

Series 15J Mini Inverters

Big inverter features do come in small packages! Take a look at Baldor's Series 15J Inverter control. Designed to save cabinet space without giving up the features available on larger controls, the Series 15J delivers what you've come to expect from Baldor. Friendly operator control via the onboard (or remote mount) text display keeps you up to date on motor and control functions. Just like its larger brother, the Series 15J uses the same alpha numeric keypad display as seen on the popular H family of products. Many of the same features are available too; multiple preset speeds, JOG speed, dynamic and DC injection braking, built-in PID process control loop, just to name a few.

Are you ready to move into something smaller? Combine a Series 15J inverter with a reliable Baldor motor and let us help you increase your productivity.



Now available in sizes up to 7.5 Hp!

Design Specifications

- Dual Microprocessor controlled PWM output
- Free run or ramp stop
- Controlled reversing
- Selectable Preset Speeds
- Dynamic braking
- DC Injection braking
- Analog meter output
- Relay contact output
- Two Analog Inputs
- Process control (PID)

Operator Keypad

- Digital Speed Control
- Forward/Reverse Command
- Stop Command
- Jog Command
- Parameter setting and display
- Display 2 lines by 16 character Alpha numeric text
- Membrane keys with tactile feel
- Optional remote mount keypad

Environmental and Operating Conditions

- Input Voltage –
1 Phase 107-118 VAC +/-10%,
3 Phase 200-240 VAC +/-10%,
3 Phase 380-480 VAC +/-10%
- Input Frequency-50 or 60 HZ +/-10%
- Service Factor - 1.0
- Duty - Continuous
- Humidity - 90% max non-condensing
- Altitude-3300 ft. max without derate
- NEMA 1 enclosure as standard

Series 15J Specifications

Output Ratings	Overload Capacity	150% for 60 Seconds 200% for 2 Seconds		
	Frequency	0 - 120 Hertz		
	Voltage – 3 Phase	0 - Maximum Input Voltage (RMS)		
Input Ratings	Frequency	50 or 60 Hertz		
	Voltage	96 - 130 VAC	180 - 264 VAC	340 - 528 VAC
	Phase	Single Phase	Three Phase or Single Phase with derate	
Control Specifications	Control Method	Sinewave carrier input, PWM output		
	PWM Frequency	Rated @ 7.5 kHz; Adjustable 2.5 - 7.5 kHz		
	V/Hz Ratio	Linear to Squared Reduced		
	Torque Boost	0-15%, Adjustable		
	Brake Torque	Up to 60%, external resistor required		
	Frequency Setting	0-5VDC, 0-10VDC, 0-20mA, 4-20mA, Digital via Keypad		
Protective Functions	Accel/Decel	Separate Accel/Decel Rates 0-600 Sec		
	Inverter Trip	Over Voltage, Over Current, Under Voltage, External Trip, Heatsink Thermal, Motor Overload		
	External Output	NO and NC Relay and LED indicator for trip		
Ambient Conditions	Short Circuit	Output phase to ground and phase to phase		
	Temperature	0-40 deg C , Derate for up to 55 deg C		
	Cooling	Forced air included when required		

Series 15P Mini Inverters

If you're looking for an easy to use inverter, you'll find it in the Baldor Series 15P Inverter motor control. Simple is the key word. Simple setup using familiar trim pots and on/off switches. Simple operator control with rotary speed setting. Simple wiring to the control terminal strip. And all the most important features are still available; controlled reversing, 2 wire or 3 wire start/ stop control, adjustable accel and decel rates, torque boost adjustment, selectable auto restart, and more. We've made the Series 15P simple for you. We've even made it simple for you to have one - they're in stock! Call your local Baldor distributor today!



Now available in sizes up to 7.5 Hp!

