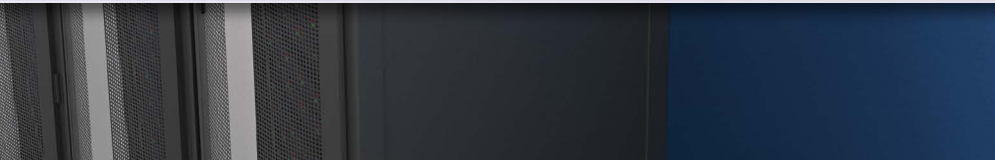


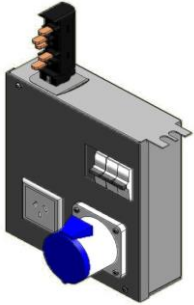


**STARLINE**<sup>®</sup>  
TRACK BUSWAY

## Plug-In Units



**PLUG-IN UNITS**  
**Table of Contents**  
**GM100/GM100G/GM100NG/GM225/  
GM400/GM400G/GM400N/GM400NG/GM800**



**E28 Circuit Breaker Unit**

**Page 7.2**

**E28 Socket Units**

**Page 7.3**

**E28 Drop Cord Units**

**Page 7.4**

**E25 Socket Units**

**Page 7.5**

**E25 Hybrid Units**

**Page 7.6**

**E50 Circuit Breaker Drop Cord**

**Page 7.7**

**E70 Circuit Breaker**

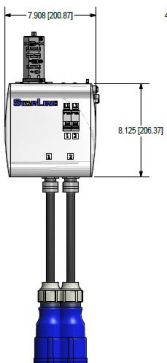
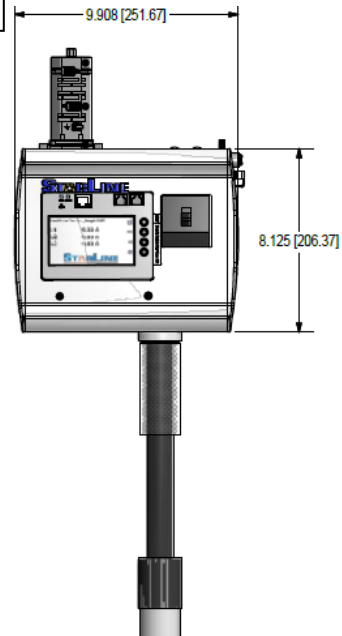
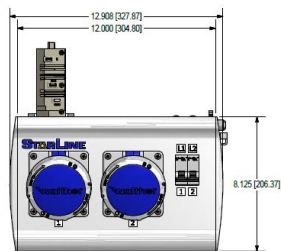
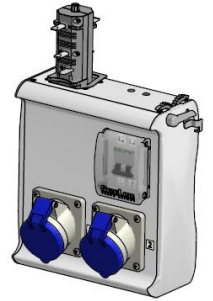
**Page 7.8**

**E90 Circuit Breaker**

**Page 7.9**

**Monitoring**

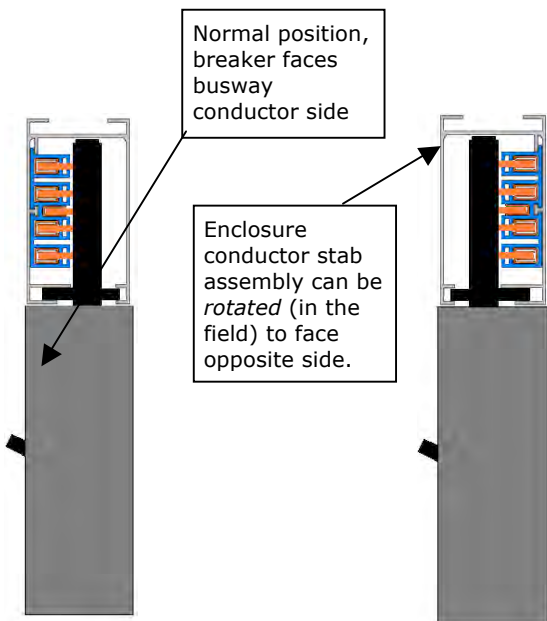
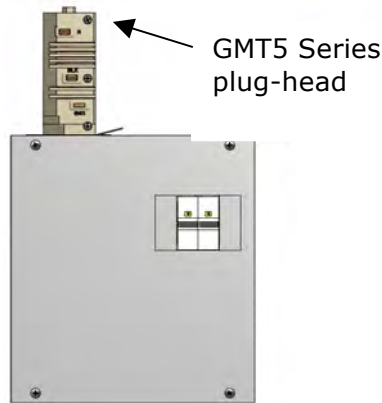
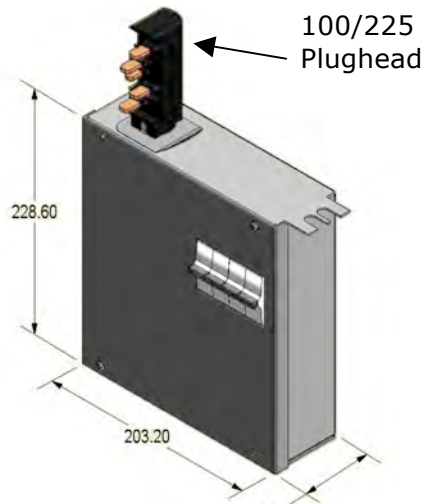
**Page 8.1**



**E28 CIRCUIT BREAKER PLUG-IN**

Basic MCB unit used to tap off power from the busway. Plug head is reversible to face in opposite direction.

- Capable to 7 MCB pole positions.
- MCB's are factory installed to internal DIN rail.
- D-curve MCBs supplied unless trip curve is specified.
- Consult factory for possible combinations.
- Maximum ratings of 100 total amps, 220...415V, 50...60 Hz, 10K Ipk (Higher Ipk upon request).
- IP3X
- Requires 235mm slot space
- Locks into position with a single bolt on mounting tab.



**Catalog Number Sequence**  
**GMCB\*\*\*E28-aa-y-xxx**

- **Voltage**
- **Circuit breaker(s), and (p/aa-y)**
  - Single MCB**  
aa=amps 16-63  
y=MCB poles, 1-4
  - Multiple MCB's**  
p=MCB poles, 1-4  
aa=amps 16-63  
y=total poles, 1-7
- **Enclosure**
- **System Size, 100, 100G, 100NG, 225, GMT5, GMT5G, GMT5N, GMT5NG**
- **Circuit Breaker**

# 100, 225 T5 Series Amp

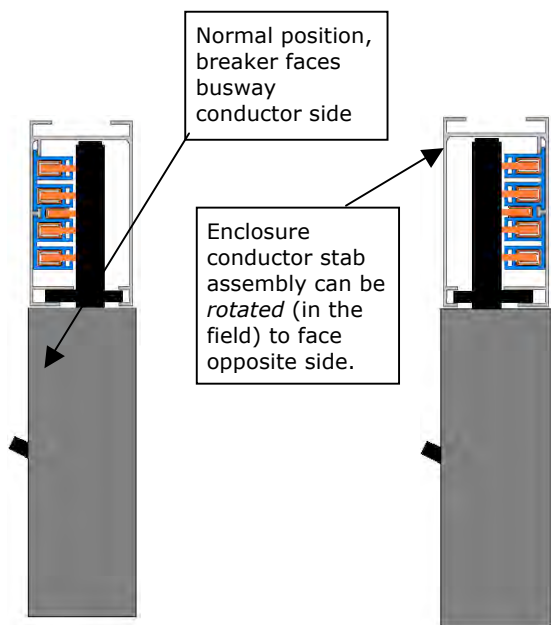
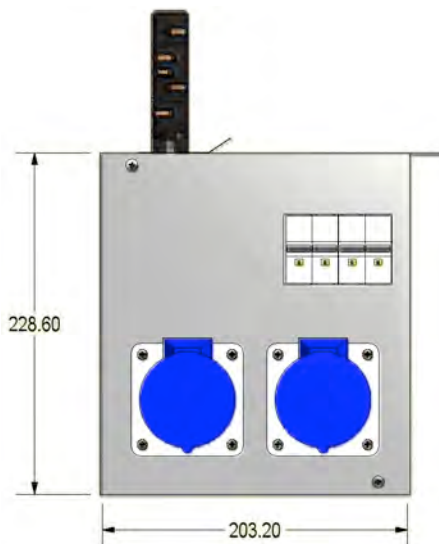
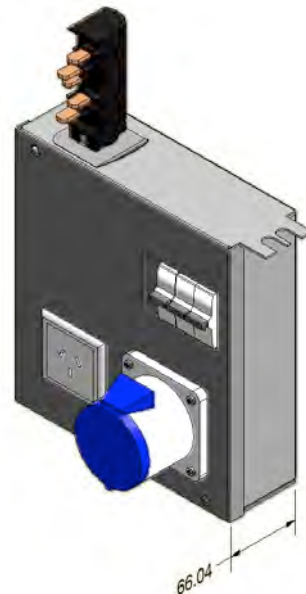
GM100, GM100G, GM100NG, GM225,  
GMT5, GMT5G, GMT5N, GMT5NG



