

# e-Zapper Power & Cooling

## Power Measurements (11/7/2006)

Power 208V, 3 phase

e-Zapper Status*	Line A	Line B	Line C
Quiescent Current <sup>1</sup>	8 A	9 A	6 A
Warm-Up (10 min.) <sup>2</sup>	32 A	30 A	31 A
Firing Mode (Low Power) <sup>3</sup>	70 A	70 A	69 A
Firing Mode (High Power) <sup>4</sup>	90 A	91 A	89 A

\* All modes also require 1.2kW / 115V AC for vacuum pumps and valves

- 1) Includes water pump, vacuum pump and low voltage power supply.
- 2) Includes klystron power supplies, electron gun warm-up and magnets.
- 3) 180 pps mode, 3 ½ MW peak power.
- 4) 360 pps mode, 5 ½ MW peak power.

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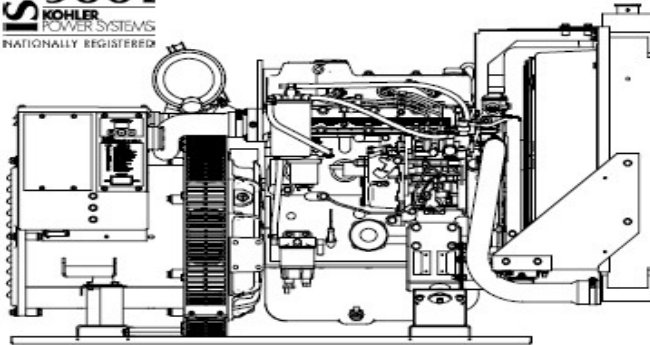
Typical motor-generator for power.

Model: 30EORZD  
25EFORZD

**KOHLER** POWER SYSTEMS

Diesel

ISO 9001  
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## Generator Weights and Dimensions

	Remote Radiator	Inline Radiator
Weight—dry, kg (lbs.)	490 (1080)	526 (1160)
Length, mm (in.)	1182 (46.5)	1432 (56.4)
Width, mm (in.)	610 (24.0)	650 (25.6)
Height, mm (in.)	818 (32.2)	905 (35.6)

See the drawings on the last page for detailed dimensions.

## Generator Ratings

Model Series	Voltage	Hz	25°C (77°F) Amps	25°C (77°F) kW/kVA	Ph
	120/208	60	104.1	30/37.5	3
	120/240	60	125.0	30/30	1
	120/240	60	90.2	30/37.5	3

## Mobile/Commercial Generator Set

### Engine Features

- Heavy-duty construction
- Certified by the Environmental Protection Agency (EPA) to conform to Tier 2 emissions regulations
- Water-cooled design
- Diesel fueled
- Four cylinders
- Four cycle
- Frequency regulation of  $\pm 2.5\%$
- Electric fuel lift pump
- Lifting eye

### Generator Features

- Remote start 12-pin connector
- Class H insulation
- Voltage regulation of  $\pm 1.5\%$
- Radio suppression
- Outstanding motor-starting capability
- Sustained short-circuit capability
- Four-point mounting with vibration isolators
- Prototype-tested, factory-built, and production-tested design
- One-year/1000-hour limited warranty

## ADC 2100 Advanced Dig Features

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# e-Zapper Power & Cooling

## Water Cooling Measurements (11/7/2006)

**Input water temperature = 54° F**

e-Zapper Status*	Output	Flow	Flow	BTU
Quiescent Current	-	0	0	-
Warm-Up (10 min.)	97° F	1.7 gal/min	1.1 liter/sec	60 ?
Firing Mode (Low Power)	-	-	-	
Firing Mode (High Power)	98° F	3.3 gal/min	2.1 liter/sec	115 ?

### Calculation of BTU :

1 gallon = 3.79 liters

1 gal/min = .063 liters/sec

Temp difference = (98° F – 54° F) = 44° F = 24.4° C

1 liter/sec @ ( $\Delta T = 1^\circ \text{C}$ ) = 1 kC = 2388 joules = 2.26 BTU

1 BTU = 1055 Joules