Design Specifications

- Dual Microprocessor controlled PWM output
- Free run or ramp stop
- Controlled reversing
- Dynamic braking
- Adjustable Torque Boost
- Separate Accel /Decel Rates
- Selectable Auto Restart
- Adjustable Current Limit

Operator Keypad

- Rotary Speed Control
- Forward Command
- Reverse Command
- Stop Command
- Membrane keys with tactile feel
- Fault indicator
- Power On indicator

Environmental and Operating Conditions

- Input Voltage –
1 Phase 107-118 VAC +/-10%,
3 Phase 200-240 VAC +/-10%,
3 Phase 380-480 VAC +/-10%
- Input Frequency-50 or 60 HZ +/-10%
- Service Factor - 1.0
- Duty - Continuous
- Humidity – 90% max non-condensing
- Altitude-3300 ft. max without derate
- NEMA 1 enclosure as standard

Series 15P Specifications

Output Ratings	Overload Capacity	150% for 60 Seconds 200% for 2 Seconds		
	Frequency	0 - 130 Hertz		
	Voltage – 3 Phase	0 - Maximum Input Voltage (RMS)		
Input Ratings	Frequency	50 or 60 Hertz		
	Voltage	96 - 130 VAC	180 - 264 VAC	340 - 528 VAC
	Phase	Single Phase	Three Phase or Single Phase with derate	
Control Specifications	Control Method	Sinewave carrier input, PWM output		
	PWM Frequency	Rated @ 7.5 kHz		
	V/Hz Ratio	Linear with adjustable Torque Boost		
	Torque Boost	0-15% Adjustable		
	Brake Torque	Up to 60%, external resistor required		
	Frequency Setting	0-5VDC, 0-10VDC, 4-20mA, Rotary via Operator Panel		
	Accel/Decel	Separate Accel/Decel Rates 0-60 Sec		
Protective Functions	Inverter Trip	Over Voltage, Over Current, Under Voltage, Heatsink Thermal, Motor Overload		
	External Indicators	Separate LED indicators for Fault trip and Power ON		
	Short Circuit	Output phase to ground and phase to phase		
Ambient Conditions	Temperature	0-40 deg C , Derate for up to 55 deg C		
	Cooling	Forced air included when required		



Series 15J/P Catalog Numbers and Ratings

Hp	kW	Rated Input Voltage	Rated Output Voltage	Output Current			Catalog Number	
				Continuous	60 Sec. Overload	2 Sec. Overload	Series 15J	Series 15P
0.33	0.25	115	230	1.6	2.4	3.2	ID15J1F33-ER	ID15P1F33-ER
0.5	0.37	115	230	2.3	3.4	4.6	ID15J1F50-ER	ID15P1F50-ER
0.75	0.56	115	230	3.2	4.8	6.4	ID15J1F75-ER	ID15P1F75-ER
1	0.75	115	230	4.2	6.3	8.4	ID15J101-ER	ID15P101-ER
1	0.75	230	230	4.2	6.3	8.4	ID15J201-ER	ID15P201-ER
1.5	1.1	230	230	6.0	9.0	12.0	ID15J201F5-ER	ID15P201F5-ER
2	1.5	230	230	6.8	10.2	13.4	ID15J202-ER	ID15P202-ER
3	2.2	230	230	9.6	14.4	19.2	ID15J203-ER	ID15P203-ER
5	3.7	230	230	15.2	22.8	30.4	ID15J205-ER	ID15P205-ER
1	0.75	460	460	2.1	3.2	4.2	ID15J401-ER	ID15P401-ER
1.5	1.1	460	460	3.0	4.5	6.0	ID15J401F5-ER	ID15P401F5-ER
2	1.5	460	460	3.4	5.1	6.8	ID15J402-ER	ID15P402-ER
3	2.2	460	460	4.8	7.2	9.6	ID15J403-ER	ID15P403-ER
5	3.7	460	460	7.6	11.4	15.2	ID15J405-ER	ID15P405-ER
7.5	5.6	460	460	11.0	16.5	22.0	ID15J407-ER	ID15P407-ER

