

MEG 50NM Technical Data

Engine Information		
MAN Engine ID		E 0834 E 312
Model Number		E 0834 E 312
RPM		1800
Fuel Type		Natural Gas
Aspiration & NO _x	<i>g/bhp-hr</i>	Rich, 12.4
Supply Fuel Pressure	<i>psi</i>	3-5

Generator Model Information	
Newage	UCI224E
KVA	49
Voltage	480
Frequency	<i>Hz</i> 60
Power Factor	1.0
Base rating: 54 KW @ (Amb. 40°C 105°C Rise Class H 0.8PF)	

Engine Performance	Unit	100%	75%	50%
Electrical Power	kWe	49	37	24
Mechanical Power	bHP	71	53	36
Exhaust Flow	lb/h	443	348	276
Exhaust Temp	°F	1,040	993	937
Heat to Radiation	<i>(Ambient)</i> BTU/h	23,880	23,880	20,460
Fuel Consumption	<i>(LHV)</i> BTU/h	518,640	393,695	316,305
Fuel Consumption	<i>(LHV)</i> BTU/bHP-hr	7,305	7,393	8,910
Fuel Consumption	<i>(LHV)</i> BTU/kWh	10,543	10,653	12,913

Energy Balance				
Total Primary Heat Recovered	BTU/h	250,486	192,510	151,612
Total Secondary Heat Recovered	BTU/h	0	0	0
Total Steam Recovered	BTU/h	0	0	0
Total Heat Recovered	BTU/h	250,486	192,510	151,612
Electrical Efficiency	<i>(LHV)</i> %	32.37%	32.03%	26.42%
Thermal Efficiency	<i>(LHV)</i> %	48.30%	48.90%	47.93%
Total Efficiency	<i>(LHV)</i> %	80.66%	80.93%	74.36%

Primary Circuit <i>Water</i>				
Process Water Flow	GPM	26	20	17
Process Water Temp Inlet	°F	170	170	170
Process Water Temp Outlet	°F	190	190	189

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	150,120	118,548	97,566
Exhaust Heat	<i>cooled to 248 °F</i> BTU/h	100,366	73,962	54,046
HT Radiator Rejection	BTU/h	0	0	0
Jacket Water Temp Inlet	°F	179	182	183
Jacket Water Temp Outlet	°F	190	190	190
Jacket Water Flowrate	GPM	32	32	32

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	165,132	105 °F	1,000 ft	480
LT Radiator	25	0			

Notes
Energy balance data is stated at ISO 3046-1 conditions

MEGpro v4.1.2.5
Issue Date
10/30/2018