## E28 CIRCUIT BREAKER SOCKET PLUG-IN

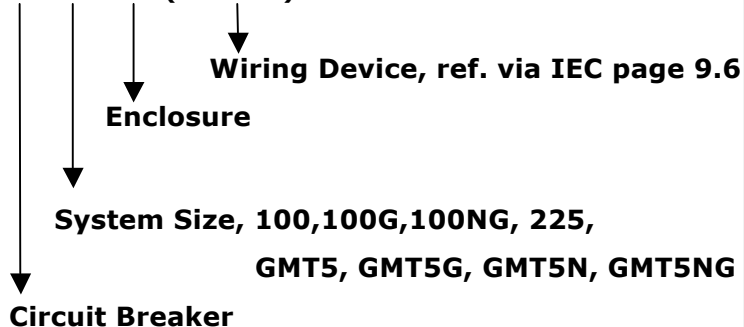
MCB unit with sockets or receptacles, used to tap off power from the Busway with a wide variety of device configurations. Units are shipped fully assembled. Plug head is reversible to face in opposite direction.

- Capable to 7 MCB pole positions.
- Capable to 2 or more sockets. (Consult factory for possible combinations.)
- D-curve MCBs supplied unless trip curve is specified
- Maximum ratings of 100 total amps, 220...415V, 50...60 Hz, 10K Ipk (Higher Ipk upon request)
- IP3X
- Requires 235mm slot space.
- Locks into position with a single bolt on mounting tab.



### Catalog Number Sequence

GMCB\*\*\*E28-(SOCKET)



# 100, 225, T5 Series Amp

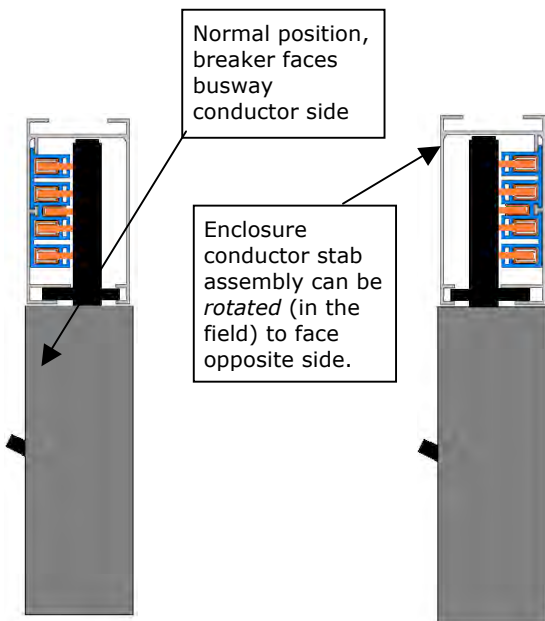
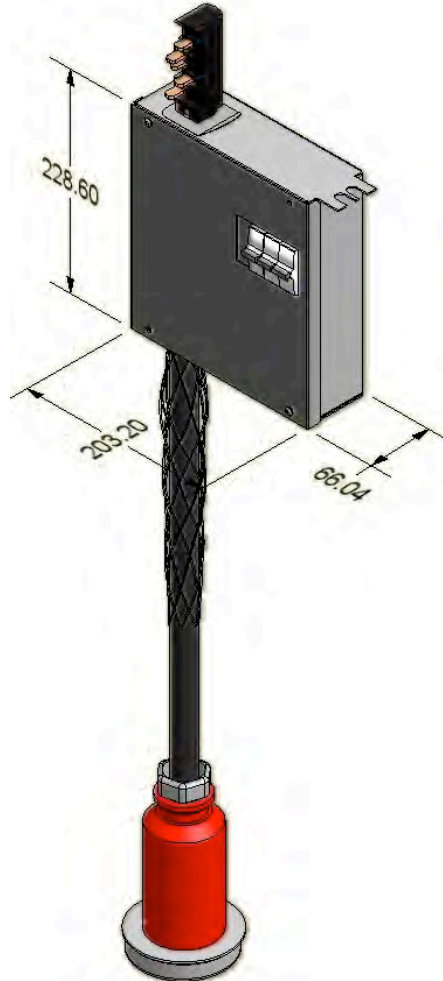
GM100, GM100G, GM100NG, GM225,  
GMT5, GMT5G, GMT5N, GMT5NG



## E28 CIRCUIT BREAKER DROP CORD PLUG-IN

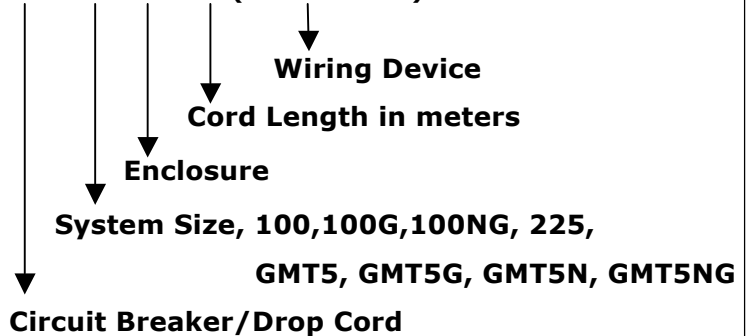
MCB unit with drop cords used to tap off power from the busway with a wide variety of device configurations. Units are shipped fully-assembled. Plug head is reversible to face in opposite direction.

- Capable to 7 MCB pole positions.
- Capable to 3 drop cords. Consult factory for possible combinations and cord lengths.
- D-curve MCBs supplied unless trip curve is specified.
- Maximum ratings of 100 total amps, 220...415V, 50...60Hz, 10K Ipk (Higher Ipk upon request).
- IP3X
- Requires 235mm slot space.
- Locks into position with a single bolt on mounting tab.



### Catalog Number Sequence

GMCBDC\*\*\*E28-X-(CONNECTOR)



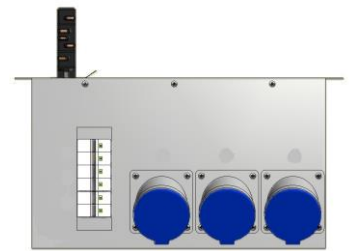
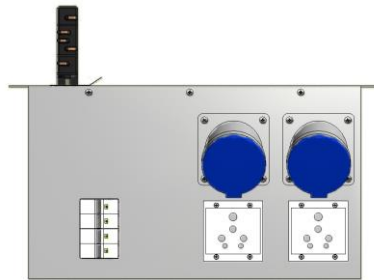
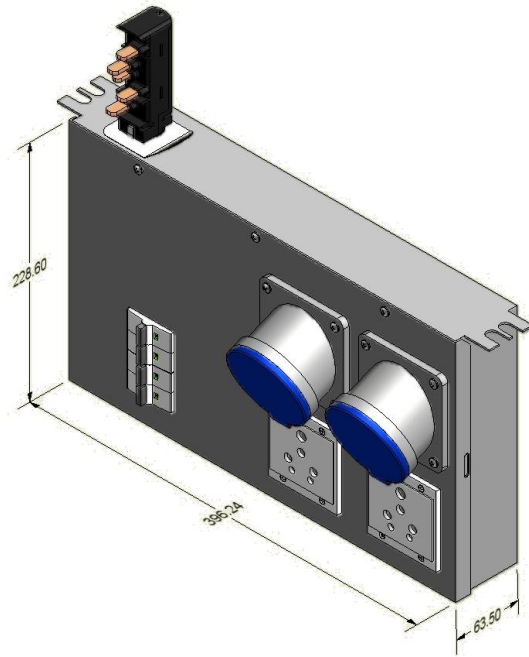
# 100, 225, T5 Series Amp

*GM100, GM100G, GM100NG, GM225, GMT5, GMT5G, GMT5N, GMT5NG*

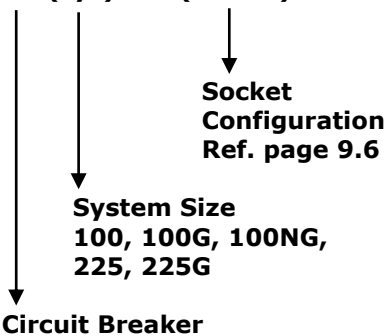
## E25 CIRCUIT BREAKER PLUG-IN

Versatile MCB unit with sockets or receptacles, used to tap off power from the busway with a wide variety of device configurations. Units are shipped fully assembled. Plug head is reversible to face in opposite direction.

