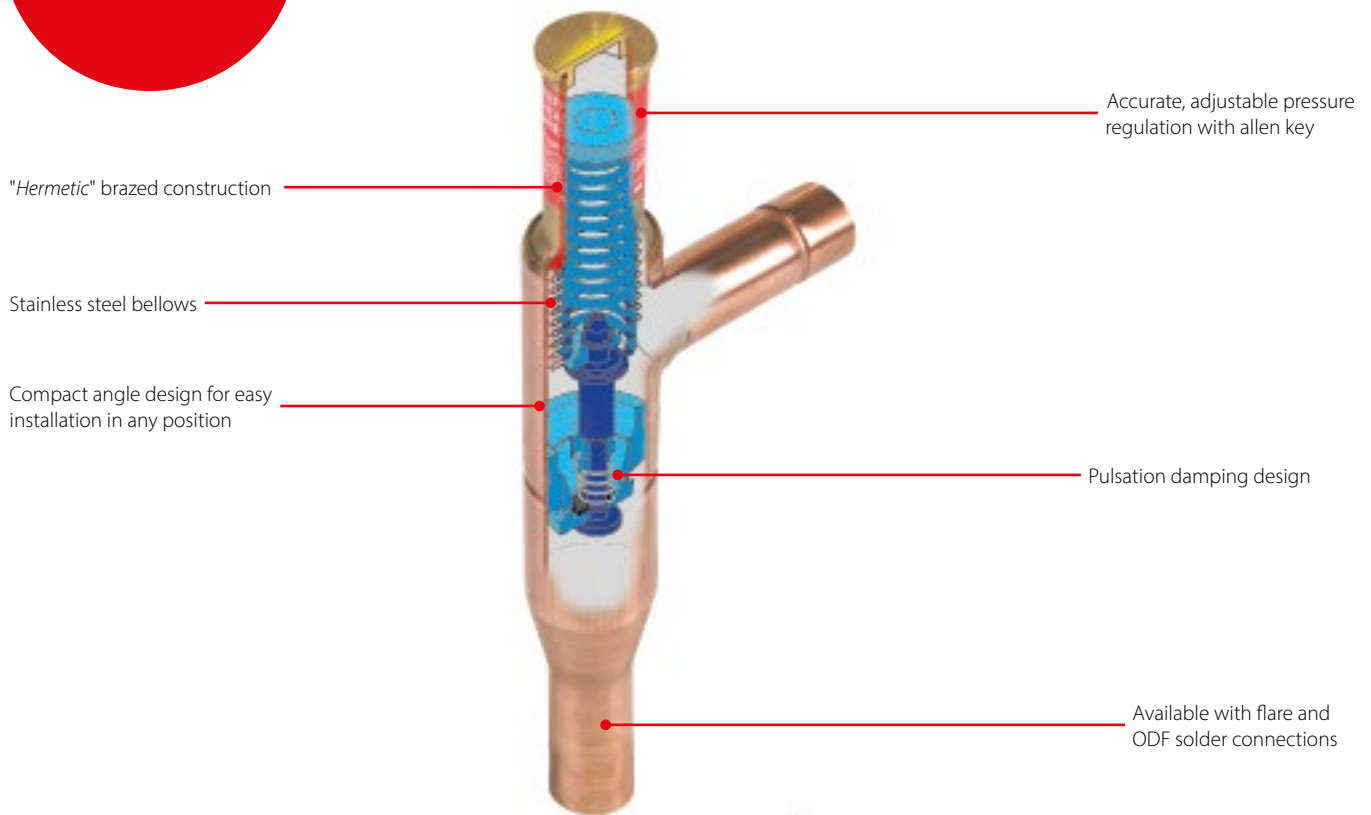
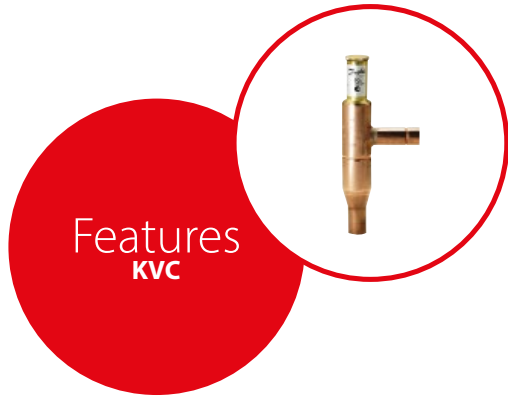


KVC, Hot gas bypass regulator

KVC are hot gas bypass regulators used for the adaptation of the compressor capacity to the actual evaporator load. Placed in a bypass between high and low pressure sides of the refrigeration system, KVC imposes a lower limit on the compressor

suction pressure by supplying the low pressure side with replacement capacity in the form of hot gas/cool gas from the high pressure side.



Facts

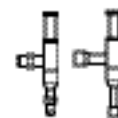
Application:

- Traditional refrigeration
- Air conditioning units
- Transport refrigeration
- Commercial refrigeration
- Compressed air driers

- KVC regulations is only dependent upon the outlet pressure. Pressure variations on the inlet side of the regulator do not affect the degree of opening since KVC is equipped with an equalization bellows
- The regulator is also equipped with an effective damping device against pulsations which can normally arise in a refrigeration plant

- Compact angle design for easy installation
- Wide capacity and operating range
- Regulation range: 0.2 – 6 bar / 3 – 87 psig
- Maximum working pressure PS / MWP = 28 bar / 406 psig
- Applicable to R22, R1270, R134a, R290, R404A, R407A, R407C, R407F, R448A, R449A, R450A, R452A, R507A, R513A, R600, R600a
- May be used in the following EX range: Category 3 (Zone 2)
- Medium temperature: -45 – 130 °C / -49 – 266 °F

Technical data and ordering



KVC - Hot gas bypass regulator

Ordering

Type	Rated capacity in [kW] / [TR] ⁴⁾								Connection type	Connection size		Code no.
	R22		R134a		R404A / R507		R407C			[in]	[mm]	
	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[TR]				
KVC 12 ³⁾	7.6	2.14	4.8	1.36	6.9	2.02	8.4	2.31	Flare ²⁾	½	12	034L0141
	7.6	2.14	4.8	1.36	6.9	2.02	8.4	2.31	Solder, ODF ³⁾	½	–	034L0143
	7.6	2.14	4.8	1.36	6.9	2.02	8.4	2.31	Solder, ODF ³⁾	–	12	034L0146
KVC 15 ³⁾	14.9	4.17	9.4	2.65	13.6	3.93	16.4	4.50	Flare ²⁾	¾	16	034L0142
	14.9	4.17	9.4	2.65	13.6	3.93	16.4	4.50	Solder, ODF ³⁾	¾	16	034L0147
KVC 22 ³⁾	19.1	5.35	12.0	3.41	17.4	5.04	21.0	5.78	Solder, ODF ³⁾	¾	22	034L0144

¹⁾ Supplied without flare nuts. Separate flare nuts can be supplied: ½ in / 12 mm - code no. 011L1103, ¾ in / 16 mm - code no. 011L1167.

²⁾ The connection dimensions chosen must not be too small, since gas velocities in excess of 40 m/s at the inlet of the regulator can give flow noise.

³⁾ If the discharge temperature becomes too high in relation to the compressor specification, the installation of an injection valve in a bypass between liquid line and compressor suction line is recommended.

⁴⁾ Rated capacity is the capacity of the regulator at:

– Evaporating temperature $t_e = -10\text{ °C} / 14\text{ °F}$

– Condensing temperature $t_c = 25\text{ °C} / 77\text{ °F}$

Application example