Series 15J/P Optional Accessories

Dynamic Braking Assemblies

Several external Dynamic Braking assemblies are available from Baldor. RGJ Dynamic Braking Resistor Kits provide a simple method of adding a DB resistor to the motor control. The RGJ kit utilizes an aluminum housing for maximum heat dissipation and is slim enough to mount in the cabinet without taking up valuable space. RGA Dynamic Braking Resistor Assemblies include braking resistors completely assembled and mounted into a NEMA 1 enclosure. Both the RGJ and RGA braking assembly require two connections to the control power terminal strip. The braking resistor should be selected to meet the correct ohm value for the control and adequate continuous watts capacity to meet load requirements. Contact Baldor for more information on Dynamic Braking Kits and Assemblies.



Series 15J/15P Input Voltage	Minimum Dynamic Brake Ohms	Continuous Rated Watts					
		100	200	300	600	1200	2400
115 or 230	60	RGJ160	RGJ260	RGJ360	RGA660	RGA1260	RGA2460
460	120	RGJ1120	RGJ2120	RGJ3120	RGA6120	RGA12120	RGA24120

Remote Operator Keypad with Cable Assembly for Series 15J

The remote keypad assembly provides a 32 character LCD keypad and pre-wired cable assembly for remote mounting of the Series 15J operator control panel. The remote keypad can be located up to 100 feet from the motor control and when mounted properly will maintain a NEMA 4X indoor enclosure rating.

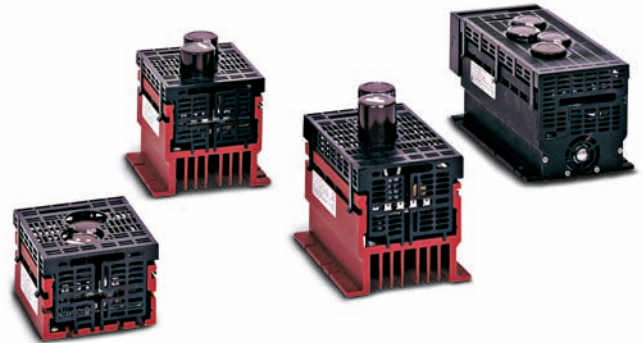


Catalog Number	Cable Length	
	Feet	Meters
CBLSM015KP	5	1.5
CBLSM030KP	10	3.0
CBLSM046KP	15	4.6
CBLSM061KP	20	6.1
CBLSM091KP	30	9.1
CBLSM152KP	50	15.2
CBLSM229KP	75	22.9
CBLSM305KP	100	30.5

Series 5 Micro Inverters – Open Chassis

Looking for a compact size, lower cost inverter? Baldor's Series 5 inverter is all of this and more! Don't let the compact size fool you, the Series 5 micro inverter is packed with protection features found in larger controls. Built-in current limit provides motor overload protection. High peak current available for up to 2 minutes and delivers up to 200% starting torque. The available peak currents will result in reduced nuisance trips during overload conditions.

Electronic inrush current limit and filtering is standard to reduce transient voltage spikes from dirty power sources. Did we mention the quiet motor operation from the 8 kHz PWM carrier frequency? The mounting dimensions are interchangeable to many DC controls and the setup is as easy as turning a screwdriver. We even include the screwdriver!



Now available in sizes up to 5 Hp!

Design Specifications

- Microprocessor controlled PWM output
- Accel / Decel Rate Adjustment
- Controlled reversing
- Adjustable Current Limit
- I²t Motor overload protection
- Adjustable Slip Compensation
- Min/Max Output frequency adjustment
- Selectable Auto / Manual Restart

Environmental and Operating Conditions

- Input Voltage –
1 Phase 115 VAC ±15%, 1 Phase, 230 VAC ± 15%,
3 Phase 230 VAC ± 15%, 3 Phase 460 VAC ± 15%
- Input Frequency-50 or 60 HZ +/-10%
- Service Factor - 1.0
- Duty - Continuous
- Humidity – 90% max non-condensing
- Altitude-3300 ft. max without derate
- Chassis mount IP-20 enclosure as standard

