PULSE 100 Series

A high performance direct-drive door operator with a 90V DC horsepower-rated motor, engineered for balanced sectional commercial dock doors

c UL US
Listed - E516991
Door Operators

Features

- Pre-wired for fast installation - Just Mount, Plug & Go!
- Lower cost - higher performance
- Built-in 24V, 0.8Ah battery backup
- Advanced speed control: up to 24"/s opening, up to 16"/s closing
- Soft start/stop functionality
- Adjustable force monitoring
- Integrated door balance check
- Closing timer from 1-99s
- Reliable & precise encoder
- Set limits at operator level or from push-button station
- LCD for easy-to-read menu options, limit setup and troubleshooting
- Programmable output relay
- Available in 3/8 HP and 1/2 HP for 1" or 1 1/4" solid shafts
- 2-year, 500,000-cycle warranty against manufacturing defects

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The Pulse 100 Series Operators from iControls are designed for installations where the needs of cost effectiveness and high-performance meet

The 100 Series is reliable, easy to install, operate and maintain. Smooth, powerful and quiet, the Pulse 100 Series operators are an efficient solution for balanced, sectional doors up to 150 sq. ft. / 395 lbs.

Key features include:

Pre-wired for Fast Installation

Supplied pre-wired out of the box. The operator is wired to its push-button station, and in turn to the provided polarized reflective photo-eye sensor. The unit also has a 5 ft. North American 3 prong corded plug pre-wired for its electrical connection. No electrician is required; simply mount, plug and go. This increases an installer's efficiency in the field, saving dealers time and money.

Built-In Battery Backup

Should power fail, the included batteries provide power for multiple door cycles (press and hold operation for safe emergency use). Built on a separate circuit, the Pulse 100 Series battery backup will work even if the control and/or drive board has been damaged. (due to lightning strike, impact, etc) This sets it apart from all other door entry systems that rely on full functionality of the printed circuit board. A built-in trickle charger ensures that the batteries are always charged and ready. Should the batteries be fully drained or missing, a crankshaft socket is also provided as a mechanical backup.

Advanced Speed Control

Set the speed that best suits the installation. Achieve opening speeds up to 24"/s and closing speeds of up to 16"/s. (**varies according to gearbox, drum size/type and door style).

Soft Start/Soft Stop

This feature offers smooth, controlled acceleration and deceleration of the door and helps prolong the life of its mechanical parts. It also aids in the prevention of cable throw. The distance of both the acceleration and deceleration can be programmed to match the door requirements as needed.

Intelligent Force Monitoring

Should the door hit an obstruction or become jammed during the closing cycle, the system will sense the change in force and reverse the door to avoid further damage. This all but eliminates the need for an additional safety edge. Note that the sensitivity of this feature is adjustable, and can be tailored to the installation.

Door Balance Check

Once selected from the menu, the door automatically moves through one complete cycle and reports (on the LCD) the difference in force required to open the door versus closing it. Use this data to verify proper door balance without needing to remove the operator, and take the guesswork out of door balancing. A properly balanced door will extend the life of the door springs and maximize battery backup performance.

Ordering

Includes 3/8 or 1/2 HP-rated 90Vdc motor door operator with a gearbox for 1" or 1 1/4" keyed solid shaft, two 12V, 0.82Ah battery backup system and a reflective photo eye.

Part Number	Horse Power	Gearbox			Max Door Size and Weight		Max Output Torque	
		Shaft	Size	Ratio - 'XX'	Size	Weight**	N-m	Lb-in
PDC-138-1-XX/50	3/8	1"	50	30:1, 40:1 or 50:1	up to 100 sq. ft.	up to 295 lbs.	up to 46	up to 407.1
PDC-138-1.25-XX/75	3/8	1 1/4"	75	30:1, 40:1 or 50:1	up to 100 sq. ft.	up to 295 lbs.	up to 46.1	up to 407.9
PDC-150-100-XX/50	1/2	1"	50	30:1 or 40:1	up to 150 sq. ft.	up to 395 lbs.	up to 49.1	up to 434.3
PDC-150-1.25-XX/75	1/2	1 1/4"	75	30:1, 40:1 or 50:1	up to 150 sq. ft.	up to 395 lbs.	up to 61.4	up to 543.5

Part number creation: Substitute the desired gearbox ratio value for 'XX' to suit your application. 40:1 Gearbox ratio is recommended for most balanced commercial applications. Use 30:1 for higher speed balanced requirements. Use 50 when using pusher/bumper springs. *Opening door speeds are dependant on installation variables such as drum size, gearbox ratio, door balance, door size, etc. Speeds indicated represent figures based on optimal installations and conditions. **Max. Weight is for counter-balanced doors with a max imbalance of up to 75 lbs. and is dependent on external factors including shaft, drum and gearbox ratio.