

**100 kW<sub>e</sub> Air Burners PG FireBox Specification**

<b>Power Generation Module</b>		
1	Power Requirements	460 VAC/60 Hz/3φ or 400 VAC/50 Hz/3φ, 225 A Service
2	Power Factor	Load- and site-dependent (0.9 - 1.0)
3	Power Generation Module	Fully-Integrated Organic Rankine Cycle (ORC) Power Module with 100 kW Asynchronous Generator
4	ORC Working Fluid	Honeywell Genetron 245fa (Non-ozone-depleting)
5	Safety Systems	Electrical Grid Protection Over-Temperature Over-Pressure
6	Control System	PLC-Based with Touch-Screen
7	Remote Monitoring	Internet-based monitoring and Operations
8	Transportation and Setup	Ships in containers; Ready for immediate use after simple hood installation; Padeyes provided for crane lifting. Full skid base facilitates final positioning
9	Cooling Water (CW) Requirements	325 gpm [20.5 l/s], 70° F [20° C]
10	CW Interface	4" Nominal, 150 lb-Class ANSI Flanges
11	Induction Fan	PLC-Controlled; Variable Speed
12	Hot Water (HW) Pump	PLC-Controlled; Variable Speed
13	HW System Working Fluid	Ethylene-Glycol/Water Mix
14	Construction	Steel WF beam and square tubing construction with full-length skid plate; Epoxy-paint
15	Approx. Weight	39,000 lbs [17,700 kg]
16	Dimensions (w/ Hood Installed)	L x W x H
		33.5 ft x 7.5 ft x 10.5 ft [10.2 m x 2.3 m x 3.2 m]
<b>FireBox Module</b>		
1	Air Curtain Fan Power	30 hp [22 kW] Electric Motor VFD-Controlled
2	Burn Container (FireBox)	4" [102 mm] thick refractory panels filled with proprietary thermal ceramic material. Two full-height rear doors, two ignition holes
3	Safety Systems	Fully integrated with PGF controller
4	Instrument Panel	Touch-screen control from PGF Control Room
5	Air Curtain Fan Motor Control System	PLC-Based; Speed selection fully integrated with system controller
6	Air Supply	Custom Heavy Duty Fan
7	Transportation and Setup	Shipped fully assembled and tested, requires only connection of the three-phase motor power to the PG Module power distribution panel
8	Waste Material Elimination Rate	Up to 10 tons per hour [9.1 mt/h]
9	FireBox Module Weight	32,500 lbs [14,800 kg]
10	Overall Dimensions	L x W x H
		30' 2" x 7' 5" x 8' 6" [9.2 m x 2.3 m x 2.6 m]
11	FireBox Inside Dimensions	L x W x H
		19' 8" x 5' 0" x 7' 1" [6.0 m x 1.5 m x 2.2 m]
<b>Optional Air Burners Air Blast Cooler for Condensing Water</b>		
1	Approx. Weight (Dry)	8,100 lbs [3680 kg]
2	Dimensions	L x W x H
		30' 4" x 7' 6" x 8' 4" [9.2 m x 2.3 m x 2.5 m]