

Plumb n' Plug® Cartridge Circulators

The 003, 005 and 006 Plumb n' Plug® Cartridge Circulators are designed to conserve water, increase comfort and reduce the delivery time of hot water to outlet fixtures by periodically re-circulating hot water through the system. An average residence can save up to 25 gallons of wasted water per day. Factory pre-wired 6 foot line cord with optional 24 hour analog or 7 day digital programmable clock timers allow for easy installation. Simply Plumb it in, then Plug it in. Plumb n' Plug® circulators include all the standard 00® maintenance-free design features-no mechanical seal, self lubricating, replaceable cartridge, quiet, efficient operation and unmatched reliability. Available with Sweat, Threaded or Union connections and optional Integral Flow Check (IFC®).



Submittal Data Information

Model 003/005/006

Plumb n' Plug® with Analog Timer



Features

- Factory Installed 6' Line Cord and 24 Hour/15 Minute Interval Analog Timer
- UL Listed
- Optional 95°F –115°F Aquastat Available
- Standard High Capacity Output
- Compact Design
- Quiet, Efficient Operation
- Direct Drive-Low Power Consumption
- Unique Replaceable Cartridge Design-Field Serviceable
- Self Lubricating
- No Mechanical Seal
- Unmatched Reliability-Maintenance Free
- Sweat Connections — Bronze
- Union & Threaded Connections — St. Steel
- Flanged — St. Steel

Materials of Construction

| | |
|----------------------|--------------------------------------|
| Casing (Volute): | Bronze or Stainless Steel |
| Stator Housing: | Steel |
| Cartridge: | Stainless Steel |
| Impeller: | Non-Metallic |
| Shaft: | Ceramic |
| Bearings: | Carbon |
| O-Ring & Gaskets: | EPDM |
| Integral Flow Check: | Body & Plunger, Acetal, Spring - S/S |
| O-ring: | EPDM |

Model Nomenclature

| | |
|-----|-------------------------------------|
| BC | – Bronze, 1/2" Sweat |
| B | – Bronze, 3/4" Sweat |
| ST | – Stainless Steel, 3/4" FNPT |
| SC | – Stainless Steel, Union Connection |
| PNP | – Plumb n' Plug® |
| SF | – Stainless Steel, Flanged |

Performance Data

| | |
|----------------------------|--|
| Flow Range: | 0 – 7 GPM (003) 0 – 19.5 GPM (005) 0 – 11.5 GPM (006) |
| Head Range: | 0 – 4.5 Feet (003) 0 – 8.5 Feet (005) 0 – 9.5 Feet (006) |
| Minimum Fluid Temperature: | 40°F (4°C) |
| Maximum Fluid Temperature: | 220°F (104°C) |
| Maximum Working Pressure: | 125 psi |



FOR INDOOR USE ONLY

Application

The Taco 003, 005 & 006 Plumb n' Plug® (PNP) periodically re-circulates hot water through the domestic piping system to decrease the delivery time to outlet fixtures and reduce wasted water. Typical timer programming will cycle the Plumb n' Plug during high peak usage periods such as early morning or early evening. An optional aquastat is available for constant circulation applications to maintain temperature between 95°F and 115°F. The Taco 003 PNP is ideal for recirculation loops. Its design operating condition of 3 gpm at 3 feet of head helps to reduce erosion corrosion and noise in system piping. Use the 003 PNP for systems up to 200 total feet (supply and return) of 3/4" pipe. The Taco 005 & 006 PNP's are designed for systems using 200-400 feet of 3/4" pipe. Installation of isolation valves, pipe insulation and flow checks are recommended.