- Capable to 8 MCB pole positions.
- Capable to 3 or more sockets. (Consult factory for possible combinations.)
- D-curve MCBs supplied unless trip curve is specified
- Maximum ratings of 100 total amps, 220...415V, 50...60 Hz, 10K Ipk (Higher Ipk upon request).
- IP3X
- Requires 450mm slot space.
- Locks into position with two bolts.



**Catalog Number Sequence**  
GMCB(sys)E25-(socket)



**Catalog Number Selection**

Catalog No.	Description	Weight
GMCB225E25-(2)W26424-(2)332A6S	(2)32A/3wire/230V Socket w/ 1P MCB & (2)W26424	5,44 kg
GMCB225E25-(3)332A6S/2P	(3) 32A/3wire/230V Sockets, (3)2P MCB's	5,44 kg
GMCB400E25-(2)532A6S-4	(2) 32A/5wire/415V, Sockets, (2)3P MCB's	5,44 kg

# 100, 225, T5 Series Amp

*GM100, GM100G, GM100NG, GM225,  
GMT5, GMT5G, GMT5N, GMT5NG*

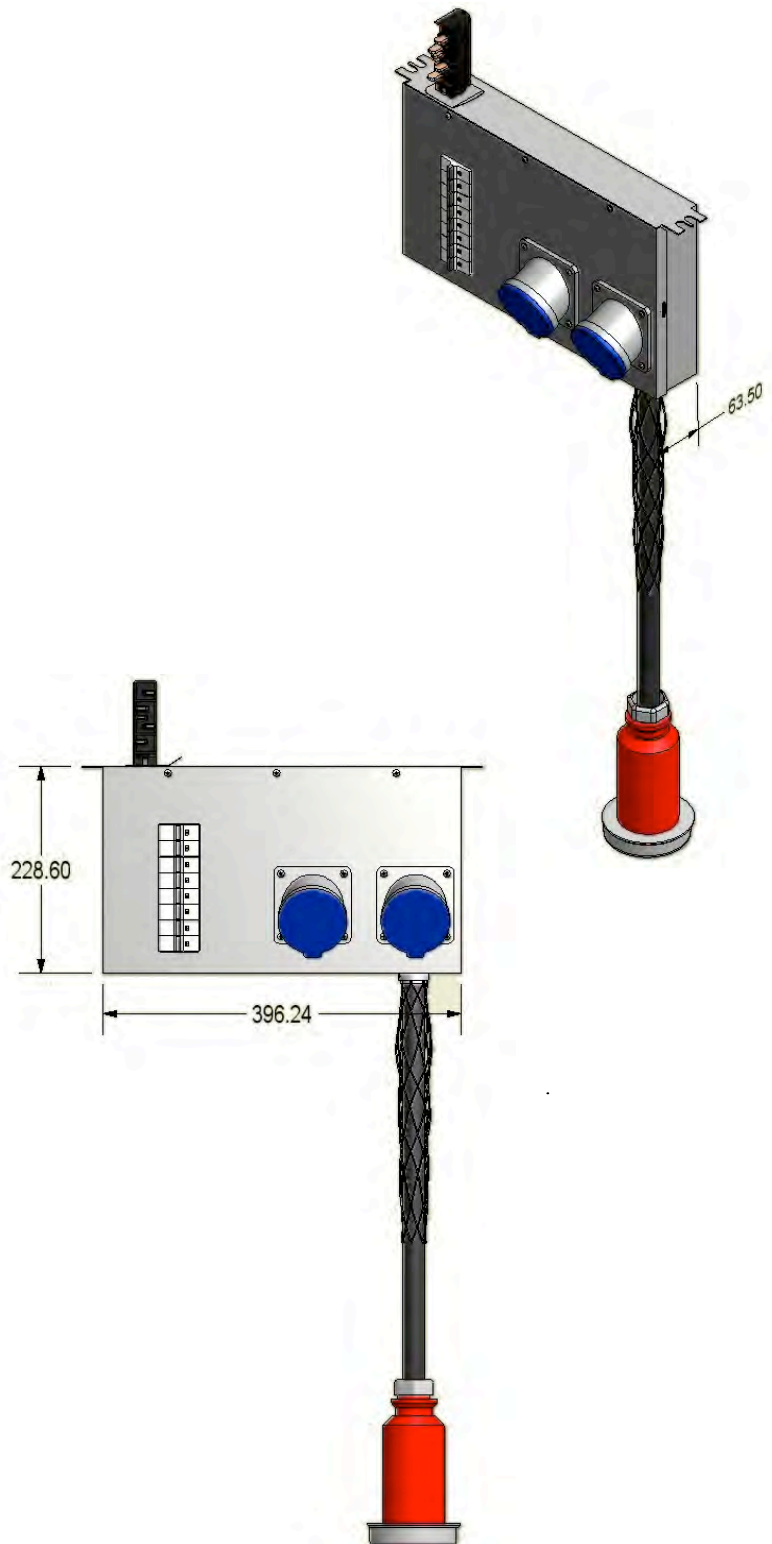


## E25 HYBRID PLUG-IN

Versatile MCB unit can be customized by factory with sockets or receptacles, and drop cords. A wide variety of device combinations are possible. Units are shipped fully assembled. Plug head is reversible to face in opposite direction.

- Capable to 8 MCB pole positions.
- Capable to 3 or more sockets and up to 3 drop cords. (Consult factory for possible combinations.)
- D-curve MCBs supplied unless trip curve is specified.
- Maximum ratings of 100 total amps, 220...415V, 50...60 Hz, 10K Ipk (Higher Ipk upon request).
- IP3X
- Requires 450 mm slot space.
- Locks into position with two bolts.

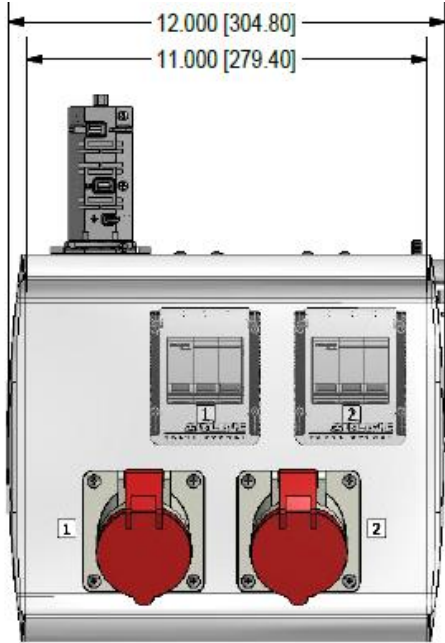
Consult factory to specify devices, configuration and ordering information.



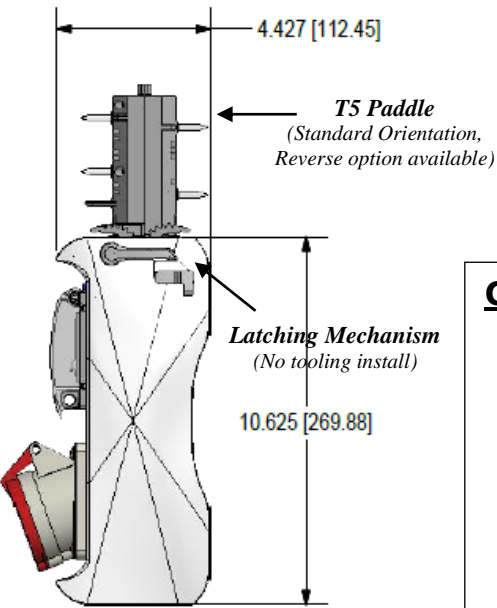
**E50 ENCLOSURE**  
Circuit Breaker Applications

Next-generation, custom engineered enclosure that features a stylish exterior combined with a spacious interior and customizable body length to accommodate a wide variety of applications. The E50-Series enclosure is designed to tap off power from the busway and is compatible with all "T5" systems. The option is available to have a reverse T5 Paddle such that the enclosure faces in the opposite direction when in the busway.

