GEA AWP ValveCalc (8.0.15.9416)

21/05/2024 12:56:17 youssef.abdelghany

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/m³	Density Section	61.76	kg/m³
Required Mass Flow	4339.0	kg/h	Required Volume Flow	70.3	m³/h

Valve Sizing According to:	DIN EN 13136:2020				
Density of Heat Flow Rate	10.00	kW/m²	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

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

Results **O.K.**