Pump Dimensions & Weights

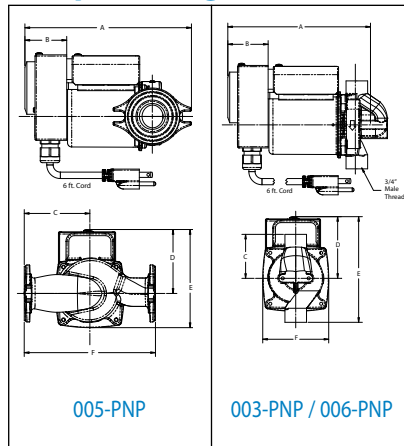
Analog Timer

| Model | Connection | A | | B | | C | | D | | E | | F | | Ship Wt. | |
|--------------|------------|-------|-----|---------|----|---------|----|--------|------|-------|-----|--------|-----|----------|-----|
| | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | lbs. | Kg |
| 003-BC4-PNP | 1/2" Sweat | 7-1/4 | 184 | 1-15/16 | 49 | 2-1/8 | 54 | 3-1/16 | 78.0 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 003-B4-PNP | 3/4" Sweat | 7-1/4 | 184 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78.0 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 003-ST4-PNP | 3/4" FNPT | 7-1/4 | 184 | 1-15/16 | 49 | 2 | 51 | 3-1/16 | 78.0 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 003-SC4-1PNP | Union | 7-1/4 | 184 | 1-15/16 | 49 | 2-31/32 | 76 | 3-1/16 | 78.0 | 6 | 152 | 3-5/16 | 84 | 7.0 | 3.2 |
| 005-SF2-PNP | SS Flanged | 8-1/8 | 205 | 1-15/16 | 49 | 3-5/32 | 80 | 3-3/32 | 78.4 | 4-3/4 | 121 | 6-3/8 | 162 | 7.0 | 3.2 |
| 006-BC4-PNP | 1/2" Sweat | 7-1/4 | 184 | 1-15/16 | 49 | 2-1/8 | 54 | 3-1/16 | 78.0 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 006-B4-PNP | 3/4" Sweat | 7-1/4 | 184 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78.0 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 006-ST4-PNP | 3/4" FNPT | 7-1/4 | 184 | 1-15/16 | 49 | 2 | 51 | 3-1/16 | 78.0 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 006-SC4-1PNP | Union | 7-1/4 | 184 | 1-15/16 | 49 | 2-31/32 | 76 | 3-1/16 | 78.0 | 6 | 152 | 3-5/16 | 84 | 7.0 | 3.2 |

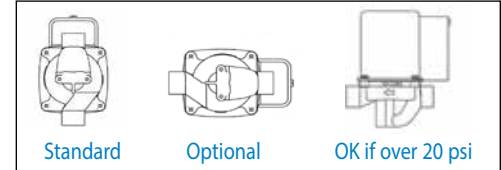
Analog Timer with Integral Flow Check (IFC®)

| Model | Connection | A | | B | | C | | D | | E | | F | | Ship Wt. | |
|--------------|------------|-------|-----|---------|----|--------|----|--------|------|-------|-----|--------|-----|----------|-----|
| | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | lbs. | Kg |
| 003-BC4-3PNP | 1/2" Sweat | 8-1/8 | 205 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 003-BC4-2PNP | 3/4" Sweat | 8-1/8 | 205 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 005-SF2-1PNP | SS Flanged | 8-1/8 | 205 | 1-15/16 | 49 | 3-5/32 | 80 | 3-3/32 | 78.4 | 4-3/4 | 121 | 6-3/8 | 162 | 7.0 | 3.2 |
| 006-BC7-1PNP | 1/2" Sweat | 8-1/8 | 205 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 006-BC7-PNP | 3/4" Sweat | 8-1/8 | 205 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |

Pump Drawings



Mounting Positions



Electrical Data

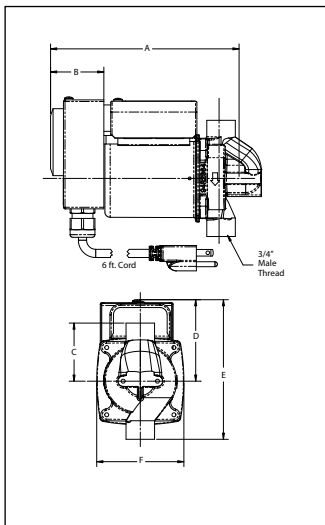
| Model | Volts | Hz | Ph | Amps | RPM | HP |
|---------------|-------|----|----|------|------|------|
| 003-PNP | 115 | 60 | 1 | .45 | 3250 | 1/40 |
| 005-PNP | 115 | 60 | 1 | .54 | 3250 | 1/40 |
| 006-PNP | 115 | 60 | 1 | .52 | 3250 | 1/40 |
| 006-PNP (IFC) | 115 | 60 | 1 | .57 | 3250 | 1/40 |