- Configurable unit length for multiple circuit breaker pole positions.
- Locks easily and quickly into position using a "no tooling" latching mechanism
- Maximum rating of 35kA at 480V
- Consult factory for possible combinations\*

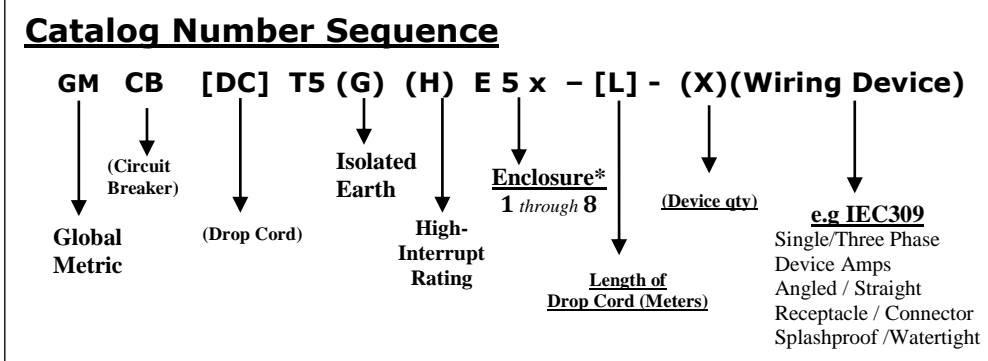


Model Shown:  
GMCBMT5GE54-(2)532A6S-FS



**Enclosure Lengths**  
*(Please consult factory for proper sizing)*

E51	152mm (6.00")
E52	203mm (8.00")
E53	254mm (10.00")
E54	305mm (12.00")
E55	330mm (13.00")
E56	381mm (15.00")
E57	457mm (18.00")
E58	533mm (21.00")

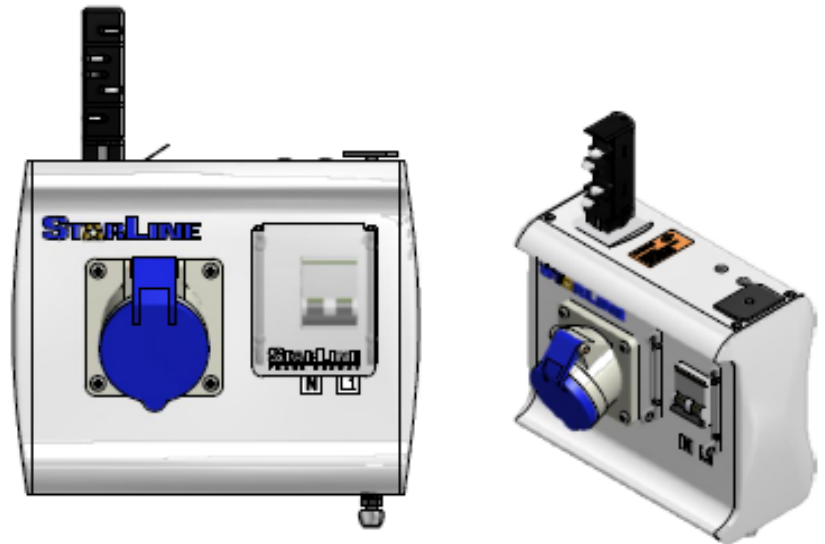




Next-generation, custom engineered enclosure that features a stylish exterior combined with a spacious interior and customizable body length to accommodate a wide variety of applications. The E90-Series enclosure is designed to tap off power from the busway. The option is available to have a reverse paddle such that the enclosure faces in the opposite direction when in the busway.

- Configurable unit length for multiple circuit breaker pole positions.
- Locks into position using a single, easy access bolt
- Maximum rating of 22kA at 480V for GM100, 22kA at 240V for GM225
- Consult factory for possible combinations\*

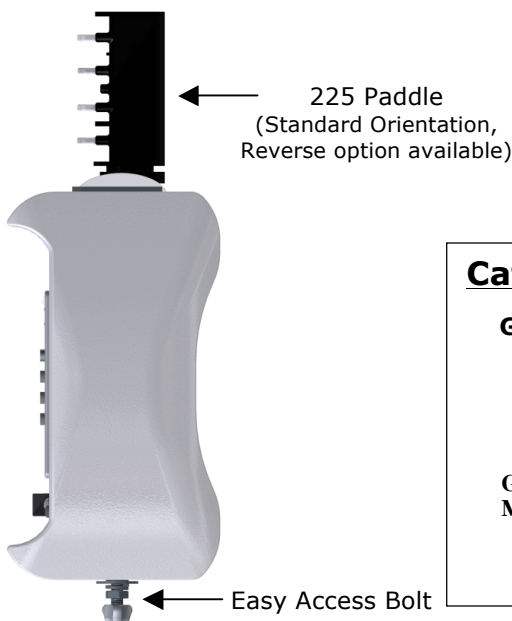
**E90 ENCLOSURE**  
Circuit Breaker Applications



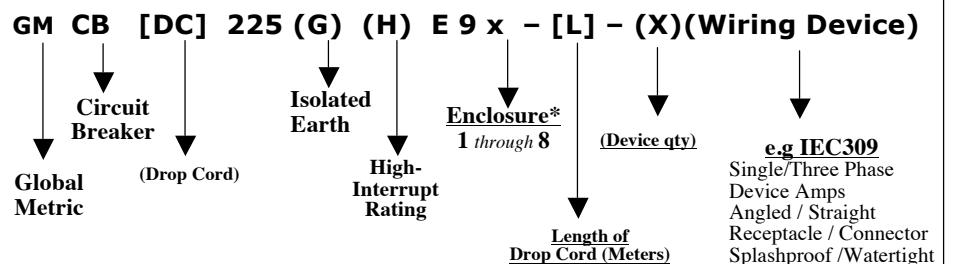
Model Shown:  
GMCB225E93-332A6S/2P-FS

**Enclosure Lengths**  
(Please consult factory for proper sizing)

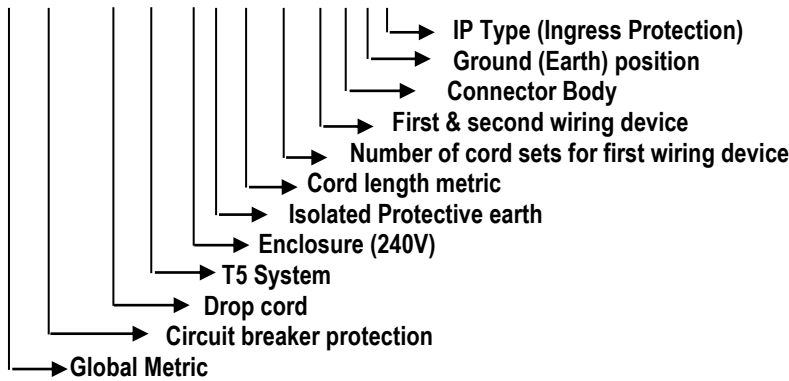
- E91 - 156mm (6.14")
- E92 - 207mm (8.14")
- E93 - 258mm (10.14")
- E94 - 308mm (12.14")
- E95 - 334mm (13.14")
- E96 - 385mm (15.14")
- E97 - 461mm (18.14")
- E98 - 537mm (21.14")



