

Ratings Range – 60 Hertz Operation

Standby:	kW	1328 - 1600
	kVA	1660 - 2000
Prime:	kW	1276 - 1440
	kVA	1595 - 1800

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
IDLC1600-2M	PI734D-312	220/380	3	60	1328/1660	2525	1276/1595	2426
		240/416	3	60	1512/1890	2626	1440/1800	2501
		254/440	3	60	1600/2000	2627	1440/1800	2365
		277/480	3	60	1600/2000	2408	1440/1800	2168
	PI734D-07	347/600	3	60	1600/2000	1927	1440/1800	1734
	PI734E-312	220/380	3	60	1516/1895	2883	1440/1800	2738
		240/416	3	60	1600/2000	2779	1440/1800	2501
		254/440	3	60	1600/2000	2627	1440/1800	2365
277/480		3	60	1600/2000	2408	1440/1800	2168	

NOTES: 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.

Engine Application Data

Engine Specifications

Manufacturer	Mitsubishi
Engine Model #	S16R-Y2PTAW-1
Engine Type	4 Cycle, 16 Cylinder
Induction System	Turbocharged, Inter Cooler
Displacement, L (in ³)	65.4 (3989)
EPA Emissions Level	Tier 2
HP at Rated Speed BHP (kW _m)	2346 (1750)
Rated RPM	1800
Bore and Stroke in(mm)	6.69 x 7.09 (170 x 180)
Compression Ratio	14.5:1
Air Filter Type	Dry
Governor Type/Model	Proact2
Governor Manufacturer	Woodward
Freq Reg NL to FL	Isochronous
Freq Reg Steady State	+/- 0.25%

Engine Lubrication System

Oil Pan Capacity gal(L)	52.8 (200.0)
Oil Pan w/Filter	60.8 (230.0)
Oil Filter Quantity	4
Oil Filter Type	Cartridge
Oil Cooler	Water Cooled
Recommended Oil	15W-40
Oil Press psi(kPa)	71 (490)

Engine Cooling System

Genset Max Ambient Temp °F(°C)	113 (45)
Engine Coolant Cap qt(L)	179.6 (169.9)
Engine + Radiator System Cap qt(L)	622.0 (588.6)
Water Pump Type	Centrifugal
Coolant Flow gpm (Lpm)	489 (1850.9)
Charge Cooler Flow gpm (Lpm)	243 (919.8)
Heat Rejected to Cooling Water @ Rated kW; Btu/min (kW)	36167 (635.7)
Heat Rejected to Charge Cooler @ Rated kW; Btu/min (kW)	36167 (635.7)
Heat Rejected to Ambient Air @ Rated kW; Btu/min (kW)	8436 (148.3)
Max Restriction of Cooling Air inH ₂ O(kPa)	0.5 (0.124)

Engine Exhaust System

Exhaust Manifold Type	Dry
Exhaust Flow @ Rated kW cfm(cmm)	15642 (443)
Exhaust Temp (dry manifold) °F(°C)	935 (487)
Max Back Pressure inH ₂ O(kPa)	23.6 (5.9)
Exhaust Outlet Diameter in(mm)	13.39 (340)
Exhaust Outlet Type	JIS350A (approx 14")

Engine Electrical System

Charging Alternator Volts dc	24
Charging Alternator Amps	30
Grounding Polarity	Negative
Starter Motor Volts dc	24
Battery Recommendations	
Battery Volts dc	24
Min Cold Cranking Amps	1100
Quantity Required	4

Ventilation Requirements

Cooling Airflow scfm(cmm)	91700 (2598)
Combustion Airflow cfm(cmm)	5932 (168)
Heat Rejected to Ambient	
From Engine Btu/min(kW)	8346 (147)
From Alternator Btu/min(kW)	4550 (80)
Recommended Free Area Intake	
Louver Size ft ² (m ²)	196.0 (18.22)

Engine Fuel System

Recommended Fuel	#2 Diesel
Fuel Line at Engine	
Supply Line Min ID in(mm)	0.75 (19)
Return Line Min ID in(mm)	0.75 (19)
Fuel Pump Type	Engine Driven
Fuel Pump Max Lift ft (m)	3 (1)
Max Flow to Pump gph(Lph)	148 (560.2)
Fuel Filter	
Secondary Filter	4 µm
Secondary Water Separator	Not Included
Primary Filter	Optional
Primary Water Separator	Optional

Fuel Consumption – Standby Rating

100% Load gph(Lph)	126.6 (479.2)
75% Load gph(Lph)	94.1 (356.2)
50% Load gph(Lph)	65 (246.0)
25% Load gph(Lph)	38 (143.8)

