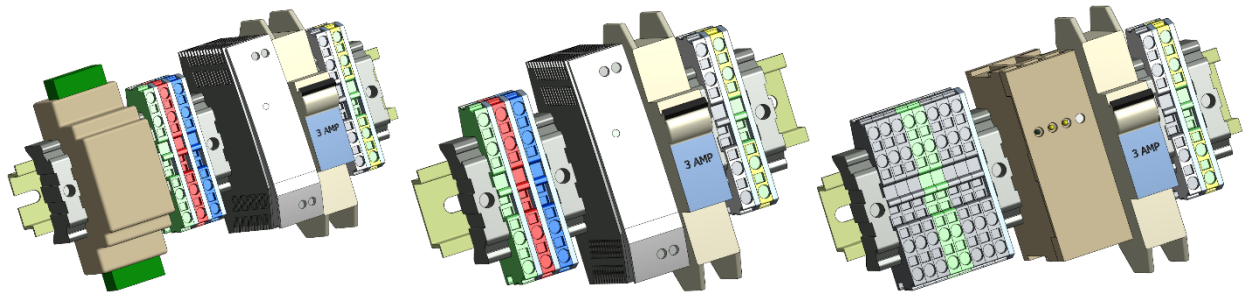


## TS Series

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### TS... Serial Communication Kits for use with LMV3, LMV5, and RWF... Controls



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### Description

A TS... series serial communication kit connects a Siemens LMV linkageless control system to an SCC Master Lead/Lag Panel without a local touchscreen at each boiler.

The TS... serial kit communicates serially between each LMV linkageless control system and an SCC Master Lead/Lag Panel for up to eight boilers.

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### Features

- Serial RS485 Modbus interface to SCC Master Lead/Lag Panel
- Daisy chain via shielded cable between serial kits at each burner with LMV controls
- LMV3 or LMV5 serial RS485 communications

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### Application

TS... serial communication kits are suited for condensing boilers, steam boilers, and other applications utilizing an LMV3 or LMV5 linkageless control system without a local touchscreens at each boiler.

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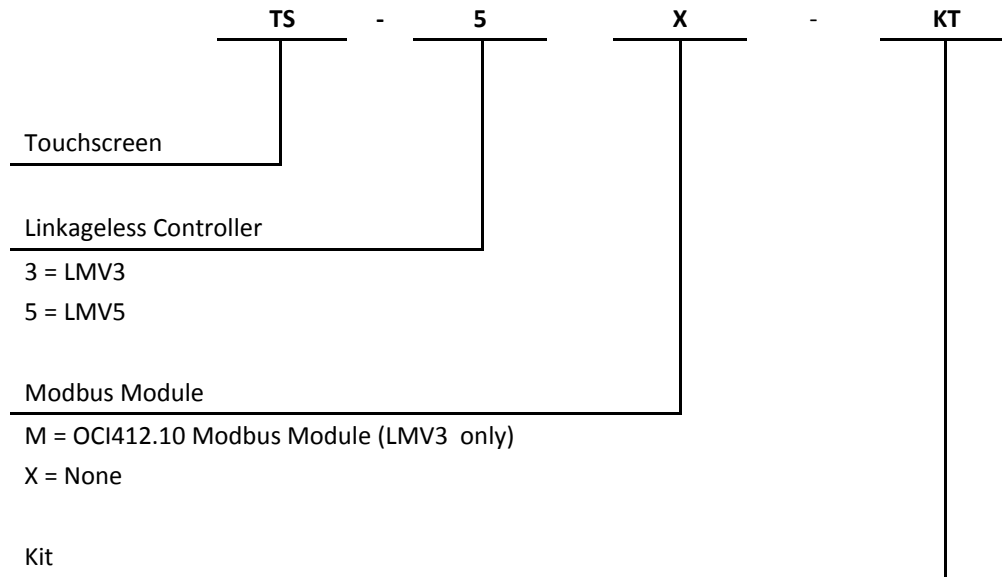
### Components

TS... serial communication kits include the following components:

- 3 Amp circuit breaker
- 24 VDC power supply with TS-3X-KT or TS-3M-KT
- RS232 to RS485 converter with TS-5X-KT
- Field interconnecting terminals

## Product Part Numbers

For communication kit part number identification only. See Table 1 for available part numbers.



