

# MEG 1030 NS Technical Data

Engine Information		
Siemens Engine ID		IC-G-B-56-172
Model Number		SGE-56SL
RPM		1800
Fuel Type		Natural gas
Aspiration & NO <sub>x</sub>	g/bhp-hr	Lean, 1.0
Supply Fuel Pressure	psi	3-5

Generator Information		
Newage Model		PI734A
105°C rise NEMA-F rating	kwe	1,132
KVA		1,028
Voltage		480
Frequency	Hz	60
Power Factor		1.0

Engine Performance		Unit	100%	75%	50%
Electrical Power		kWe	1,028	769	508
Mechanical Power		bHP	1,431	1,073	716
Exhaust Flow		lb/h	12,590	9,670	6,790
Exhaust Temp		°F	819	843	873
Heat to Radiation	(Ambient)	BTU/h	129,660	109,200	88,740
Fuel Consumption	(LHV)	BTU/h	9,599,148	7,381,814	5,161,617
Fuel Consumption	(LHV)	BTU/bHP-hr	6,708	6,878	7,214
Fuel Consumption	(LHV)	BTU/kWh	9,335	9,603	10,156

Energy Balance			100%	75%	50%
Total Primary Heat Recovered		BTU/h	5,026,107	4,014,534	3,039,781
Total Secondary Heat Recovered		BTU/h	0	0	0
Total Steam Recovered		BTU/h	0	0	0
Total Heat Recovered		BTU/h	5,026,107	4,014,534	3,039,781
Electrical Efficiency	(LHV)	%	36.55%	35.53%	33.60%
Thermal Efficiency	(LHV)	%	52.36%	54.38%	58.89%
Total Efficiency	(LHV)	%	88.91%	89.92%	92.49%

Primary Circuit		Water		100%	75%	50%
Process Water Flow		GPM		516	412	312
Process Water Temp Inlet		°F		170	170	170
Process Water Temp Outlet		°F		190	190	190

Secondary Circuit		None		100%	75%	50%
Secondary Water Flow		GPM		0	0	0
Secondary Water Temp Inlet		°F		0	0	0
Secondary Water Temp Outlet		°F		0	0	0

Steam Production			100%	75%	50%
Steam Produced		lb/h	N/A	N/A	N/A

Engine HT Circuit		50% Ethylene glycol		100%	75%	50%
Jacket Water Heat		BTU/h		2,719,200	2,111,400	1,569,600
Exhaust Heat	cooled to 248 °F	BTU/h		1,941,807	1,555,929	1,149,451
Oil Cooler Heat		BTU/h		365,100	347,205	320,730
HT Radiator Rejection		BTU/h		0	0	0
Jacket Water Temp Inlet		°F		176	180	183
Jacket Water Temp Outlet		°F		194	194	194
Jacket Water Flowrate		GPM		400	400	400

Engine LT Circuit		50% Ethylene glycol		100%	75%	50%
Intercooler Heat		BTU/h		174,000	127,110	88,710
LT Radiator Rejection		BTU/h		-174,000	-127,110	-88,710
Intercooler Water Temp Inlet		°F		128	129	129
Intercooler Water Temp Outlet		°F		131	131	131
Intercooler Water Flowrate		GPM		120	120	120

Radiator Specifications	% Oversize	Capacity BTU/h	Ambient	Altitude	Voltage
HT Radiator	10	3,392,730	105 °F	1,000 ft	480
LT Radiator	25	217,500			

### Notes

Energy balance data is stated at ISO 3046-1 conditions

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