Motor Type Permanent Split Capacitor Impedance Protected



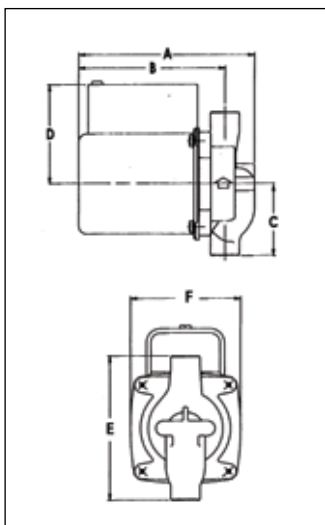
Features

- Digital Timer, 7 day Programmable
- Large LCD Display
- Up to 8 ON/OFF Program Settings
- Easy-to-Use Program Buttons
- On/Off Intervals as Short as 1 Minute
- 100 hour Capacitor Backup, Saves Settings



Application

For recirculation systems setup for constant circulation or with an optional aquastat control, use Plumb n' Plug® with line cord only. Simply Plumb it in and Plug it in.



Application

The Plumb n' Plug® with Digital Timer allows up to 8 precise ON/OFF program settings to fit any homeowners' schedule. Multiple settings allow for different weekday/weekend run times. Run time intervals can be set as short as 1 minute to maximize energy savings. Easy-to-Use clock face and large LCD display make settings a snap. Its on-board capacitor retains settings in memory for up to 100 hours, during power outages.

Pump Dimensions & Weights

Digital Timer

| Model | Connection | A | | B | | C | | D | | E | | F | | Ship Wt. | |
|--------------|------------|-------|-----|---------|----|---------|----|--------|----|-------|-----|--------|----|----------|-----|
| | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | lbs. | Kg |
| 003-BC4-8PNP | 1/2" Sweat | 7-1/4 | 184 | 1-15/16 | 49 | 2-1/8 | 54 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 003-B4-2PNP | 3/4" Sweat | 7-1/4 | 184 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 003-ST4-2PNP | 3/4" FNPT | 7-1/4 | 184 | 1-15/16 | 49 | 2 | 51 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 003-SC4-3PNP | Union | 7-1/4 | 184 | 1-15/16 | 49 | 2-31/32 | 76 | 3-1/16 | 78 | 6 | 152 | 3-5/16 | 84 | 7.0 | 3.2 |
| 006-BC4-4PNP | 1/2" Sweat | 7-1/4 | 184 | 1-15/16 | 49 | 2-1/8 | 54 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 006-B4-2PNP | 3/4" Sweat | 7-1/4 | 184 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 006-ST4-2PNP | 3/4" FNPT | 7-1/4 | 184 | 1-15/16 | 49 | 2 | 51 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 006-SC4-3PNP | Union | 7-1/4 | 184 | 1-15/16 | 49 | 2-31/32 | 76 | 3-1/16 | 78 | 6 | 152 | 3-5/16 | 84 | 7.0 | 3.2 |

Digital Timer with Integral Flow Check (IFC®)

| Model | Connection | A | | B | | C | | D | | E | | F | | Ship Wt. | |
|---------------|------------|-------|-----|---------|----|--------|----|--------|----|-------|-----|--------|----|----------|-----|
| | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | lbs. | Kg |
| 003-BC4-11PNP | 1/2" Sweat | 8-1/8 | 205 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 003-BC4-10PNP | 3/4" Sweat | 8-1/8 | 205 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 006-BC7-5PNP | 1/2" Sweat | 8-1/8 | 205 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |
| 006-BC7-4PNP | 3/4" Sweat | 8-1/8 | 205 | 1-15/16 | 49 | 2-3/16 | 56 | 3-1/16 | 78 | 5-1/4 | 134 | 3-5/16 | 84 | 7.0 | 3.2 |