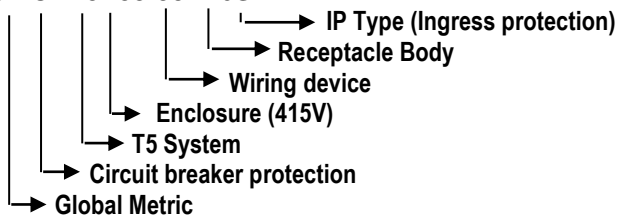
**Catalog Number Sequence**



### Catalog Number Selection Socket units and drop cord units GMCBDCT5E53G-X-(2)532C6W

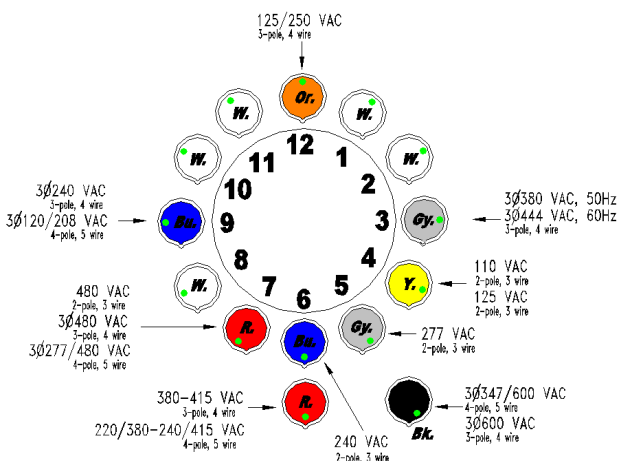


### GMCBT5E53-532A6S



5 60 C 6 S / xP

1st Digit	2nd-3rd Digit	Letter	Grounding	IP Type	Suffix
3 = 3 wire 4 = 4 wire 5 = 5 wire	16 = 16 Amp 32 = 32 Amp 63 = 63 Amp	R = receptacle straight A = Angled receptacle C = Connector	Clock position of female grounding contact	Splashproof/IP44 Watertight/IP67	xP used when clarification on CB is needed. Omit when not required.



#### Rated voltage

110V-130V	Y.
125V-250V	Or.
200V-250V	Bu.
277V, 380V, 440V	Gy.
380V-480V	R.
500V and above	Bk.

#### Color

Y.	Color
Or.	Color
Bu.	Color
Gy.	Color
R.	Color
Bk.	Color

**CRITICAL POWER MONITORING**  
M41/M43/M45/M47 DETAILS

The Starline Critical Power Monitor (CPM) is a distributed data acquisition system that enables current and power monitoring in busway systems. Each phase and neutral can be monitored independently. The CPM may be incorporated at a power feed point or directly into a plug-in unit.

**CURRENT TRANSFORMERS:**

Current transformers (CT's) are supplied with the unit for installation onto the customer-supplied feeder cables. Sense leads from the CT's connect to the Meter.

**METER MODULES:**

Each unit is calibrated for accuracy and is within 0.5% to meet ANSI Revenue Grade Standards.

**CPM- ENHANCED PACKAGE**

(M41/M43/M45/M47):

Provides current and voltage inputs, monitoring current, voltage, power, power factor, frequency, apparent power, energy kWh, reactive power, neutral current, power min. and max.

**DISPLAY:**

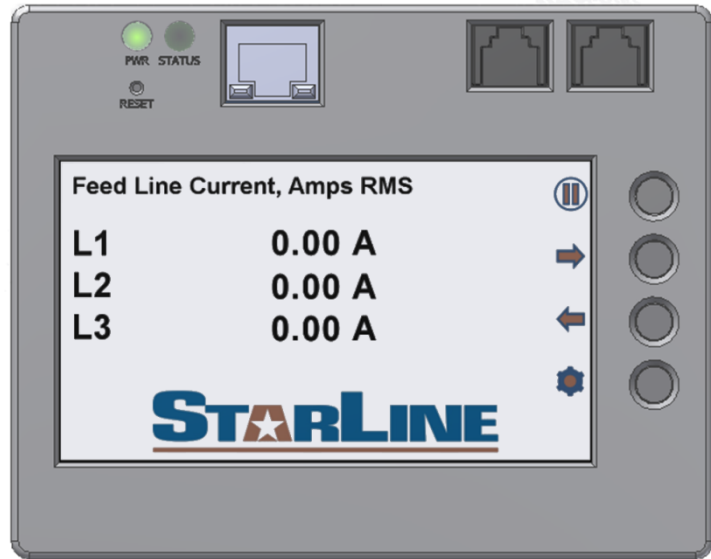
The bright, 124.46mm LCD reports basic power measurements and alarms. Display buttons provide configuration and direct control to the active display screen. Large format display is easily readable at a distance and wide viewing angle.

**COMMUNICATION:**

Ethernet and Modbus RTU ports are standard. Ethernet port provides an embedded web (HTTP) Interface & supports SNMP. Wi-Fi interface is optional, providing true versatility in the busway environment.

**ALARMS:**

When the defined alarm threshold is exceeded, a warning corresponding to that channel will turn ON and send an SNMP trap or an email to the user.



**Critical Power Monitor with the (optional) 124.46mm Display**



**Critical Power Monitor (No Display)**

The Critical Power Monitor can be used to manage and maximize power distribution within a three phase power system. It can be employed as a component to help balance three phase power distribution between each phase. This increases efficiency by reducing the power factor and enables a user to fully analyze the power supplied to them.

**POWER FEED MONITORING**

The CPM, incorporated in or near the power feed unit, provides load monitoring of the entire run of busway. These are used in conjunction with BMS systems to ensure busway is not overloaded as well as for general power management. Typically uses the CPM unit with display.

**BRANCH CIRCUIT MONITORING**

The CPM, incorporated into a plug-in unit, monitors individual branch circuits. These units are used in conjunction with BMS system for power management and revenue purposes at the rack or circuit level. The CPM is capable of monitoring the entire unit or monitoring up to 4 individual devices, limited to 6 solid core Current Transformers (CTs).

**BUILDING MANAGEMENT INTERFACE**

The Starline CPM is easily interfaced with BMS/BCIM systems. Many BMS/BCIM systems offer drivers for use with the Starline CPM. Contact your BMS/BCIM supplier or Starline Engineering for more information.

## POWER FEED UNIT WITH CPM

GM100/GM225 Power Feed Units

**End Feed with Installed Critical Power Monitor**  
GM100/GM225

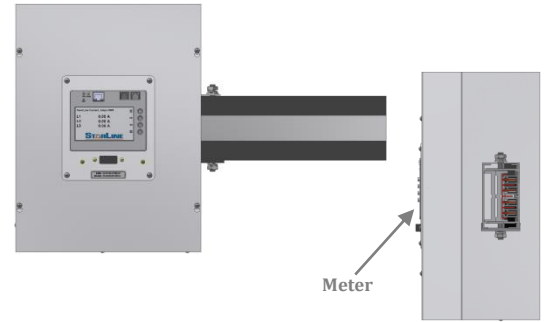
Standard End Power Feed units connect to the male end of the busway. Factory assembled unit consists of a 305mm x 406mm x 194mm steel junction box, with removable sides, connected to a .3 meter section of busway. The assembly includes connection lugs, a ground lug, and shrink tubing for wires up to 150 mm<sup>2</sup>.

Integral CPM installed in the End Feed provides power monitoring and alarm capabilities. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. An automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the embedded webpage.

See Power Monitoring pages for more details.

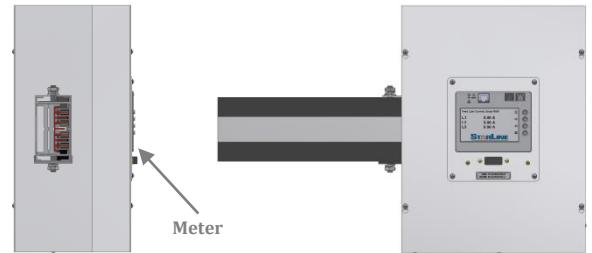
### STANDARD END FEED

- GMEFxxx-4-RT-MyyRz
- GMEFxxxN-4-RT-MyyRz
- GMEFxxxG-4-RT-MyyRz
- GMEFxxxNG-4-RT-MyyRz



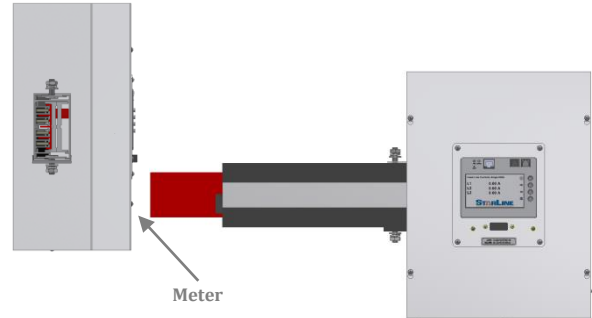
### STANDARD 'LEFT LID' END FEED

- GMEFxxx-4-L-MyyRz
- GMEFxxxN-4-L-MyyRz
- GMEFxxxG-4-L-MyyRz
- GMEFxxxNG-4-L-MyyRz



