

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 T55
Fuel Input	Natural Gas

System Performance	% rated load	100%	Notes
Electrical Output	<i>kW</i>	55	
Electrical Efficiency	<i>%, LHV</i>	34.1%	
Fuel Consumption	<i>BTU/hr, HHV</i>	611,613	
Max Hot Water Output	<i>BTU/hr</i>	339,000	Jacket Water + Exhaust Heat
Thermal Efficiency	<i>%, LHV</i>	61.6%	
Overall Efficiency	<i>%, LHV</i>	95.7%	
Heat Rate	<i>BTU/kWh, LHV</i>	10,008	

Heat Recovery	% rated load	100%	Notes
Hot Water			
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>	18.8	
Chilled Water (with single-effect absorber)			
Chilled Water Output	<i>RTons</i>	20	COP=0.70 using max hot water output

Engine Specifications			Notes
Manufacturer / Model #		MAN E0834 E302	
Cylinder arrangement, quantity		inline 4	
Speed	RPM	1800	
Oil consumption, ave/max	grams/kWh		
Oil volume, engine	gallons	13.2	
Oil volume, replenishment tank	gallons	15.9	
Major overhaul interval	operating hours	40,000	

Generator Specifications			Notes
Manufacturer / Model #		ATEW 34/4 1L	Synchronous
Voltage / Frequency	VAC	208 / 480	
Speed / Frequency	RPM / Hz	1800 / 60	
Rated Power	kVA	70	
Rated Current	A	83	
Power Factor		0.8 - 1.0	

Fuel			Notes
Fuel type		Natural Gas	
Lower heating value (minimum)	BTU/SCF	912	
Methane Number (minimum)		80	
Gas Pressure	psi	0.30- 1.45	
Gas Temperature (maximum)	°F	95	

Combustion & Ventilation Air			Notes
Combustion Air Flow Rate	CFM	91.0	
Exhaust Back Pressure Allowed	psi	0.15	after exhaust heat exchanger and silencer
Ventilation Inlet Air Temp, min/max	°F	32 / 95	Indoor OM and SE installations.
Outdoor Air Temp, min/max	°F	-4 / 95	Outdoor C installations.

Emissions (@ 15% O ₂ in exhaust)		Standard	Reduced	With SCR	Notes
NOx	g/bHP-h	1.00	0.05	n/a	rich-burn engine with 3-way catalyst
CO	g/bHP-h	2.00	0.05	n/a	

Dimensions & Noise		Open Module (OM)	Sound Enclosure (SE)	Outdoor Container (C)	Notes
Length	ft, in	not available	8' 7"	not available	See drawings for more details.
Width	ft, in		6' 2"		
Height	ft, in		5' 8"		
Transport weight	lbs		4,079		
Noise Emissions	dBA		65 @ 3 ft		

System performance subject to change without notice.

3/19/2020