

### Ratings Range – 60 Hertz Operation

Standby: kW 40 - 50  
kVA 40 - 63

Prime: kW 35 - 45  
kVA 35 - 56

Baldor generators are available in a variety of power ratings and installation styles to meet the energy needs of the smallest businesses and the largest manufacturing facilities. All generator sets are designed to meet the specifications to ensure the fastest startup and dependable long-term operation. Rely on Baldor generators to provide the clean, quiet and environmentally friendly electrical power when you need it most. Emergency backup, standby, prime power, peak shaving or for any of your day or night electrical power needs, you can count on a dependable Baldor generator to provide the peace of mind and security you desire.

### Standby and Prime Power Features

- ✓ Heavy-duty industrial diesel engine that meets the latest EPA emissions levels
- ✓ Brushless synchronous alternators with dynamic balancing and four pole construction
- ✓ Fully featured microprocessor based controller that's easy to use and field programmable for customized installations
- ✓ Generator sets are prototype tested and production tested to ensure easy startup
- ✓ Gen-set accepts rated load in one step
- ✓ Heavy duty construction that's designed for use in prime or standby applications
- ✓ Manufactured in a dedicated and secure ISO-9001 certified facility
- ✓ Generator sets are backed by a world wide network of parts and service centers
- ✓ Optional agency approvals available including UL2200 and NFPA110
- ✓ Optional environmental enclosures available including weather resistant, sound attenuated, containerized, and walk-in models
- ✓ Full range of genset accessories and factory installed options available

### Genset Ratings

| Genset Model Number | Alternator    | Voltage L-N / L-L | Phase | Hertz   | 150°C Rise Standby Rating |         | 125°C Rise Prime Rating |      |
|---------------------|---------------|-------------------|-------|---------|---------------------------|---------|-------------------------|------|
|                     |               |                   |       |         | kW / kVA                  | Amps    | kW / kVA                | Amps |
| IDLC50-2J           | UCI224D-311   | 120 / 208         | 3     | 60      | 50 / 63                   | 174     | 45 / 56                 | 156  |
|                     |               | (1) 120 / 240     | 3     | 60      | 50 / 63                   | 151     | 45 / 56                 | 135  |
|                     |               | (1) 120 / 240     | 1     | 60      | 40 / 40                   | 167     | 35 / 35                 | 146  |
|                     |               | 139 / 240         | 3     | 60      | 50 / 63                   | 151     | 45 / 56                 | 135  |
|                     |               | 220 / 380         | 3     | 60      | 45 / 56                   | 86      | 43 / 54                 | 82   |
|                     |               | 277 / 480         | 3     | 60      | 50 / 63                   | 75      | 45 / 56                 | 68   |
|                     | UCI224D-07    | 347 / 600         | 3     | 60      | 50 / 63                   | 60      | 45 / 56                 | 54   |
|                     | UCI224F-311   | 120 / 208         | 3     | 60      | 50 / 63                   | 174     | 45 / 56                 | 156  |
|                     |               | (1) 120 / 240     | 3     | 60      | 50 / 63                   | 151     | 45 / 56                 | 135  |
|                     |               | (1) 120 / 240     | 1     | 60      | 50 / 50                   | 208     | 45 / 45                 | 188  |
|                     |               | 139 / 240         | 3     | 60      | 50 / 63                   | 151     | 45 / 56                 | 135  |
|                     |               | 220 / 380         | 3     | 60      | 50 / 63                   | 95      | 45 / 56                 | 86   |
|                     |               | 277 / 480         | 3     | 60      | 50 / 63                   | 75      | 45 / 56                 | 68   |
|                     | UCI224F-07    | 347 / 600         | 3     | 60      | 50 / 63                   | 60      | 45 / 56                 | 54   |
| UCI224D-06          | (1) 120 / 240 | 1                 | 60    | 50 / 50 | 208                       | 44 / 44 | 183                     |      |

**NOTES:** (1) Alternator connections have two circuits available for low voltage. Available current in each low voltage circuit is equal to high voltage current listed in table. For ratings and voltages not listed above refer to the Genset Selector. Standby ratings do not have an overload capability but can be used for the duration of the utility failure per ISO-3046, DIN6271 and BS5514. Prime (Unlimited Running Time) ratings are continuous per DIN 6271 and ISO-3046 with 10% overload capacity. Baldor reserves the right to implement specifications or design changes without notice. Reduce output rating by minus 1% for each 333 feet over 5000 feet altitude. Reduce output rating by minus 1% for 10°F over 104°F ambient temperature.

