

# WCMEHR-3V

3-WAY HIGH WATER PRESSURE DIRECT ACTING WATER REGULATING VALVE FOR HIGH PRESSURE REFRIGERANTS

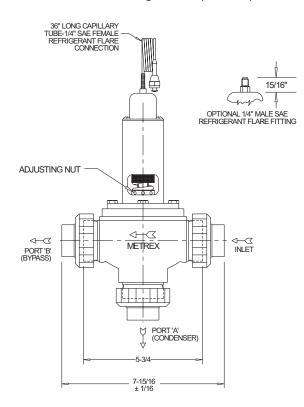
### SELECTION CRITERIA

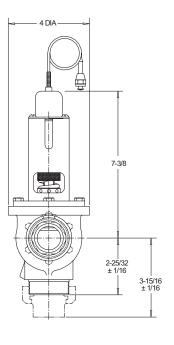
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- Fresh water use
- Direct acting
- Actuation by pressure
- Open on pressure increase
- 350 PSI water pressure rating
- Optional water pressure rating to 500 PSI
- Union NPT end connections
- 3-way configuration
- 3/4" and 1" sizes
- For high refrigerant pressure applications up to 460 PSIG, including R410a

### CONSTRUCTION DETAILS \_

- Brass & Stainless Steel internals
- All o-ring sealed (Buna-N)
- Cast iron body
- Brass union fittings





### VALVE SIZING/TRIM SELECTION & WATER SIDE PRESSURE RATING

| VALVE PART NUMBER   | TRIM<br>DESIGNATOR | PIPE<br>SIZE | c^^ |
|---------------------|--------------------|--------------|-----|
|                     |                    |              |     |
| WCMEHR-4075UE-3W-TA | TA                 | 3/4"         | 8.5 |
| WCMEHR-4100UE-3W-TA | TA                 | 1"           | 8.5 |
|                     | •                  |              |     |
| WCMEHR-4075UE-3W-TB | ТВ                 | 3/4"         | 1.5 |
| WCMEHR-4100UE-3W-TB | ТВ                 | 1"           | 1.5 |

| VALVE PART NUMBER   | TRIM<br>DESIGNATOR | PIPE<br>SIZE | c <sub>v</sub> |
|---------------------|--------------------|--------------|----------------|
|                     |                    |              |                |
| WCMEHR-4075UE-3W-TD | TD                 | 3/4"         | 3.0            |
| WCMEHR-4100UE-3W-TD | TD                 | 1"           | 3.0            |
|                     |                    |              |                |
| WCMEHR-4075UE-3W-TF | TF                 | 3/4"         | 6.0            |
| WCMEHR-4100UE-3W-TF | TF                 | 1"           | 6.0            |

| WATER SIDE PRESSURE RATING |          |         |         |
|----------------------------|----------|---------|---------|
| PRESSURE RATING            | STANDARD | Н       | EH      |
| DESIGN PRESSURE            | 350 PSI  | 400 PSI | 500 PSI |
| PROOF PREESURE             | 525 PSI  | 600 PSI | 750 PSI |



# WCMEHR-3V

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#### **O**RDERING INFORMATION \_

Use the valve sizing chart on the preceding page to determine the complete part number.

| BASIC PART NO.: WCMEHR_ | 40 | <u>75</u> _ | _UE-3W- |  |
|-------------------------|----|-------------|---------|--|
|                         |    |             | _       |  |
| BELLOWS OPTIONS —       | J  |             |         |  |
| PRESSURE RATING —       |    |             |         |  |
| VALVE SIZING CHART ———  |    |             |         |  |

#### **P**RESSURE RANGE ADJUSTMENT -

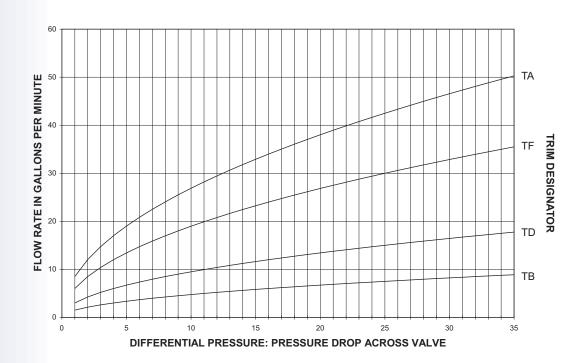
The refrigerant pressure at which the valve begins to open can be adjusted from 150 to 345 PSI. An approximate 55 PSI increase of pressure is required to fully open the condenser

#### BELLOWS OPTIONS .

The optional 1/4" male SAE flare fitting for refrigerant pressure connection is designated by an "F" after the "WCMEHR\_". The 1/4" SAE flare fitting replaces the 36" long capillary tube connection.

Example: WCMEHRF-4100UE-3W-TF.

#### FLOW DATA .





## WCMEHR-3

3-WAY HIGH WATER PRESSURE DIRECT ACTING WATER REGULATING VALVE FOR HIGH PRESSURE REFRIGERANTS

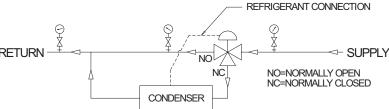
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| GENERAL DESCRIPTION |           |
|---------------------|-----------|
|                     | $\sim NI$ |

The WCMEHR series valves are direct acting, modulating water regulating valves utilizing all o-ring construction to accommodate high water pressures up to 500 PSI. Union ends with special o-ring face seals make for quick installation. Suitable for refrigerant pressures up to

#### 3-WAY HEAD PRESSURE REGULATOR TYPICAL APPLICATION

Typically used to modulate the cooling water through a condenser in response to a pressure signal from the condenser. Refrigerant head pressure is maintained over a wide range of operating conditions for a maximum system operating efficiency.



#### INSTALLATION INSTRUCTIONS

- 1) Valves can be mounted in any position without affecting performance. However, for ease of adjustment consider the accessibility of the adjusting nut.
- 2) Connect the incoming water line to the valve inlet. Connect condenser port and bypass port as shown above. Direction of water flow is indicated by the arrow cast on the side of the valve body.
- 3) Connect capillary tube (or 1/4" flare nut) to refrigerant head pressure connection on condenser.

#### ADJUSTMENT\_

All WCMEHR valves are multi-range valves applicable to R-22, R134a and R-410a service. The refrigerant pressure at which the valve begins to open can be adjusted from 150 to 345 PSI. An approximate 55 PSI increase of refrigerant pressure is required to fully open the condenser port.

To increase the actuating refrigerant head pressure, insert a pin or hex key into the adjustment nut and turn counter-clockwise. To lower actuating refrigerant head pressure, turn adjustment nut clockwise.