



Version 5.2.1

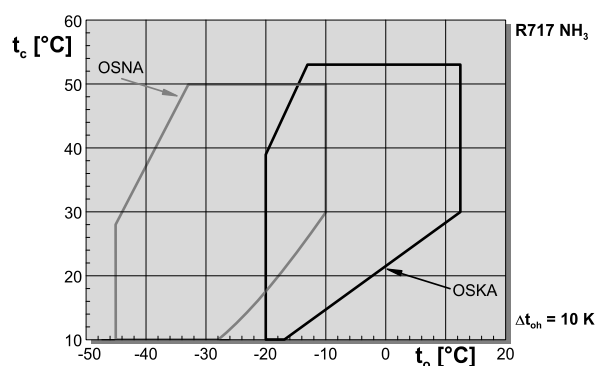
12-8-2016 / All data subject to change.

Performance table: Open Screw Compressors

Compressor model	OSKA7451-K	Suct. gas superheat	5K
Refrigerant	R717 [NH3]	Useful superheat	100%
Reference temperature	Dew point temp.	Speed	2900 /min
Operating mode	Standard	Capacity Control	100%
Liquid subcooling	0K		

tc [°C]	to [°C]	10	5	0	-5	-10	-15	-20
40	Qo[W]	254508	212178	175254	143215	115573	91870	--
	P [kW]	47.6	44.7	42.0	39.5	37.1	34.8	
	COP	5.35	4.75	4.18	3.63	3.12	2.64	
	mLP [kg/h]	836	700	581	478	388	310	
	mHP [kg/h]	836	700	581	478	388	310	
	Qac [kW]	18.76	19.54	20.3	20.9	21.3	21.6	
	tcu [°C]	40.0	40.0	40.0	40.0	40.0	40.0	
	pm [bar]							
	Qsc [kW]							
	30	Qo[W]	272518	227820	188838	155024	125863	100871
P [kW]		40.6	37.6	35.1	32.9	30.9	29.0	27.2
COP		6.72	6.05	5.38	4.71	4.07	3.48	2.93
mLP [kg/h]		858	720	600	495	404	326	259
mHP [kg/h]		858	720	600	495	404	326	259
Qac [kW]		7.16	8.60	10.05	11.43	12.69	13.76	14.57
tcu [°C]		30.0	30.0	30.0	30.0	30.0	30.0	30.0
pm [bar]								
Qsc [kW]								
50		Qo[W]	235842	195921	161073	130809	104668	--
	P [kW]	56.3	53.2	50.1	47.1	44.2		
	COP	4.19	3.69	3.21	2.77	2.37		
	mLP [kg/h]	811	677	559	457	368		
	mHP [kg/h]	811	677	559	457	368		
	Qac [kW]	33.0	32.8	32.5	32.0	31.4		
	tcu [°C]	50.0	50.0	50.0	50.0	50.0		
	pm [bar]							
	Qsc [kW]							

Application Limits (Standard)



Legend

to [°C]	Evaporating SST
tc [°C]	Condensing SDT
Qo[W]	Cooling capacity
P [kW]	Power input
COP	COP/EER
mLP [kg/h]	Mass flow LP
mHP [kg/h]	Mass flow HP
Qac [kW]	Additional cooling
tcu [°C]	Liquid temp.
pm [bar]	ECO pressure
Qsc [kW]	sub cooler capacity (ECO)

-- No calculation possible (see message in single point selection)

*According to EN12900 (5K suction gas superheat, 0K liquid subcooling)