



KOHLER® DECISION-MAKER™ 550CONTROLLER



### STANDARD KOHLER® GAS GENERATOR FEATURES

- \* PROTOTYPE-TESTED, FACTORY-BUILT & PRODUCTION TESTED
- \* FAST RESPONSE™ - EXCITATION SYSTEM DELIVERS FASTEST VOLTAGE RESPONSE
- \* BRUSHLESS, ROTATING-FIELD GENSET HAS BROADRANGE RECONNECTABILITY
- \* PERMANENT MAGNET SYSTEM-EXCITOR GENSET (PMG) PROVIDES SUPERIOR SHORT-CIRCUIT CAPABILITY
- \* PRECISE FREQUENCY REGULATION

### KOHLER® DECISION-MAKER™ 550 CONTROLLER

- \* PROVIDES ADVANCED CONTROL, ADDITIONAL SYSTEM MONITORING AND SYSTEM DIAGNOSTIC
- \* COMPLETE COMPATIBILITY WITH SELECTED ENGINE ELECTRONIC CONTROL MODULE (ECM) AND NON ECM
- \* INTERFACES BETWEEN GENSET AND KOHLER SWITCHGEAR FOR PARALLELING APPLICATION WITH UTILITY
- \* MEETS THE NATIONAL FIRE PROTECTION ASSOCIATION REQUIREMENTS OF NFPA 99 AND NFPA 110
- \* LISTED UNDER UNDERWRITER'S LABORATORIES UL-508
- \* COMMUNICATE WITH PC INDIVIDUALLY OR ON A NETWORK

### PRODUCT REFERENCE SPECIFICATIONS

Model	Engine	Alternator	LP Gas Prime		Nat. Gas Prime		Spec. Ref.	Dimension L x W x H (mm)	Weight KG
			KW	KVA	KW	KVA			
20RZ	Ford LRG-425	4P4	15	19	14	18	G4-67	1905 x 737 x 1085	504
30RZG	GM Vortec 4.3 L	4P5	24	30	24	30	G4-73	2200 x 865 x 1172	556
35RZG	GM Vortec 4.3 L	4P5B	29	36	29	36	G4-74	2200 x 865 x 1172	565
45RZG	GM Vortec 4.3 L	4P8	34	42	30	37	G4-75	2200 x 865 x 1172	617
50RZG	GM Vortec 5.7 L	4P8	37	46	37	46	G4-76	2200 x 865 x 1172	712
50RZGB	GM Vortec 5.0 L	4P8	37	46	37	46	G4-83	2200 x 865 x 1172	712
60RZG	GM Vortec 5.7 L	4S7	50	62	45	56	G4-77	2200 x 865 x 1211	813
80RZG	GM Vortec 8.1 L	4S7	64	80	61	76	G4-78	2400 x 865 x 1484	1134
100RZG	GM Vortec 8.1 L	4S13	80	100	73	91	G4-79	2400 x 865 x 1484	1134
125RZG	GM Vortec 8.1 L	4S13	88	110	96	120	G4-81	2400 x 865 x 1484	1134
135RZD	Detroit Diesel S60G	4S11	-	-	108	135	G4-48	3061 x 1270 x 2012	2459
150RZD	Detroit Diesel S60G	4S13	-	-	120	150	G4-49	3061 x 1270 x 2012	2471
180RZD	Detroit Diesel S60G	4UA9	-	-	144	180	G4-50	3416 x 1270 x 2012	2849
250RZD	Detroit Diesel S60G	4UA10	-	-	204	255	G4-54	3416 x 1270 x 2012	2901
275RZD	Detroit Diesel S60G	4UA13	-	-	220	275	G4-55	3416 x 1270 x 2012	2901
400RZW	Waukesha VGF H24GLD	5M4028	-	-	320	400	G4-90	4606 x 2232 x 2819	7212
600RZW	Waukesha VGF L36GLD	5M4036	-	-	504	630	G4-91	5014 x 2232 x 2862	10750
800RZW	Waukesha VGF P48GLD	5M4044	-	-	668	835	G4-92	4953 x 2645 x 3228	13018

Prime power operations which is suitable for continuous electrical power with variable load in lieu of main power network. There is no limitation to the annual hours of operation and all models can supply 10% overload power for 1 hour in 12 hours.

Standby power operations which is supply for emergency power with variable load in the event of a main power network failure up to a maximum of 500 hours per year. No overload is permitted.

Output ratings are typical for sets operating at 380-480Volts. Power rating codes: ISO 3046, ISO 8528 & DIN 6271

Note: Standard reference conditions 0.8p.f 25°C (77°F) ambient, 177m (600ft) Altitude, 40°C (104°F) Fuel Inlet Temperature and 30% Humidity. All engine performance data based on the above mentioned maximum prime ratings.

**“GENERATING IDEAL POWER SOLUTIONS”**

**Output ratings**

The following 3 phase ratings are available:

50HZ  
415/240V 400/230V 380/220V

60HZ  
480/277V 440/254V 415/240V 415/230V  
380/220V 240/120V 230/115V 220/127V  
220/110V

**Engine**

Kohler® gas engine with power rating codes to ISO 3046, ISO 8528 & DIN 6271 Lube oil drain valve fitted as standard.

Governor

Electronic compliant with BS5514, Class A1.

Electrical System

12 Volt & 24 Volt DC. Energised to run shutdown solenoid. Oil pressure and water temperature shutdown switches and senders.

**Alternator**

All alternators have been carefully selected to match the performance of the engine and incorporate the following: screen protected and drip-proof, self exciting, self regulating brushless alternator with fully interconnected damper windings, IC06 cooling system and sealed-for-life bearings. 12 wire reconnectable windings provide a wide range of 3 phase voltages.

