# **KOHLER** Power Systems

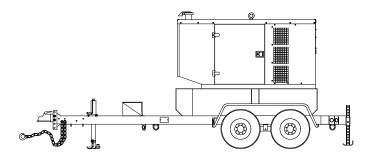
208-480 V

Diesel



### **Ratings Range**

|          |     | 60 HZ  |
|----------|-----|--------|
| Standby: | kW  | 92-105 |
| -        | kVA | 92-131 |
| Prime:   | kW  | 83-96  |
|          | kVA | 83-120 |



# **Generator Set Ratings**

|            |         |    |    | Standby Rating |      | Prime Rating |      |
|------------|---------|----|----|----------------|------|--------------|------|
| Alternator | Voltage | Ph | Hz | kW/kVA         | Amps | kW/kVA       | Amps |
|            | 120/208 | 3  | 60 | 105/131        | 364  | 95/119       | 330  |
| LSA442S7   | 120/240 | 1  | 60 | 92/92          | 383  | 83/83        | 346  |
|            | 277/480 | 3  | 60 | 105/131        | 158  | 96/120       | 144  |

#### **Industrial Towable Generator Sets**

- 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 three-year, 3000-hour limited warranty covers all generator systems and components. The trailer has a one-year limited warranty.
- Generator sets are available with and without trailers.
- Generator set features:
  - o Durable galvanized steel, sound-attenuating housing.
  - Electrical power panel.
  - Unit-mounted radiator with 45°C (113°F) ambient air capability with prime rating.
  - O Skid and vibration isolators.
  - O Main line circuit breaker, 400 amps.
  - Microprocessor controller with emergency stop switch.
  - Externally mounted, recessed emergency stop switch.
  - Lockable generator output voltage selector switch wired for 277/480 V 3 phase, 120/208 V 3 phase, and 120/240 V 1 phase.
  - Generator set and trailer operation literature.
- Engine features:
  - John Deere engine with 12-volt battery charging alternator.
  - Heavy-duty air cleaner with air restrictor indicator.
  - o Battery, battery rack, and cables.
  - Engine is compliant with the Environmental Protection Agency (EPA) requirements.
  - Water separator fuel filter.
  - Battery disconnect switch.
  - O Block heater, 120 V/1500 W.
- Enclosure/fuel tank package features:
  - Quiet operation, 68 dB(A) @ 7 m (23 ft.) (full load).
  - Lockable housing doors.
  - O Subbase fuel tank, 505 L (133 gal.).
  - 110% environmental containment basin for fuel, oil, and coolant.
- Trailer features:
  - 2 5/16 in. ball hitch coupler with adaptability for an optional Lunette eye.
  - Lockable utility tool box.
  - Running lights with 7-wire harness and connector.
  - Dual-axle trailer with electric brake system including breakaway and battery backup.
  - Rear stabilizer trailer jacks.
  - Spare tire

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. Standby Ratings: The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Prime Power Ratings: At varying load, the number of generator set operating hours is unlimited. A 10% overload capability for this rating. Prime Power Ratings. At varying load, the number of generator set operating hours is unlimited. A 10% overload capability is available for one hour in twelve. Ratings are in accordance with ISO-48528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (Tile-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.

G5-566 (100REOZT) 6/14j

# **Trailer Specifications**

| Generator Set/<br>Enclosure Spec No. | Trailer<br>Part No. | Axle, kg (lb.) Rating      | Wheel Size, Type      | Tire Size       | Tire Rated Capacity, kg (lb.)  |
|--------------------------------------|---------------------|----------------------------|-----------------------|-----------------|--------------------------------|
| GM86874-GA2                          | GM86861             | Dual, 2359 (5200) per axle | 15 x 6, 6-hole, steel | ST225/75R15 LRD | 1285 (2830) E tire load rating |

## **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.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.

| Specifications                              | Alternator             |
|---|------------------------|
| Manufacturer                                | Leroy Somer            |
| Туре  | 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    | ±1%                    |
| Direct axis subtransient reactance (X"d), % | 7.9                    |

