



PRODUCT SPECIFICATIONS

RM Relay Interface and Output Module

The **RM** series of output/interface modules are designed specifically for use with the Thermon TC 1818a control and monitoring module. These modules are designed to allow the alternative use of a variety of other output switching devices instead of the standard six circuit Type C heat sink and solid state relay module. Three types of RM modules are available.

The **RM-1** is a DIN rail mounted six circuit relay interface module for linking six individual mechanical relays to the TC 1818a control module via ribbon cable. The RM-1 provides additional power to drive the mechanical relay as well as provides isolation of inductive feedback from the TC 1818a module. The RM-1 also includes individual terminal strips which enable the interface of individually mounted ground fault and heater current sensing transformers. The RM-1 is particularly well suited for customized HeatChek control and monitoring unit applications where higher voltage or current switching devices are required to switch the heat tracing circuits.



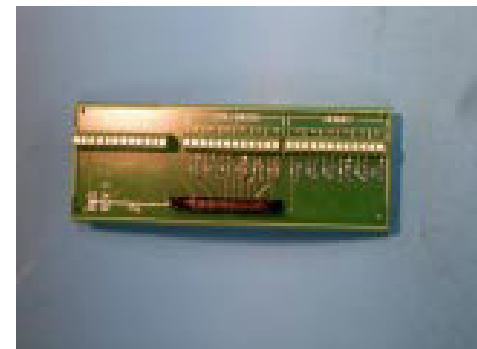
RM-1-240 Mechanical Relay Interface Module

The **RM-2** is a back plate mounted six circuit mechanical relay output module which may be linked to the TC 1818a control module via ribbon cable and includes an RM-1 card, mechanical relay switching as well as ground fault and heater current sensing transformers. The RM-2 is ideal for use in HeatChek control and monitoring units where high circuit density and modular on-off type mechanical relay modules are required.



RM-2-120 Mechanical Relay Output Module

The **RM-3** is a DIN rail mounted six circuit relay interface module for linking individual solid state relays to the TC 1818a control module via ribbon cable. Because of its design for use with only solid state relay/heat sink outputs, no additional power or isolation is included on this module. The RM-3 also includes individual terminal strips which enable the interface of individually mounted ground fault and heater current sensing transformers. The RM-3 is specifically designed for use along with the TC 1818a as a retrofit in any existing control and monitoring unit where individual solid state relays/heat sinks already exist or may be used in any new control and monitoring unit where individual relays/heat sinks and current transformers are needed.



RM-3 Solid State Relay Interface Module

This data is more comprehensive in scope than that covered in the standard product specification sheet and is intended for internal use by Thermon engineering personnel.

