

VVER70 EXERGY BALANCE

		Q_{th} (kW)	η_{energy}			
component	Resource	Product	Exergy efficiency	Irreversibilities	% total	
HP_valve	4,670.24	0.00	0.00%	4,670.24	2.97%	
HPturbine	79,086.17	61,874.23	78.24%	17,211.93	10.93%	
LPturbine	54,893.68	40,738.41	74.21%	14,155.27	8.99%	
extraction_pump	256.76	208.17	81.08%	48.59	0.03%	
LP tank vane	31.97	0.00	0.00%	31.97	0.02%	
feedwater_pump	1,175.47	963.28	81.95%	212.19	0.13%	
HP2turbine	56,346.73	42,868.36	76.08%	13,478.37	8.56%	
IPturbine	27,279.56	26,828.43	98.35%	451.13	0.29%	
LP2 pump	1.85	1.50	81.17%	0.35	0.00%	
LP1turbine	53,499.36	41,162.68	76.94%	12,336.67	7.84%	
HP_heater	2,253.61	747.30	0.00%	1,506.31	0.96% extraction1-HP_heater	
LP_heater	1,399.32	409.47	0.00%	989.85	0.63% extraction2-LP heater	
condenser	30,222.40	0.00	0.00%	30,222.40	19.20% Tk = 15,00 °C	
generator	248,290.87	229,960.50	92.62%	18,330.37	11.64% Tk = 283,00 °C	
economizer	122,208.83	78,438.15	64.18%	43,770.68	27.81% Tk = 283,00 °C	
global	370,499.70	213,083.38	57.51%	157,416.32	100.00%	
$T_0 = 288,15\text{ K}$		768,856.01	27.71%			