

## GENERAL DESCRIPTION

**Type: Coal-fired Power Plant**

**Location: Western Europe**



This thermal power plant with a hard-coal-fired boiler and steam turbine is designed for power generation at approx. 65 MW<sub>e</sub> gross capacity and for optional heat generation of 20 MW<sub>th</sub> thermal output.

Backdating from the 1960ies, the unit has constantly been modified and renewed to significantly extend its operating life span and to meet state of the art efficiency and environmental protection targets. For example, the unit is fully equipped with modern flue gas cleaning systems.

Depending on market conditions, this power plant can be operated as base load or medium load power producer.

This power plant is on offer as a complete unit, well preserved, in god condition and ready for dismantling.

## Offering

<b>item / type</b>	50 Hz hard-coal-fired power plant (heat extraction from boiler possible)
<b>typical usage</b>	base load to medium load production
<b>special features</b>	optional heat extraction
<b>status</b>	mothballed since 2009 (currently in long-term preservation)
<b>availability for dismantling</b>	any time, after a sales deal has been concluded
<b>sales prices</b>	negotiable, quotes welcomed
<b>new build cost</b> (for comparison)	Euro 110 Mio. (approx., for the entire unit)
<b>new build time</b> (for comparison)	3 years (approx.)

## Key Figures

<b>main fuel type</b>	main supply: hard coal with net calorific value > 25,500 kJ/kg support supply: heavy fuel oil, natural gas
<b>electrical output</b>	65 MW <sub>e</sub> gross capacity (approx.)
<b>thermal output</b>	20 MW <sub>th</sub> optional gross capacity (approx.)
<b>efficiency</b>	(information will be provided on request)
<b>flue gas filter technology</b>	- fly ash filter ( < 30 mg/m <sup>3</sup> dust ) - desulphurisation ( < 200 mg/m <sup>3</sup> SO <sub>2</sub> ) exhaust gas volume 310,000 m <sup>3</sup> /h (at full capacity)
<b>plant size</b>	75,000 m <sup>2</sup> (approx.)
<b>year of commissioning / year of last retrofit</b>	1962-63 (with lignite coal firing) / 1997 (retrofit and converted to hard-coal firing) apprx.63,000 operating hours since retrofit in 1997
<b>major upgrades / events</b>	1985: desulphurisation added 1985: dedusting added 1993: denitrification added 1997: new coal handling and firing system 2003: new control system 2009: mothballed due to unfavourable market conditions

## Operating Figures

<b>max. generation capacity</b>	65 MW <sub>e</sub> (approx., at full load)
<b>min. generation capacity</b>	(information will be provided on request)
<b>cold start time:</b>	information will be provided on request)
<b>fuel quality</b>	hard coal; min. 25.5 MJ/kg calorific value (also possible: light fuel oil and heavy fuel oil)
<b>fuel consumption at full load</b>	(information will be provided on request)

**fuel consumption at min. load** (information will be provided on request)

**fuel storage capacity** (not included)

**type of cooling** (not included)

**amount of cooling water** (information will be provided on request)

### Technical Figures of Main Components

This power generation unit for sale comprises entire fuel supply systems for hard coal, heavy fuel oil and natural gas, a boiler, a 65 MW steam turbine, a 75 MVA generator, selected components of the water / steam cycle, a three-stage flue gas cleaning system and several items of the electrical and control systems:

<b>coal yard equipment</b>	complete coal handling system incl. wagon unloading (coal discharge pit), conveyor belts incl. pipe bridges, sampling statistics and crushing system
<b>coal mills and fans</b>	3x 9.5 t/h capacity (1997) 3x coal mill fans (1997)
<b>boiler</b>	two-pass, natural circulation radiation boiler; brick construction 8x coal pilot burners; 8x oil burners, 8x gas burners high pressure output 240 t/h steam, 530°C, 90 bar wet de-slagging system 2x air preheaters of type Ljungström
<b>steam turbine</b>	horizontally split, two-casing condensing turbine with dual-flow low-pressure section capacity approx. 65 MW (at full load w/o heat extraction) capacity approx. 56 MW (at full load with heat extraction) rated speed 3,000 rpm steam inlet pressure 89 bar at 530 °C total operating hours 230,000 (approx.) lubrication system, lubrication oil tank (16,000 l) and condenser
<b>air and flue gas fans</b>	air inlet fan system (1997), flow rate 171,000 m <sup>3</sup> /h cold air fan (1997), flow rate 60,000 m <sup>3</sup> /h flue gas draft fan system (1993), flow rate 390,000 m <sup>3</sup> /s

<b>generator</b>	2-pole three-phase synchronous generator with hydrogen cooling and static excitation 75 MVA; nominal voltage: 10.6 kV; nominal current: 4.1 kA H <sub>2</sub> cooling exciter and exciter transformer
<b>water / steam cycle</b>	2x feed water pumps, each 276 t/h, 138 bar, 1.5 MW (approx.)
<b>flue gas cleaning</b>	DeNO <sub>x</sub> : 1x selective non-catalytic reduction DeDust: 2x electro filters incl. entire related electric system DeSO <sub>2</sub> : 1x lime based wet scrubbing with downstream bag filter
<b>main transformer</b>	step-up transformer capacity 75 MVA nominal voltages 10.6 / 110 kV nominal currents 4,085 / 370 A
<b>supplementary transformers</b>	3x step-down auxiliary power transformers: 1x 8 MVA; 10,6 / 5 kV 2x 1 MVA; 5 / 0,4 kV
<b>Self-supply system</b>	5 kV auxiliary power system (power generation unit) 0.4 kV auxiliary power system (power generation unit) 0.4 kV auxiliary power system (flue gas cleaning)
<b>control and communication system</b>	Siemens TELEPERM upgrade to Siemens Simatec S7 possible

### Additional Information

<b>spare parts</b>	included (as on stock)
<b>documentation</b>	all equipment documentation and operating instructions
<b>marketing fee</b>	will be borne by the seller
<b>dismantling of unit</b>	shall be borne by buyer

---

### Disclaimer:

Although the statements and technical information contained herein are believed to be materially accurate, no representation or warranty is given as to the accuracy of any of the information provided.

### Contact:

troveo – we trade power plants and components  
e-mail [request@troveo.de](mailto:request@troveo.de)  
phone +49 201 75 998 521  
fax +49 201 75 998 529