarik				
	Axle Rating	Single, 1588 kg (3500 lb)		
	Tires	ST205 / 75D-15		
	Wheels	Steel, Black, 15x5JJ, 5 on 4.5" bcd		

Modbus® is a registered trademark of Schneider Electric.



Standard Features

- Alternator Protection
- Battery, Battery Rack, and Battery Cables
- Engine Oil and Coolant Added
- Integral Vibration Isolation
- Local Emergency Stop Switch
- 15-Relay Dry Contact
- Battery Charger
- Voltage Selector Switch and Convenience Receptacles (2-240 volt, 2-120 volt)
- Camlock Style Load Connectors, Color Coded
- Two-Way Fuel Valve
- (for connection of a user-supplied external fuel tank)
- Fuel Tank

Available Options

Paralleling System

- Mobile Paralleling Box Literature
- General Maintenance
- Overhaul
- Production

Other Options

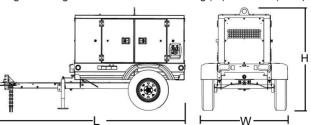
Dimensions and Weights (On Trailer)

Overall Size, L x W x H, mm (in.):

l, mm (in.):

3349 x 1480 x 1748 (131.8 x 58.3 x 68.8) b.): 1185 (2613)

Weight with engine fluids and no fuel in tank kg (lb.):



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