



Version 5.2.1

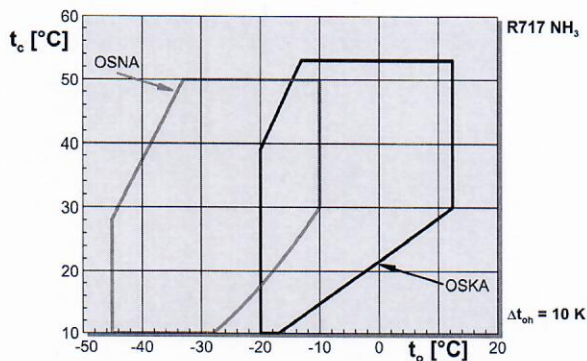
29-6-2020 / All data subject to change.

Performance table: Open Screw Compressors

Compressor model	OSNA7441-K	Suct. gas superheat	5K
Refrigerant	R717 [NH ₃]	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	-15	-20	-25	-30	-35	-40
30	Qo[W]	121076	96971	76530	59339	45012	33193	23552
	P [kW]	35.0	31.3	28.2	25.7	23.5	21.7	20.0
	COP	3.46	3.10	2.71	2.31	1.92	1.53	1.18
	mLP [kg/h]	389	313	249	194.1	148.2	110.1	78.7
	mHP [kg/h]	389	313	249	194.1	148.2	110.1	78.7
	Qac [kW]	17.47	16.65	16.13	15.83	15.68	15.60	15.53
	tcu [°C]	30.0	30.0	30.0	30.0	30.0	30.0	30.0
	pm [bar]							
	Qsc [kW]							
40	Qo[W]	112028	88673	68953	52456	38798	27623	--
	P [kW]	39.4	35.8	32.7	30.0	27.6	25.5	
	COP	2.84	2.48	2.11	1.75	1.40	1.08	
	mLP [kg/h]	376	299	234	179.3	133.6	95.8	
	mHP [kg/h]	376	299	234	179.3	133.6	95.8	
	Qac [kW]	24.2	23.1	22.3	21.7	21.2	20.6	
	tcu [°C]	40.0	40.0	40.0	40.0	40.0	40.0	
	pm [bar]							
	Qsc [kW]							
50	Qo[W]	100221	78154	59631	44247	31622	--	--
	P [kW]	44.9	41.3	38.1	35.2	32.6		
	COP	2.23	1.89	1.57	1.26	0.97		
	mLP [kg/h]	352	276	212	158.6	114.2		
	mHP [kg/h]	352	276	212	158.6	114.2		
	Qac [kW]	32.7	31.2	29.9	28.8	27.7		
	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 STD
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)