



Series AEL

AUTOMATIC EXPANSION VALVES

FIXED ORIFICE, ADJUSTABLE EVAPORATING PRESSURE

PRODUCT DATA



Features

- Smallest dimensions
- High performance
- Hermetic construction
- Wide evaporating pressure range
- Adjustable evaporating pressure setting
- Solder connections
- Internal pressure equalisation
- Extreme durable due to stainless steel head and stainless steel diaphragm welded using protective gas
- Fixed orifice
- Bypass on request
- Refrigerants: all CFC, HCFC, HFC, not for ammonia

Specification

Nominal capacity range	1.4 to 29.1 kW R22
Evaporating pressure range	1 - 7 bar(a)
Factory setting for evaporating pressure	2.2 bar(a)
Maximum pressure PS	25.5 bar(a)
Maximum test pressure PF	28 bar(a)
Max. ambient temperature	100 °C

Application

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

For plants with single injected evaporators and without a distributor, such as air conditioners, dehumidifiers, air driers, water coolers or ice-making machines.

Materials

Body	brass
Head	stainless steel, brass
Connection tubes	copper

Installation

- The valves may be installed in any position.
- When soldering the valve, the valve body must not get warmer than 100 °C.
- Remove plastic cap during soldering
- Constructive modifications at the valve are not allowed.

Adjustment

One complete revolution of the adjusting screw effects an alternation of the evaporating pressure by approx. 0.8bar.

Turning clockwise	=	Higher evaporation pressure
Turning counterclockwise	=	Lower evaporation pressure

Capacities

Type	Valve size	Orifice size	Nominal capacity (kW)*			
			R22	R134a	R404A	R507A
AEL	0.5	0.7	1.4	1.0	0.97	0.98
	1.0	1.0	2.0	1.4	1.4	1.4
	2.0	2.0	4.0	2.9	2.8	2.9
	3.0	3.0	9.3	6.6	6.5	6.6
	4.0	3.5	12.2	8.7	8.6	8.7
	5	4.75	22.4	15.9	15.8	15.9
	6	5	29.1	20.0	20.5	20.7

* Capacities are based on $t_o = +4\text{ }^\circ\text{C}$, $t_c = +38\text{ }^\circ\text{C}$ and 1 K subcooled liquid refrigerant entering the valve.

For other operating conditions see capacity charts in Honeywell Home catalogue or consult the Honeywell Home software.

Dimensions and Weights

Type	Valve size	Connections		Dimensions (mm)				Weight (kg)
		Inlet (A)	Outlet (B)	C	D	E	F	
AEL	0.5	6 mm ODF	10 mm ODF	58	36	106	54	approx. 0.16
	1.0							
	2.0							
	3.0	1/4" ODF	3/8" ODF					
	4.0							
5	3/8" ODF	5/8" ODF	64	47	122	69	approx. 0.28	
6	10 mm ODF	16 mm ODF						
	3/8" ODF	5/8" ODF						

