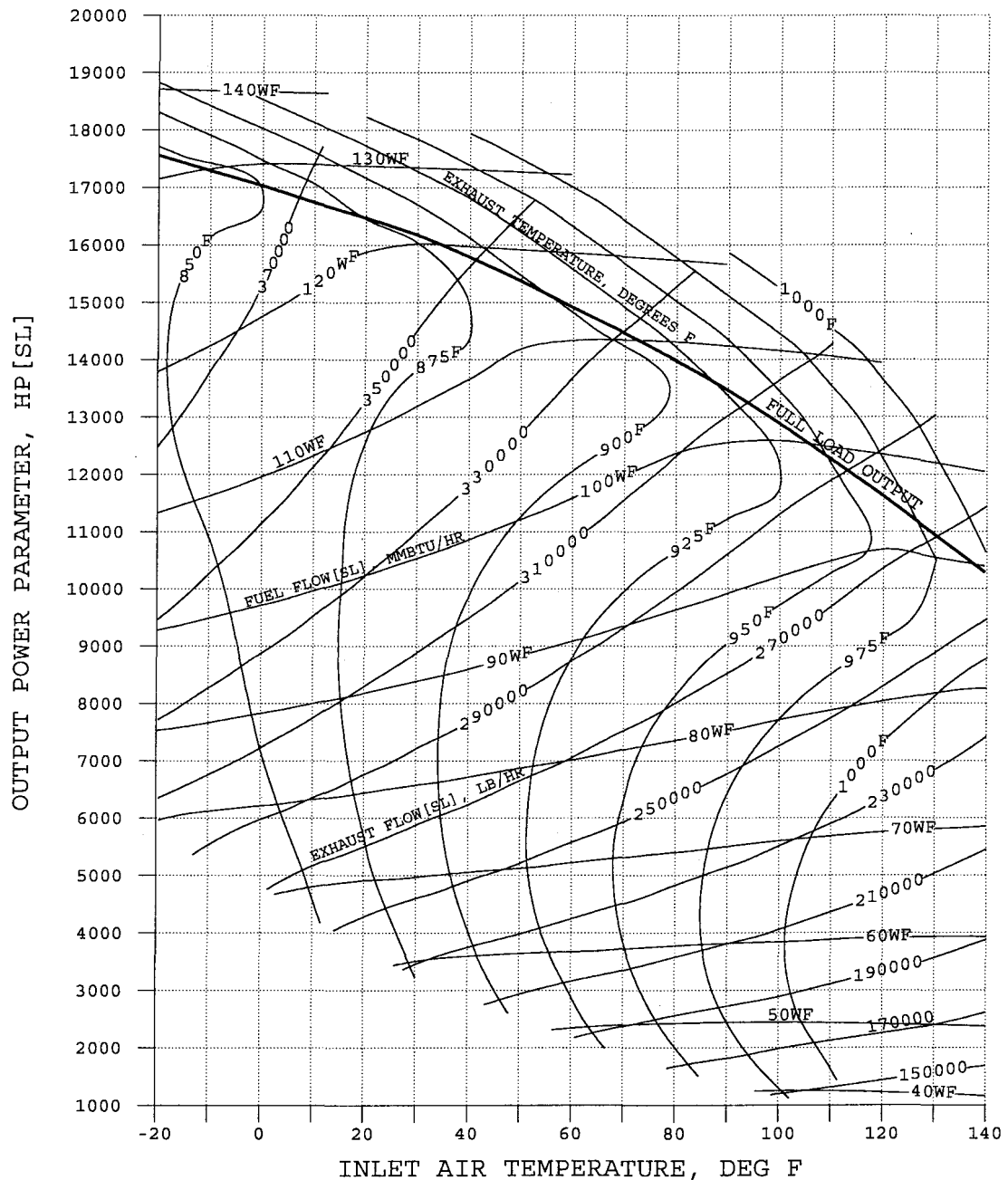


MARS 100S-15000 TMF-2S REV. 3.0
 CS/MD GAS TURBINE
 122F MATCH
 REF: SD-24837[S] SHT. 1
 [DATE: 1-APR-1998]

