

# **Q-SERIES OPTION 00**

## **120kW & 144kW 380V- 480V DI Water Heater (Standard - No Option Added)**

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### **Appendix to Manual**

SERIAL NUMBER:

PATENTS: U.S. 5971402, U.S. 6433319, U.S. 6479094B2, U.S. 6544583B2,  
U.S. 6580061B2, U.S. 6663914, U.S. 6674053B2;  
ADDITIONAL PATENTS PENDING

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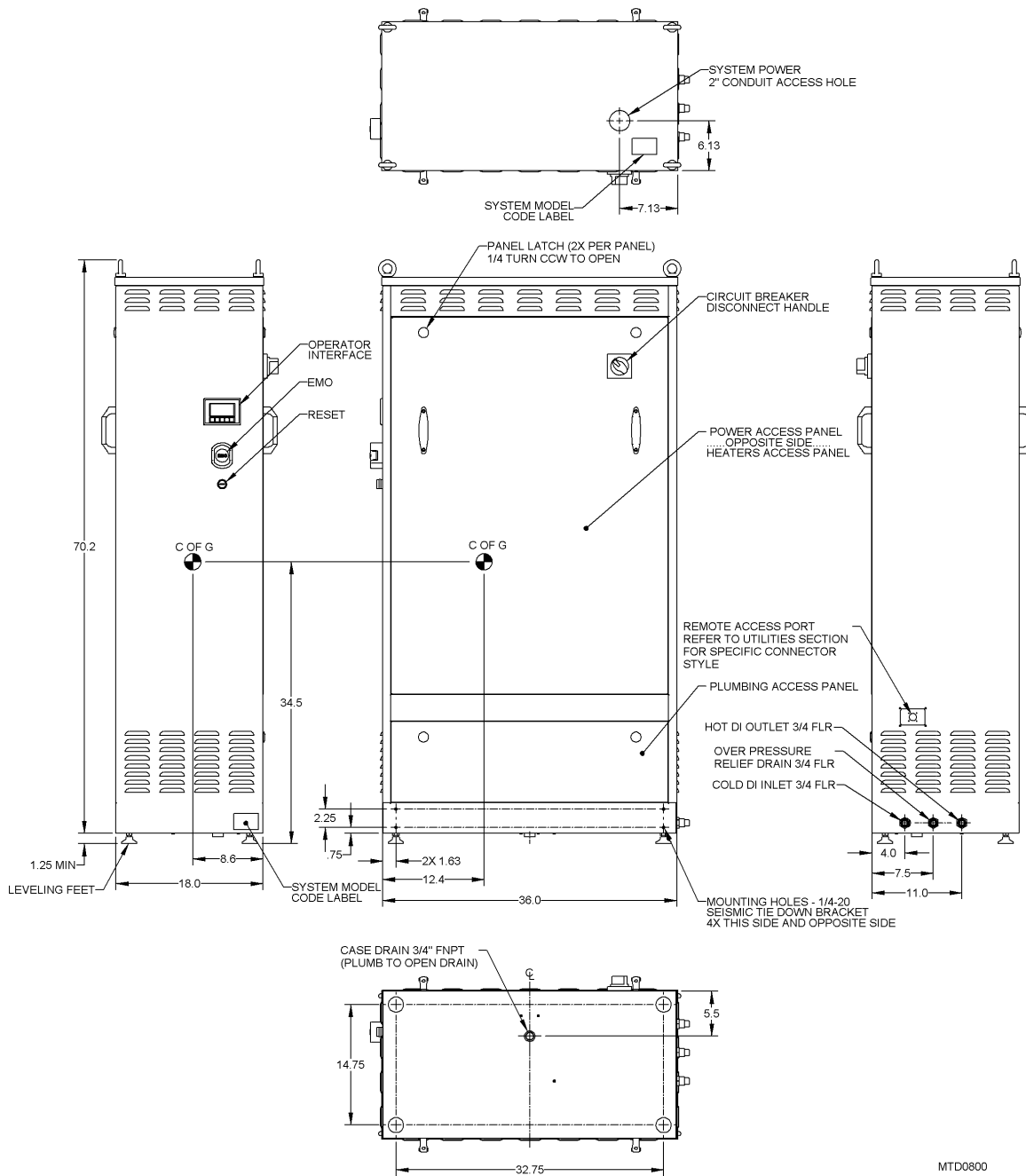
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# 1 APPENDIX: Q-SERIES OPTION 00