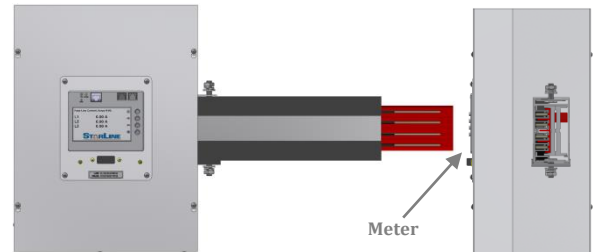
### MALE END FEED

- GMEFxxx-4M-L-MyyRz
- GMEFxxxN-4M-L-MyyRz
- GMEFxxxG-4M-L-MyyRz
- GMEFxxxNG-4M-L-MyyRz

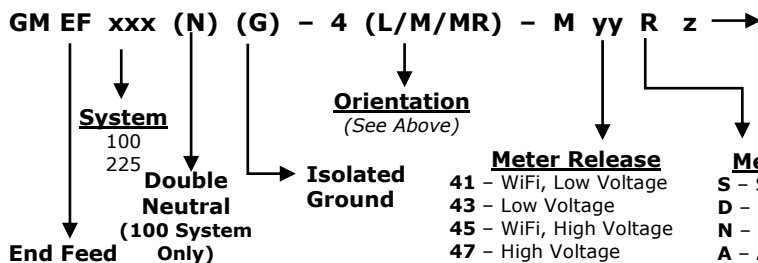


### MALE 'RIGHT LID' END FEED

- GMEFxxx-4M-RT-MyyRz
- GMEFxxxN-4M-RT-MyyRz
- GMEFxxxG-4M-RT-MyyRz
- GMEFxxxNG-4M-RT-MyyRz



### Catalog Number Sequence



### System Configuration

\*Please contact Engineering for assistance on selecting the appropriate Configuration

### High Voltage Criteria:

**Delta System:** ≥400V  
**Wye System:** ≥480V

- F - "Featured" (Display + Alarm)
- E - "Enhanced" (Neutral + Alarm)
- P - "Professional" (Display + Neutral)
- U - "Ultimate" (Display + Neutral + Alarm)

**End Feed with Installed Critical Power Monitor**  
GM250/GM400/GM800

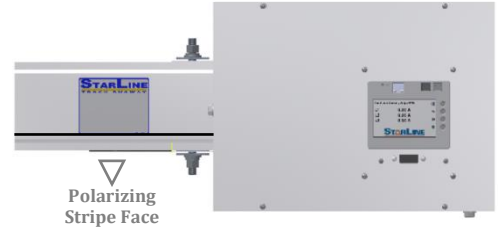
Standard End Power Feed units connect to the end of a Busway section. Factory assembled unit consists of a steel junction box with removable sides and is connected to a small section of busway. Reverse End Feed units for connection to opposite end of busway are also available. (For Frame specific information, see GM250T5/ GM400T5/ GM800T5 pages.)

Integral CPM installed in the End Feed provides power monitoring and alarm capabilities. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. An automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the embedded webpage.

See Power Monitoring pages for more details.

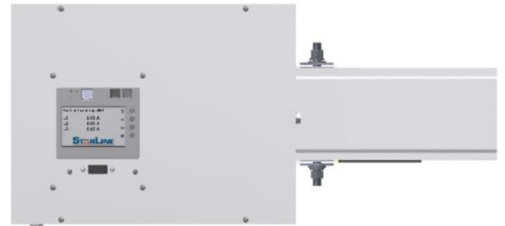
**T5 STANDARD END FEED**

- GMEF<sub>xxx</sub>T5-4-L-MyyRz
- GMEF<sub>xxx</sub>T5N-4-L-MyyRz
- GMEF<sub>xxx</sub>T5G-4-L-MyyRz
- GMEF<sub>xxx</sub>T5NG-4-L-MyyRz



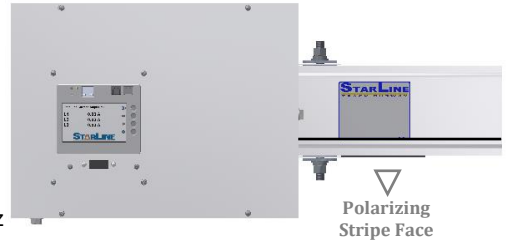
**T5 STANDARD 'RIGHT LID' END FEED**

- GMEF<sub>xxx</sub>T5-4-RT-MyyRz
- GMEF<sub>xxx</sub>T5N-4-RT-MyyRz
- GMEF<sub>xxx</sub>T5G-4-RT-MyyRz
- GMEF<sub>xxx</sub>T5NG-4-RT-MyyRz



**T5 REVERSED END FEED**

- GMEF<sub>xxx</sub>T5-4R-RT-MyyRz
- GMEF<sub>xxx</sub>T5N-4R-RT-MyyRz
- GMEF<sub>xxx</sub>T5G-4R-RT-MyyRz
- GMEF<sub>xxx</sub>T5NG-4R-RT-MyyRz

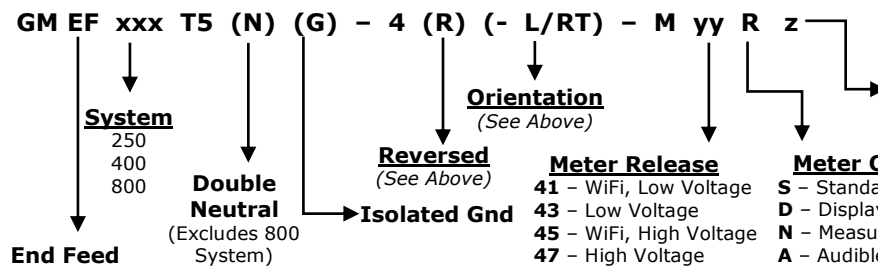


**T5 REVERSED 'LEFT LID' END FEED**

- GMEF<sub>xxx</sub>T5-4R-L-MyyRz
- GMEF<sub>xxx</sub>T5N-4R-L-MyyRz
- GMEF<sub>xxx</sub>T5G-4R-L-MyyRz
- GMEF<sub>xxx</sub>T5NG-4R-L-MyyRz



**Catalog Number Sequence**



**System Configuration**  
\*Please contact Engineering for assistance on selecting the appropriate Configuration

**High Voltage Criteria:**

- Delta System:** ≥400V
- Wye System:** ≥480V

- F** - "Featured" (Display + Alarm)
- E** - "Enhanced" (Neutral + Alarm)
- P** - "Professional" (Display + Neutral)
- U** - "Ultimate" (Display + Neutral + Alarm)