.NOMINAL PERFORMANCE
 .ELEVATION SEA LEVEL
 .RELATIVE HUMIDITY 60 PERCENT
 .ZERO INLET DUCT PRESSURE LOSS
 .ZERO EXHAUST DUCT PRESSURE LOSS
 .NO GAS PRODUCER POWER EXTRACTION
 .NO WATER INJECTION
 .NO OUTPUT GEARBOX
 .MAXIMUM POWER TURBINE SPEED
 .[LHV: 20610 BTU/LB]

NATURAL GAS FUEL



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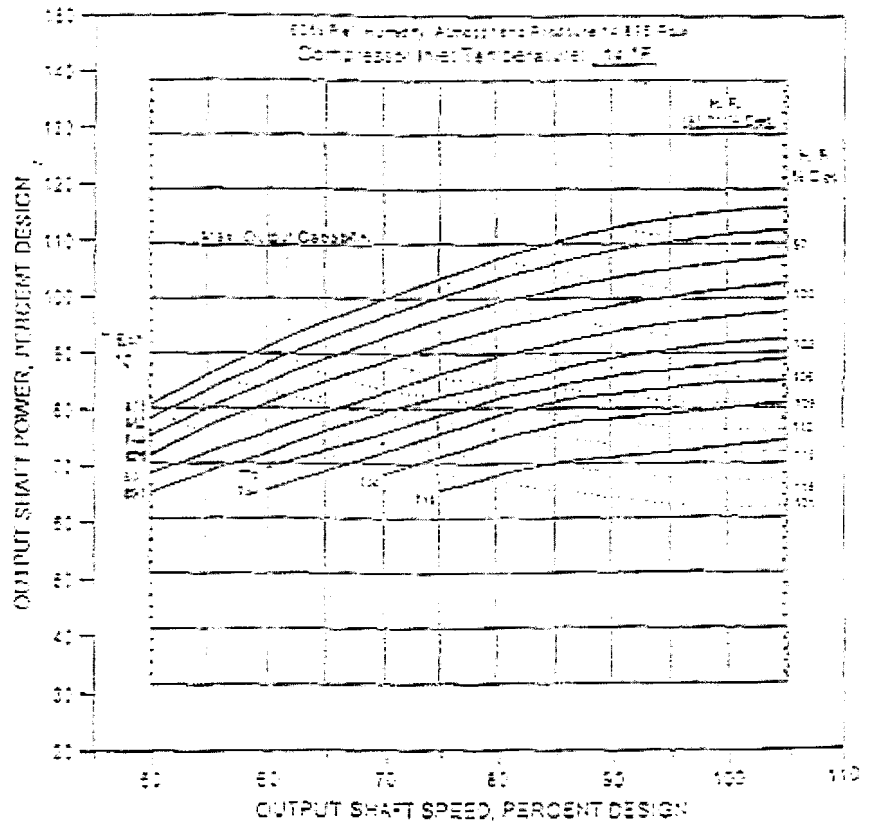
GE 10/2 Performance Maps
Mechanical Drive Applications

GAS TURBINE MODEL GE10/2 DLE
Estimated Performance Mechanical Drive Applications

Parameter	Value	Units
Fuel Type	Hydrocarbon	
Design Output	10,000	HP
Design Heat Rate (DHR)	87.0	Btu/Wh
Design Exhaust Temp	920	°F
Design Exhaust Pres	15.0	psia
Design Shaft Inlet Speed	3,600	RPM
Design Fuel	See Table 1	

- NOTES: 1. All data shown on diagram is estimated. 2. Performance measured at the Power Turbine inlet conditions. 3. Performance includes all losses and is based on the design conditions. 4. Performance includes all losses and is based on the design conditions.

