

MEG 80 NM Technical Data

Engine Information		
MAN Engine ID		E 0836 E 302
Model Number		E 0836 E 302
RPM		1800
Fuel Type		Natural Gas
Aspiration & NO _x	<i>g/bhp-hr</i>	Rich, 17.4
Supply Fuel Pressure	<i>psi</i>	3-5

Generator Model Information	
Newage	UCI274C
KVA	80
Voltage	480
Frequency	<i>Hz</i> 60
Power Factor	1.0
Base rating: 90 KW @ (Amb. 40°C 105°C Rise Class H 0.8PF)	

Engine Performance	Unit	100%	75%	50%
Electrical Power	kWe	80	60	41
Mechanical Power	bHP	114	86	58
Exhaust Flow	lb/h	676	546	415
Exhaust Temp	°F	1,202	1,148	1,094
Heat to Radiation	<i>(Ambient)</i> BTU/h	54,600	54,600	54,600
Fuel Consumption	<i>(LHV)</i> BTU/h	798,420	641,460	487,920
Fuel Consumption	<i>(LHV)</i> BTU/bHP-hr	7,004	7,459	8,412
Fuel Consumption	<i>(LHV)</i> BTU/kWh	9,986	10,613	12,015

Energy Balance				
Total Primary Heat Recovered	BTU/h	425,282	342,853	264,583
Total Secondary Heat Recovered	BTU/h	0	0	0
Total Steam Recovered	BTU/h	0	0	0
Total Heat Recovered	BTU/h	425,282	342,853	264,583
Electrical Efficiency	<i>(LHV)</i> %	34.17%	32.15%	28.40%
Thermal Efficiency	<i>(LHV)</i> %	53.27%	53.45%	54.23%
Total Efficiency	<i>(LHV)</i> %	87.43%	85.60%	82.63%

Primary Circuit <i>Water</i>				
Process Water Flow	GPM	44	35	28
Process Water Temp Inlet	°F	170	170	170
Process Water Temp Outlet	°F	190	190	190

Secondary Circuit <i>None</i>				
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				
Steam Produced	lb/h	N/A	N/A	N/A

Engine HT Circuit <i>50% Ethylene glycol</i>				
Jacket Water Heat	BTU/h	238,860	201,300	163,800
Exhaust Heat	<i>cooled to 248 °F</i> BTU/h	186,422	141,553	100,783
HT Radiator Rejection	BTU/h	0	0	0
Jacket Water Temp Inlet	°F	179	181	183
Jacket Water Temp Outlet	°F	190	190	190
Jacket Water Flowrate	GPM	50	50	50

Engine LT Circuit <i>50% Ethylene glycol</i>				
Intercooler Heat	BTU/h	0	0	0
LT Radiator Rejection	BTU/h	0	0	0
Intercooler Water Temp Inlet	°F	0	0	0
Intercooler Water Temp Outlet	°F	0	0	0
Intercooler Water Flowrate	GPM	0	0	0

Radiator Specifications	% Oversize	Capacity BTU/h	Ambient	Altitude	Voltage
HT Radiator	10	262,746	105 °F	1,000 ft	480
LT Radiator	25	0			

Notes

Energy balance data is stated at ISO 3046-1 conditions

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Issue Date
10/21/2018