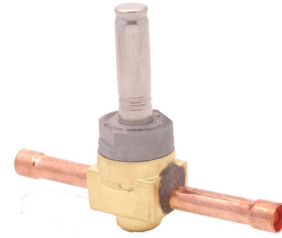


The 500RB is a pilot-operated, 2-way, normally open valve. 500RB valves are used for liquid, suction or discharge gas refrigerant service.



Features

- One coil fits all valve sizes
- Extended ends for easy installation
- Can be positioned in remote locations
- Long-life molded coils
- Low pressure differential required for full opening
- PTFE O-ring for superior external sealing

Options

- Connection types: SAE, ODF, NPTF and ODF inlet with ODM outlet

Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- MOPD: 275 psig
- UL/CUL file number: MP604

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

NOTE: This valve requires a DM, MM or ASC2-Type coil assembly. ASC2-Type Coil requires cable assembly (PCN:059261).

Nomenclature example: 500RB 4T3 VLC

| 500R | B | 4 | T | 3 | VLC |
|--------------|---------------|----------------------|--|---------------------------|-------|
| Valve Series | Design Series | Port Size (in 1/16") | Connection Type F = SAE T = ODF (copper extended fittings) P = NPTF S = ODF inlet/ODM outlet | Connection Size (in 1/8") | Coil* |

* NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See coil assemblies for availability.

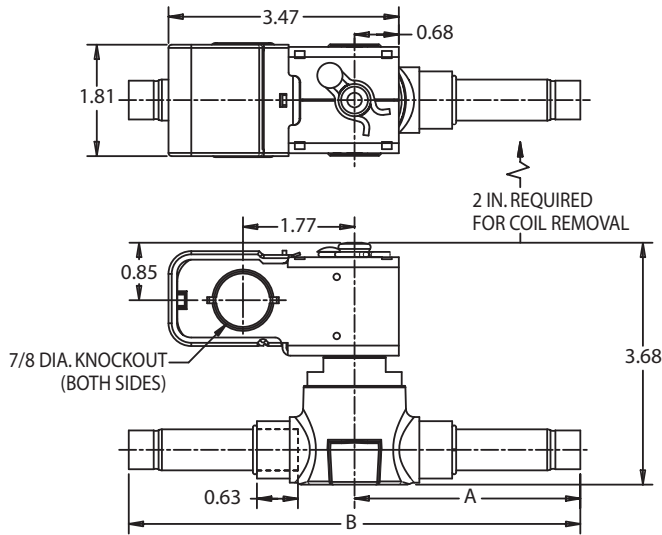
Ordering Information and Nominal* Liquid Capacity Table – Tons (kW)

| PCN | Description | Connection Size | R-134a | R-450A/R-513A | R-22 | R-407C | R-404A/R-507 | R-448A/R-449A |
|--------|-------------|-------------------|-------------|---------------|-------------|-------------|--------------|---------------|
| 063274 | 500RB 2 F 2 | 1/4 SAE | 2.7 (9.6) | 2.5 (8.7) | 3.6 (12.7) | 3.4 (11.9) | 2.3 (8.2) | 3.6 (12.7) |
| 063278 | 500RB 2 T 2 | 1/4 ODF | | | | | | |
| 063280 | 500RB 2 T 3 | 3/8 ODF | | | | | | |
| 063286 | 500RB 3 F 4 | 1/2 SAE | 3.6 (12.7) | 3.3 (11.6) | 4.8 (16.9) | 4.5 (15.9) | 3.1 (10.9) | 4.8 (17.0) |
| 063288 | 500RB 3 T 2 | 1/4 ODF | | | | | | |
| 063290 | 500RB 3 T 3 | 3/8 ODF | | | | | | |
| 063292 | 500RB 3 T 4 | 1/2 ODF | 6.0 (21.1) | 5.5 (19.3) | 8.0 (28.0) | 7.5 (26.3) | 5.1 (18.0) | 8.0 (28.1) |
| 063294 | 500RB 4 F 3 | 3/8 SAE | | | | | | |
| 063298 | 500RB 4 P 3 | 3/8 NPTF | | | | | | |
| 063302 | 500RB 4 S 4 | 1/2 ODF x 5/8 ODM | | | | | | |
| 063304 | 500RB 4 T 2 | 1/4 ODF | | | | | | |
| 063306 | 500RB 4 T 3 | 3/8 ODF | | | | | | |
| 063308 | 500RB 4 T 4 | 1/2 ODF | | | | | | |
| 063310 | 500RB 4 T 5 | 5/8 ODF | 6.2 (21.8) | 5.7 (19.9) | 8.2 (21.8) | 7.7 (27.2) | 5.3 (18.6) | 8.3 (29.0) |
| 063312 | 500RB 5 F 4 | 1/2 SAE | | | | | | |
| 063314 | 500RB 5 F 5 | 5/8 SAE | | | | | | |
| 063316 | 500RB 5 P 3 | 3/8 NPTF | | | | | | |
| 063318 | 500RB 5 S 4 | 1/2 ODF x 5/8 ODM | | | | | | |
| 063320 | 500RB 5 S 5 | 5/8 ODF | | | | | | |
| 063322 | 500RB 5 T 3 | 3/8 ODF | | | | | | |
| 063323 | 500RB 5 T 4 | 1/2 ODF | 7.2 (25.2) | 6.5 (23.0) | 9.5 (33.3) | 8.9 (31.4) | 6.1 (21.5) | 9.5 (33.5) |
| 063325 | 500RB 5 T 5 | 5/8 ODF | | | | | | |
| 063329 | 500RB 6 F 5 | 5/8 SAE | | | | | | |
| 063331 | 500RB 6 P 3 | 3/8 NPTF | | | | | | |
| 063333 | 500RB 6 S 4 | 1/2 ODF x 5/8 ODM | | | | | | |
| 063335 | 500RB 6 S 5 | 5/8 ODF | | | | | | |
| 063337 | 500RB 6 T 3 | 3/8 ODF | | | | | | |
| 063339 | 500RB 6 T 4 | 1/2 ODF | 12.7 (44.6) | 11.7 (41.2) | 17.0 (59.8) | 16.2 (57.0) | 11.1 (39.0) | 17.1 (60.0) |
| 064038 | 500RB 7 S 5 | 5/8 ODF x 7/8 ODM | | | | | | |
| 064064 | 500RB 7 T 4 | 1/2 ODF | | | | | | |