Parameter	Value	Units
100 mm H ₂ O Inlet	0.001	kg/s
100 mm H ₂ O Exhaust	0.001	kg/s
Exhaust Temp	920	°F
Exhaust Pres	15.0	psia



- 3 REVISIONE - REVISION
- 2 REVISIONE - REVISION
- 1 REVISIONE - REVISION

REV 0013123
N SOM 47898/4

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GE 10/2 Performance Maps

Mechanical Drive Applications

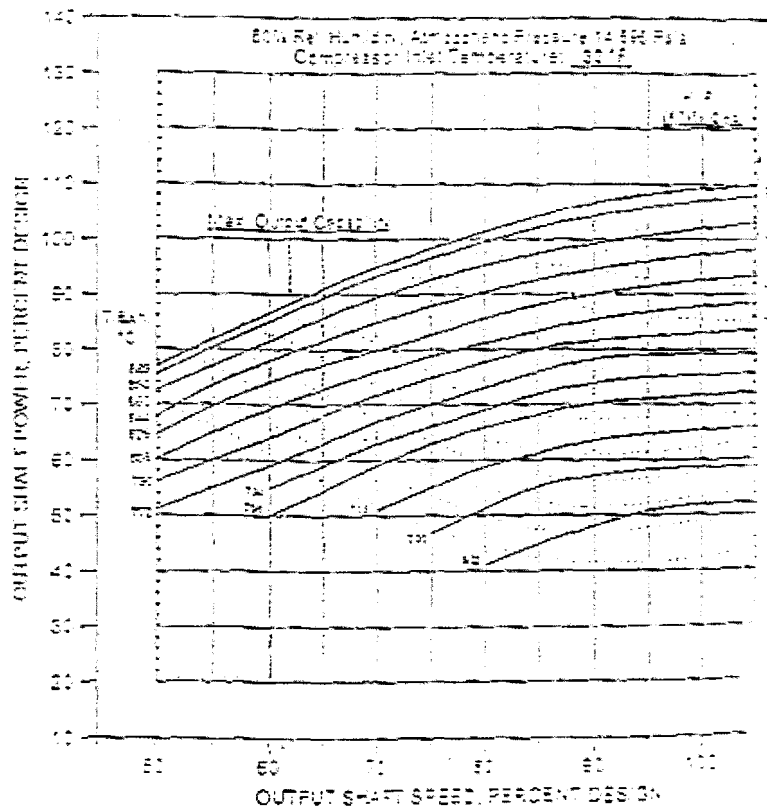
GAS TURBINE MODEL PGT10B12 DLE

Estimated Performance, Mechanical Drive Application

Fuel Type	Heavy Gas
Design Output	HP
Design Fuel Rate (L/Hr)	570 HP
Design Ambient Temp.	°F
Design Exhaust Temp.	1250° F
Output Shaft Design Speed	RRM
Design Point	Sea Level 150

- NOTES: 1. Actual shaft output is 50% of rated output.
 2. Performance measured at the Power Turbine inlet including inlet pressure and exhaust pressure drops and includes all losses from inlet to exhaust.
 3. Compressor Compressor Efficiency 80%
 4. Additional inlet and exhaust pressure losses are shown.

Altitude	Exhaust Temp.	Exhaust Temp.	Exhaust Temp.
100 mm Hg Outlet	+0.8%	+0.84%	+0.87%
100 mm Hg Exhaust	+0.8%	+0.82%	+0.87%



UTP 9387 (B-A)

