

**Notes**

**System Data**

System Type	Safety / Overflow Valves				
Line / Component Type	Supply Line: Protection against external heat sources (overflow design)				
Refrigerant	R290		Isentropic Exponent	1.136	
Enthalpy of Vapour	630.2	kJ/kg	Enthalpy of Liquid	397.2	kJ/kg
Density P0	61.76	kg/m <sup>3</sup>	Density Section	61.76	kg/m <sup>3</sup>
Required Mass Flow	4339.0	kg/h	Required Volume Flow	70.3	m <sup>3</sup> /h

Valve Sizing According to:	DIN EN 13136:2020				
Density of Heat Flow Rate	10.00	kW/m <sup>2</sup>	Insulation Thickness	0.000	m

**Pressures**

Set Pressure Pset	22.00	bar (g)	Back Pressure Pb	6.150	bar (a)
Pressure Fully Open Valve	25.21	bar (a)	Pressure Diff. dp	22.01	bar
			Back Pressure P2	1.00	bar (a)

**Component**

**Properties**

Type	Safety Overflow Valve	DN-inlet	DN40
Articlecode	SVUA P FL DN40/40 PN40 22-23,9	DN-outlet	DN40
Articlenr.	45822D12A5A1S000		
Component Characteristics	Angle, Set Pressure [bar (g)]: 22.00 bar (g), Connection Type: Flanged End, Back pressure independent		
Comments	Refrigerant: R290 PSet: 22.00		

**Calculation Results**

m-Valve	6425.6	kg/h
m-Standard	5140.5	kg/h

**Results**

**O.K.**