THERMON The Heat Tracing Specialists®

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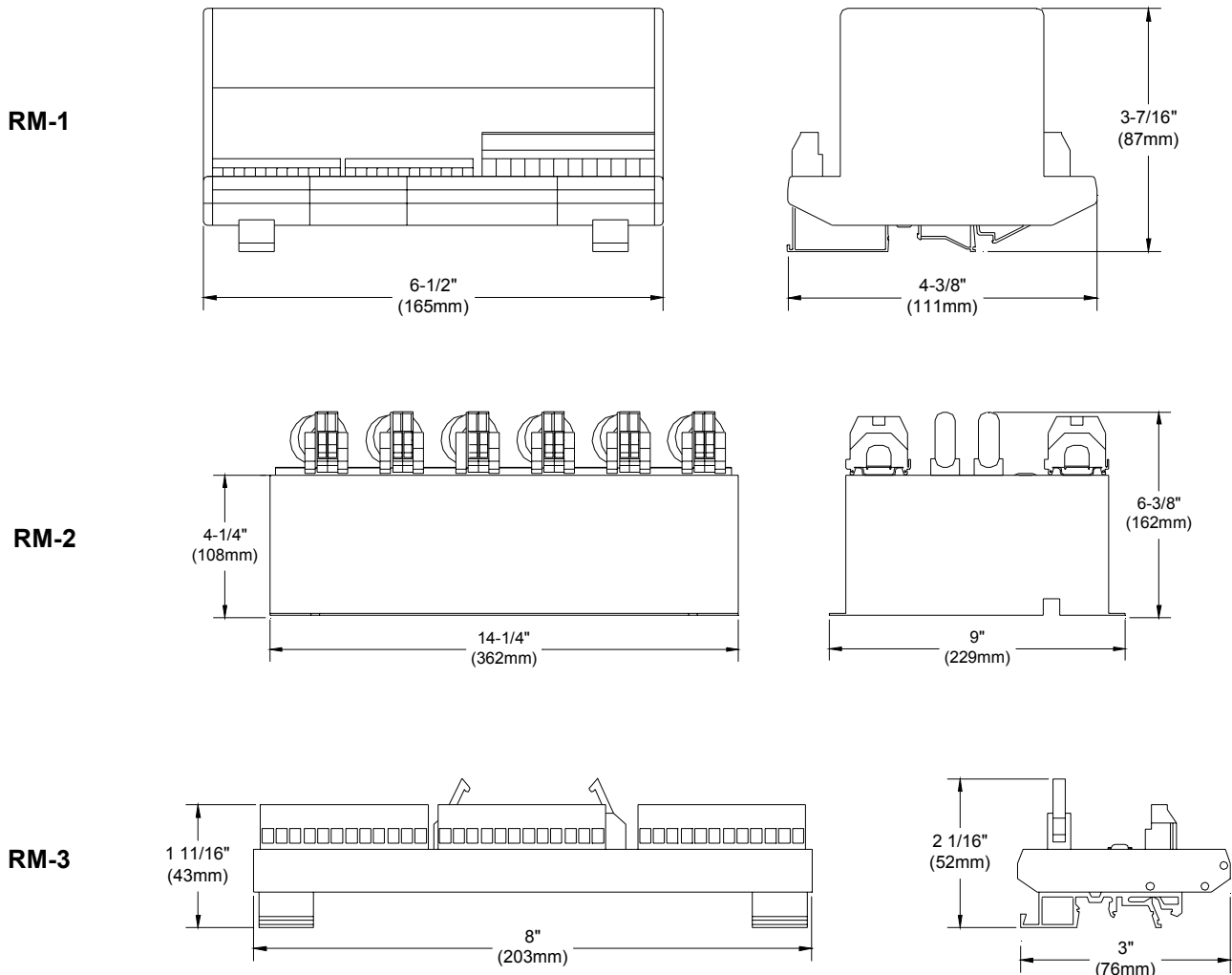
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RM Relay Interface & Output Module

Technical Characteristics:

	RM-1	RM-2	RM-3
Maximum Module Operating Ambient Temperature:	140°F (60°C)	140°F (60°C)	140°F (60°C)
Minimum Operating Ambient Temperature:	-40°F (-40°C)	-40°F (-40°C)	-40°F (-40°C)
Voltage Rating:	120, 208, 230, or 240 Vac	120, 208, 230, or 240 Vac	N/A
Maximum Power Consumption:	56 Watts	56 Watts	N/A
Maximum Circuit Capacity:	Six (per module)	Six (per module)	Six (per module)
Maximum Single Coil or Solid State Relay Input Sink Current:	100 mA	100 mA	15 mA
Coil or Solid State Relay Input:	24 Vdc Nominal	24 Vdc Nominal	5 Vdc Nominal
Module Heat Tracing Load Switching:	Output Relays Not Included	25 A, DPST (field convertible on circuit-by-circuit basis to SPST)	Output Relays Not Included
Module Construction:	Polyester/Phenolic Assembly	White Epoxy Painted Steel	Polyester/Phenolic Assembly

Module Dimensions:

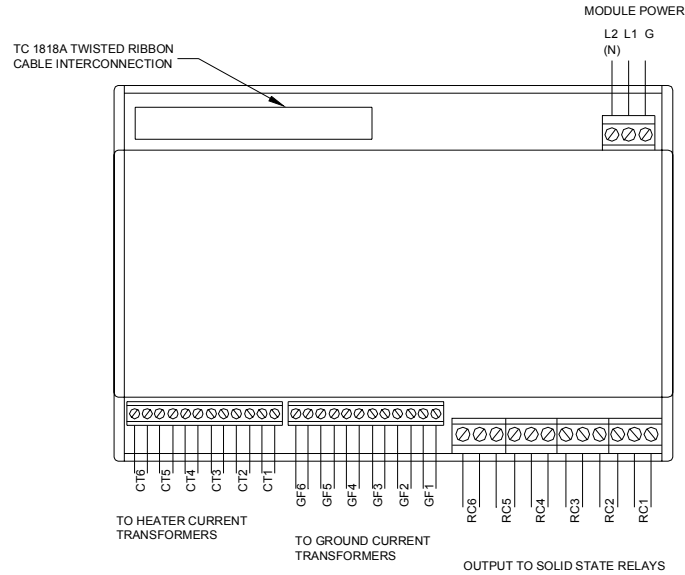




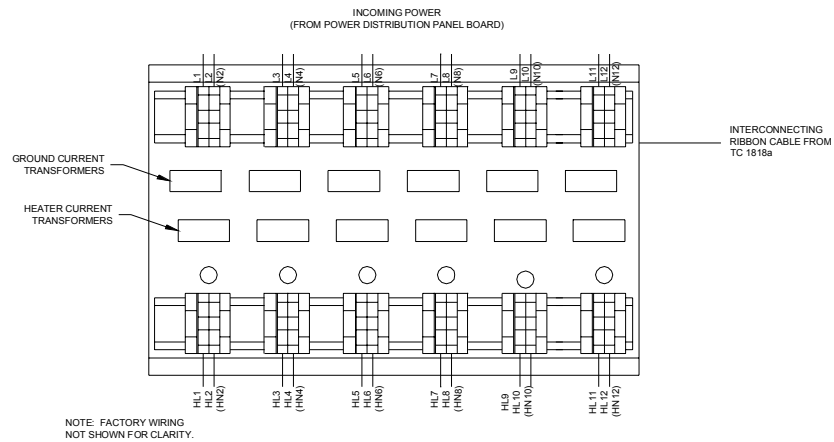
RM Relay Interface & Output Module

Wiring Diagrams:

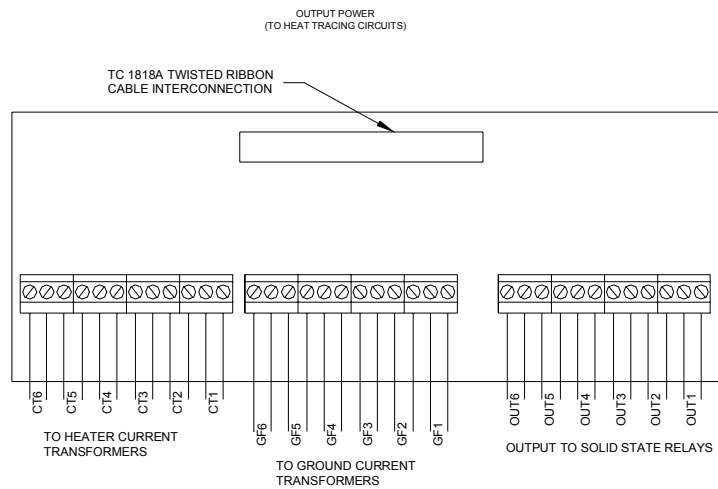
RM-1



RM-2



RM-3





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RM Relay Interface & Output Module

Order Information:

Specify the **RM-1-120** for mechanical relay interface applications where 120 Vac power supply voltage is available and custom mechanical relays are provided.

Specify the **RM-1-240** for mechanical relay interface applications where 208-240 Vac power supply voltage is available and custom mechanical relays are provided.

Specify the **RM-2-120** for relay output module applications where 120 Vac power supply voltage is available.

Specify the **RM-2-240** for relay output module applications where 208-240 Vac power supply voltage is available.

Specify the **RM-3** for solid state relay interface applications where a custom relay/heat sink system is specified.

Approvals:

The RM relay interface and output modules are approved for use in:

RM-1 / RM-3*

Ordinary Locations

Hazardous (Classified) Locations

Class I, Division 2

Groups B, C and D

*RM-3 approvals pending

RM-2

Ordinary Locations

Reference approvals data for specific agencies and standards to which units have been tested.

Note: The RM-1 and RM-3 are approved for use in hazardous areas when configured in a TC 1818 system which utilizes approved solid state relay/sinks operating within rated ampacity levels.