## Engine Application Data

### Engine Specifications

|   |                     |
|---|---------------------|
| Manufacturer                              | John Deere          |
| Engine Model #                            | 5030TF270           |
| Engine Type                               | 4 Cycle, 5 Cylinder |
| Induction System                          | Turbocharged        |
| Displacement, L (in <sup>3</sup> )        | 3.05 (186)          |
| EPA Emissions Level                       | Tier 2              |
| HP at Rated Speed, BHP (kW <sub>m</sub> ) | 80 (60)             |
| Rated RPM                                 | 1800                |
| Bore and Stroke, in (mm)                  | 3.4x4.1 (86x105)    |
| Compression Ratio                         | 20.5:1              |
| Air Filter Type                           | Dry                 |
| Governor Type                             | Woodward Electronic |
| Governor Model                            | Stanadyne           |
| Freq Reg NL to FL                         | Isochronous         |
| Freq Reg Steady State                     | +/- 0.5%            |

### Engine Lubrication System

|                           |              |
|---------------------------|--------------|
| Oil Pan Capacity, gal (L) | 3.0 (11.1)   |
| Oil Pan w/Filter          | 3.2 (12.2)   |
| Oil Filter Quantity       | 1            |
| Oil Filter Type           | Cartridge    |
| Oil Cooler                | Water Cooled |
| Recommended Oil           | 15W-40       |
| Oil Press, psi (kPa)      | 35 (239)     |

### Engine Cooling System

|                                      |             |
|--------------------------------------|-------------|
| Genset Ambient Temp, °F (°C)         | 122 (50)    |
| Engine Coolant Cap, qt (L)           | 3.1 (2.9)   |
| Engine + Radiator System Cap, qt (L) | 20.4 (19.3) |
| Water Pump Type                      | Centrifugal |
| Coolant Flow, gpm (Lpm)              | 27 (104)    |
| Heat Rejected to Cooling Water       |             |
| @ Rated kW, Btu/min (kW)             | 2265 (40)   |
| Max Restriction of Cooling Air       |             |
| in H <sub>2</sub> O (kPa)            | 0.5 (0.124) |

### Engine Exhaust System

|  |            |
|--|------------|
| Exhaust Manifold Type                        | Dry        |
| Exhaust Flow @ Rated kW, cfm(cmm)            | 448 (12.7) |
| Exhaust Temp (dry manifold), °F (°C)         | 1020 (549) |
| Min Back Pressure in, H <sub>2</sub> O (kPa) | 0 (0)      |
| Max Back Pressure in, H <sub>2</sub> O (kPa) | 30 (7.5)   |
| Exhaust Outlet Diameter, in (mm)             | 2.5 (63.5) |
| Exhaust Outlet Type                          | O.D. Tube  |

### Engine Electrical System

|                              |          |
|------------------------------|----------|
| Charging Alternator Volts DC | 12       |
| Charging Alternator Amps     | 65       |
| Grounding Polarity           | Negative |
| Starter Motor Volts DC       | 12       |
| Battery Recommendations      |          |
| Battery Volts DC             | 12       |
| Min Cold Cranking Amps       | 750      |
| Quantity Required            | 1        |

### Ventilation Requirements

|  |            |
|--|------------|
| Cooling Airflow, scfm (cmm)                    | 4121 (117) |
| Combustion Airflow, cfm (cmm)                  | 170 (4.8)  |
| Heat Rejected to Ambient                       |            |
| From Engine, Btu/min (kW)                      | 682 (12)   |
| From Alternator, Btu/min (kW)                  | 341 (6)    |
| Recommended Free Area Intake                   |            |
| Louver Size, ft <sup>2</sup> (m <sup>2</sup> ) | 9.0 (0.84) |

