

Model: **KV375C2**

# KOHLER POWER SYSTEMS

200-415 V Diesel



## Ratings Range

		<b>KV375C2</b>
		<b>50 Hz</b>
<b>Standby:</b>	<b>kW</b>	300
	<b>kVA</b>	375
<b>Prime:</b>	<b>kW</b>	273
	<b>kVA</b>	341



## 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.
- A one-year limited warranty covers all systems and components.
- Volvo engine with 24-volt battery charging alternator.
- Leroy Somer single-bearing alternator with insulation class H.
- Unit-mounted radiator with 50°C (122°F) ambient air capability.
- Skid and vibration isolators.
- Subbase fuel tank, 470 L (124 gal.).
- Dry type air filter.
- Main line circuit breaker.
- Microprocessor controller.
- Battery, battery rack, and cables.
- Industrial 9 dB(A) reduction exhaust silencer (loose).
- Operation and installation literature.

## Generator Set Ratings

Alternator	Voltage	Ph	Hz	Standby Rating		Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps
	115/200	3	50	300/375	1083	273/341	985
	110/220	3	50	300/375	984	273/341	896
	115/230	3	50	300/375	941	273/341	857
LSA472VS2	120/240	3	50	300/375	902	273/341	821
	220/380	3	50	300/375	570	273/341	518
	230/400	3	50	300/375	541	273/341	493
	240/415	3	50	300/375	522	273/341	475



With Available Enclosure Accessory

**RATINGS:** All three-phase units are rated at 0.8 power factor. See TIB-109 for generator set derate tables. Obtain the technical information bulletin (TIB-101) on ratings guidelines for the complete ratings definitions.

**PRP:** Prime power is available for an unlimited number of annual operating hours in variable load applications in accordance with ISO-8528/1. A 10% overload capability is available for a period of 1 hour within a 12-hour period of operating in accordance with ISO-3046/1.

**ESP:** The emergency standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO-8528/1. Overload is not allowed. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

# Alternator Specifications

- NEMA-MG21, UTE NF C51.111, VDE 0530, BS 4999, CSA standards compliance for temperature rise and motor starting.
- Self-ventilated and dripproof construction.
- Vacuum-impregnated windings with fungus-resistant epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.

Specifications	
Ratings voltage	400
Standby rating @ 27°C, kVA	420
Prime rating @ 40°C, kVA	365
Efficiency @ full load	93.3%
Air flow, m <sup>3</sup> /min. (cfm)	54 (1907)
Direct axis subtransient reactance (X"d)	15.4%

Specifications	Alternator
Manufacturer	Leroy Somer
Type	4-Pole, Rotating-Field
Exciter type	Shunt
Leads: quantity, type	12, Reconnectable
Voltage regulator	Solid State, R230
Insulation:	NEMA MG1
Material	Class H
Bearing: quantity, type	1, Sealed
Coupling	Direct
Voltage regulation, no-load to full-load	±0.5%

## Application Data

### Engine

Engine Specifications	
Manufacturer	Volvo
Engine model	TAD941GE
Engine type	4-Cycle, Turbocharged Air/Air
Cylinder arrangement	6 Inline
Displacement, L (cu. in.)	9.36 (571)
Bore and stroke, mm (in.)	120 x 138 (4.7 x 5.4)
Compression ratio	17.4:1
Piston speed, m/min. (ft./min.)	450 (1476)
Rated rpm	1500
Max. power at rated rpm, kWm (BHP)	320 (429)
Governor type	Isochronous
Frequency regulation, no-load to full-load	ISO 5%
Frequency regulation, steady state	±0.5%
Air cleaner type, all models	Dry

### Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust flow at rated kW, m <sup>3</sup> /min. (cfm)	46.5 (1642)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	519 (966)
Maximum allowable back pressure, kPa (in. Hg)	9.7 (2.9)
Exhaust outlet size at engine hookup, mm (in.)	122 (4.8)

### Engine Electrical

Engine Electrical System	
Battery charging alternator:	24 Volt
Ground (negative/positive)	Negative
Volts (DC)	24
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Quantity, CCA rating each	Two, 1000
Battery voltage (DC)	12

### Fuel

Fuel System	
Max. fuel flow, Lph (gph)	500 (132)
Fuel prime pump	Manual
Recommended fuel	#2 Diesel
Fuel tank capacity, L (gal.)	470 (124)

### Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.)	28 (29.6)
Oil pan capacity with filter, L (qt.)	33 (34.8)

## Application Data

### Cooling

Radiator System	
Ambient temperature, °C (°F)	50 (122)
Radiator system capacity, including engine, L (gal.)	41 (10.8)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	129 (7336)
Water pump type	Centrifugal
Fan, kWm (HP)	9 (12)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H <sub>2</sub> O)	0.5 (2.0)

