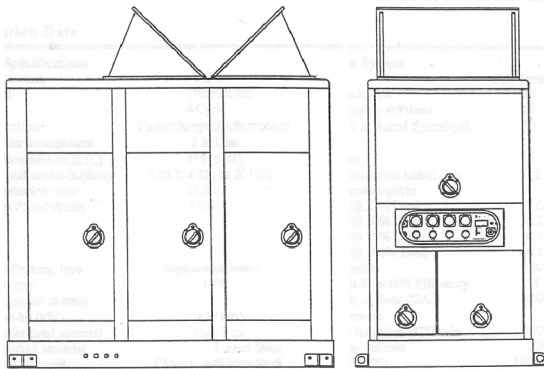


60/100/175 kW Sound Attenuated Generator Sets (500/800/1400 Amps at 120/208 Volts)



100/175 kW Model
(generator set shown without trailer)

- Kohler Rental Power provides one-source responsibility for the generating system and accessories.
- The generator system, powered by a diesel engine, is designed for motion picture, military, or high grade commercial use.
- The generator delivers 50 dB(A) at 15 m (50 ft.). The super sound-attenuating design with an all aluminum housing and base for light weight and durability includes:
 - Automatic overhead doors with sound baffles; two critical exhaust silencers in series
 - Oversized radiator with a slow-speed, high efficiency fan
 - Two layers of acoustical insulation designed for generator silencing
 - Sound absorbing silica coating sprayed on interior metal housing surfaces
 - Engine mounting isolators to eliminate vibration and sound transfer
- The generator set provides extremely clean power under any loads for voltage and frequency sensitive applications.
- Single-axle (60 kW) and tandem-axle (100/175 kW) trailers are available.

Standard Features

- Generator Set
 - Dual redundant voltage regulators with switch (100/175 kW models)
 - Line circuit breaker
 - Mounting base
 - Operating instructions
 - Radio suppression to commercial standards
 - Vibration isolation
 - Voltage changeover switch
- Engine
 - Air filter restriction indicator
 - Battery, 12 VDC (60 kW)
 - Battery, 24 VDC (100/175 kW)
 - Cooling for 50°C (123°F) ambient
 - Electric fuel pump
 - Interior DC lights with timer
 - Oil drain extension
 - Polymide blade cooling fan
 - Solenoid fuel shutoff valve, 12 VDC
 - Water/fuel separator
- Enclosure
 - Aluminum housing and doors
 - Outlet panel
 - Stainless steel door handles and hinges

Digital Control Panel Features

- Meters, Gauges, and Lamps
 - Battery voltmeter
 - Digital ammeter(s)
 - Digital frequency meter
 - Digital voltmeter
 - Hourmeter
 - Indicating lamps
 - Oil pressure gauge
 - Water temperature gauge
- Switches and Controls
 - Automatic or manual start switch
 - Engine control switch
 - Mode switch with lights
 - Panel lights and switch
 - Speed adjustment control
 - Voltage adjustment control
 - Voltmeter selector switch (L-L, L-N)
- Warning and Shutdown Fault Protection
 - Coolant level warning
 - High engine temperature shutdown
 - Low coolant shutdown
 - Low oil pressure shutdown
 - Overspeed shutdown

Generator Ratings and Deration Factors

Generator sets include a voltage reconnect switch for 120/240 VAC single-phase, 120/208 VAC 3-phase, or 277/480 VAC 3-phase.

