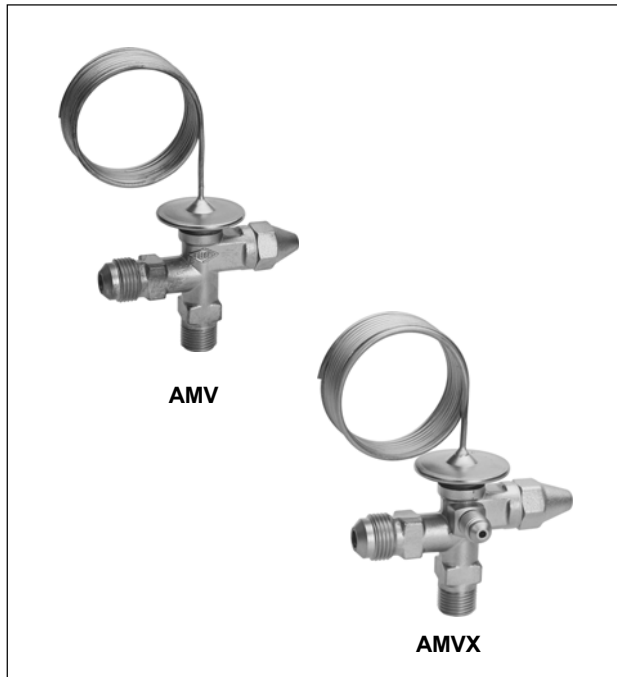


# Series AMV

## AUTOMATIC EXPANSION VALVES

### INTERCHANGEABLE ORIFICE CARTRIDGE, ADJUSTABLE EVAPORATING PRESSURE

#### PRODUCT DATA



#### Features

- **AMV** : with internal pressure equalisation; for single injection in installations with one or more cooling circuits
- **AMVX**: with external pressure equalisation; for optimal evaporation effectiveness in all applications. Obligatory for multiple injection by liquid distributors
- Adjustable evaporating pressure setting  $\pm 0.5$  bar within the evaporating pressure range
- Flare connections
- Extreme durable due to stainless steel head and stainless steel diaphragm welded using protective gas
- Interchangeable orifice cartridges
- Refrigerants: all CFC, HCFC, HFC, not for ammonia

#### Specification

<b>Nominal capacity range</b>	0.52 to 22.4 kW R22 (small orifice graduation for optimal control behaviour, interchangeable orifice cartridges)
<b>Evaporating pressure range</b>	see table on page 2
<b>Maximum pressure PS</b>	29.0 bar(a)
<b>Maximum test pressure PF</b>	31.9 bar(a)
<b>Max. ambient temperature</b>	100 °C

#### Application

Automatic expansion valves (constant pressure valves) series AMV are used in general refrigeration and for original equipment.

For plants like dehumidifiers, air driers, water coolers, ice-making machines or air conditioners.

#### Materials

<b>Body</b>	brass
<b>Thermal head</b>	stainless steel
<b>Connection</b>	brass

## Evaporating pressure

### 1. Automatic expansion valves with internal pressure equalisation

Type	OS number	Evaporating pressure range
AMV	AMV-00005	0.5 – 1.5 bar
	AMV-00001	1.5 – 2.5 bar
	AMV-00002	2.5 – 3.5 bar
	AMV-00003	3.5 – 4.5 bar
	AMV-00004	4.5 – 5.5 bar

### 2. Automatic expansion valves with external pressure equalisation

Type	OS number	Evaporating pressure range
AMVX	AMVX-00005	0.5 – 1.5 bar
	AMVX-00001	1.5 – 2.5 bar
	AMVX-00002	2.5 – 3.5 bar
	AMVX-00003	3.5 – 4.5 bar
	AMVX-00004	4.5 – 5.5 bar