Fuel Consumption – Prime Rating

100% Load gph(Lph)	115.2 (436.0)
75% Load gph(Lph)	85.6 (324.0)
50% Load gph(Lph)	59.1 (223.7)
25% Load gph(Lph)	34.6 (131.0)

Engine Output Deratings - Standby

Rated Temp	40°C
Rated Altitude	1500 m
Max Altitude	5000 m
Temperature Derate	-5% / 10°C
Altitude Derate	-1% / 100 m

Alternator Specifications

Alternator Type	4-Pole, Rotating Field	Automatic Voltage Regulator	
Exciter Type	Brushless	PMG	Std MX321
Excitation System	PMG	Voltage Regulation	No Load to Full Load
Insulation	per NEMA MG1	PMG Regulator	+/- 0.5%
Material	Class H	Load Acceptance	100% of Rating, One Step
Standby Temp Rise	150°C	Subtransient Reactance	
Prime Temp Rise	125°C	480V, Per Unit	14%
Lead Connection	6 Lead, Reconnectable	TIF (1960 Weighting)	<50
Stator Pitch	2/3	Line Harmonics	5% Maximum
Amortisseur Winding	Full	Motor Starting kVA	30% Max Voltage Dip
Bearing	Single, Double Shielded	Alt @ 480V SkVA	PI734D-312 - 4080
Drive Coupling	Flexible Disk	Alt @ 480V SkVA	PI734E-312 - 4600
Unbalanced Load	20% of Standby Rating		

Genset Controller Specifications

Baldor IntelliGen NT Features

- Large back-lit graphical LCD Display
64x128 pixel resolution
- 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 Coolant Level Shutdown
 - Low Fuel Level Warning / Shutdown
 - Over Speed Protection
 - Battery Voltage Under/Over 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, kVA, kVAh
 - User Configurable Inputs and Outputs
 - Up to 500 Event Based History Records
 - Integrated PLC Programming Functions
 - Interface to Remote Display or
Remote Annunciator
- Controller capable of Both Single or Multiple
Gensets Operating in Standby or
Parallel Modes

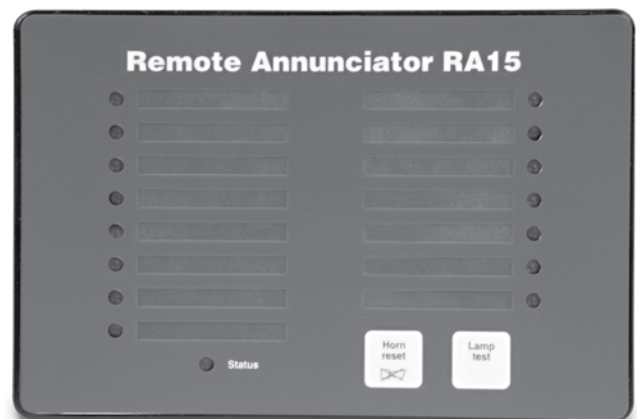


NFPA110 Compliance

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

- ✓ Structural Steel Sub-Base
- ✓ Sub-Base Lifting Eyes
- ✓ Unit Mounted Radiator
- ✓ Radiator Mounted Fan
- ✓ Fan Guard
- ✓ Battery Charging Alternator
- ✓ Battery Rack and Cables
- ✓ 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

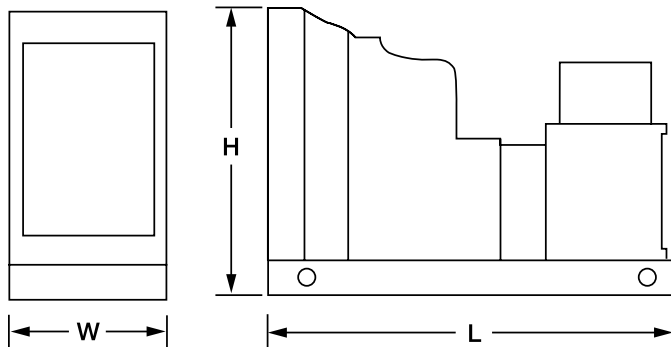
Optional Agency Approvals

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

Weight and Dimensions (Open Unit)

Weight – Wet lb(kg)	30785 (13964)
Overall Dimensions	Length x Width x Height
inches	235 x 100 x 108
mm	5969 x 2540 x 2743

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
- ISO Container
- Walk-In Enclosure

Alternator Accessories

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

Genset Accessories

- Voltage Adjust Potentiometer
- 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

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