**Table 1: Available Serial Communication Kits**

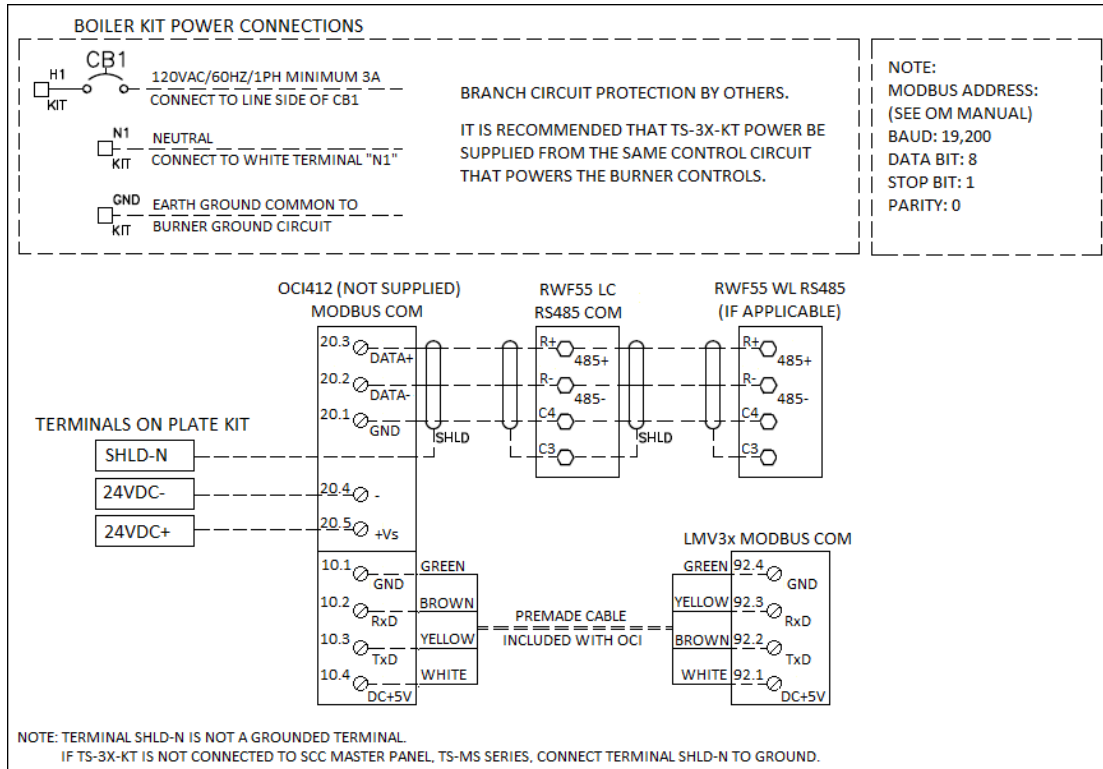
| Part Number | Connects to Linkageless System |      | Modbus Module LMV3 | 24 VDC Power Supply |
|-------------|--------------------------------|------|--------------------|---------------------|
|             | LMV3                           | LMV5 | OCI412.10          | TS-PS-24VDC2.5A     |
| TS-3X-KT    | x                              |      |                    | x                   |
| TS-3M-KT    | x                              |      | x                  | x                   |
| TS-5X-KT    |                                | x    |                    |                     |