Series 5 Micro Inverter Specifications

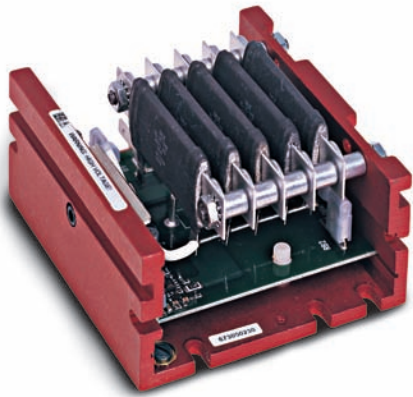
Output Ratings	Overload Capacity	150% for 120 Seconds	
	Frequency	0 - 120 Hertz for 60 Hz motors; 0 - 50 Hertz for 50 Hz motors	
	Voltage – 3 Phase	0 - Maximum Input Voltage (RMS)	
Input Ratings	Frequency	50 or 60 Hz	
	Voltage	97 - 135 VAC or 195 - 270 VAC	195 - 270 VAC for 230 V units or 329 - 529 VAC for 460 V units
	Phase	Single phase	Three phase
Control Specifications	Control Method	Sinewave carrier input, PWM output	
	PWM Frequency	Rated @ 8.0 kHz	
	V/Hz Ratio	Factory set for optimum output	
	Torque Boost	Factory set for 60 Hz motors, Adjustable 6-30% for 50 Hz motors	
	Current Limit	Adjustable 63 to 188% of rated output	
	Frequency setting	0-5VDC, 0-10VDC with external resistor network, non isolated input	
	Accel/Decel	Separate Accel/Decel Rates 0.3-20 Sec for 60 Hz motors, combined Accel/Decel for 50 Hz motors	
Protective Functions	Inverter Trip	Over voltage, over current, under voltage, motor overload, output short circuit	
	Status Indicators	Tricolor LED indicator for status and Green LED indicator for power on	
	Short Circuit	Output phase to phase	
Ambient Conditions	Temperature	0-45 degrees C	
	Cooling	Convection or Forced Air	

Series 5 Micro Inverter Catalog Numbers and Ratings

Hp	kW	Rated Input Voltage	Rated Output Voltage	Output Current		Catalog Number
				Continuous	120 Sec. Overload	
Single Phase Input						
0.5	0.37	115/230	230	2.4	3.6	ID56F50-CO
1	0.75	115/230	230	4.0	6.0	ID5601-CO
2	1.5	115/230	230	5.5	8.25	ID5602-CO
Three Phase Input						
2	1.5	230	230	6.7	10.1	ID5202-CO
3	2.25	230	230	8.8	13.2	ID5203-CO
1	0.75	460	460	2.5	3.75	ID5401-CO
2	1.5	460	460	4.0	6.0	ID5402-CO
3	2.25	460	460	4.5	6.75	ID5403-CO
5	3.7	460	460	7.6	11.4	ID5405-CO

NOTE: See pages 13 and 14 for dimension drawing. Data subject to change without notice. Contact Baldor for certified data.

Series 5 Micro Inverter Open Chassis Optional Accessories



ID5RGA-1



ID5SI-1

Catalog Number	Description	Approximate Shipping Weight
ID5RGA-1	Dynamic braking kit for open chassis 115/230V 1/2 Hp and 1 Hp rated controls	4
ID5SI-1	Signal isolator for open chassis units Provides isolation for up to 24 VDC and 4-20mA command signals	4

Series 5 Washdown Micro Inverters

When space is at a premium in a washdown application, Baldor Series 5 Micro Inverters provide variable torque, constant torque and constant horsepower control in a small package. These controls may be used in new installations, replacements or original equipment. The NEMA 4X enclosure is suitable for frequent washdowns and is offered in a black finish or FDA approved white finish. They have an output frequency of 0.25 to 120 Hz, with a peak overload capacity of 150%. With 200% starting torque high frictional loads are no problem. Control features include separate accel/decel rates and controlled reversing. Standard operator control includes rotary speed settings, start/stop command and power on/off.