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

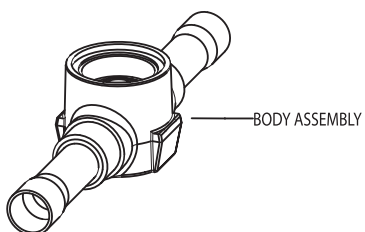
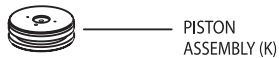
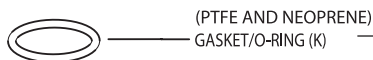
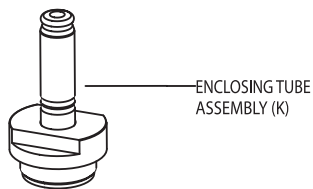
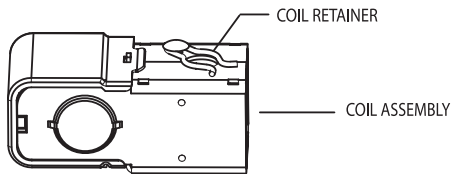
*See Extended Capacity Tables for ratings at a wide range of conditions.

Dimensional Data (in)



*NOTE: Drawing indicates extended copper tube version.

Exploded View & Parts Kit Data



Without Extended Ends

| Valve | Port Size | Conn. Size & Style | A | B |
|-----------|-----------|----------------------|------|------|
| 500RB 4P3 | 1/4 | 3/8 NPTF | - | 2.37 |
| 500RB 4S4 | | 1/2 ODF X 5/8 ODM | 0.56 | 2.37 |
| 500RB 4F3 | | 3/8 SAE (male flare) | - | 3.12 |
| 500RB 5P3 | 5/16 | 3/8 NPTF | - | 2.37 |
| 500RB 5S4 | | 1/2 ODF X 5/8 ODM | 0.56 | 2.37 |
| 500RB 5S5 | | 5/8 ODF | - | 2.37 |
| 500RB 5F4 | | 1/2 SAE (male flare) | - | 3.50 |
| 500RB 5F5 | | 5/8 SAE (male flare) | - | 3.75 |
| 500RB 6P3 | 3/8 | 3/8 NPTF | - | 2.37 |
| 500RB 6S4 | | 1/2 ODF X 5/8 ODM | 0.56 | 2.37 |
| 500RB 6S5 | | 5/8 ODF | - | 2.37 |
| 500RB 6F5 | | 5/8 SAE (male flare) | - | 3.75 |
| 500RB 7S5 | 7/16 | 5/8 ODF X 7/8 ODM | 0.63 | 2.98 |

With Extended Ends

| Valve | Port Size | Conn. Size & Style | A | B |
|-----------|-----------|--------------------|------|------|
| 500RB 2T2 | 1/8 | 1/4 ODF | 2.42 | 4.67 |
| 500RB 2T3 | | 3/8 ODF | | |
| 500RB 3T2 | 3/16 | 1/4 ODF | 2.50 | 5.00 |
| 500RB 3T3 | | 3/8 ODF | | |
| 500RB 3T4 | | 1/2 ODF | | |
| 500RB 4T4 | 1/4 | 1/2 ODF | 2.50 | 5.00 |
| 500RB 4T5 | | 5/8 ODF | 3.25 | 6.50 |
| 500RB 5T3 | 5/16 | 3/8 ODF | 2.31 | 4.63 |
| 500RB 5T4 | | 1/2 ODF | 2.50 | 5.00 |
| 500RB 5T5 | | 5/8 ODF | 3.25 | 6.50 |
| 500RB 6T3 | 3/8 | 3/8 ODF | 2.31 | 4.63 |
| 500RB 6T4 | | 1/2 ODF | 2.50 | 5.00 |

Valve Kits

| Valve | Complete Kit | PCN |
|-----------|--------------|--------|
| 500RB 2-6 | KS-30353 | 064268 |
| 500RB 7 | KS-30355 | 064264 |

Replace with same gasket color and material; discard other

Gasket Kit

Gasket Kit **KG10025 - PCN 049190**
(contains 12 pieces - each of PTFE and Neoprene O-rings).

Coil Assembly

DM, MM or ASC-Type style only

Use MagMax style coil for operation on DC voltage.
No other DC coil may be used.