3	REVISIONE - REVISION	REV	010810
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1	REVISIONE - REVISION	N	SOM
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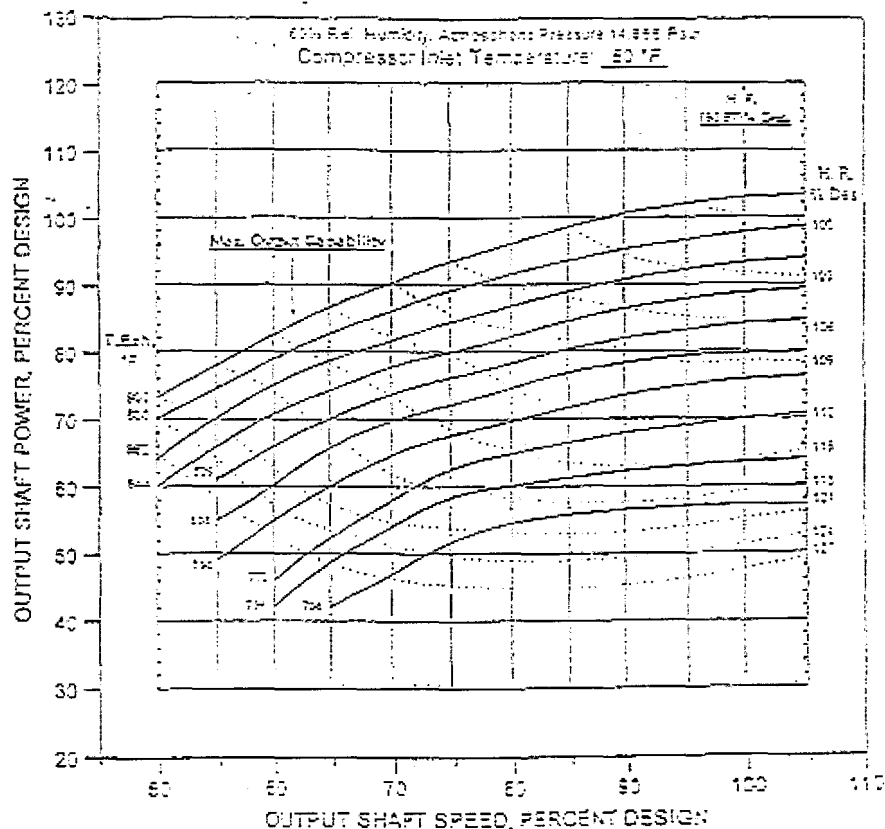
GE 10/2 Performance Maps Mechanical Drive Applications

GAS TURBINE MODEL GE10/2 DLE Estimated Performance, Mechanical Drive Applications

Fuel Type	HP	Net Output
Design Output	HP	15445
Design Heat Rate (LHV)	BTU/HP	7937
Design Exhaust Temp (°F)	°F	815
Design Exhaust Flow	Lb/sec	103.02
Output Shaft Des. Speed	RPM	7,500
Design Point	Sea Level 150	

- NOTES: 1. All data shown on diagram SOM 47898/4 S. 2.
2. Performance measured at the Power Turbine load coupling with zero inlet and exhaust pressure drops and includes allowances for shaft driven auxiliaries.
3. Operation on Compressor Speed Control.
4. Additional Inlet and Exhaust pressure loss effects.

Shaft Loss	Output	Heat Rate	Exhaust Temp
100 mm H ₂ O Inlet	-1.8%	+0.64%	+0.5 °F
100 mm H ₂ O Exhaust	-0.6%	+0.20%	+0.5 °F



3 REVISIONE - REVISION

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REV 0305127

N. SOM 47898/4

Ansaldo Pignone

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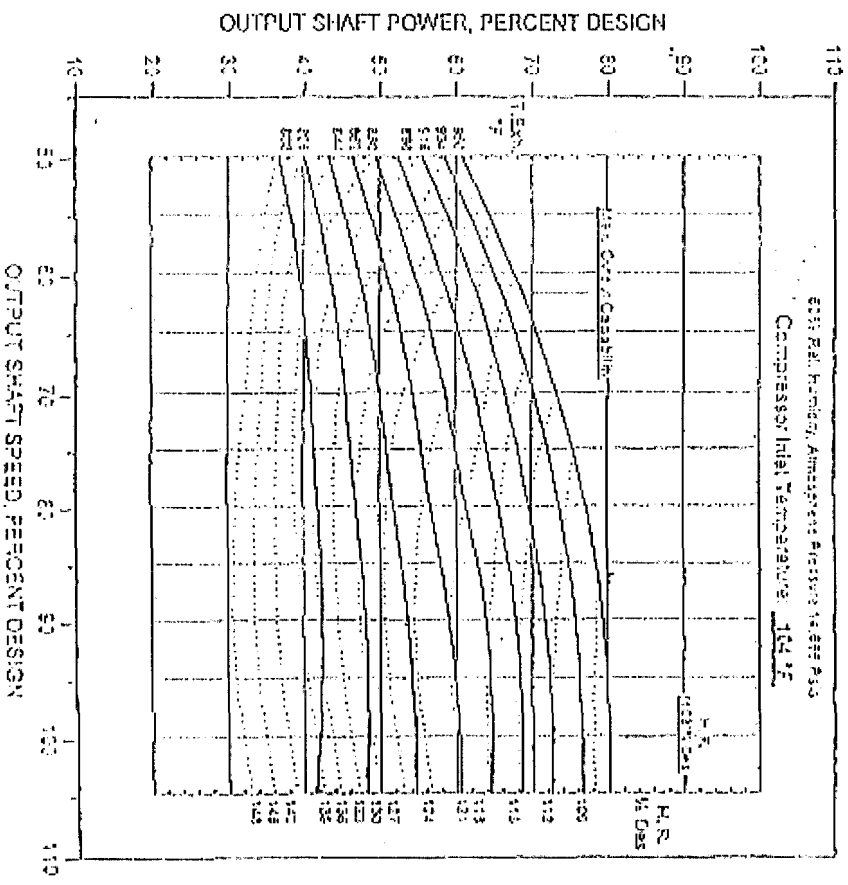
GE 10/2 Performance Maps
Mechanical Drive Applications

