

Doc.: 09A05182_e **Combined Heat & Power (CHP) - Standard Sizes and typical performances**

Combined Heat & Power (CHP) - Standard Sizes and typical performances								
		TURBODEN 4 CHP	TURBODEN 6 CHP	TURBODEN 7 CHP	TURBODEN 10 CHP	TURBODEN 14 CHP	TURBODEN 18 CHP	TURBODEN 22 CHP
INPUT - Thermal oil								
Nominal temperature (in)	°C	300	300	300	300	300	300	300
Nominal temperature (out)	°C	240	240	240	240	240	240	240
Thermal power input	kW	2300	3240	3815	5140	6715	9790	12020
OUTPUT - Hot water								
Hot water temperature (in/out)	°C	60/80	60/80	60/80	60/80	60/80	60/90	60/90
Thermal power to the cooling water circuit	kW	1854	2565	3038	4081	5313	7834	9601
PERFORMANCES								
Gross active electric power	kW	427	641	737	1016	1339	1863	2304
Gross electric efficiency		0,186	0,198	0,193	0,198	0,199	0,190	0,192
Captive power consumption	kW	21	30	35	48	58	79	97
Net active electric power	kW	406	611	702	968	1281	1784	2207
Net electric efficiency		0,177	0,189	0,184	0,188	0,191	0,182	0,184
Electrical generator		<i>asynchronous triphase, L.V. 400V</i>	<i>asynchronous triphase, L.V. 400V</i>	<i>asynchronous triphase, L.V. 400V</i>	<i>asynchronous triphase, L.V. 400V</i>	<i>asynchronous triphase, L.V. 400V</i>	<i>asynchronous triphase, L.V. 660V</i>	<i>asynchronous triphase, L.V. 660V</i>
Plant size		Single Skid	Single Skid	Single Skid	Multiple Skid	Multiple Skid	Multiple Skid	Multiple Skid
Biomass consumption*	Kg/h	1106	1558	1834	2471	3228	4707	5779
*Assuming a low heat value of biomass = 2,6 kWh/kg and boiler efficiency = 0,80. The thermal oil boiler is not included in the Turboden scope of supply.								