# HINGED METER LID

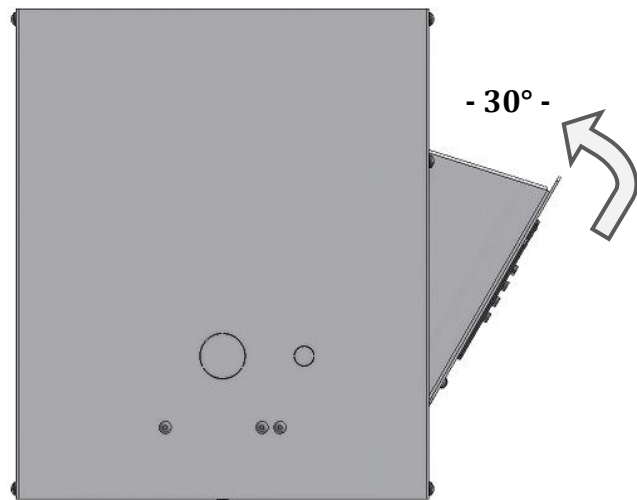
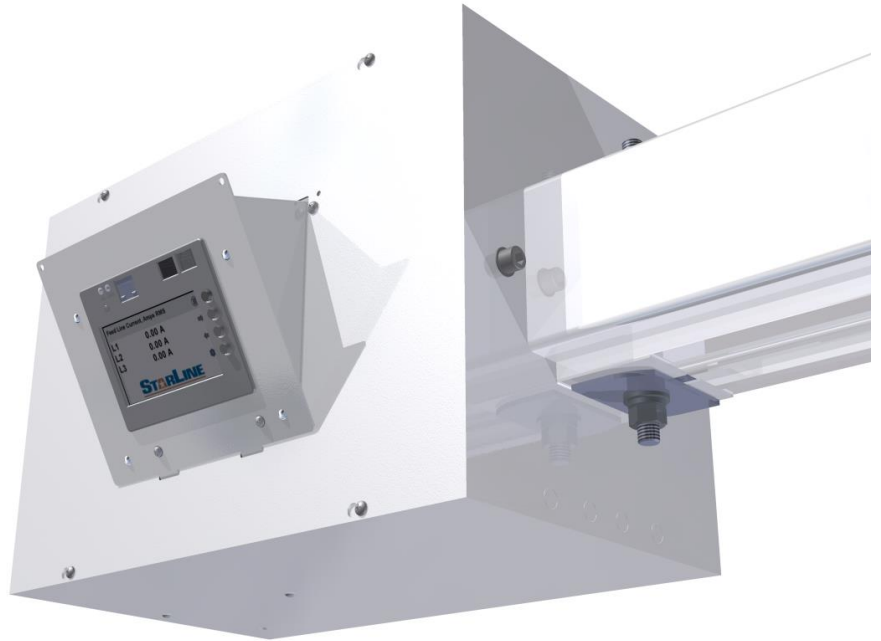
## M40 Series CPM End Feeds

The hinged meter End Feed lid is an accessory that delivers the flexibility to change the viewing angle for Display Meters in an End Feed.

This enclosure allows for the Meter to be mounted flush to the End Feed lid or presented in an extended position at 30° from vertical. This presents a more comfortable and easier viewing angle when looking up at an End Feed unit to read the LCD screen.

The hinged enclosure can be quickly and easily repositioned by simply relocating two screws on the assembly and the enclosure is secured to prevent damage during installation.

This feature is available for most End Feed product lines with any M40 series CPM that contains a display. In addition, the angled enclosure is painted to match the desired End Feed color.



### Catalog Number Selection

Catalog No.		
<b>GM EF xxx ** - ** - M yy ** - HML</b>		
↓	↓	↓
<b>System</b>	<b>Meter</b>	<b>30° Hinged Meter Lid</b>
*Call for Availability	M41 M43 M45 M47	

### Description

**HINGED METER LID**  
(M40-Series CPM only)

## OUTLET BOX UNIT WITH CPM

Power Feed Current Monitoring

### Outlet Box with Installed Critical Power Monitor

The CPM plug-in unit is installed within close proximity to the busway Power Feed. Current Transformers (CT) are installed around the feed wires and then cabled to the Outlet Box using factory provided 20 foot leads.

The CPM provides power monitoring of the busway run. The optional, 125mm LCD screen displays the current level, voltage, and alarm status for each phase and neutral. Nuisance tripping may be avoided using the current information to protect against overloading phases. The monitors also assist in the continuous challenge to balance the three phase loads. An automated email will be sent at 80% of full load as a warning to the user. This level may be changed in the field using the embedded webpage.

#### Networking:

- Ethernet
- RS-485
- Wi-Fi (Optional)

#### Protocols:

- Web Interface
- Modbus RTU
- SNMP
- Telnet
- Modbus TCP/IP

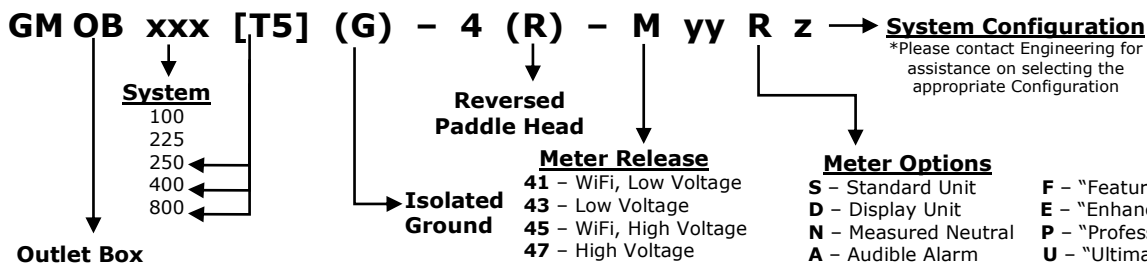
Model Shown:  
GMOB225-4-M41D1



Knock-Out for easy CT Wiring access



### Catalog Number Sequence



## CIRCUIT BREAKER UNIT WITH CPM

Branch Circuit Monitoring

### Circuit Breaker Unit with Installed Critical Power Monitor

#### MONITORING:

The Branch Circuit Monitoring unit has the capability of monitoring the current of the entire unit (M-Meter) or monitoring up to 4 individual devices (V-Meter), limited to 6 solid core Current Transformers (CTs).

#### DISPLAY:

The optional, bright, 125mm LCD reports basic power measurements and alarms. Display buttons provide configuration and direct control to the active display screen. Large format display is easily readable at a distance.

#### COMMUNICATIONS :

Ethernet and Modbus RTU ports are standard. Ethernet port provides an embedded web (HTTP) Interface & supports SNMP. Wi-Fi interface is optional, providing true versatility in the busway environment.

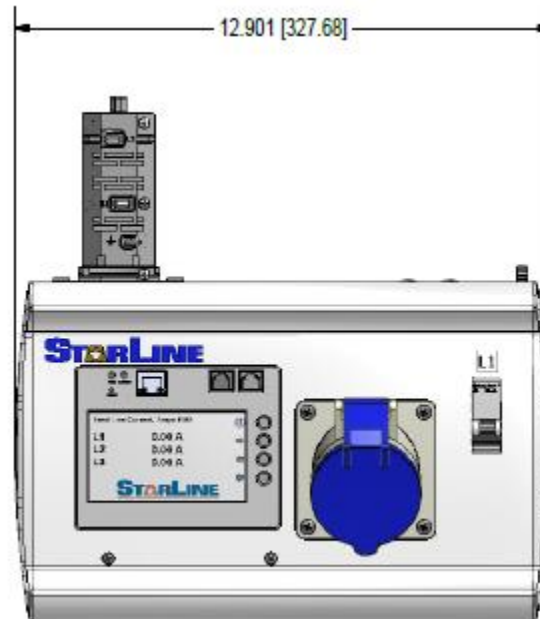
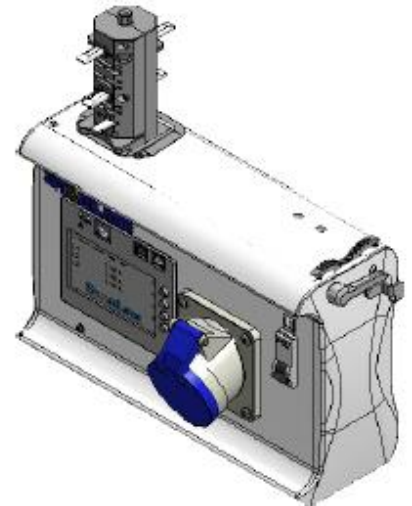
#### ALARMS:

When the defined alarm threshold is exceeded, a warning corresponding to that channel will turn ON and send an SNMP trap or an email to the user.

See Power Monitoring pages for more details.