### Engine Fuel System

|                             |               |
|-----------------------------|---------------|
| Recommended Fuel            | #2 Diesel     |
| Fuel Line at Engine         |               |
| Supply Line Min ID, in (mm) | 0.44 (11)     |
| Return Line Min ID, in (mm) | 0.25 (6)      |
| Fuel Pump Type              | Engine Driven |
| Fuel Pump Max Lift, ft (m)  | 10 (3)        |
| Max Flow to Pump, gph (Lph) | 26.1 (98.8)   |
| Fuel Filter                 |               |
| Secondary Filter            | 5µm @ 98%Eff  |
| Secondary Water Separator   | Included      |
| Primary Filter              | User Supplied |
| Primary Water Separator     | User Supplied |

### Fuel Consumption – Standby Rating

|                      |            |
|----------------------|------------|
| 100% Load, gph (Lph) | 4.4 (16.7) |
| 75% Load, gph (Lph)  | 3.3 (12.5) |
| 50% Load, gph (Lph)  | 2.2 (8.3)  |
| 25% Load, gph (Lph)  | 1.3 (4.9)  |

### Fuel Consumption – Prime Rating

|                      |          |
|----------------------|----------|
| 100% Load, gph (Lph) | 4 (15.1) |
| 75% Load, gph (Lph)  | 3 (11.4) |
| 50% Load, gph (Lph)  | 2 (7.6)  |
| 25% Load, gph (Lph)  | 1 (3.8)  |

## Alternator Specifications

|                     |                         |                             |                             |
|---------------------|-------------------------|-----------------------------|-----------------------------|
| Alternator Type     | 4-Pole, Rotating Field  | Automatic Voltage Regulator |                             |
| Exciter Type        |                         | Wound Field                 | SX460                       |
| Wound Field         | Brushless               | PMG                         | Opt MX341, Opt MX321        |
| PMG                 | Optional                | Voltage Regulation          | No Load to Full Load        |
| Insulation          | per NEMA MG1            | Std Regulator               | +/- 1.5%                    |
| Material            | Class H                 | PMG Regulator               | +/- 1%, +/- 0.5%            |
| Standby Temp Rise   | 150°C                   | Load Acceptance             | 100% of Rating,<br>One Step |
| Prime Temp Rise     | 125°C                   | Subtransient Reactance      |                             |
| Lead Connection     | 12 Lead, Reconnectable  | 480V, Per Unit              | 12%                         |
| Stator Pitch        | 2/3                     | TIF (1960 Weighting)        | <50                         |
| Amortisseur Winding | Full                    | Line Harmonics              | 5% Maximum                  |
| Bearing             | Single, Double Shielded | Motor Starting kVA          | 30% Max Voltage Dip         |
| Drive Coupling      | Flexible Disk           | Alt @ 480V SkVA             | UCI224D-311 - 158 kVA       |
| Unbalanced Load     | 20% of Standby Rating   | Alt @ 480V SkVA             | UCI224F-311 - 230 kVA       |

## Genset Controller Specifications

### Baldor IntelliLite Features

Large back-lit graphical LCD Display  
64x128 pixel resolution

6 LED Genset Status Indicators

|                |            |
|----------------|------------|
| Alarm          | Red LED    |
| Not In Auto    | Red LED    |
| Warning        | Yellow LED |
| Running        | Green LED  |
| Ready / Auto   | Green LED  |
| Supplying Load | Green LED  |

Sealed Membrane Panel to IP65

Push Buttons for Simple Control

Start, Stop, Fault Reset, Horn Reset, Mode, Page, and Enter Keys

Display Metering and Protection

Oil Pressure Warning / Shutdown  
High / Low Coolant Temperature Warning  
High Coolant Temperature Shutdown  
Low Fuel Level Warning / Shutdown  
Over Speed Protection  
Battery Voltage Over / Under Warning  
Running Hour Meter  
Generator Under/Over Volts Warn / Shutdown  
Generator Under/Over Freq Warn / Shutdown  
Generator Over Current Shutdown  
Generator Output Metering for V1-V3, I1-I3,  
Hz, kW, kWh, kVAr, kVAh



