



Selection: CO2 Systems

COP/EER Evaporator: 2,20

Input Values

System

Series

Operating mode

Number compressors

Evaporating SST

Evaporator superheat

Suction line superheat

High pressure

Gas cooler outlet

Intermed. pressure

Power frequency 50Hz

Power voltage 400V

MT-Stage

Flashgas

Standard

Transcritical

2

-13,00 °C

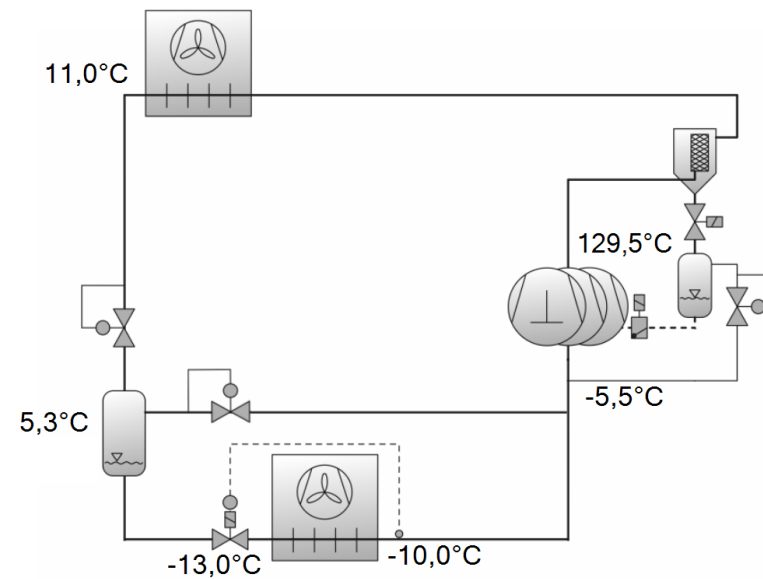
3,00 K

5,00 K

100,0 bar(a)

11,00 °C

40,0 bar(a) / 5,30 °C





Result

Compressor	MT-Stage	4CTE-30K	6DTE-40K
Frequency compressor	--	55,0 Hz	--
Evaporator capacity	163,0 kW	80,1 kW	82,9 kW
Ratio	--	49,2 %	50,8 %
Gas cooler capacity	242 kW	118,8 kW	122,9 kW
Power input	74,0 kW	36,1 kW	38,0 kW
Current	125,2 A	59,3 A	65,9 A
Voltage range	--	380-420V	380-420V
Mass flow	2675 kg/h	1315 kg/h	1360 kg/h
Flashgas mass flow	88,8 kg/h	--	--
Total superheat	7,50 K	7,50 K	7,50 K
Discharge gas temp. w/o cooling	129,5 °C	128,8 °C	130,2 °C
optimal high pressure	75,0 bar(a)	--	--

MT-Stage: Tentative Data.

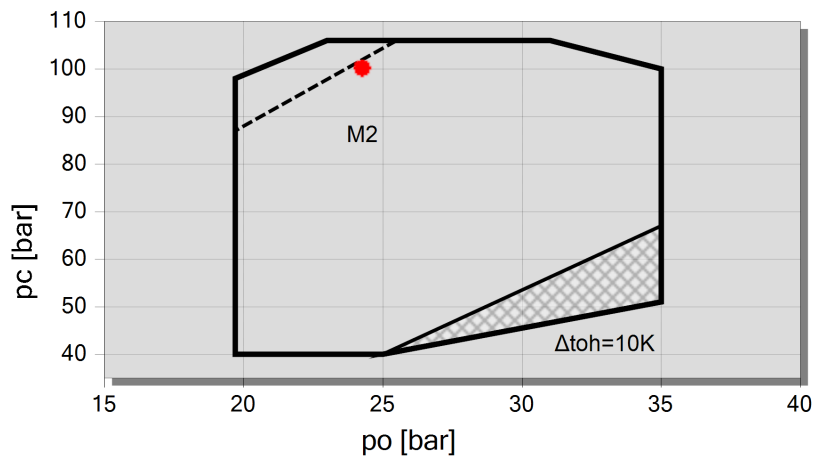
MT-Stage: *Compressor-Performance data certified by ASERCOM (see T.Data/ Notes)

MT-Stage: Power consumption at compressor inlet.

MT-Stage: Total superheat smaller than 10K / 18°F.