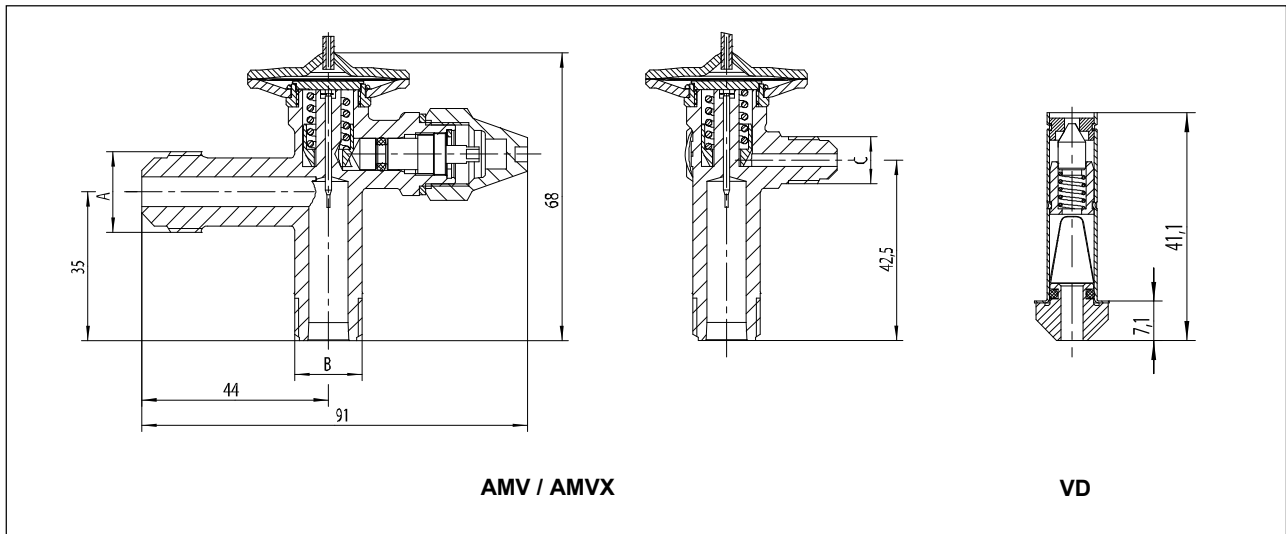
## Capacities

Type	Orifice size	Nominal capacity (kW)*						
		R134a	R22	R407C	R422D	R404A	R507A	R410A
AMV AMVX	0.3	0.36	0.52	0.50	0.36	0.36	0.36	0.62
	0.5	0.69	0.99	0.95	0.67	0.68	0.69	1.2
	0.7	1.0	1.4	1.3	0.92	0.97	0.98	1.6
	1.0	1.4	2.0	1.9	1.3	1.4	1.4	2.4
	1.5	2.2	3.2	3.1	2.2	2.2	2.3	3.8
	2.0	2.9	4.0	3.9	2.7	2.8	2.9	4.8
	2.5	4.0	5.8	5.6	3.9	4.1	4.1	6.9
	3.0	6.6	9.3	8.9	6.3	6.5	6.6	11.1
	3.5	8.7	12.2	11.7	8.3	8.6	8.7	14.6
	4.5	11.8	17.0	16.4	11.3	12.0	12.1	20.3
4.75	15.9	22.4	21.6	15.3	15.8	15.9	26.8	

\* Capacities are based on  $t_0 = +4\text{ }^\circ\text{C}$ ,  $t_c = +38\text{ }^\circ\text{C}$  and 1 K subcooled liquid refrigerant entering the valve.  
For other operating conditions see capacity charts in Resideo catalogue or consult the Resideo software.

## Dimensions and Weights

Type	Connections			Weight (kg)
	Inlet (B)	Outlet (A)	Pressure equaliser (C)	
AMV	5/8" UNF	3/4" UNF	-	approx. 0.35
AMVX	5/8" UNF	3/4" UNF	7/16" UNF	approx. 0.36



### Type Code / Order Information (Part Programme)

1. Valve body

	AMV	X		BM 3.0		5/8" UNF x 3/4" UNF
Series						
Pressure equalisation: X = external ( ) = internal						
Range middle evaporating pressure range (bar)						
Connection size (inlet x outlet)						

2. Orifice cartridge

	VD		0.5
Series			
Orifice size			

## Installation

- The valves may be installed in any position.
- The external pressure equaliser line should be 6 mm or 1/4" in diameter. An overbore is recommended in order to prevent the ingress of oil into the equaliser line.
- When soldering the valve, the valve body must not get warmer than 100 °C.
- When tightening flare nuts of the flare connections grip at wrench flats on the valve body.
- Constructive modifications at the valve are not allowed.

## Evaporating pressure Adjustment

The evaporating pressure setting can be adjusted by  $\pm 0.5$  bar around the range middle of the evaporating pressure range.

Turning clockwise = reduced evaporating pressure  
Turning counterclockwise = increased evaporating pressure

## Special Accessory:

Adapter series LA for solder connection at the inlet for 6 mm, 10 mm, 1/4" and 3/8".

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