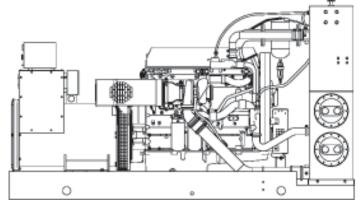


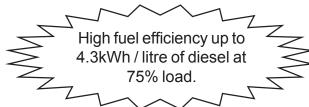
**MODEL: 360P5** 50Hz

# **KOHLER** POVVER SYSTEMS

Diesel







### **Standard Features**

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- A one-year limited warranty covers all systems and components. Two-, five- and ten-year extended warranties are available.
- Heat Exchanger cooling system.
- Generator features:
  - Brushless, rotating-field generator has broadrange reconnectability.
- Other features:
  - Controllers are available to meet all applications. See controller features inside.
  - Low coolant level shutdown protects generator set from overheating.
  - Integral vibration isolation eliminates the need for installation of vibration spring isolators under the unit.
  - Electronic, isochronous governor provides precise frequency regulation.
  - Electronic engine controls and a generator microprocessor controller combine to make one of the most advanced control systems in today's generator market.

### **Generator Output Ratings**

Model	Voltage	Ph	Hz	Prime Rating (125°C Rise)
				kW / kVA
360P5	380 - 416	3	50	288 / 360

### **Dimensions & Weights**

Model	Dimension, L x W x H, mm	Weight, Kg (lb), Dry		
360P5	3140 x 1090 x 1930	2900 (6380)		

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

# **Alternator Specifications**

Specifications	Generator
Туре	4-Pole, Rotating Field
Exciter type	Brushless, External
	Voltage Regulated
Voltage regulator	Solid State, Volts / Hz
Insulation:	NEMA MG1 - 1.66,
Material	Class H, Synthetic,
	Nonhygroscopic
Temperature rise	125°C Prime
Bearing: number, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no load to full load	± 1%
(with <0.5% drift due to temp variation)	

- Compliance with NEMA, IEEE, and ANSI standards for temperature rise.
- Transient performance meets the requirements of ISO 8528-5, Class G3.
- Sustained short-circuit current of up to 300% of rated current for up to 10 seconds.
- Sustained short-circuit capability enabling downstream circuit breakers to trip without collapsing the generator field.
- Self-ventilation and drip-proof construction.
- Superior voltage waveform from two-thirds pitch windings and skewed stator.
- Solid State Electronic, volts-per-hertz voltage regulator with ± 1% no-load to full-load regulation.
- Brushless alternator with brushless pilot exciter for excellent load response.

## **Application Data**

	• • •
Engine	
Engine Specifications	50Hz
Engine: model	Detroit Diesel S60
Engine: type	4-Cycle, Turbocharged
Cylinder head arrangement	6, in-line
Displacement, L (cu. in.)	12.7 (778)
Bore and stroke, mm (in)	130 x 160 (5.12 x 6.30)
Compression ratio	15.0 : 1
Piston speed, m/sec. (ft/min)	8.0 (1575)
Main bearings: number, type	7, Precision Half-Shell
Rated rpm	1500
Max. power at rated rpm, kWm (BHP)	321 (430)
Cylinder head material	Cast Iron
Crankshaft material	Forged Steel
Valve material:	
Intake	Iron Based Seat
Exhaust	Nickel Based Seat
Governor: type, make / model	Electronic, Fuel Injection Control, DDEC
Frequency regulation, no load to full load	Isochronous
Frequency regulation, steady state	± 0.25%
Air cleaner type, all models	Dry
Exhaust	

Exhaust System	50Hz
Exhaust flow at rated kW, m³/min (cfm)	61.8 (2183)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	442.7 (829)
Maximum allowable back pressure, kPa (in Hg)	10.1 (3.0)
Engine exhaust outlet size, mm, (in.)	127 (5)

### **Engine Electrical**

Engine Electrical System	50Hz
Starter motor rated voltage (DC)	24
Recommended battery cold cranking amps (CCA) rating	950
Quantity of batteries	2
Battery voltage (DC)	12

#### **Fuel**

Fuel System	50Hz
Fuel supply line, min. ID, mm (in.)	12.7 (0.50)
Fuel return line, min. ID, mm (in.)	8.0 (0.31)
Max. lift, engine-driven fuel pump, m (ft)	2.1 (6.8)
Max. fuel flow, Lph (gph)	348.5 (92.2)
Fuel prime pump	N/A
Fuel filter	2, Primary / Secondary
Recommended fuel	#2 Diesel