Insulation System

The insulation system is Class H. All windings are impregnated in either a triple dip thermo-setting moisture, oil and acid resisting polyester varnish or vacuum pressure impregnated with a special polyester resin. Heavy coat of anti-tracking varnish for additional protection against moisture or condensation.

Electrical Characteristics

Electrical design in accordance with BS5000 Part 99, IEC34-1, VDE0530, UTE5100, NEMA MG-122, CEMA, CSA 22.2 and AS1359

Automatic Voltage Regulator

The fully sealed automatic voltage regulator maintains the voltage within the limits of +/-1.5% from no load to full load including cold to hot variations at any power factor between 0.8 lagging and unity and inclusive of a speed variation of 4.0%. Nominal adjustment is by means of a trimmer incorporated in the AVR.

Radio Interference

Suppression is in line with the provisions of BS EN 50081 and VDE Class G.

**Control System**

Independently mounted, manual / auto operated control panel of fabricated sheet steel construction with a hinged door and isolated from vibration.

The DEC 550 Controller has the following features: Micro-processor based designed, automatic engine starting and stopping, automatic shutdown on fault condition, custom graphical icon type display, LED & LCD alarm indication, provides engine alarm and status information, provides engine & generator instrumentation and front panel configurable inputs output, alarms & timers.

Circuit Breaker - Optional

3 pole moulded case circuit breaker independently mounted on the baseframe in a vibration isolated sheet steel box with adequate access for incoming and outgoing cables.

**Cooling Radiator**

Radiator and cooling fan complete with protection guards, designed to cool at the specified output, in air-on temperatures up to 50° C (122° F).

Coolant drain valve fitted as standard. Low coolant level protection.

**Engine Filtration System**

Sealed paper type dry air filters. Spin-on type fuel filters and turbo lube oil filter.

**Exhaust System**

Heavy duty industrial capacity exhaust silencer as option. Stainless steel exhaust bellows are offered as standard.

**Electrical System**

12 Volt & 24 Volt system with battery charging alternator, axial type starter motor.

**Mounting Arrangement**

Baseframe

The complete generator set is mounted, as a whole, on a heavy duty fabricated, welded steel baseframe. The baseframe incorporates specially designed lifting eyes and apertures for either slings or fork lift operation.

Coupling

The engine and alternator are directly coupled by means of an SAE flange so that there is no possibility of misalignment after prolonged use. The engine flywheel is flexibly coupled to the alternator rotor and a full torsional analysis has been carried out to guarantee no harmful vibration will occur in the assembly.

Anti Vibration Mounting Pads

Anti-Vibration pads are affixed between engine/alternator feet and the baseframe thus ensuring complete vibration isolation of the rotating assemblies. (Some models supplied loose).

Safety Guards

The fan, fan drive and battery charging alternator drive are fully guarded for personnel protection. A stone guard protects the radiator core from accidental damage.

**General Arrangement**

The generator set is designed and constructed for installation in a weather-protected building. Various types of weatherproof and sound attenuated enclosures are available as option.

**Documentation**

A full set of operation and maintenance manuals and circuit wiring diagrams.

**Factory Tests**

The generator set is load and tested before despatch. All protective devices, control functions are simulated and the generator and its systems checked, proved and passed for despatch. A test certificate is provided upon request.

**Equipment Finish**

Primer on all equipment. Final coat to manufacturer's standard.

**Quality Standards**

The equipment meets the following standards: BS4999, BS5000, BS5514, IEC 34, VDE0530, NEMA MG-122.

**Product Endorsement**

All equipment is guaranteed for a period of 12 months from date of commissioning or 18 months from date of ex works shipment, whichever occurs first.

Where equipment is supplied by an authorised Kohler® Distributor or Dealer, the 12 months guarantee\* period will commence from the date of delivery to the first retail purchaser or 18 months from date of ex works shipment, whichever occurs first.

Extended warranty terms are available, for details please contact Powermech Marketing Department.

\*Equipment must only be used in accordance with recommended operating practices and subject to any specified load limitations.

**Miscellaneous**

Complete set mounted on a wooden base and shrink wrapped for export.

**Rating Definitions**

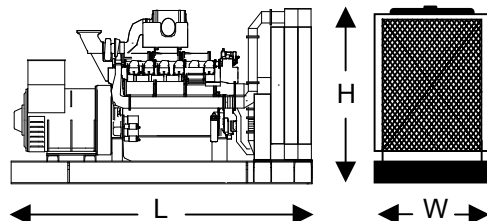
**Prime Power:**

All ratings are suitable for continuous electrical power (at variable load in lieu of main power network). There is no limitation to the annual hours of operation and all models can supply 10% overload power for 1 hour in 12 hours.

**Standby Power:**

Standby ratings are for the supply of emergency power at variable load in the event of a main power network failure up to a maximum of 500 hours per year. No overload is permitted.

- \* All ratings are in compliance with BSS5514, ISO 3046, DIN6271, ISO 8528.
- \* Ratings at 0.8p.f. 25°C (77°F) ambient, 177m (600ft) above sea level. Derating maybe required - consult Powermech Technical Department.
- \* Note: For base load (COP) power applications, consult Powermech Sales Department.



**Powering Asia**

**Powermech ENERGY SDN. BHD. (630219-K)**

Lot No. 1, Jalan Modal 23/2, Kawasan MIEL 8,  
40000 Shah Alam, Selangor Darul Ehsan, Malaysia.

Tel: 603-5548 9288 Fax: 603-5548 0823

Website: [www.powermech.com.my](http://www.powermech.com.my) E-mail: [ykchai@powermech.com.my](mailto:ykchai@powermech.com.my)