

# TEDOM CHP System Datasheet



## Key features of Kinsley TEDOM Combined Heat and Power Systems

**Complete, integrated CHP systems** - engineered, built and tested in a high-quality factory environment

**Full range of power ratings** - from 35 kW to 4.0 MW in a single engine

**Customizable, engineered solutions** to meet the specific needs of each application, including:

- fuel - natural gas, biogas, propane
- heat recovery - hot water, steam, chilled water
- emissions control - rich-burn, low NOx lean-burn, SCR
- packaging - indoor open module, indoor sound enclosure, outdoor container

**Comprehensive long-term service** by Kinsley, including 24/7 remote monitoring and U.S. parts management



TEDOM Model	Micro T35 AP
Fuel Input	Natural Gas

System Performance	% rated load	100%	Notes
Electrical Output	<i>kW</i>	35	
Electrical Efficiency	<i>%, LHV</i>	32.0%	
Fuel Consumption	<i>BTU/hr, HHV</i>	414,750	
Max Hot Water Output	<i>BTU/hr</i>	238,000	Jacket Water + Exhaust Heat
Thermal Efficiency	<i>%, LHV</i>	63.8%	
Overall Efficiency	<i>%, LHV</i>	95.8%	
Heat Rate	<i>BTU/kWh, LHV</i>	10,665	

Heat Recovery	% rated load	100%	Notes
<b>Hot Water</b>			
Maximum Supply Temperature	<i>°F</i>	194	Option for 210 F
Maximum Return Temperature	<i>°F</i>	158	158 F is maximum for full heat recovery
Nominal Flow Rate (water)	<i>GPM</i>	13.2	
<b>Chilled Water (with single-effect absorber)</b>			
Chilled Water Output	<i>RTons</i>	14	COP=0.70 using max hot water output

Engine Specifications			Notes
Manufacturer / Model #		TEDOM TGE 3800	
Cylinder arrangement, quantity		inline 4	
Speed	<i>RPM</i>	1800	
Oil consumption, ave/max	<i>grams/kWh</i>	0.3 / 0.6	
Oil volume, engine	<i>gallons</i>	7.9	
Oil volume, replenishment tank	<i>gallons</i>	5.3	
Major overhaul interval	<i>operating hours</i>	48,000	

Generator Specifications			Notes
Manufacturer / Model #		Zanardi AS 225/4 200	Induction
Voltage / Frequency	<i>VAC</i>	208 / 480	
Speed / Frequency	<i>RPM / Hz</i>	1800 / 60	
Power Factor		0.82	

Fuel			Notes
Fuel type		Natural Gas	
Lower heating value (minimum)	<i>BTU/SCF</i>	912	
Methane Number (minimum)		80	
Gas Pressure	<i>psi</i>	0.7 - 1.4	
Gas Temperature (maximum)	<i>°F</i>	95	

Combustion & Ventilation Air			Notes
Combustion Air Flow Rate	<i>CFM</i>	62.3	
Exhaust Back Pressure Allowed	<i>psi</i>	0.15	after exhaust heat exchanger and silencer
Ventilation Inlet Air Temp, min/max	<i>°F</i>	32 / 95	Indoor OM and SE installations.
Outdoor Air Temp, min/max	<i>°F</i>	-4 / 95	Outdoor C installations.

Emissions (@ 15% O <sub>2</sub> in exhaust)		Standard	Reduced	With SCR	Notes
NO <sub>x</sub>	<i>g/bHP-h</i>	1.00	0.05	n/a	rich-burn engine with 3-way catalyst
CO	<i>g/bHP-h</i>	2.00	0.05	n/a	

Dimensions & Noise		Open Module (OM)	Sound Enclosure (SE)	Outdoor Container (C)	Notes
Length	<i>ft, in</i>	not available	6' 5"	7' 1"	See drawings for more details.
Width	<i>ft, in</i>		5' 5"	4' 11"	
Height	<i>ft, in</i>		6' 1"	5' 1"	
Transport weight	<i>lbs</i>		2,426	20,472	
Noise Emissions	<i>dba</i>		62 @ 3 ft	62 @ 3 ft	

System performance subject to change without notice.

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