Comparing several calculations

Calculations based on: 0,55 bar(g), 0°C, 0% relative humidity and 0 m above sea level (1,01325 bar suction pressure).

The performance quoted at the specific inlet volume flow and head (pressure) is subject to a test tolerance of 0% on flow, 0% on head (pressure) and ±5% on the shaft power consumption measured per ISO5389 energy balance method.

	performance range	8,6%	10%	12,5%	15%	20%	25%	30%	35%	37,5%	40%	45%	50%	55%	60%	65%	70%	74,6%					
	pressure increase [bar(g)]	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550					
	volume flow [Nm³/h] related on 0°C, 0m absl, 0% r.h.	**1710**	**2000**	**2500**	**3000**	**4000**	**5000**	**6000**	**7000**	**7500**	**8000**	**9000**	**10000**	**11000**	**12000**	**13000**	**14000**	**14920**					
2x LP 8000	**pol. efficiency [%]**	68,3%	72%	77,2%	80,2%	82,5%	82,4%	79,8%	81,8%	82,2%	82,5%	82,6%	82,4%	81,6%	79,8%	76,9%	73,2%	66,7%					
	shaft power [kW]	33	36	42	48	62	78	97	110	117	124	140	156	173	194	218	248	293					
	total power [kW]	**37**	**42**	**49**	**55**	**70**	**86**	**105**	**124**	**132**	**139**	**155**	**172**	**190**	**210**	**235**	**266**	**315**					
	outlet temp. [°C]	54	51,1	47,6	45,6	44	44,3	45,9	44,7	44,4	44,3	44,2	44,3	44,8	45,9	47,7	50,4	55,7					
	total power/ normal flow [Wh/ Nm³]	21,89	20,91	19,46	18,40	17,40	17,18	17,53	17,75	17,55	17,40	17,23	17,18	17,23	17,53	18,09	19,00	21,08					
	quantity LP 8000	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2					

	performance range	9%	10%	13%	15%	20%	25%	30%	35%	37,5%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%	100%
	pressure increase [bar(g)]	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550	0,550
	volume flow [Nm³/h] related on 0°C, 0m absl, 0% r.h.	**1710**	**2000**	**2500**	**3000**	**4000**	**5000**	**6000**	**7000**	**7500**	**8000**	**9000**	**10000**	**11000**	**12000**	**13000**	**14000**	**15000**	**16000**	**17000**	**18000**	**19000**	20000
3x LP 8000	**pol. efficiency [%]**	68,3%	72,2%	77,2%	80,2%	82,5%	82,4%	79,8%	81,8%	82,2%	82,5%	82,6%	82,4%	81,6%	82,5%	82,6%	82,6%	82,4%	82,0%	81,1%	79,8%	78,0%	75,8%
	shaft power [kW]	33	36	42	48	62	78	97	110	117	124	140	156	173	187	202	217	234	251	269	290	314	341
	total power [kW]	**37**	**42**	**49**	**55**	**70**	**86**	**105**	**124**	**132**	**139**	**155**	**172**	**190**	**209**	**224**	**241**	**258**	**275**	**294**	**316**	**340**	367
	outlet temp. [°C]	54	51	48	46	44	44	46	45	44	44	44	44	45	44	44	44	44	45	45	46	47	49
	total power/ normal flow [Wh/ Nm³]	21,89	20,91	19,46	18,40	17,40	17,18	17,53	17,75	17,55	17,40	17,23	17,18	17,23	17,40	17,26	17,19	17,18	17,20	17,31	17,53	17,87	18,35
	quantity LP 8000	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
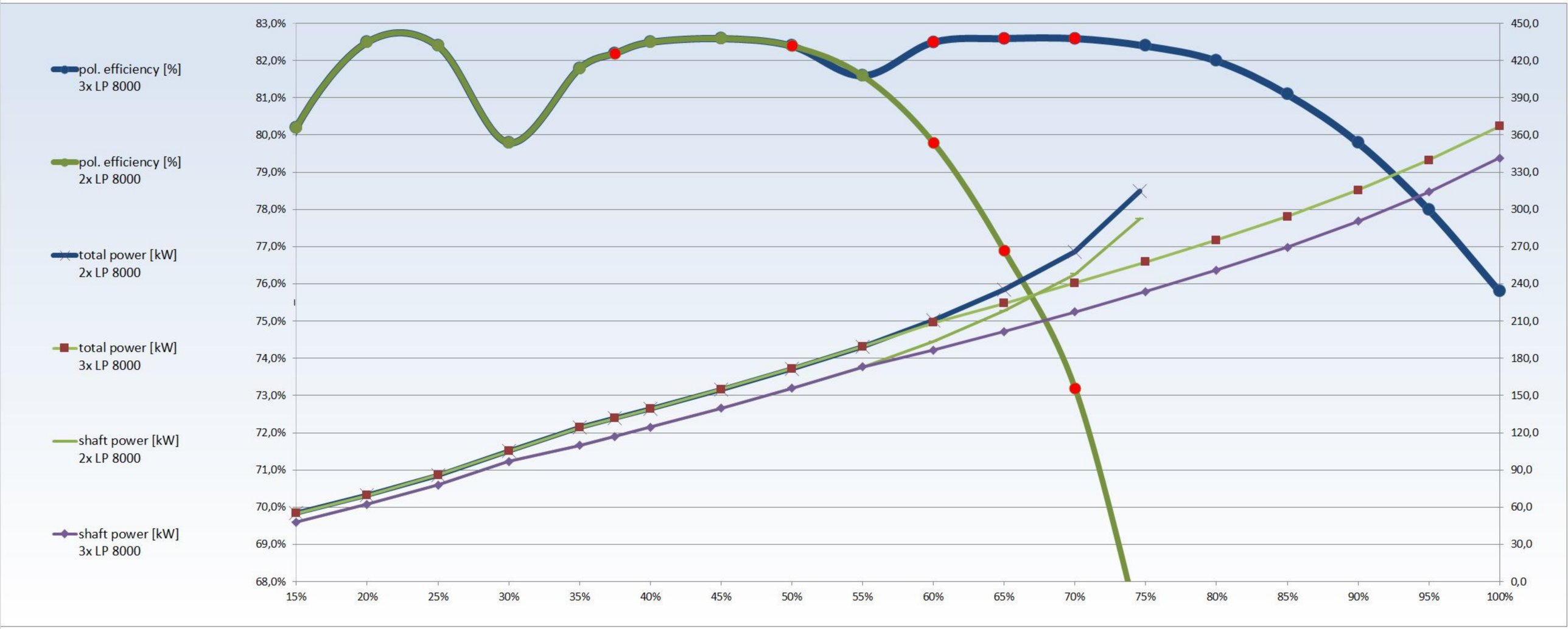
Diagram based on pol efficiency in % incl. Power