GAS TURBINE MODEL GE10/2 DLE Estimated Performance, Mechanical Drive Applications

Parameter	Value
Design Output	15,448 HP
Design Fuel Flow (WFO)	7,957 GPH
Design Exhaust Temp	521 °F
Design Exhaust Flow	103.12 CFM
Design Shaft Def Speed	1,500 RPM
Design Point	See Page 150

- NOTES:**
1. All data shown on diagram SOM 4789S/2.
 2. Performance measured at sea level, 15°C ambient temperature, 101.32 kPa (29.92 in. Hg) barometric pressure, and 100% relative humidity with 100% moisture.
 3. All data shown on diagram SOM 4789S/2 are based on a design point of 100% efficiency.
 4. Correction for Compressor Speed Control.
 5. Atmospheric and Exhaust Pressure Losses.

Parameter	Value
Design Output	15,448 HP
Design Fuel Flow (WFO)	7,957 GPH
Design Exhaust Temp	521 °F
Design Exhaust Flow	103.12 CFM
Design Shaft Def Speed	1,500 RPM
Design Point	See Page 150



3	REVISIONE - REVISION	REV	0505127
2	REVISIONE - REVISION		
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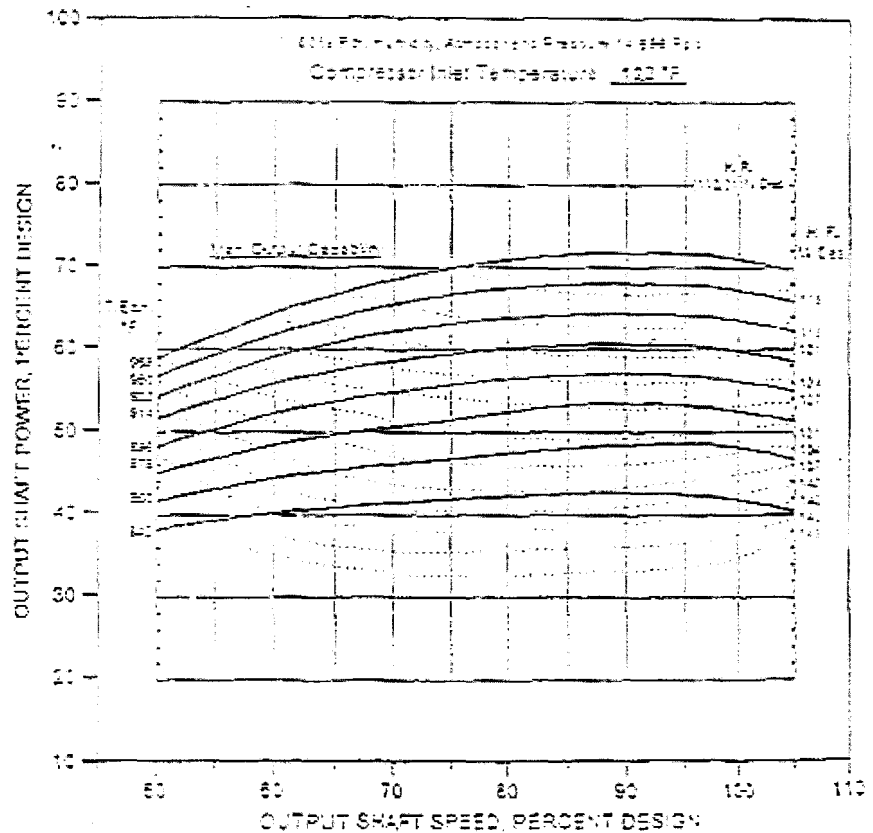
GE 10/2 Performance Maps Mechanical Drive Applications