### Operation Requirements

Air Requirements	
Radiator-cooled cooling air, m <sup>3</sup> /min. (scfm) *	354 (12501)
Combustion air, m <sup>3</sup> /min. (cfm)	17.7 (625)

\* Air density = 1.20 kg/m<sup>3</sup> (0.075 lbf/ft<sup>3</sup>)

### Fuel Consumption

Diesel, Lph (gph) at % load	Standby Rating
100% (of the standby rating)	75.9 (20.1)
Diesel, Lph (gph) at % load	Prime Rating
100% (of the prime rating)	68.1 (18)
75% (of the prime rating)	50.6 (13.4)
50% (of the prime rating)	35.1 (9.3)

## Controllers



### Decision-Maker™ 4000

#### Standard Features

- Large LCD display panel
- Unique control wheel for system access
- User buttons for start, stop, menu, and escape
- Emergency stop button
- On/off key switch
- Panel-mounted battery fuse
- Panel-mounted USB ports for PC access and software upgrades
- Password-protected access to control parameters
- Upgradeable software for future enhancements

#### LCD Panel Features

- 600 x 800 resolution
- Multiple lines of text or graphic display
- Icons for quick identification of system status
- Five languages: English, French, German, Portuguese, and Spanish

#### Communication Features

- Engine communication via CANbus
- Modbus communication via RS-485 or ethernet
- PC and flash drive connections via USB

#### Functions

- View and adjust system operation parameters
- View system faults

#### Viewable/Selectable Parameters (may require optional module)

- Voltage: phase-to-neutral, total voltage
- Current
- Frequency
- Power (active/reactive/apparent)
- Power factor
- Engine speed
- Oil pressure
- Coolant temperature
- Battery voltage
- Fuel level (%)
- Time delays

#### Viewable Faults (over 60 individual faults are monitored) including:

- Alternator protection (if equipped)
- Circuit breaker and ground fault protection
- Communication and engine ECM monitoring
- Cooling air monitoring
- Electrical charging system
- Engine cooling system
- Engine lube system
- Fuel system
- Generator set status

## Available Accessories

### Enclosed Unit

- Sound Enclosure M228, 67 dB(A) @ 7 m (23 ft.), Standby (with enclosed critical silencer)

### Open Unit

- Exhaust Silencer, Critical 40 dB(A) Reduction
- Exhaust Silencer, Residential 29 dB(A) Reduction
- Exhaust Pipe Extension, 40 cm (16 in.)
- Flexible Exhaust Connector
- Protection Mesh for Exhaust Parts

### Cooling System

- Block Heater [recommended for ambient temperatures below 0°C (32°F)]
- Radiator Core Guard

### Decision-Maker™ 4000 Controller

- Alternator Protection
- Audible Alarm Module
- Five Expandable Modules with Four Inputs/Six Outputs Each
- Network Modules (RTC and GSM modems and ethernet router)
- NFPA-110 Module
- Remote Annunciator
- Voltage/Speed Adjustment Module
- WinTelys Software

### Fuel System

- Automatic Fuel Tank Fill Kit
- Subbase Fuel Tank with Secondary Containment Basin
- Subbase Fuel Tank Leak Alarm
- Water Separator Fuel Filter

### Electrical System

- Battery Charger, Equalize/Float Type
- Battery Isolator Switch

### Engine and Alternator

- Alternator Strip Heater
- Air Cleaner, Heavy Duty (with air restriction indicator)
- Droop Kit with 3-Function Voltage Regulator
- Lube Oil Drain Pump
- PMG Alternator and Voltage Regulator
- Tropical Heavy-Duty Alternator Insulation

### Miscellaneous Accessories

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- \_\_\_\_\_
- \_\_\_\_\_
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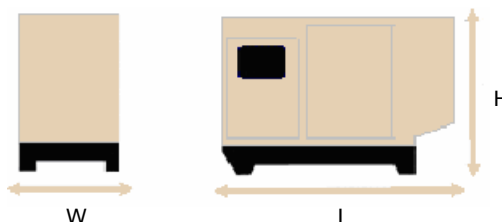
## Dimensions and Weights

### Open Model



Overall Size, L x W x H, mm (in.): 3160 x 1340 x 1761 (124 x 53 x 69)  
 Weight, wet, kg (lb.): 3250 (7165)

### With Available Enclosure Accessory



Overall Size, L x W x H, mm (in.): 4475 x 1410 x 2430 (176 x 56 x 96)  
 Weight, wet, kg (lb.): 4380 (9656)

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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