Generator Ratings	60 kW			100 kW			175 kW		
	120/240	120/208	277/480	120/240	120/208	277/480	120/240	120/208	277/480
Voltage	120/240	120/208	277/480	120/240	120/208	277/480	120/240	120/208	277/480
Phase	1	3	3	1	3	3	1	3	3
Amps/line	200	166	90	300	275	148	605	466	262
Amps total	400	500	NA	600	825	NA	1000	1400	NA
Prime rating, kW/kVA	48/48	60/75	60/75	72/72	99/124	99/124	120/120	175/218	175/218
Frequency	60	60	60	60	60	60	60	60	60
Power Factor	1.0	0.8	0.8	1.0	0.8	0.8	1.0	0.8	0.8

GENERAL GUIDELINES FOR DERATION: *60 kW Altitude:* Derate 4% per 305 m (1000 ft.) elevation above 1220 m (4000 ft.). *60 kW Temperature:* Derate 1% per 6°C (10°F) temperature above 38°C (100°F). *100 kW Altitude:* Derate 4% per 305 m (1000 ft.) elevation above 2285 m (7500 ft.). *100 kW Temperature:* Derate 1% per 6°C (10°F) temperature above 40°C (104°F). *175 kW Altitude:* Derate 4% per 305 m (1000 ft.) elevation above 1220 m (4000 ft.). *175 kW Temperature:* Derate 1% per 6°C (10°F) temperature above 40°C (104°F).
 NA Not available at time of print.

Alternator Specifications

- Generator protection for overload and short circuit.
- NEMA, IEEE, and ANSI standards compliance for temperature rise.
- Single-phase brushless exciter.
- Skewed rotor for smooth voltage waveform.
- Vacuum-impregnated epoxy varnish; fungus resistant per MIL-I-24092.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.

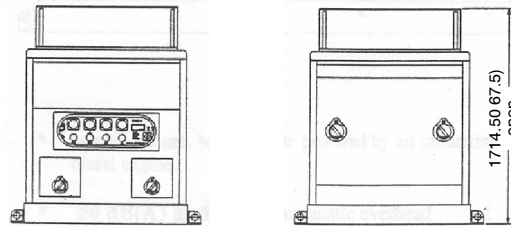
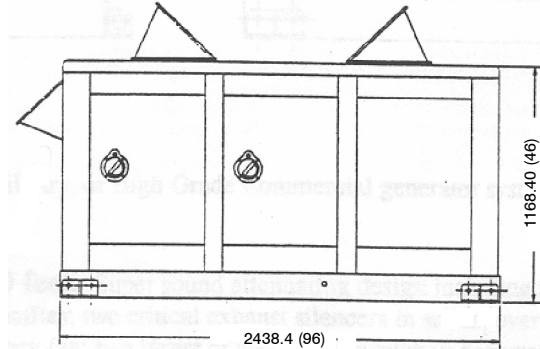
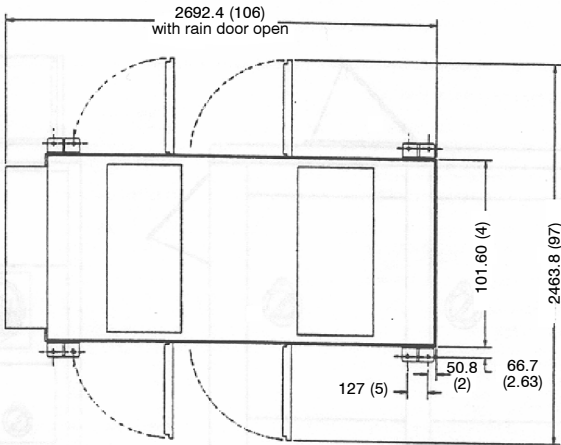
Generator Specifications	60 kW	100 kW	175 kW
Make	Lima SER	Lima SER	Lima Magna Plus
Model	1354	811	1265
Number of leads	12	12	12
Generator type	Rotating-Field	Rotating-Field	Rotating-Field
Voltage regulator	Solid-State, Model SE250	Solid-State, Model SE250 (two supplied with switch)	Solid-State, Model APR63-4 (two supplied with switch)
Insulation	NEMA, MG1-1.66	NEMA, MG1-1.66	NEMA, MG1-1.66
Material	Class F	Class F	Class F
Temperature rise	Class F	Class F	Class F
Bearing: quantity, type	1, Sealed	1, Sealed	1, Sealed
Coupling	Flexible Disc	Flexible Disc	Flexible Disc
Amortisseur windings	Full	Full	Full
Voltage regulation, no-load to full-load	±1% Maximum	±1% Maximum	±1% Maximum
One-step load acceptance, % of rating per NFPA 110	100	100	100
Peak motor starting, Code F, 35° voltage dip, HP	46	50	75
Generator efficiency at full load	93%	93%	93%
Phase sequence	CBA	CBA	CBA
L-L harmonic maximum total	3.5%	3.5%	3.5%
L-L harmonic maximum single	2.5%	2.5%	2.5%
Voltage dip upon full-load application, 1-step	20% for 0.6 of a second	20% for 0.6 of a second	20% for 0.6 of a second
Voltage rise upon full-load rejection, 1-step	24% for 0.6 of a second	24% for 0.6 of a second	24% for 0.6 of a second