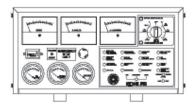
#### Lubrication

Lubricating System	50Hz
Туре	Full Pressure
Oil pan capacity, L (qts.)	30.0 (32)
Oil pan capacity with filter, L (qts.)	36.0 (38)
Oil filter: quantity, type	2, Cartridge
Oil cooler	Water-cooled

# **Application Data**

Available Cooling System		Operation Requirements		
Cooling System (Heat Exchanger)	50Hz	Air Requirements	50Hz	
Ambient temperature, °C (°F)	50	Radiator-cooled cooling air,	N.A.	
Engine jacket water capacity, L (gal)	23 (6.1)	m³/min. (scfm) <sup>†</sup>		
Engine jacket water flow, Lpm (gpm)	302.4 (80)	Combustion air, m³/min (cfm)	24.8 (876)	
Heat rejected to cooling water,	121.3 (6900)	Heat rejected to ambient air:		
at rated kW (Btu/min)		Engine kW (Btu/min)	43.9 (2500)	
Heat rejected to air charge cooler	65.0 (3700)	Generator kW (Btu/min)	19.4 (1108)	
kW (Btu/min)		† air density = 0.075 lbm/ftS or 1.20 kg/m		
Water pump type	Centrifugal	- · · · · · · · · · · · · · · · · · · ·		
Max. permissible ext. rest. in CAC	10.1 (3.0)	Fuel Consumption	50Hz	
circuit, kPa (in Hg)		Diesel, Lph (gph) at % load	Prime Rating	
Max. permissible ext. rest. in JW circuit, kPa (in Hg)	5.07 (1.5)	100%	71.8 (19.0)	
Temperature of raw water available, °C (°F)	32 (89.6)	75%	54.4 (14.4)	
Raw water flow rate through JW cooler, Lp	,	50%	37.4 (9.9)	
Raw water flow rate through CAC cooler, L		25%	20.8 (5.5)	

## Controller



Decision-Maker™ 3+, 16-Light

#### Decision-Maker<sup>™</sup> 3+, 16-Light Controller

Audiovisual annunciation with NFPA 110 Level 1 capability. Microprocessor logic, AC meters, and engine gauge features. 12- or 24-volt engine electrical system capability. Remote start, prime power, and remote annunciation options.

KOHLER CO., Kohler, Wisconsin 53044 USA Phone 920-565-3381, Fax 920-459-1646 For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444 KohlerPowerSystems.com

Kohler Power Systems Asia Pacific Headquarters 7 Jurong Pier Road Singapore 619159 Phone (65) 6264 6422 Fax (65) 6264 6455 www.kohler.com.sg

# **Accessories**

Enclosed Unit		Paralleling System	
	Weather Housing		Load-Sharing Module
	Acoustic Housing		Reactive Droop Compensator
	Containerized Set		Voltage Adjust Potentiometer
			Voltage Regulator Relocation Kit
Ор	en Unit		
	Exhaust Silencer, Residential	Mai	intenance
	Flexible Exhaust Connector, Stainless Steel		General Maintenance Literature Kit
			Maintenance Kit (includes air, oil and fuel filters)
Co	oling System		
	Block Heater	Cor	ntroller (Decision-Maker™ 3+)
	Radiator Duct Flange		Common Failure Relay Kit
			Controller Cable, 40ft (12m)
Fue	el System		RS-232 or RS-485 Communication Module
	Day Tanks		Dry Contact Kit (Isolated Alarm)
	Flexible Fuel Lines		Engine Prealarm Sender Kit
	Fuel Pressure Gauge		Run Relay Kit
	Subbase Fuel Tanks		
		Mis	scellaneous Accessories
Ele	ectrical System		
	Battery		
	Battery Charger, Equalize / Float Type		
	Battery Charger, Trickle Type		
	Battery Rack and Cables (standard)		
Eng	gine and Generator		
	Air Cleaner, Heavy Duty		
	Air Cleaner Restriction Indicator		
	Generator Strip Heater		
	Line Circuit Breaker		
	Line Circuit Breaker with Shunt Trip		
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obligation or liability whatsoever.			

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