NFPA110 Compliance

An optional Remote Annunciator is available to meet NFPA110 applications

Remote Annunciator Features – RA15

15 LED Indicators with Function Labels  
Horn Reset and Lamp Test keys  
CAN Bus Connection for up to 600 Feet



## Additional Standard Genset Features

- ✓ Voltage Adjust Potentiometer
- ✓ Run Relay
- ✓ Formed Steel Sub-Base
- ✓ Integral Vibration Isolation
- ✓ Sub-Base Lifting Eyes
- ✓ Unit Mounted Radiator
- ✓ Engine Mounted Fan
- ✓ Radiator Core and Fan Guards
- ✓ Battery Charging Alternator
- ✓ Unit Mounted Control Panel
- ✓ Spin-On Filters for Oil and Fuel
- ✓ Enamel Finish
- ✓ One Set - Operation / Maintenance Manual
- ✓ Factory Tested Prior to Shipment
- ✓ Limited Warranty

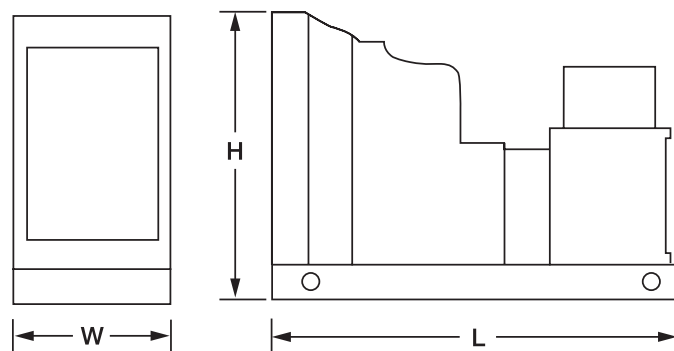
## Optional Agency Approvals

- UL2200 (Review Option Availability)
- NFPA110 (Request Remote Annunciator)

## Weight and Dimensions (Open Unit)

|                     |                         |
|---------------------|-------------------------|
| Weight – Wet lb(kg) | n/a                     |
| Overall Dimensions  | Length x Width x Height |
| inches              | n/a                     |
| mm                  | n/a                     |

Note: Drawing is provided for reference only. Use engineering outline for installation planning



## Available Accessories and Options

### Open Unit

- Industrial Silencer
- Residential Silencer
- Critical Silencer
- Super Critical Silencer
- Exhaust Flex Pipe
- Rain Cap
- Radiator Duct Flange

### Enclosed Units

- Weather Resistant Enclosure
- Sound Attenuated w/Internal Critical Silencer
- Container
- Walk-In Enclosure

### Alternator Accessories

- PMG Exciter and AVR Upgrade
- Alternator Space Heater
- Exciter Field Circuit Breaker
- Alternator Drip Shield

### Genset Accessories

- Battery Rack and Cables
- Starting Battery
- Battery Charger  Auto/Float
- Auto/ Float Equalize Timer  Manual  Automatic
- Battery Heater
- Engine Coolant Heater
- Oil & Coolant Drain Valves (Engine/Radiator)
- Oil & Coolant Drain Extended to Base
- Main Output Breaker  Wall Mount  Unit Mount
- Transfer Switch  Manual  Automatic

### Control Panel

- Remote Annunciator
- Remote Communications
- Remote E-Stop

### Fuel System and Sub-Base Fuel Tank

- Sub-Base Tank  Single Wall  Double Wall
- UL142 Double Wall with Containment
- Tank Run Time @ 100% Load
  - 12-16 Hours
  - 24-36 Hours
- Flex Fuel Line
- Primary Fuel / Water Separator

### Vibration Isolators

- Location  Under Tank  Between Tank
- Elastomer Isolator  Pad Isolator
- Standard Spring  Spring for Seismic Zone 4

**BALDOR**  
**GENERATORS**  
**WORLD HEADQUARTERS**

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