



## FEATURES

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- The image shows a vertical, light blue electronic device, likely a solar charge controller, with a digital display and a red emergency stop button. The display shows the following information:
- PV:** 66 V (with a battery icon)
  - SP:** 7.7 V
  - 0%:** 2.5A
  - IDLE:** (with a blue square icon)
  - Emergency Stop:** A large red button with a wrench icon and a square icon.
- The device has a black handle on the right side and a red emergency stop button at the bottom. The brand name "ATHENA" is visible at the top. The device is shown from a side angle, revealing internal components like a green circuit board and a black heat sink.



**Fig 1.** RMX Modular Controller showing single zone temperature control from touchscreen.



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R	M	X													
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		<u>Market</u> D = Domestic X = Export E = CE		<u>Current Rating</u> 15 = 15 A		<u>Special Options</u> 000 = None Consult Factory									

# Technical Specifications For RMX Series

## Performance Specifications

Auto Control Mode	CompuCycle® system
Control Accuracy	±0.1°F (±0.1°C) dependent on the total thermal system
Ambient Temperature	32°F to 130°F (0°C to 55°C)
Temperature Stability	±0.5% of full scale over the ambient range of 32°F to 130°F (0°C to 55°C)
Calibration Accuracy	Better than 0.2% of full scale
Power Response Time	Better than 200 ms
Process Sampling	100 ms (nominal)
CompuStep® System Control Mode	Variable stepping voltage, phase angle fired
CompuStep® System Duration	Approximately 5 min
CompuStep® System Output Percent	Steps approximately 4% of input voltage
CompuStep® System Override Temperature	200°F (93°C)
Error Mode Response	a. T/C open, T/C reverse, T/C shorted and Loop Break overrides Auto mode/CompuStep® b. Manual mode overrides T/C open, T/C reverse

## Input Specifications

Thermocouple (T/C) Sensor	Type "J" or "K" grounded or ungrounded (menu selectable)
External T/C Resistance	Max. 100 ohms for accuracy
T/C Isolation	Isolated from ground and supply voltages
Cold Junction Compensation	Automatic, better than 0.02°F/°F (0.01°C/°C)
Input Type	Potentiometric
Input Impedance	350 kohms
Input Protection	Fuses, diode clamp, RC filter
Input Amplifier Stability	Better than 0.05 °F/°F (0.03°C/°C)
Input Dynamic Range	Greater than 999°F (537°C)
Common Mode Rejection Ratio	Greater than 100 dB
Power Supply Rejection Ratio	Greater than 70 dB

## Output Specifications

Voltages	240 Vac nominal, single phase 120 Vac available
Power Capability	15 amperes, 3600 watts @ 240 Vac
Overload Protection	Triac and load use fast-blow fuses. Both control legs are fused (ABC) Optional: High Speed Fuse (GBB)
Power Line Isolation	Optically and transformer isolated from ac lines. Isolation voltage is greater than 2500 volts.
Output Drive	Internal solid state triac, triggered by ac zero crossing pulses
Ground Fault Interrupt (GFI)	Trips at 55 mA of leakage current

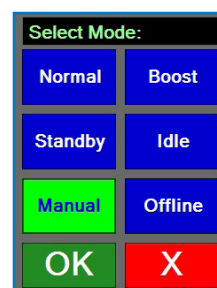
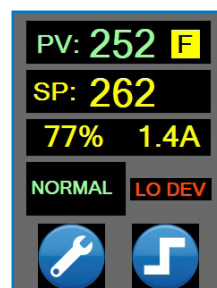
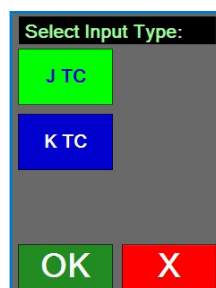
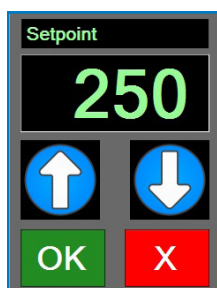
## Controls and Indicators

Set Point Control	Two buttons up or down on touchscreen
Range	0 to 999°F (535°C)
Resolution	1°F (1°C)
Display - Color LCD	Top: 3-digit Bottom: 3-digit
Status Indications on LCD	Heat Output Alarm °F/°C Mode: Normal (closed loop) Manual (open loop) Standby Boost SoftStart Idle
Power On-Off	Rocker Switch, UL, CSA, and VDE approved

## Electrical Power Specifications

Input Voltage	240 Vac +10% -15% (204 - 265 Vac)
Frequency	50 Hz ± 3 Hz, 60 Hz ± 3 Hz
DC Power Supplies	Internally generated, regulated and temperature compensated
Module Power Usage	Less than 3 watts, excluding load

## Typical Screen Displays



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