Application Limits 4CTE-30K



Legend

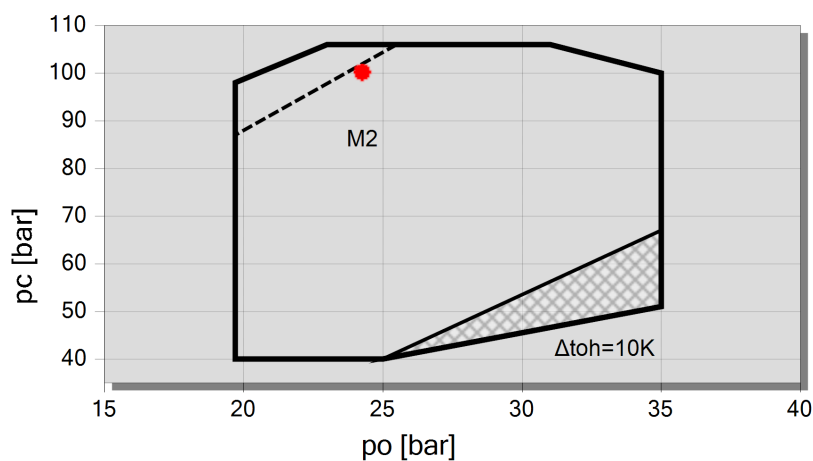
M2: motor 2

--- Operation above designated line
not allowed for following
compressor models: 4PTE, 4PTC

mind operating parameters

• A

Application Limits 6DTE-40K



Legend

M2: motor 2

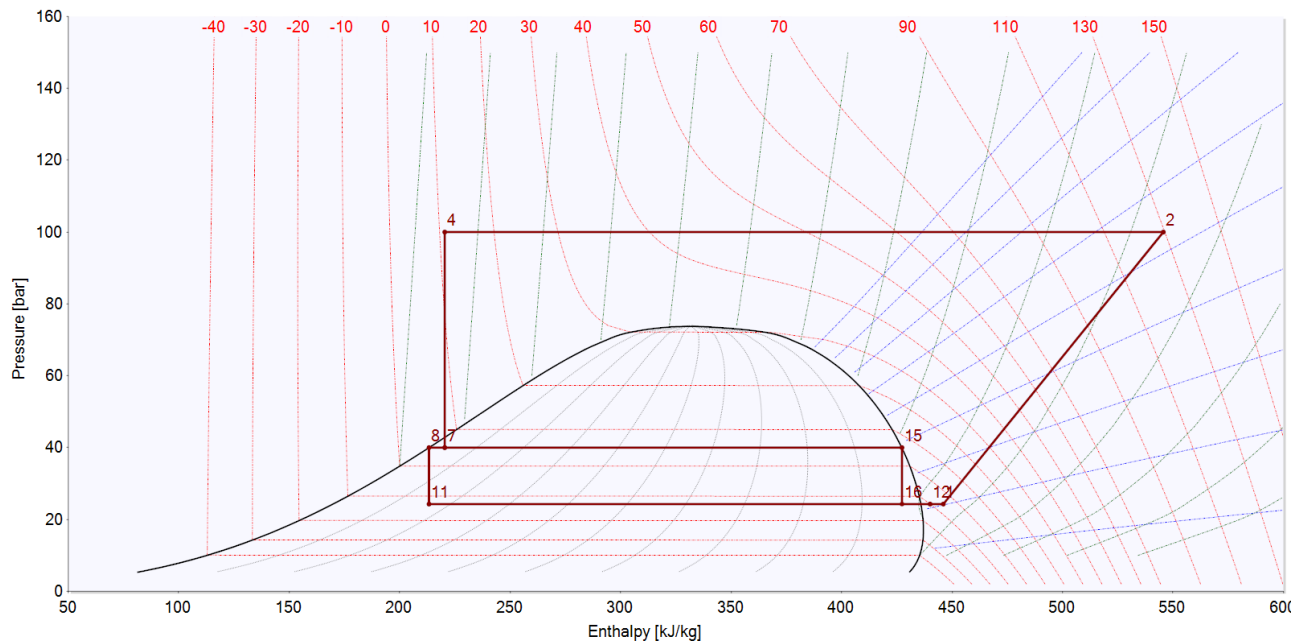
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not allowed for following
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mind operating parameters

• A



p,h Diagram



MT-Stage

- 1 - 2 Compression
- 2 - 4 Gas cooling/Condensation
- 4 - 7 Expansion to intermediate pressure
- 7 - 8 Intermediate receiver: liquid outlet
- 8 - 11 Expansion to evaporation pressure
- 11 - 12 Evaporation
- 12 - 1 Total superheat
- 7 - 15 Intermediate receiver: gas outlet
- 15 - 16 Expansion to evaporation pressure