



MCS-VPFXXXHXX

Description & Specifications



Part # **MCS-VPXXXHXX**

Replace XXXHXX with valve size - (see valve sizes available)

Description

The MCS-VPFH series electronic expansion valves are designed for commercial and industrial applications. Typical VPF applications are air conditioning and refrigeration systems or heat pumps. The valve controls the automatic adjustment of refrigerant flow rate and makes the system work under optimized conditions for the purpose of fast cooling or heating, precise temperature control and energy saving.

The MCS-VPFH valves are easily interfaced with MCS microprocessor based controllers. Therefore, they are applicable on all the same types of systems found in the air conditioning and refrigeration industry as thermostatic expansion valves.

These valves provide bidirectional operation to control the refrigerant flow rate in heating or cooling mode.

FEATURES

Applicable for all common HFC, HFO refrigerants such as: R134a, R404A, R407A/F, R407C, R410A, R448A, R449A, R450A, R452A, R513A,

- Energy Saving Thanks To Very Precise Capacity
- Optimized Flow Path Design For Noise Reduction
- Applicable For Reversible Systems Like Heat Pumps: Bidirectional Flow
- Corrosion Resistant Design, Long Lifetime, High Reliability

Packaging

Ship Weight: (VPF12.5H53/VPF25H53/VPF50H03) 6 lb (approx)
 (VPF100H03/VPF150) 8 lb (approx)
 (VPF250H03) 9 lb (approx)
 VPF400H03 13 lb (approx)

Box Dimensions..... 13.25" x 9" x 5" (approx)

Specifications

Type..... Electronic expansion valve
 bi-pole stepper motor
 Fluid Temp.
 Steps VPF12.5, 25 - 2600 steps
 VPF100 - 3500 steps
 VPF150 ~ 400 - 3800 steps
 Medium temp. min./max. -40°F / 194°F (-40°C / +90°C)
 Ambient temp. min./max. -40°F / 140°F (-40°C / +60°C)
 Relative humidity 0 to 100% RH
 Connection Type..... Solder

ELECTRICAL

Rated voltage 12V DC
 Actuating mode 2-phase 4-step permanent magnet
 stepping motor
 Excitation rate..... 150 pps (Maximum for voltage drive)
 300 pps (Maximum for current drive)
 Protection class IP 67

EXV VALVE SIZE AVAILABLE

MCS-VPF12.5H53..... **20** Ton** Nominal EXV, **Straight shape**
 2600 steps completely open
 7/8" inlet fitting, 7/8" outlet fitting
 32' cable - **no sight glass available**

MCS-VPF25H53..... **42** Ton** Nominal EXV, **Straight shape**
 2600 steps completely open
 7/8" inlet fitting, 7/8" outlet fitting
 32' cable - **no sight glass available**

MCS-VPF50H03..... **80** Ton** Nominal EXV, **Straight shape**
 2600 steps completely open
 1-1/8" inlet fitting, 1-1/8" outlet fitting
 32' cable-**with sight glass available**

MCS-VPF100H03..... **115** Ton** Nominal EXV, **Straight shape**
 3500 steps completely open
 1-3/8" inlet fitting, 1-3/8" outlet fitting
 32' cable-**with slight glass**

MCS-VPF150H02..... **207** Ton** Nominal EXV, **L-shape**
 3800 steps completely open
 1-5/8" inlet fitting, 1-5/8" outlet fitting
 32' cable-**with sight glass**

MCS-VPF250H03..... **322** Ton** Nominal EXV, **Straight shape**
 3800 steps completely open
 1-5/8" inlet fitting, 1-5/8" outlet fitting
 32' cable-**with sight glass available**

MCS-VPF400H03..... **540** Ton** Nominal EXV, **Straight shape**
 3800 steps completely open
 2-1/8" inlet fitting, 2-1/8" outlet fitting
 32' cable-**with sight glass available**

** Tonnage (R22): Nominal working conditions: Condensing temperature 100°F (38°C); evaporating temperature 111.2°F (+44°C); liquid temperature 98.6°F (37°C)

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