GAS TURBINE MODEL GE10/2 DLE Estimated Performance, Mechanical Drive Applications

File Type	Machine Size
Design Output	MP
Design Inlet Pressure	57.1 MP
Design Exhaust Temp	°F
Design Exhaust Flow	Lbs/hr
Output Shaft Dns Speed	RPM
Design Point	Sea Level, ISO

- NOTES: 1. All values are for design conditions only.
2. Performance measured at sea level, 101.3 kPa (14.7 psia) inlet pressure, 57.1 MP (8.26 psia) inlet pressure, and includes a 1.5% margin for shaft drive loss.
3. Operation of Compressor Speed Control.
4. Add local inlet and exhaust pressure loss effects.

Exhaust	Output	Design Rate	Exhaust Temp
100 mm H ₂ O Inlet	+1.6%	+0.64%	+25°F
100 mm H ₂ O Exhaust	-0.6%	-0.61%	+25°F



5 REVISIONE - REVISION

2 REVISIONE - REVISION

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DISPENSING

PAGE 5

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27

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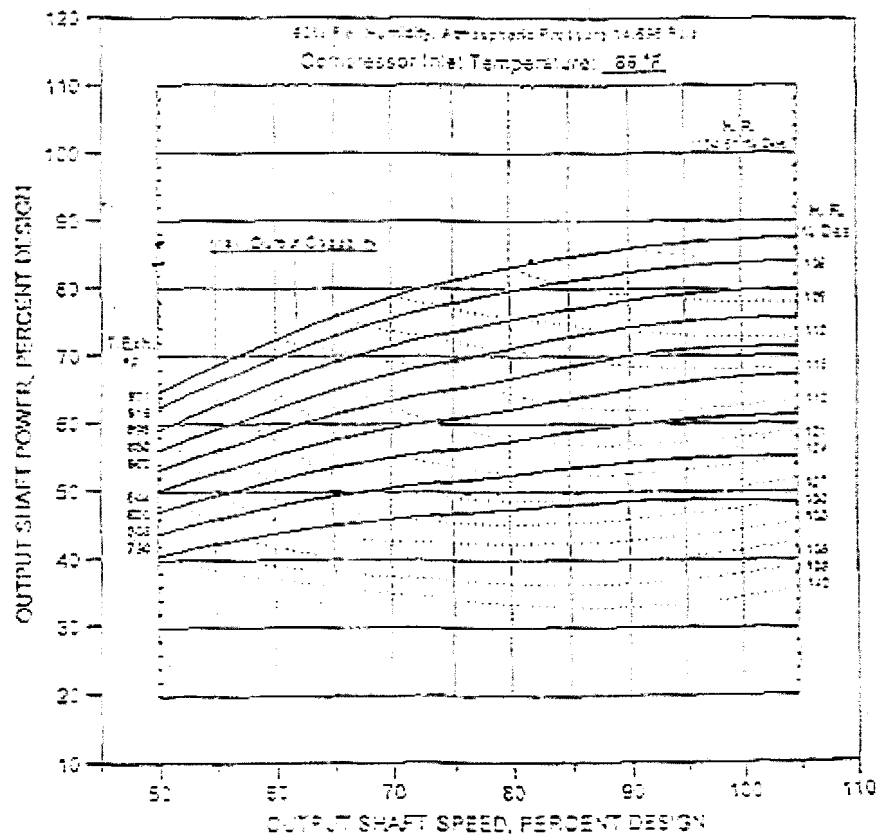
GE 10/2 Performance Maps
Mechanical Drive Applications