## Specifications

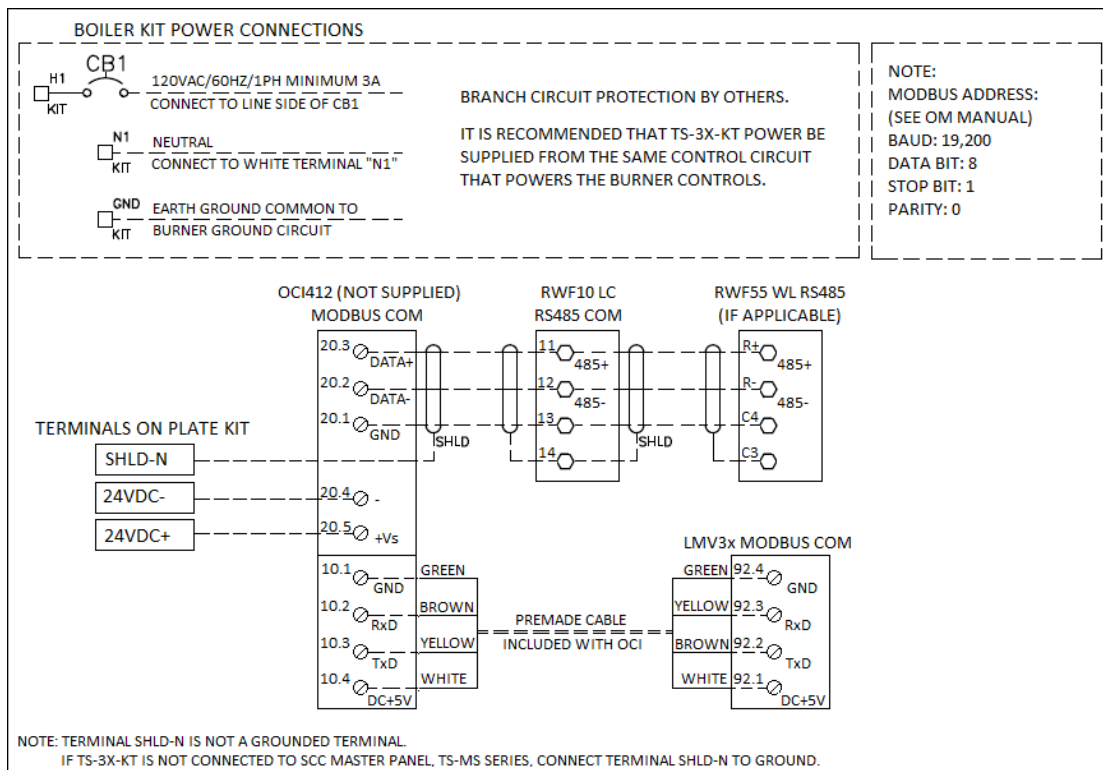
|                            |                             | TS-3X-KT, TS-3M-KT            | TS-5X-KT                        |
|----------------------------|-----------------------------|-------------------------------|---------------------------------|
| Electrical characteristics | Main Operating Voltage      | 120 VAC                       | 120 VAC                         |
|                            | Main Operating Frequency    | 50 – 60 HZ                    | 50 – 60 HZ                      |
|                            | Component Operating Voltage | 24 VDC/VAC                    | 120 VAC                         |
|                            | Power Consumption           | ≤ 60 VA                       | 5 VA max                        |
| Operating environment      | Operating Temperature       | 32 to 122 °F<br>[0 to 50 °C]  | -10 to 131 °F<br>[-16 to 55 °C] |
|                            | Humidity                    | Max. 85% with no condensation | Max. 85% with no condensation   |