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## 1.1 UTILITY REQUIREMENTS

<b>Remote Signals:</b>	9P Female Amp Connector See schematic for wiring options.
<b>Cold DI Inlet:</b>	3/4" PFA Flare Fitting 103-414 kPa (15-60 psig)
<b>Hot DI Outlet:</b>	3/4" PVDF or PFA Flare Fitting (optional) Discharge line must be restricted to create adequate backpressure >103 kPa (15 psig). A flow restriction may be required at the point of use to limit discharge rate.
<b>Overpressure Relief Drain:</b>	3/4" PFA Flare Fitting 3/4" tube or equivalent <20m (60 ft.) length to open drain
<b>Cabinet Drain:</b>	Open to drain (do not tie to overpressure line)
<b>System Weight:</b>	Dry Kg. (lbs): 209 Kg (460 lbs.)
<b>Min. Dimensions:</b>	182cm x 46cm x 92cm (71.5"H x 18"W x 36"D)



MTD0800

**Figure 1-1: Facility Installation Layout**

**NOTE:** Accessibility to open or remove the Power and Heater access panels is required for maintenance of the heater.



## 1.2 SYSTEM REQUIREMENTS

### 144kW 480VAC Standard Configuration

**Model Number:** Q144V480\_\_\_  
**Heating Module:** QA1V480P12  
**Typical Resistance:** Consult factory  
**System Power:** 480VAC, 180A Full Load, 3-Phase, 50/60 Hz,  
225 Amp over-current protection provided at machine  
hook-up terminals  
Machine Interrupting Rating 35kA

### 120kW 480VAC Standard Configuration

**Model Number:** Q120V480\_\_\_  
**Heating Module:** QA1V480P10  
**Typical Resistance:** Consult factory  
**System Power:** 480VAC, 150A Full Load, 3-Phase, 50/60 Hz,  
200 Amp over-current protection provided at machine  
hook-up terminals  
Machine Interrupting Rating 35kA

### 120kW 415VAC Standard Configuration

**Model Number:** Q120V415\_\_\_  
**Heating Module:** QA1V415P10  
**Typical Resistance:** Consult factory  
**System Power:** 415VAC, 185A Full Load, 3-Phase, 50/60 Hz,  
225 Amp over-current protection provided at machine  
hook-up terminals  
Machine Interrupting Rating 35kA

### 120kW 380VAC Standard Configuration

**Model Number:** Q120V380\_\_\_  
**Heating Module:** QA1V380P10  
**Typical Resistance:** Consult factory  
**System Power:** 380VAC, 185A Full Load, 3-Phase, 50/60 Hz,  
225 Amp over-current protection provided at machine  
hook-up terminals  
Machine Interrupting Rating 35kA

### 1.3 SPARE PARTS

The most common replacement parts are listed below. For items not listed please contact Trebor.

PART NO.	DESCRIPTION	RECOMMENDED SPARE QTY.
98003546	SSR,90A,4-32VDC IN,48-660V OUT,IDEC	4
AE112	Gasket, SSR, Thermobond	4
Heating Module	See System Requirements for part number.	1
AF174	Over-pressure Burst Fitting	1

Please specify system Model Number and Serial Number when ordering spare parts. Consult factory for other parts not shown above.

### 1.4 WIRING SCHEMATIC

See system label for schematic number(s). See attached fold out sheets.