Line Cord Only

| Model | Connection | A | | B | | C | | D | | E | | F | | Ship Wt. | |
|--------------|------------|--------|-----|---------|-----|---------|----|--------|----|---------|-----|--------|----|----------|-----|
| | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | lbs. | Kg |
| 003-BC4-4PNP | 1/2" Sweat | 5-1/8 | 130 | 4-1/8 | 105 | 2-3/16 | 56 | 3-1/16 | 78 | 4-13/32 | 112 | 3-5/16 | 84 | 6.5 | 2.9 |
| 003-B4-1PNP | 3/4" Sweat | 5-1/8 | 130 | 4-1/8 | 105 | 2-1/8 | 54 | 3-1/16 | 78 | 4-1/4 | 108 | 3-5/16 | 84 | 6.5 | 2.9 |
| 003-ST4-1PNP | 3/4" FNPT | 5-1/8 | 143 | 4-7/8 | 124 | 2 | 51 | 3-1/16 | 78 | 4 | 102 | 3-5/16 | 84 | 6.5 | 2.9 |
| 003-SC4-2PNP | Union | 5-5/32 | 131 | 4-11/32 | 110 | 2-31/32 | 76 | 3-1/16 | 78 | 5-15/16 | 151 | 3-5/16 | 84 | 6.5 | 2.9 |
| 006-BC4-2PNP | 1/2" Sweat | 5-1/8 | 130 | 4-1/8 | 105 | 2-3/16 | 56 | 3-1/16 | 78 | 4-13/32 | 112 | 3-5/16 | 84 | 6.5 | 2.9 |
| 006-B4-1PNP | 3/4" Sweat | 5-1/8 | 130 | 4-1/8 | 105 | 2-1/8 | 54 | 3-1/16 | 78 | 4-1/4 | 108 | 3-5/16 | 84 | 6.5 | 2.9 |
| 006-ST4-1PNP | 3/4" FNPT | 5-5/8 | 143 | 4-7/8 | 124 | 2 | 51 | 3-1/16 | 78 | 4 | 102 | 3-5/16 | 84 | 6.5 | 2.9 |
| 006-SC4-2PNP | Union | 5-5/32 | 131 | 4-11/32 | 110 | 2-31/32 | 76 | 3-1/16 | 78 | 5-15/16 | 151 | 3-5/16 | 84 | 6.5 | 2.9 |

Line Cord Only with Integral Flow Check (IFC®)

| Model | Connection | A | | B | | C | | D | | E | | F | | Ship Wt. | |
|--------------|------------|-----|-----|-------|-----|--------|----|---------|----|-------|-----|--------|----|----------|-----|
| | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | lbs. | Kg |
| 003-BC4-7PNP | 1/2" Sweat | 6 | 152 | 4-7/8 | 124 | 2-3/16 | 56 | 2-15/16 | 75 | 4-3/8 | 111 | 3-5/16 | 84 | 6.5 | 2.9 |
| 003-BC4-6PNP | 3/4" Sweat | 6 | 152 | 4-7/8 | 124 | 2-3/16 | 56 | 2-15/16 | 75 | 4-3/8 | 111 | 3-5/16 | 84 | 6.5 | 2.9 |
| 006-BC7-3PNP | 1/2" Sweat | 6 | 152 | 4-7/8 | 124 | 2-3/16 | 56 | 2-15/16 | 75 | 4-3/8 | 111 | 3-5/16 | 84 | 6.5 | 2.9 |
| 006-BC7-2PNP | 3/4" Sweat | 6 | 152 | 4-7/8 | 124 | 2-3/16 | 56 | 2-15/16 | 75 | 4-3/8 | 111 | 3-5/16 | 84 | 6.5 | 2.9 |

60 Hz Performance Field

