

RBMK1000 EXERGY BALANCE

	Q_th (kW)	η_energy			
component	Resource	Product	Exergy efficiency	Irreversibilities	% total
HP vane	1,053.48	0.00	0.00%	1,053.48	0.19%
Reheater 2 vane	872.81	0.00	0.00%	872.81	0.16%
HP1 turbine	247,479.27	190,089.92	76.81%	57,389.35	10.34%
Extraction pump	3,040.66	2,750.68	90.46%	289.98	0.05%
Feedwater heater	176,720.70	176,710.47	99.99%	10.22	0.00%
Feedwater pump	10,721.70	9,298.25	86.72%	1,423.45	0.26%
SG inlet vane	217.41	0.00	0.00%	217.41	0.04%
LP1 turbine	162,839.98	149,585.20	91.86%	13,254.78	2.39%
LP2 turbine	138,970.07	124,728.92	89.75%	14,241.15	2.56%
LP3 turbine	138,525.65	121,958.54	88.04%	16,567.11	2.98%
Condenser inlet	96,720.93	96,464.08	99.73%	256.85	0.05%
HP3 turbine	118,964.34	94,234.08	79.21%	24,730.26	4.45%
HP4 turbine	103,138.35	74,284.74	72.02%	28,853.61	5.20%
LP vane	6,113.93	0.00	0.00%	6,113.93	1.10%
HP2 turbine	118,614.66	94,112.65	79.34%	24,502.01	4.41%
LP4 turbine	234,827.24	202,360.92	86.17%	32,466.32	5.85%
seal_evap_mixer	1,392.19	1,388.51	99.74%	3.69	0.00%
FWH_LP1	14,071.53	8,553.41	60.79%	5,518.13	0.99%
FWH_LP2	19,483.22	13,734.76	70.50%	5,748.46	1.04%
FWH_LP3	41,733.71	33,086.74	79.28%	8,646.97	1.56%
FWH_LP4	34,824.63	29,683.16	85.24%	5,141.46	0.93%
FWH_LP5	61,138.58	53,170.74	86.97%	7,967.84	1.43%
FWH_MP1	33,996.68	27,758.67	81.65%	6,238.01	1.12%
cond mix	28,904.61	28,731.93	99.40%	172.69	0.03%
Reheater 1	45,866.20	24,468.72	0.00%	21,397.48	3.85% Reheat 1-Reheater 1
Reheater 2	81,897.07	71,403.91	0.00%	10,493.16	1.89% Reheat 2-Reheater 2
Condenser	94,629.40	0.00	0.00%	94,629.40	17.04% Tk = 15,00 °C
Steam Generator	1,596,666.24	1,429,583.76	89.54%	167,082.48	30.09% Tk = 324,00 °C
global	1,596,666.24	1,041,383.76	65.22%	555,282.48	100.00%
T0 = 288,15 K	3,085,596.26	33.75%			