GAS TURBINE MODEL GE10/2 DLE
Estimated Performance, Mechanical Drive Applications

Item	Value	Notes
Rated Output	10,000 HP	15,000 kW
Design Heat Rate (LHV)	87.0 Btu/HP	101.7 kJ/kWh
Design Exhaust Temp	1,100 °F	593 °C
Design Exhaust Pres	14.7 psia	101.3 kPa
Design Shaft Inlet Speed	8,000 RPM	7,900 RPM
Design Point	Sea Level	100 ft

- NOTES: 1. Auxiliary effects and system SOV 2000000000
2. Performance measured at the Power Turbine load coupling with 100% inlets and exhausts secured at 100% and includes allowances for shaft driven auxiliaries
3. Operating at Compressor Speed Control
4. Additional inlet and Exhaust pressure rise effects

Parameter	Value	Notes	Exhaust Temp
100% Inlet Temp	1,100 °F	+0.54%	+0.5 °F
100% Inlet Exhaust	+0.6%	+0.60%	+0.5 °F



3	REVISIONE - REVISION
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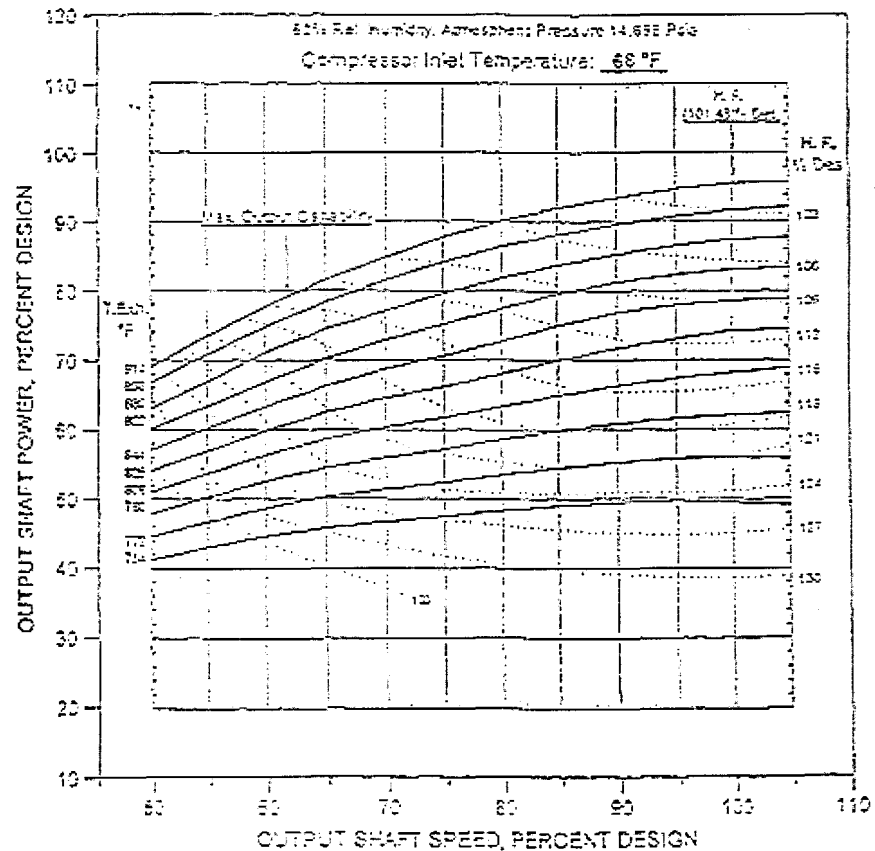
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N. SOM 475984
PAGE 1

Item Type	Natural Gas
Design Output	HP 15445
Design Heat Rate (Btu/Hr)	5700000
Design Exhaust Temp (°F)	905
Design Exhaust Flow	Lb/Sec 100.000
Output Shaft Rot Speed	RPM 2850
Design Point	Sea Level, ISO