# **Application Data**

#### **Engine**

| g  |                                       |
|--|---------------------------------------|
| Engine Specifications                      |                                       |
| Manufacturer                               | John Deere                            |
| Engine model                               | 4045HFS83                             |
| Engine type                                | 4-Cycle, Turbocharged,<br>Aftercooled |
| Cylinder arrangement                       | 4 Inline                              |
| Displacement, L (cu. in.)                  | 4.5 (273)                             |
| Bore and stroke, mm (in.)                  | 106 x 127 (4.2 x 5.0)                 |
| Compression ratio                          | 19:1                                  |
| Piston speed, m/min. (ft./min.)            | 457 (1500)                            |
| Rated rpm                                  | 1800                                  |
| Max. power at rated rpm, kWm (BHP)         | 118 (158)                             |
| Valve material:                            |                                       |
| Intake                                     | Chromium-Silicon Steel                |
| Exhaust                                    | Stainless Steel                       |
| Governor type                              | Electronic                            |
| Frequency regulation, no-load to full-load | ISO 5%                                |
| Frequency regulation, steady state         | ±2.5%                                 |
| Air cleaner type, all models               | Dry                                   |

#### Fuel

| Fuel System                  |            |
|------------------------------|------------|
| Max. fuel flow, Lph (gph)    | 112 (29.6) |
| Fuel prime pump              | Manual     |
| Recommended fuel             | #2 Diesel  |
| Fuel tank capacity, L (gal.) | 505 (133)  |
|                              |            |

#### Lubrication

| Lubricating System                    |               |
|---------------------------------------|---------------|
| Туре                                  | Full Pressure |
| Oil pan capacity, L (qt.)             | 12 (12.7)     |
| Oil pan capacity with filter, L (qt.) | 13 (13.7)     |

### **Operation Requirements**

| Fuel Consumption            |              |
|-----------------------------|--------------|
| Diesel, Lph (gph) at % load | Prime Rating |
| 100% (of the prime rating)  | 28.56 (7.5)  |
| 75% (of the prime rating)   | 24.82 (6.6)  |
| 50% (of the prime rating)   | 17.79 (4.7)  |

#### **Engine Electrical**

| Negative |
|----------|
| 12       |
| 12       |
|          |
| One, 680 |
| 12       |
|          |

#### Controller



#### Decision-Maker® 1000

#### **Standard Features**

- · LCD display panel
- User buttons for start, stop, and menu scroll and selection
- · Emergency stop button
- On/off key switch
- · LED indication for status
- Panel-mounted battery fuse
- Panel lights

#### **LCD Panel Features**

- · Three lines of text and graphic display
- · Icons for quick identification of system status

#### **Functions**

- · View and adjust system operation parameters
- · View system faults

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

- Mode of operation
- Battery voltage
- Frequency
- Time delay countdown
- Hourmeter
- · Engine speed
- Fuel level (%)
- · Coolant temperature
- Oil pressure
- Voltage: phase, phase-to-neutral, total voltage
- Current

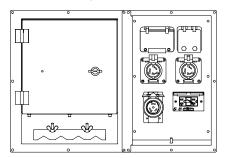
#### Viewable Faults

- Overspeed
- Overcrank
- Low fuel level
- Coolant temperature
- Oil pressure
- Battery charger
- · Frequency meter, ammeter, voltmeter
- Emergency stop

#### **Distribution Panel**

#### Receptacles

- Two 20-amp 120 V, 1 phase, GFCI duplex
- Two 50-amp 120/240 V twistlock (shore power)
- · Individual receptacle circuit breakers



#### **Bus Bar Connection**

- Main bus connection studs enclosed behind a lockable access door for easy access and operator safety
- Strain relief to prevent cables from being pulled free from bus connections



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## **Available Options**

| Battery Charger, Equalize/Float Type |
|--------------------------------------|
| Bottle Jack                          |
| Cable Rack (bolt on)                 |
| Camlock Style Load Connection Kit    |
| Fire Extinguisher                    |
| Lunette Eye                          |
| Remote Start Connections             |
| Trailer (includes utility tool box)  |

#### **Dimensions and Weights**

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

2602 x 1150 x 1915
(122.44 x 45.28 x 75.40)
2614 (5762)

Trailer Part No. GM86861

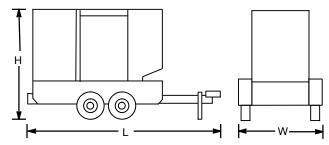
Overall Size, L x W x H, mm (in.):

4605 x 1888 x 2462

(181 x 74 x 97)

Weight, wet, kg (lb.):

3181 (7012)



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