## Connections

### TS-3X-KT with LMV3, RWF55 load controller (LC), and RWF55 for water level controller (WL)

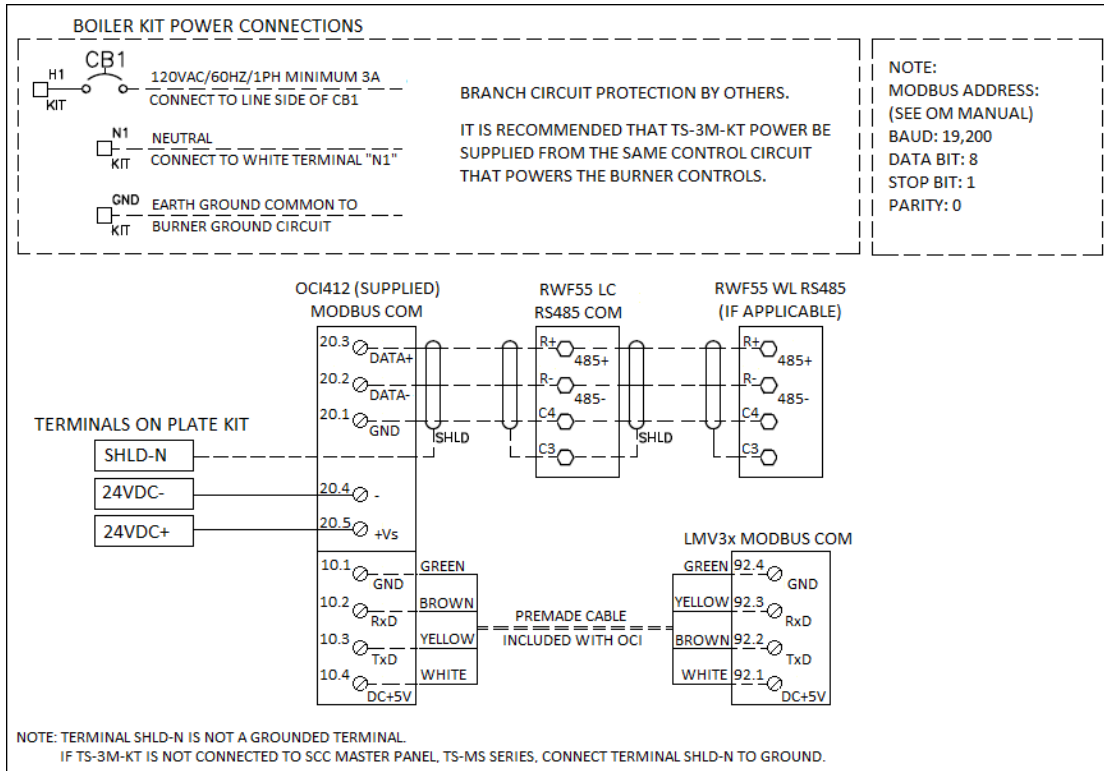


### TS-3X-KT with LMV3, RWF10 load controller (LC), and RWF55 for water level controller (WL)

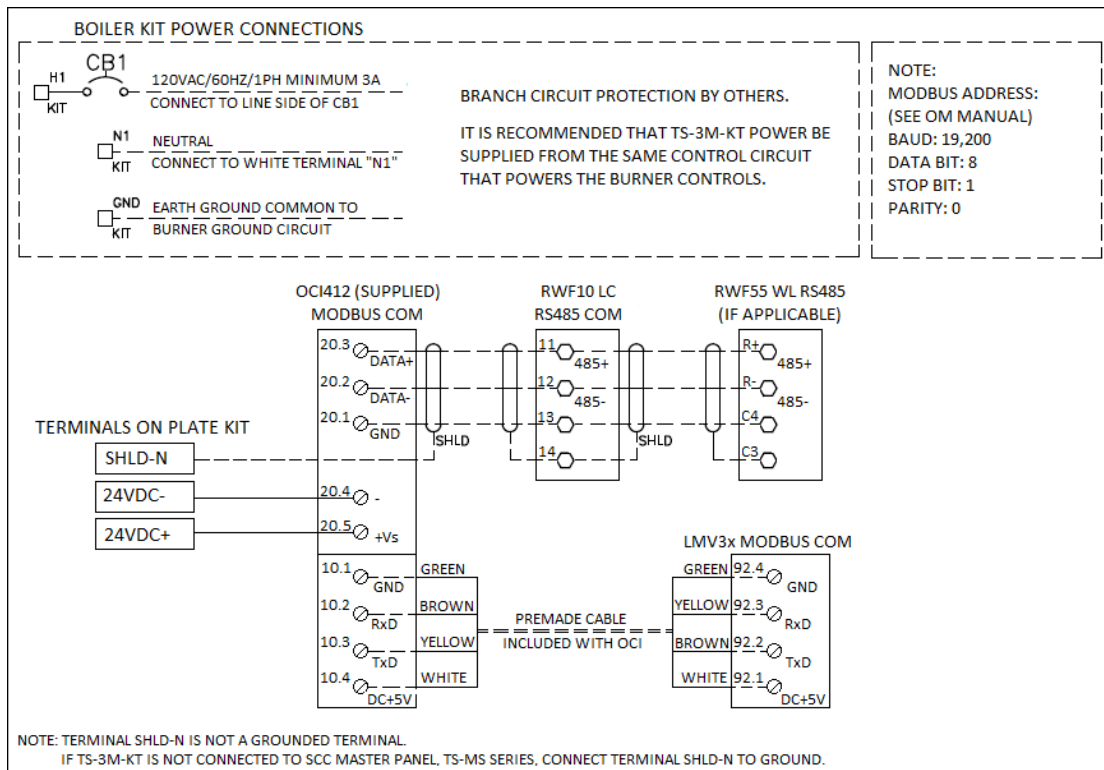


## Connections (continued)

### TS-3M-KT with LMV3, RWF55 load controller (LC), and RWF55 for water level controller (WL)

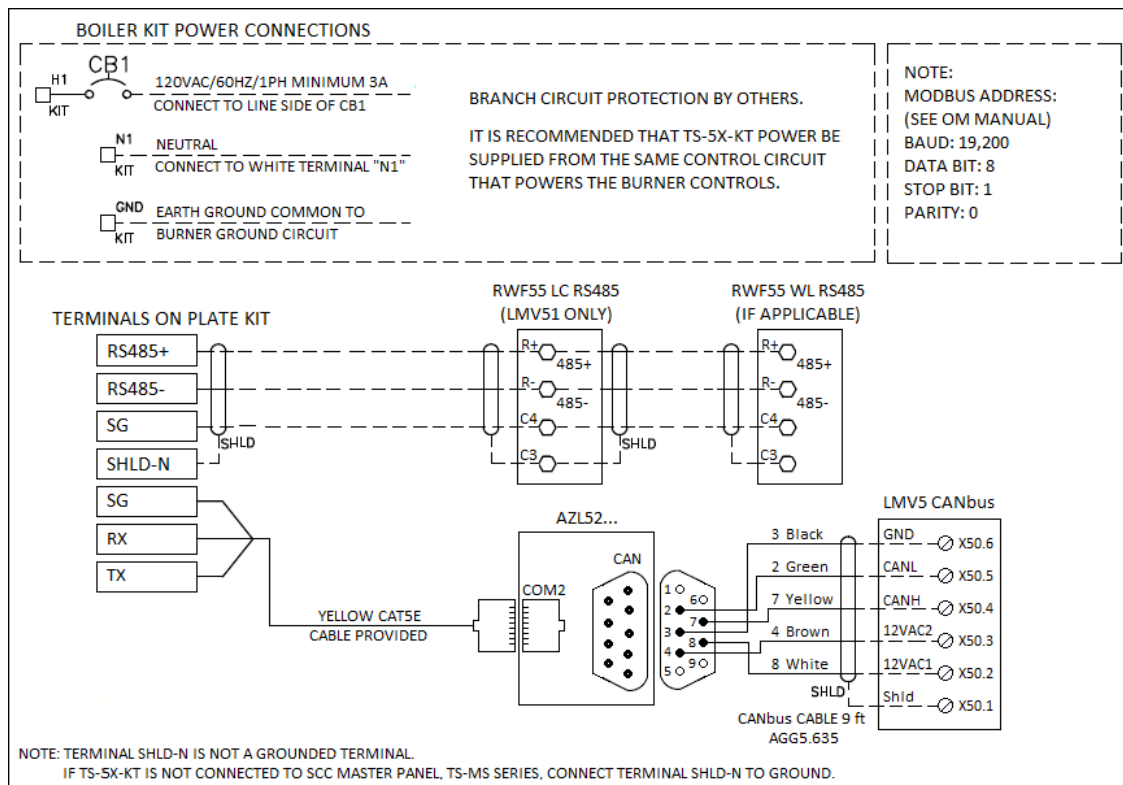


### TS-3M-KT with LMV3, RWF10 load controller (LC), and RWF55 for water level controller (WL)



## Connections (continued)

### TS-5X-KT with LMV5, RWF55 load controller (LC), and RWF55 for water level controller (WL)



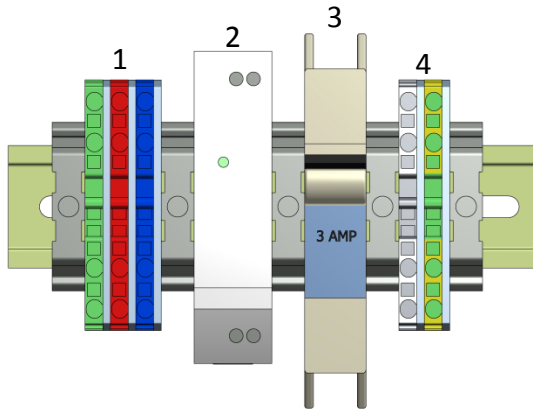
**Note:** For all RS-485 connections, use Belden Cable 3106A (multi-conductor cable with twisted pair, EIA Industrial RS-485 PLTC/COM) or equivalent.

