

GPB180D Gas Turbine

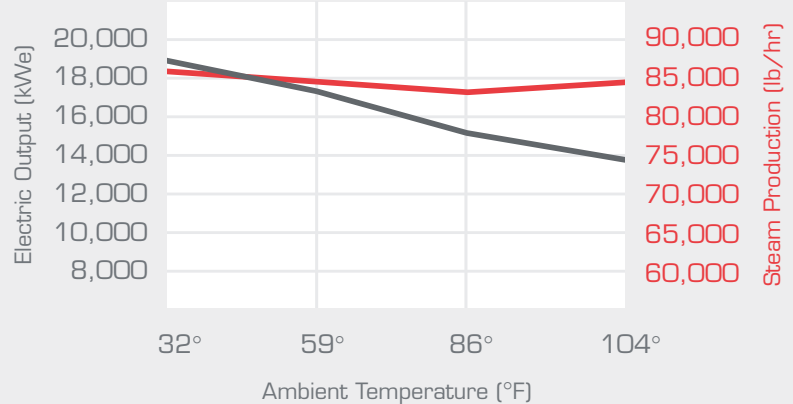


- // HIGH EFFICIENCY
- // IMPROVED RAM
- // INCREASED HEAT RECOVERY
- // REDUCED EMISSIONS

A CLOSER LOOK

- // Cogeneration system based on the GPB180D can boost total thermal efficiency to over 80%
- // Combined-cycle power plant with the GPB180D and a steam turbine will realize electrical efficiency of over 48%
- // Reduced NOx emissions of <23 ppm at O₂=15%
- // Design assures better RAM (reliability, availability, maintainability) and greater durability with 30,000 TBO (time between overhauls) hours
- // Exhaust gas temperature raised to the optimum 545°C for increased heat recovery
- // Best overall heat rate in its class
- // Ideal for installation in hospitals, universities, institutions, district heating and cooling, pharmaceutical, LNG Terminals, and other facilities with significant thermal and electrical loads
- // Split case design allows for ease of inspection and maintenance, reducing costly downtime

GPB180D Performance



(KW)

GPB180D

Amb. Temp	Electric Output	Fuel Consumption	CHP					Gas Turbine			
			Steam Production*	Electrical Efficiency	Recovery Efficiency	Overall Efficiency	Gas Flow	Air Flow	Exhaust Flow	Exhaust Temp	
°F	kWe	MMBtu/hr	lb/hr	MMBtu/hr	%	%	%	scfh	lb/s	lb/s	°F
32	18,520	189.98	85,429	85.3	33.3	44.9	78.1	209,923	132.01	135.72	1,004
59	17,170	179.78	84,437	84.3	32.6	46.9	79.5	198,652	127.07	130.60	1,018
86	15,440	168.76	83,952	83.8	31.2	49.7	80.9	186,475	120.68	123.99	1,042
104	13,910	160.67	84,172	84.0	29.6	52.3	81.8	177,536	115.23	118.41	1,067

Fuel: Gas (905 BTU/scf), NOx Reduction: Dry Low Emission, NOx: 23 ppm, CO: 25 ppm, VOC: 2.0 ppm

Note:

4/14" intake/exhaust pressure loss

DLE is available from 50-100% load

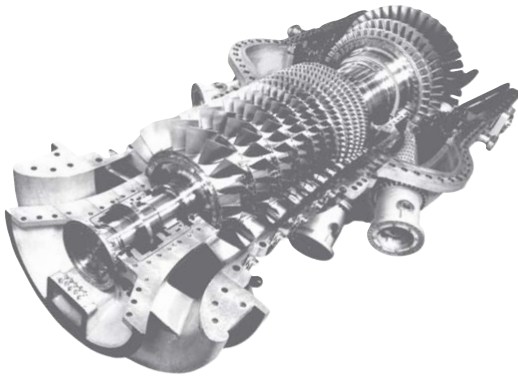
Sea level

Required gas pressure: 360 psig

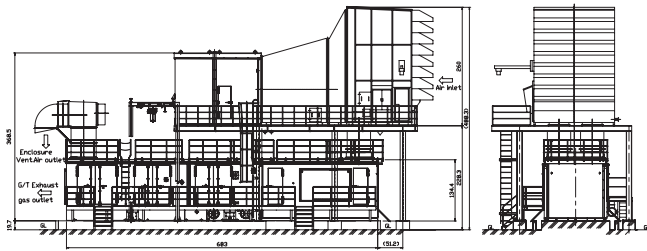
* Contact Kawasaki Application Engineering for site-specific performance

* Not for guarantee

PACKAGE LAYOUT



Engine Configuration



Generator Set Package

STANDARD EQUIPMENT

- // L20A single-shaft gas turbine engine with eleven compressor stages and three-stage air-cooled turbine – cold end drive
- // Dry low emissions system
- // Reduction gearbox with main lube oil pump and turning motor
- // VFD starting system
- // Indoor enclosure, sound attenuated to 85 dBA, with lighting, ventilation, chain block, and rail for maintenance
- // 13.8 kV generator
- // Heavy-duty steel base-frame, primed and painted
- // Lube oil tank integrated into the base-frame with oil heater, lube oil filter, and lube oil cooler
- // Fuel gas system
- // Fire and gas detection and suppression systems
- // State-of-the-art PLC control
- // Exhaust gas flexible joint

FOR MORE INFORMATION:

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