NOTES: 1. Assume effects on diagram, SOM 255154 Sh. 2
2. Performance measured at the Power Turbine used coupling with zero inlet and exhaust pressure drops, and includes allowances for shaft driven auxiliaries
3. Operation on Control Speed Control
4. Additional inlet and turbine pressure loss effects:

Exposure	Quoted	Heat Rate	Excluded Rate
100 mm H ₂ O Delivered	-1.6%	-0.64%	-2.24%
100 mm H ₂ O Exhaust	+0.5%	+0.50%	+0.97%



3	REVISIONE - REVISION
2	REVISIONE - REVISION
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N. SOM 47898/4

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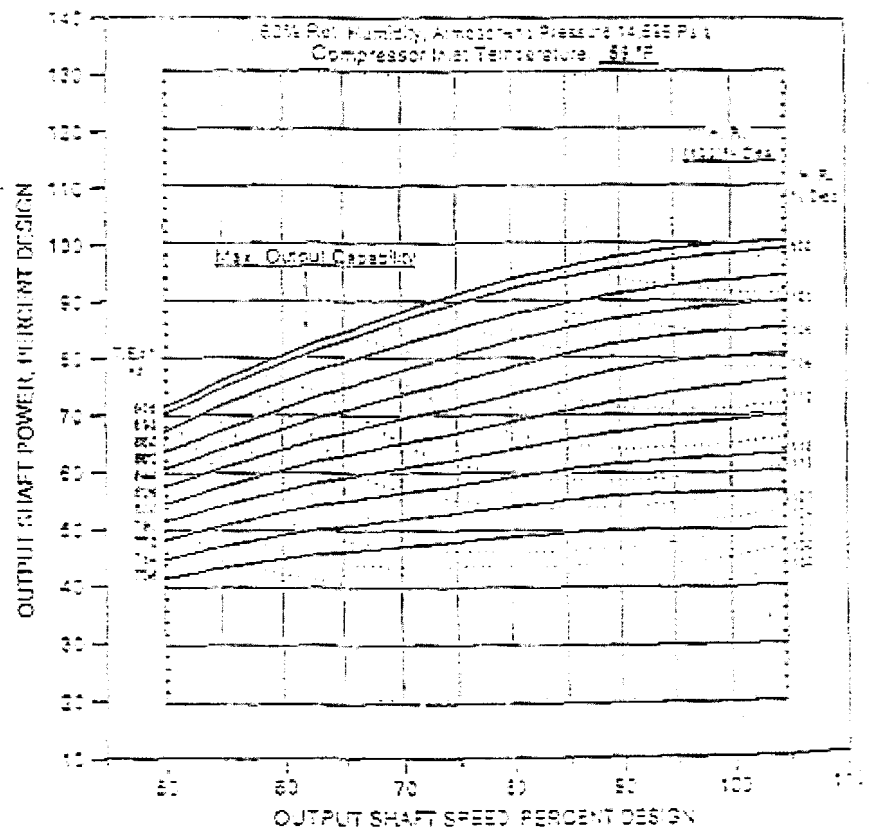
GE 10/2 Performance Maps Mechanical Drive Applications

GAS TURBINE MODEL GE10/2 DUE Estimated Performance, Mechanical Drive Applications

Flue Type		Exhaust Gas
Design Output	HP	12,500
Design Hot Flow (UKM)	STU HP	7807
Design Exhaust Temp.	°F	915
Design Exhaust Flow	UKM	10000
Output Shaft Rot. Speed	RRM	7,500
Design RPM		14,250 - 15

- NOTES: 1. All data shown on design 60/10000-40/10
2. Performance measured at the Power Turbine load during wide speed range
exhaust pressure drops, and includes allowances for start, shut down, and
3. Operation on Compressor Speed Control
4. Additional Inlet and Exhaust pressure (100/10000)

Exhaust	Output	Heat Rate	Exhaust Temp.
100 mm H ₂ O Exhaust	10.0%	+0.84%	+1.5°F
100 mm H ₂ O Exhaust	10.0%	+0.84%	+1.5°F



- 3 REVISIONE - REVISION
- 2 REVISIONE - REVISION
- 1 REVISIONE - REVISION

REV 0005127

N. SOV 47898/4