PULSE 200 Series

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

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Listed - E516991
Door Operators

Features

- Advanced speed control: up to 24"/s opening, up to 16"/s closing
- Built-in 24V, 2.3Ah battery backup
- Soft start/stop functionality
- Adjustable force monitoring
- Programmable closing timer: 1-99s
- Precise encoder for speed and position tracking
- Compatible with 12V locking systems
- Door balance check feature
- LCD screen for setup, monitoring and troubleshooting
- Programmable output relay
- Motor options: 3/8, 1/2 HP; gearbox ratios: 30:1, 40:1 and 50:1
- Shaft sizes: 1" and 1 1/4"
- 2-year, 250,000-cycle warranty against manufacturing defects

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The PULSE 200 Series Operator from iControls Delivers Reliable Power and High-Speed Performance for Balanced Small to Mid-Sized Commercial Doors

The new PULSE 200 Series Operators from iControls are designed to provide both economy and performance. These direct-drive 90V DC operators are reliable, loaded with features and programmable options, and are easy to install, operate and maintain. Smooth, powerful, fast and quiet, the PULSE 200 series operators are a budget-conscious and efficient solution for balanced doors up to 150 sq. ft. / 395 lbs.

Key features include:

Integrated Battery Backup System
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 battery backup will work even if the control and/or drive board has been damaged (due to a 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. If the batteries are fully drained or go missing, a crankshaft socket is provided as a mechanical backup.

Soft Start/Soft Stop Functionality
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.

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).

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. On opening, a sensed obstruction or jam will cause the door to stop. 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 feedback to verify proper door balance without having to remove the operator. A properly balanced door will extend the life of the door springs and maximize battery backup performance.

Door Lock Activation
Third party door locks can be connected with ease. Once installed and selected, the operator activates the unlock function prior to opening and the lock function at full close. Settings for this feature include an adjustable door motion delay from 50 to 500ms to ensure optimal functionality and performance. Compatible with most 12V automatic locking systems.

Optional Chain Hoist
The PULSE chain hoist ensures manual operation remains available during power interruptions. Engagement is straightforward: it engages with a red cord and disengages with a green cord. This simple, reliable mechanism helps prevent downtime and keeps operations running when it matters most. Note: The standard chain length is 26' for a 17' shaft height. Contact iControls if an extra 26' chain kit or other chain-hoist customizations are required. To order add the -CH suffix to part numbers below.

Ordering
3/8 or 1/2 HP-rated 90Vdc motor door operator with a gearbox for 1" or 1 1/4" keyed solid shaft. Includes 24V, 2.3Ah battery backup system, reflective photo eye. For balanced doors to 150 sq. ft. / 395 lbs. 40:1 Gearbox ratio is recommended for most balanced commercial applications.

Part Number	Horse Power	Gearbox			Max Door Size and Weight		Max Output Torque		Cable Length 'YY'
		Shaft	Size	Ratio	Size	Weight**	N·m	Lb-in	
PDC-238-1-XX/50-YY	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	10, 15, 20 or 25
PDC-238-1.25-XX/75-YY	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	10, 15, 20 or 25
PDC-250-1-XX/50-YY	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	10, 15, 20 or 25
PDC-250-1.25-XX/75-YY	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	10, 15, 20 or 25

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 50:1 when using pusher/bumper springs. Substitute the desired length of motor cable for 'YY' in ft. Choose from 5, 10, 15, 20 or 25. PDC-238-1-40/50-10 is the part number for Series 200 3/8 HP motor operator with 1" hollow shaft, size 50, 40:1 ratio gearbox and 10 ft of motor cable.

*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. Contact iControls for further details as required.