

PULSE 300 Series



FEATURES:

- High-Performance DC Door Operator with TRUE HP Motors suitable for Sectional, Rolling Steel, Fabric and Sliding Commercial Doors
- Dynamic Speed Control up to 24"/s Open, 16"/s Close
- Built-in 24V, 9Ah Battery Backup
- Soft Start/Soft Stop
- Intelligent Adjustable Force Monitoring
- Door Balance Check
- Closing Timer from 1-99s
- Advance Closing Warning Alert
- Reliable, Precise Encoder to Measure Door Speed & Position
- Works with 24V Locking Systems
- LCD for easy-to-read monitoring, setup and troubleshooting
- Programmable Output Relay
- Available in 1/2, 3/4 and 1 HP with 30, 40 & 50:1 Gearbox Ratio Options for 1 and 1.25" Shaft Sizes
- 2 Year, 1,000,000 Cycle Warranty

PULSE 300 SERIES OVERVIEW

The new Pulse 300 Series Operators from iControls are designed to add reliable power and speed performance to your commercial overhead door. These Direct Drive DC Operators are loaded with features and programmable options, and are easy to install, operate and maintain. Fast, powerful and quiet, PULSE 300 series operators are an ideal solution for balanced doors up to 500 sq. ft. / 1500 lbs and light springless applications. Some of the features that are included:

BATTERY BACKUP

If power fails, the included batteries takeover for continued door function. The door will operate normally, but at a reduced speed, until power is restored or the batteries reach low power. At low power, regular door function is aborted to conserve battery life, and the door stays in the pre-selected 'Last Cycle' position, working only via the panel push buttons with push and hold protocols initiated. A built-in trickle charger ensures that the batteries are always charged and ready. If the batteries become fully drained or go missing, a crackshaft socket is provided for mechanical backup.

SOFT START/SOFT STOP

This feature provides smooth, controlled acceleration and deceleration of the door, helping 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.

DYNAMIC SPEED CONTROL

Simply set the desired rpm shaft output or door speed in inches/second, and this operator takes care of the rest. Thanks to its intelligent encoder measuring both position and speed, the Pulse 300 monitors and maintains its output speed precisely. Opening speeds up to 24"/s, and closing speeds up to 16"/s (dependent on gearbox and drum size).

INTELLIGENT FORCE MONITORING

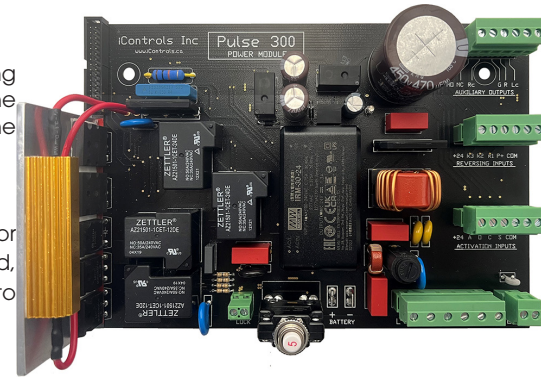
Should the door hit an obstruction or become jammed during the closing cycle, the system will sense the change in force and reverse the door to avoid further damage. On opening, a sensed obstruction or jam will cause the door to stop. This all but eliminates the need for an additional safety edge. Note 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 100 to 500ms to ensure optimal functionality and performance. Compatible with most 24V automatic locking systems.



ORDERING:

PULSE 300 SERIES

1/2, 3/4 or 1 TRUE HP 90VDC Motor Door Operators with Gearbox for 1" or 1.25" Keyed Solid Shaft. Includes 24V, 9Ah Battery Backup System, Reflective Photo Eye (Through-Beam on 1HP models). For Balanced Doors to 500 sq. ft. / 1500 lbs. 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, or in light springless applications (contact iControls for recommendations).

| MODEL # | HP | GEARBOX | | | MAX. OPENING SPEED * | DOOR | |
|------------------|-----|------------|-------|------|----------------------|-------------|----------------|
| | | SHAFT SIZE | RATIO | SIZE | | MAX. SIZE | MAX. WEIGHT ** |
| PDC-350-1-30 | 1/2 | 1" | 30:1 | 50 | 24"/s | 200 Sq. Ft. | 750 lbs. |
| PDC-350-1-40 | 1/2 | 1" | 40:1 | 50 | 20"/s | 200 Sq. Ft. | 799 lbs. |
| PDC-350-1-50 | 1/2 | 1" | 50:1 | 50 | 16"/s | 200 Sq. Ft. | 998 lbs. |
| PDC-375-1-30 | 3/4 | 1" | 30:1 | 63 | 24"/s | 350 Sq. Ft. | 900 lbs. |
| PDC-375-1-40 | 3/4 | 1" | 40:1 | 63 | 20"/s | 350 Sq. Ft. | 1200 lbs. |
| PDC-375-1-50 | 3/4 | 1" | 50:1 | 63 | 16"/s | 350 Sq. Ft. | 1500 lbs. |
| PDC-375-1.25-30 | 3/4 | 1.25" | 30:1 | 75 | 24"/s | 350 Sq. Ft. | 900 lbs. |
| PDC-375-1.25-40 | 3/4 | 1.25" | 40:1 | 75 | 20"/s | 350 Sq. Ft. | 1200 lbs. |
| PDC-375-1.25-50 | 3/4 | 1.25" | 50:1 | 75 | 16"/s | 350 Sq. Ft. | 1500 lbs. |
| PDC-3100-1-40 | 1 | 1" | 40:1 | 63 | 20"/s | 500 Sq. Ft. | 1500 lbs. |
| PDC-3100-1.25-30 | 1 | 1.25" | 30:1 | 75 | 24"/s | 500 Sq. Ft. | 1200 lbs. |
| PDC-3100-1.25-40 | 1 | 1.25" | 40:1 | 75 | 20"/s | 500 Sq. Ft. | 1500 lbs. |
| PDC-3100-1.25-50 | 1 | 1.25" | 50:1 | 75 | 16"/s | 500 Sq. Ft. | 1500 lbs. |

*Maximum opening door speeds are dependant on installation variables such as drum size, door balance, door size, etc.. Speeds indicated represent figures based on optimal installations and conditions.

**Max. Weight is for Counter-Balanced doors with an assumed max imbalance of up to 75 lbs. and is dependent on external factors including shaft and drum size.