

Ratings Range – 60 Hertz Operation

Standby: kW 56 - 80
kVA 56 - 100

Prime: kW 50 - 70
kVA 50 - 88

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
IDLC80-3J	UCI224F-311	120 / 208	3	60	71 / 89	247	67 / 84	233
		(1) 120 / 240	3	60	71 / 89	214	67 / 84	202
		(1) 120 / 240	1	60	56 / 56	233	50 / 50	208
		139 / 240	3	60	80 / 100	241	70 / 88	211
		220 / 380	3	60	64 / 80	122	61 / 76	116
		277 / 480	3	60	80 / 100	120	70 / 88	105
	UCI224F-07	347 / 600	3	60	79 / 99	95	70 / 88	84
	UCI274C-311	120 / 208	3	60	80 / 100	278	70 / 88	243
		(1) 120 / 240	3	60	80 / 100	241	70 / 88	211
		(1) 120 / 240	1	60	67 / 67	279	58 / 58	242
		139 / 240	3	60	80 / 100	241	70 / 88	211
		220 / 380	3	60	80 / 100	152	70 / 88	133
277 / 480		3	60	80 / 100	120	70 / 88	105	
UCI274C-07	347 / 600	3	60	80 / 100	96	70 / 88	84	
UCI224G-06	(1) 120 / 240	1	60	80 / 80	333	70 / 70	292	

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 #	4045HF285
Engine Type	4 Cycle, 6 Cylinder
Induction System	Turbocharged, Charge Air Cooled
Displacement, L (in ³)	4.5 (275)
EPA Emissions Level	Tier 3
HP at Rated Speed, BHP (kW _m)	126 (94)
Rated RPM	1800
Bore and Stroke, in (mm)	4.19x5.0 (106x127)
Compression Ratio	19.0:1
Air Filter Type	Dry
Governor Type	JDEC Electronic
Governor Model	Denso HP3
Freq Reg NL to FL	Isochronous
Freq Reg Steady State	+/- 0.25%

Engine Lubrication System

Oil Pan Capacity, gal (L)	3.9 (14.7)
Oil Pan w/Filter	4.1 (15.6)
Oil Filter Quantity	1
Oil Filter Type	Cartridge
Oil Cooler	Water Cooled
Recommended Oil	15W-40
Oil Press, psi (kPa)	46 (320)

Engine Cooling System

Genset Ambient Temp, °F (°C)	122 (50)
Engine Coolant Cap, qt (L)	13 (12.3)
Engine + Radiator System Cap, qt (L)	26.8 (25.4)
Water Pump Type	Centrifugal
Coolant Flow, gpm (Lpm)	48 (180)
Heat Rejected to Cooling Water @ Rated kW, Btu/min (kW)	2990 (52.5)
Heat Rejected to Charge Cooler @ Rated kW, Btu/min (kW)	672 (11.8))
Max Restriction of Cooling Air in H ₂ O (kPa)	0.5 (0.124)

Engine Exhaust System

Exhaust Manifold Type	Dry
Exhaust Flow @ Rated kW, cfm(cmm)	651 (18.4)
Exhaust Temp (dry manifold), °F (°C)	1069 (576)
Min Back Pressure in, H ₂ O (kPa)	0 (0)
Max Back Pressure in, H ₂ O (kPa)	30 (7.5)
Exhaust Outlet Diameter, in (mm)	3 (76.2)
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	800
Quantity Required	1

Ventilation Requirements

Cooling Airflow, scfm (cmm)	9521 (270)
Combustion Airflow, cfm (cmm)	234 (6.6)
Heat Rejected to Ambient	
From Engine, Btu/min (kW)	2081 (19)
From Alternator, Btu/min (kW)	546 (9.6)
Recommended Free Area Intake	
Louver Size, ft ² (m ²)	20 (1.86)

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)	6 (2)
Max Flow to Pump, gph (Lph)	15.6 (59)
Fuel Filter	
Secondary Filter	2µm
Secondary Water Separator	Included
Primary Filter	30µm
Primary Water Separator	Included

Fuel Consumption – Standby Rating

100% Load, gph (Lph)	6.6 (25.0)
75% Load, gph (Lph)	5.4 (20.4)
50% Load, gph (Lph)	3.9 (14.8)
25% Load, gph (Lph)	2.1 (7.9)

Fuel Consumption – Prime Rating

100% Load, gph (Lph)	6 (22.7)
75% Load, gph (Lph)	4.9 (18.5)
50% Load, gph (Lph)	3.6 (13.6)
25% Load, gph (Lph)	1.9 (7.2)

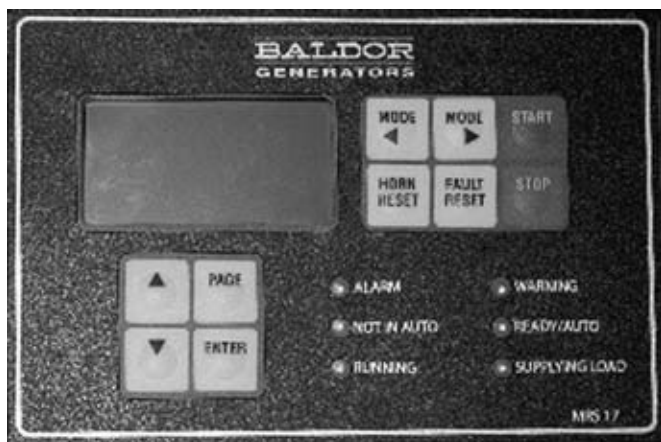
Alternator Specifications

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, 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	UCI224F-311 - 230 kVA
Unbalanced Load	20% of Standby Rating	Alt @ 480V SkVA	UCI274C-311 - 340 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

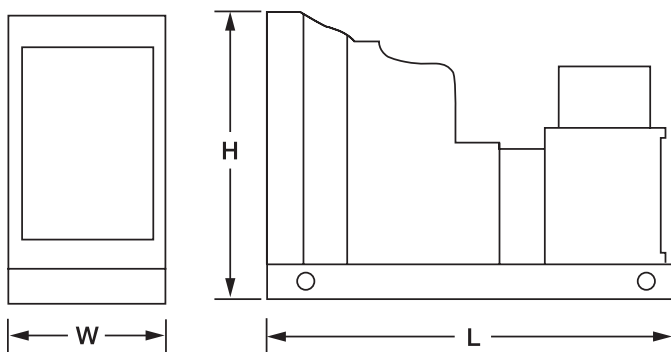
Optional Agency Approvals

- 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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