Application Data

Engine Specifications	60 kW	100 kW	175 kW
Manufacturer	Cummins	Volvo	Volvo
Model	4BTA3.9	TD730VE	TWD731VE
Type	4-Cycle	4-Cycle	4-Cycle
Aspiration	Turbocharged	Turbocharged	Turbocharged
Aftercooler	Water to Air	Aftercooled	Aftercooled
Cylinder arrangement	4 Inline	6 Inline	6 Inline
Displacement, L (cu. in.)	3.9 (239)	5.48 (335)	6.7 (411)
Bore and stroke, mm (in.)	102 x 120 (4.02 x 4.72)	98 x 120 (3.88 x 4.72)	104 x 130 (4.12 x 5.12)
Compression ratio	16.5:1	18.3:1	14.5:1
Piston speed, m/sec. (ft./sec.)	7.19 (23.6)	7.19 (23.6)	—
Main bearing: quantity, type	5, Replaceable Insert	5, Replaceable Insert	5, Replaceable Insert
Rated rpm	1800	1800	1800
Max. power at rated rpm, kWm (BHP)	74 (100)	140 (189)	178 (242)
Cylinder head material	Cast Iron	Cast Iron	Cast Iron
Crankshaft material	Forged Steel	Forged Steel	Forged Steel
Valve material	Chromium-Silicon Steel	Chromium-Silicon Steel	Chromium-Silicon Steel
Governor, type	Electronic	Electronic	Electronic
Frequency regulation, no-load to full-load	±0.05 Hz	±0.1% Hz	±0.05 Hz
Frequency regulation, steady state	±0.02 Hz	±0.1% Hz	±0.02 Hz
Air cleaner type, all models	Dry, Dual Element	Dry, Element	Dry, Element
Exhaust System			
	60 kW	100 kW	175 kW
Exhaust temperature at rated kW, dry exhaust, °C (°F)	543 (1010)	523 (973)	495 (923)
Exhaust flow at rated kW, m ³ /min. (cfm)	13 (460)	24 (848)	38 (1330)
Silencer type	Spiral	Spiral	Spiral
Maximum allowable back pressure, kPa (in. Hg)	10 (3)	6 (1.8)	—
Exhaust outlet size at hookup, mm (in.)	76 (3)	101 (4)	101 (4)
Lubricating System			
	60 kW	100 kW	175 kW
Type	Full Pressure	Full Pressure	Full Pressure
Oil pan capacity, L (qt.)	9.5 (10)	18.9 (20)	24 (25.4)
Oil pan capacity with filter, L (gal.)	10.4 (11)	22.7 (24)	29 (30.7)
Oil pressure at rated speed, kPa (psi)	345 (50)	345 (50)	345 (50)
Fuel System			
	60 kW	100 kW	175 kW
Fuel pump maximum lift, m (ft.)	1.8 (6)	2.5 (8)	2.0 (6.5)
Fuel consumption, Lph (gph)			
25% load	5.3 (1.4)	9.8 (2.6)	12.9 (3.4)
50% load	8.7 (2.3)	16.3 (4.3)	23.5 (6.2)
75% load	12.1 (3.2)	23.1 (6.1)	34.1 (9.0)
100% load	18.2 (4.8)	30.7 (8.1)	44.3 (11.7)
Total fuel flow, Lph (gph)	30.3 (8)	151.4 (40)	68.1 (18)
Filter micron size, 98% efficiency	8	8	2
Fuel capacity in tank, L (gal.)	606 (160)	606 (160)	606 (160)
Cooling System			
	60 kW	100 kW	175 kW
Engine heat rejection, kW (Btu/min.)	65 (3700)	77 (4379)	105 (5971)
Coolant flow, Lpm (gpm)	178 (47)	208 (55)	246 (65)
Thermostat, °C (°F)	82 (180)	82 (180)	82 (180)
Coolant capacity, L (qt.)	10 (12)	18 (19)	16.8 (15.9)
Engine Electrical System			
	60 kW	100 kW	175 kW
Battery charging alternator:			
Ground (negative/positive)	Negative	Negative	Negative
Volts (DC)	12	24	24
Ampere rating	58	35	63
Starter motor rated voltage (DC)	12	24	24
Battery, recommended cold cranking amps (CCA)	625	900	800