**Table 2: Belden Cable 3106A Wire Color Designation**

| Electrical Diagram | Belden Cable 3106A |
|--------------------|--------------------|
| Red (RS485+)       | Orange (RS485+)    |
| Black (RS485-)     | White (RS485-)     |
| White (SG)         | Blue (SG)          |

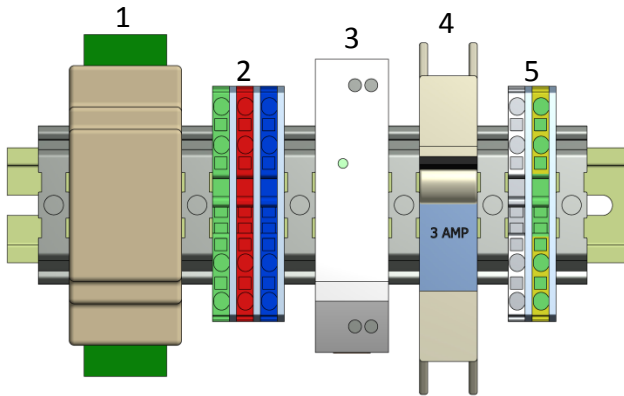
## Parts Description

### TS-3X-KT



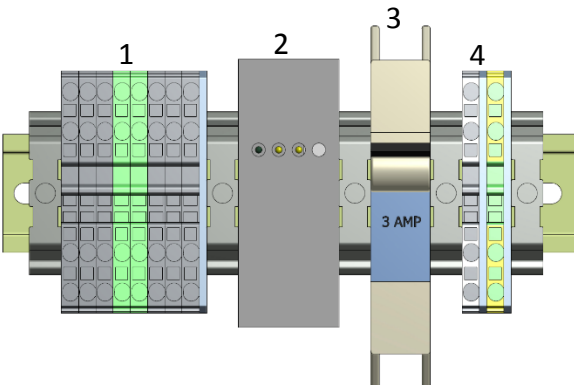
- 1- 24 VDC Terminals
- 2- 24 VDC Power Supply
- 3- 3 Amp Circuit Breaker
- 4- Neutral and Ground Power Terminals

### TS-3M-KT



- 1- OCI Modbus RS485 Module
- 2- 24 VDC Terminals
- 3- 24 VDC Power Supply
- 4- 3 Amp Circuit Breaker
- 5- Neutral and Ground Power Terminals

### TS-5X-KT

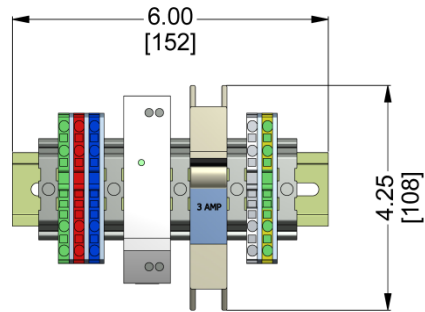


- 1- RS232-RS485 Modbus Interconnecting Terminals
- 2- Modbus Communication Module
- 3- 3 Amp Circuit Breaker
- 4- Neutral and Ground Power Terminals

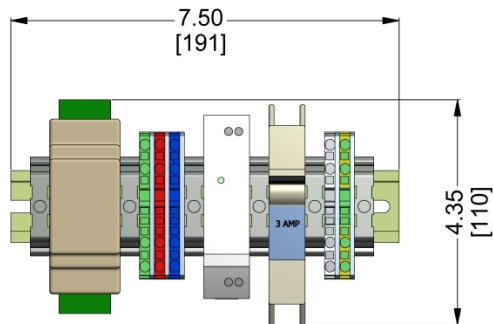
## Dimensions

Dimensions in inches; millimeters in brackets

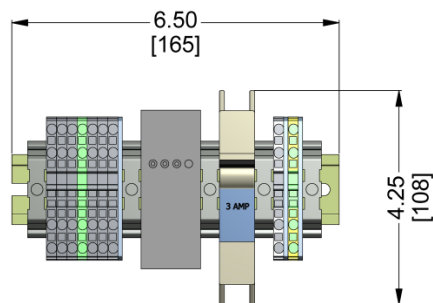
### TS-3X-KT



### TS-3M-KT



### TS-5X-KT



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