

# 4.10

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Group Metering

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# **Main Service Modules**

## **Product Description**

- Main terminal box
- Main circuit breaker
- Main bolted pressure switch
- Main fusible switch
- Main fusible switch with pull box
- Underground pull box

## **Application Description**

### Main Circuit Breakers with Busway Connections

The Service Entrance Product Team announces the availability of both main fusible switch and main circuit breaker group metering mains with busway connections. This offering provides us with the ability to offer multiple tenant metering in high rise apartment buildings where riser busway is used.

## Features, Benefits and Functions

#### Eaton's Main Service Module

- Offering: main terminal/lug compartment, main circuit breaker, main fusible switch, main bolted pressure switch, main fusible switch with pull box (meets EUSERC electrical requirements), underground pull box termination compartment without cross bus (meets EUSERC electrical requirements)
- Mechanically and electrically built for use with 1MM, 3MM, 35MM, 37MM, 35SS and 37SS modular metering stacks
- For integrated system short-circuit ratings with main devices, see series ratings on Page V1-T4-144
- All main service modules include both left and right horizontal bus closure plates
- Two-pole devices are applied to single-phase, three-wire, 120/240 V or 208Y/120 V systems, three-pole devices to 208Y/ 240 V or 120/240 V delta systems

- Single-phase mains couple to any modular metering stack (1MM, 3MM, 35MM, 37MM, 35SS and 37SS)
- Three-phase mains require three-phase bussed stacks. These modular metering stacks are 3MM, 35MM, 37MM, 35SS and 37SS
- If the ampere rating of the main service module is greater than the horizontal bus rating of the meter stack (residential or commercial), the main service module must be center fed. Examples: 1200 A Main Circuit Breaker (1MCB1200R) with an 800 A residential stack (1MM512R). 1600 A Main Terminal Box (3MTB1600R) with a 1200 A residential stack (3MM212R12)
- Most main service modules are available with aluminum or copper bus

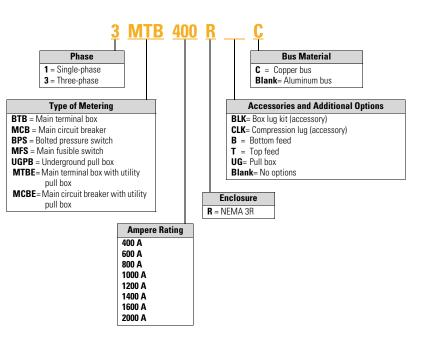
#### Main Circuit Breakers with Busway Connections

- Three-phase, 400–200 A main circuit breakers
- Three-phase, 400–800 A main fusible switches
- Simple bridge joint connection
- Variety of options:
  - Right or left mountingInternal ground or
  - housing ground
- The MFS/MCB and busway connector are supplied completely assembled

Metering Products

## **Catalog Number Selection**





## When Ordering:

- 1. Determine catalog number of Main Service Module.
- 2. Determine catalog number of Meter Stack (Residential or Commercial).
- 3. Find quantity and catalog numbers for tenant circuit breakers (found on **Page V1-T4-127** or **V1-T4-137**). Order one breaker per socket.
- 4. If any accessories are needed, order from Pages V1-T4-138 and V1-T4-139.

Group Metering

## **Product Selection**

## Main Terminal Box

- Phase and neutral lugs are included
- Top or bottom feed:
  For top feed, use
- Myer type hub
- Indoor or outdoor
- Terminal box UL listed short-circuit rating is the least AIC rating of any installed main tenant breaker—to a maximum of 100,000 rms symmetrical amperes

#### Main Terminal Box

#### **Main Terminal Box**

Ampere Rating	Line Side Lug and Wire Sizes—Included	120/240 Vac Single-Phase, Three-Wire Catalog Number	120/208 Vac Three-Phase, Four-Wire Catalog Number
Aluminum	Bus (Standard Offering)		
400	(1) #6–600 or (2) 1/0–250 kcmil <sup>②</sup>	Use three-phase	3MTB400R
600	(2) 250–500 kcmil <sup>③</sup>	Use three-phase	3MTB600R
800	(4) 250–500 kcmil 🛞	1MTB800R	3MTB800R
1200 1	(4) 250–500 kcmil 66	1MTB1200R	3MTB1200R
Aluminum	Bus (EUSERC)		
400	Crimp lug landing pads (no lugs included)	1MTBE400R ⑦	3MTBE400R ⑦
800	Crimp lug landing pads (no lugs included)	1MTBE800R ⑦	3MTBE800R 7
Copper Bus	s (Premium Offering)		
400	(1) #6-600 or (2) 1/0-250 kcmil <sup>(2)</sup>	Use three-phase	3MTB400RC
600	(2) 250–500 kcmil <sup>③</sup>	Use three-phase	3MTB600RC
800	(4) 250–500 kcmil 🛞	1MTB800RC	3MTB800RC
1200 1	(4) 250–500 kcmil 66	1MTB1200RC	3MTB1200RC
1600 1	(6) 500 kcmil ®	1MTB1600RC	3MTB1600RC

System Voltage

#### Main Terminal Box Riser Panel

Eaton's Main Terminal Box Riser Panel is a main terminal box with offset lugs on each phase to allow riser cables to pass through the main service module. These panels are used in the construction of assisted living homes, dormitories, public housing complexes and apartments.

#### **Main Terminal Box Riser Panel**

Ampere Rating	Line and Load Side Lug and Wire Sizes Included	System Voltage 120/240 Vac Single-Phase, Three-Wire Catalog Number	120/208 Vac Three-Phase, Four-Wire Catalog Number
Copper Bus (Standard	d Offering)		
1200	#2 AWG-750 kcmil 🛈 🏽	Use three-phase	3MTB1200RCRIS
1600	#2 AWG-750 kcmil 🛈 🖲	Use three-phase	3MTB1600RCRIS

#### Notes

- ① 1200 A main devices must be center fed when installing 800 A residential meter stacks.
- 1600 A main devices must be center fed when installing 800–1200 A residential and commercial meter stacks.
- <sup>(2)</sup> For 400 A units, to obtain (4) 750 kcmil cables per phase—order quantity 4 **1MPLK2**. Kit contains one lug.
- <sup>③</sup> For compression lug landing kits for 600 A units, order **3MTB600CLK**. Kit includes lug landings for three phases and neutral.
- For 800 A units, to obtain (4) 1/0–300 kcmil or (2) 1/0–750 kcmil cables per phase—order catalog number 3MTB800BLK,
- one lug kit per main terminal box ordered (neutral and ground included in kit).
- <sup>®</sup> For 800 A and 1200 A units, for compression lug landing kits, order 3MTB1200CLK. Kit includes lug landings for three-phase and neutral.
- For 1200 A units, to obtain (6) 1/0–300 kcmil or (3) 750 kcmil cables per phase—order catalog number 3MTB1200BLK, one lug kit per main terminal box ordered (neutral and ground included in kit).
- ⑦ Meets EUSERC electrical requirements and eliminates the need to add additional pull box section. Reference drawing EUSERC DWG-343.
- For 1600 A units, to obtain (4) 750 kcmil cables per phase—order catalog number 3MTB1600BLK, one lug kit per main terminal box ordered.

For a 1600 A compression lug landing kit, order catalog number **3MTB1600CLK**.

(9) Quantity (10) lugs per phase—quantity (5) lugs incoming and quantity (5) lugs outgoing per phase.