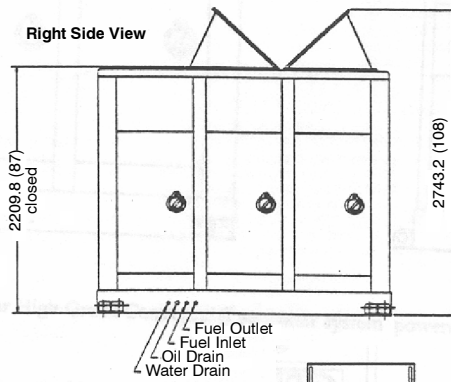
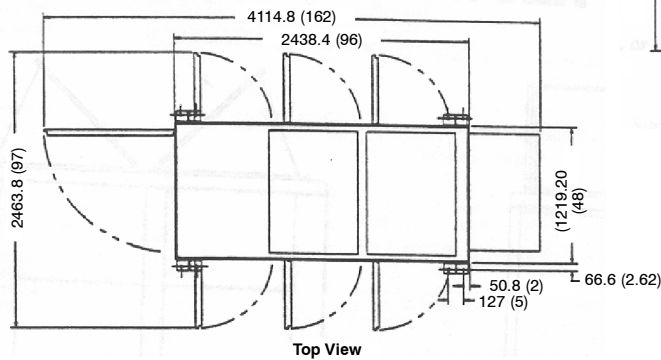
Weights and Dimensions (generator set shown without trailer)

60 kW Model:
 Overall Size, L x W x H, mm (in.): 2438 x 1219 x 1168
 (96 x 48 x 46)
 Weight, wet, kg (lb.): 1588 (3500)

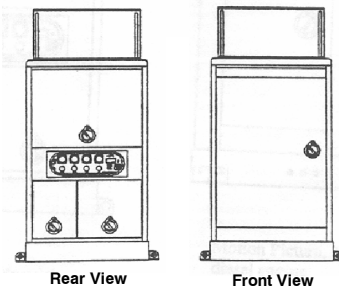


100 kW Model:
 Overall Size, L x W x H, mm (in.): 2438 x 1219 x 2210
 (96 x 48 x 87)
 Weight, wet, kg (lb.): 2495 (5500)

175 kW Model:
 Overall Size, L x W x H, mm (in.): 2438 x 1219 x 2210
 (96 x 48 x 87)
 Weight, wet, kg (lb.): 2940 (6480)



- Fuel Outlet
- Fuel Inlet
- Oil Drain
- Water Drain



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