Now available in sizes up to 5 Hp!

Design Specifications

- Microprocessor controlled PWM output
- Accel / Decel Rate Adjustment
- Controlled reversing
- Adjustable Current Limit
- I²t Motor overload protection
- Adjustable Slip Compensation
- Min/Max Output frequency adjustment
- Selectable Auto / manual Restart

Environmental and Operating Conditions

- Input Voltage –
1 Phase 115 VAC ± 15%, 1 Phase, 230 VAC ± 15 %
3 Phase 230 VAC ± 15 %, 3 Phase 460 VAC ± 15%
- Input Frequency - 50 or 60 Hz ± 10%
- Service Factor - 1.0
- Duty – Continuous
- Humidity – 90% max non-condensing
- Altitude – 3300 ft. max without derate

Series 5 Washdown Micro Inverter Specifications

Output Ratings	Overload Capacity	150% for 120 seconds	
	Voltage - 3 Phase	0-230 VAC (RMS), 0-460 VAC (RMS)	
Input Ratings	Frequency	50 or 60 Hz	
	Voltage	97 - 135 VAC or 195 - 270 VAC	195 - 270 VAC for 230 V units or 329 - 529 VAC for 460 V units
	Phase	Single phase	Three phase
Control Spec	Control Method	Sinewave carrier input, PWM output	
	PWM Frequency	Rated 8.0 kHz	
	V/Hz Ratio	Factory set for optimum output	
	Torque Boost	Adjustable 0-30% max	
	Current Limit	Adjustable of rated output	
	Frequency Setting	0-5 VDC, 0-10 VDC with external resistor network, non-isolated input	
	Accel/Decel	Separate accel/decel rates, 0.3-20 sec	
Protective Functions	Inverter Trip	Over voltage, over current, under voltage, motor overload, output short circuit	
	Status Indicators	Tricolor LED indicator for status and green LED indicator for power on short circuit output phase to phase	
Ambient Conditions	Temperature	0-50°C	
	Cooling	Convection; 3300 feet max without derate	
	Enclosure	NEMA 4X (IP65)	

Series 5 Washdown Micro Inverter Catalog Numbers and Ratings

Hp	kW	Rated Input Voltage	Rated Output Voltage	Output Current		Catalog Number
				Continuous	120 Sec. Overload	
Single Phase Input						
1	0.75	115/230	230	3.6	5.4	ID5601-WO
1	0.75	115/230	230	3.6	5.4	ID5601-BO
2	1.5	115/230	230	5.5/6.7	8.3/10.0	ID5602-WO
2	1.5	115/230	230	5.5/6.7	8.3/10.0	ID5602-BO
Three Phase Input						
3	2.25	230	230	9	13.5	ID5203-WO
3	2.25	230	230	9	13.5	ID5203-BO
3	2.25 ①	460	460	4.6	6.9	ID5403-WO
3	2.25 ①	460	460	4.6	6.9	ID5403-BO
5	3.7	460	460	8.3	12.45	ID5405-WO
5	3.7	460	460	8.3	12.45	ID5405-BO

NOTE: -WO is white in color - BO is black in color

① Jumper configurable for 1 Hp and 2 Hp

See page 15 for dimension drawing. Data subject to change without notice. Contact Baldor for certified data.

Series 5 Washdown Micro Inverter Optional Accessories



ID5SI-2



ID5FRS-1



ID5AMS-1

Catalog Number	Accessories for Series 5 Washdown Inverters	Approximate Shipping Weight
ID5SI-2	Signal isolator for NEMA 4X enclosed units Provides isolation for up to 24 VDC and 4-20mA command signals	0.5
ID5AMS-1	Auto/manual selection switch for NEMA 4X enclosed units Allows selection of remote or on-board speed commands	0.3
ID5FRS-1	Forward/stop/reverse selection switch for NEMA 4X enclosed units Allows selection of forward or reverse motor direction command	0.4