Example:

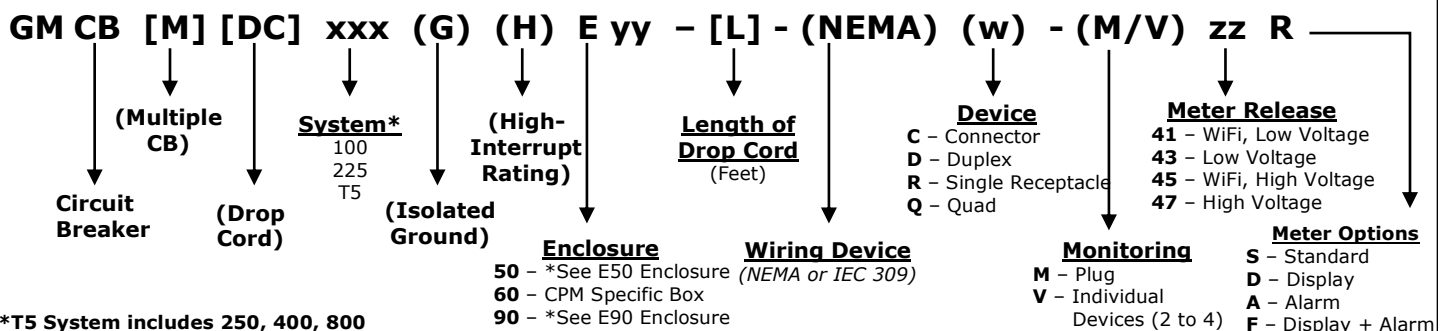
GMCBT5GE95-332A6S-V43D



#### High Voltage Criteria:

Delta System: ≥400V  
Wye System: ≥480V

### Catalog Number Sequence



*The StarLine Critical Power Monitor (CPM) is a revenue grade metering system that enables current and power monitoring in busway systems. Each phase and neutral can be monitored independently. The CPM M50 series may be incorporated directly into a plug-in unit.*

**MONITORING:**

The CPM is capable of monitoring the current of the entire unit (M-Meter) or monitoring up to 4 individual devices (V-Meter), limited to 6 solid core Current Transformers (CTs).

**METER MODULES:**

Each unit is calibrated for accuracy and is within 0.5% to meet ANSI Revenue Grade Standards.

**CPM- ENHANCED PACKAGE (V51/V53/V58/V59):**

Provides current and voltage inputs, monitoring current, voltage, power, power factor, frequency, apparent power, energy kWh, reactive power, neutral current, power min. and max.

**COMMUNICATION:**

- V51** – Single Ethernet + Wi-Fi
- V53** – Single Ethernet
- V58** – Dual Ethernet
- V59** – Dual Modbus + Dual Ethernet

**ALARMS:**

When the defined alarm threshold is exceeded, a warning corresponding to that channel will turn ON and send an SNMP trap or an email to the user.

**FIRMWARE:**

Download the latest version of Firmware from the website. Visit [www.starlinepower.com/CPM](http://www.starlinepower.com/CPM) for link and details.

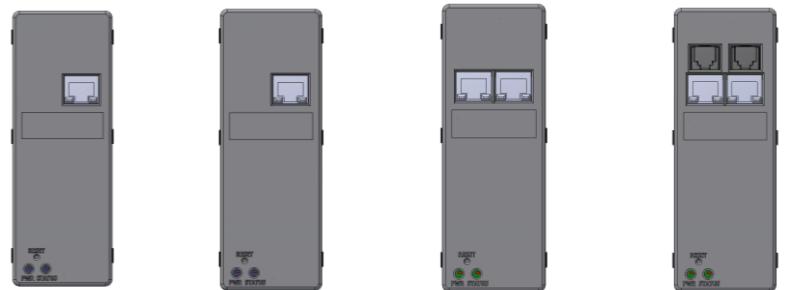
**Meter Specs:**

- Input Voltage – Up to 480V ac (Wye System)
- Current – Up to 125A

**Critical Power Monitor with Optional Display**



**Critical Power Monitor (No Display)**



Single Ethernet w/Wi-Fi  
**V51**

Single Ethernet  
**V53**

Dual Ethernet  
**V58**

Dual Modbus Dual Ethernet  
**V59**

*The Critical Power Monitor can be used to manage and maximize power distribution within a three phase power system. It can be employed as a component to help balance three phase power distribution between each phase. This increases efficiency and enables a user to fully analyze the power supplied to them.*

**BRANCH CIRCUIT MONITORING**

The CPM, incorporated into a plug-in unit, monitors individual branch circuits. These units are used in conjunction with a BMS for power management and revenue purposes at the rack or circuit level. The CPM is capable of monitoring the entire unit (M-Meter) or monitoring up to 4 individual devices (V-Meter), limited to 6 Current Transformers (CTs).

**BUILDING MANAGEMENT INTERFACE**

The Starline CPM is easily interfaced with BMS/DCIM systems. Many BMS/DCIM systems offer drivers for use with the Starline CPM. Contact your BMS/DCIM supplier or Starline Engineering for more information.

## M50 SERIES CIRCUIT BREAKER UNIT

Branch Circuit Monitoring

### Circuit Breaker Unit with Installed Critical Power Monitor

#### MONITORING:

The Branch Circuit Monitoring unit has the capability of monitoring the current of the entire unit (M-Meter) or monitoring up to 4 individual devices (V-Meter), limited to 6 solid core Current Transformers (CTs).

#### DISPLAY:

The optional, bright, 3 digit, 7-segment display reports current, voltage, and power factor. The three measurements can be turned on or off via the web page.

#### Daisy-Chain Ethernet:

The dual Ethernet configuration (V58 and V59) allows users to implement a daisy-chain topology when wiring meters, thus saving on network switch ports within the facility.

#### COMMUNICATIONS:

A single Ethernet port is standard; choose between optional dual Ethernet, Modbus and Wi-Fi configurations. Ethernet port provides an embedded web (HTTP) interface & supports SNMP. Users can use Modbus and Ethernet ports simultaneously.

#### ALARMS:

When the defined alarm threshold is exceeded, a warning corresponding to that channel will turn ON and send an SNMP trap or an email to the user.

See Power Monitoring pages for more details.

Example:

GMCBDCT5GE70-X-(2)332C6S-4-V59S-XC60

Example:

GMCB225E69-532A6S-FS-V59S

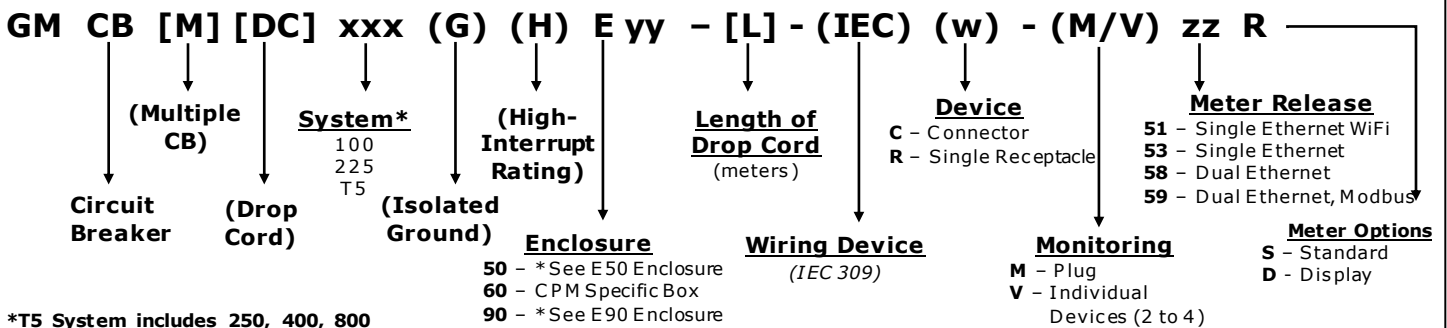


Example:

GMCBMDCT5HE94-X-(2)460C6W-4-V51D



### Catalog Number Sequence



## RETROFIT CRITICAL POWER MONITOR

Factory Rework: Branch Circuit Monitoring

**MONITORING:** The Retrofit CPM allows for non-metered legacy plug-in units to be upgraded (at Universal Electric Corporation) to include metering functionality. The unit is capable of monitoring the energy of the entire unit (M-Meter) or monitoring up to 4 individual devices (V-Meter), limited to 6 solid core Current Transformers (CTs).

The location of your meter will depend on the plug box style and your pluggable space.

**DISPLAY:** The optional, bright, 3 digit, 7-segment display reports current, voltage, and power factor. The three measurements can be turned on or off via the web page.

The display shows the aggregate measurements of the retrofit unit (will not display measurements of individual outlets).

**COMMUNICATIONS:** A single Ethernet port is standard; choose between optional dual Ethernet, Modbus and Wi-Fi configurations. Ethernet port provides an embedded web (HTTP(S)) interface & supports SNMP, Modbus TCP and BACnet TCP. Users can use Modbus RTU and Ethernet ports simultaneously.

The dual Ethernet configuration (V58 and V59) allows users to implement a daisy-chain topology. Alarm functionality is also included.

**\*The below catalog number will be appended to the end of your plug-in unit catalog number.**



CPM Standalone Rear (Standard)



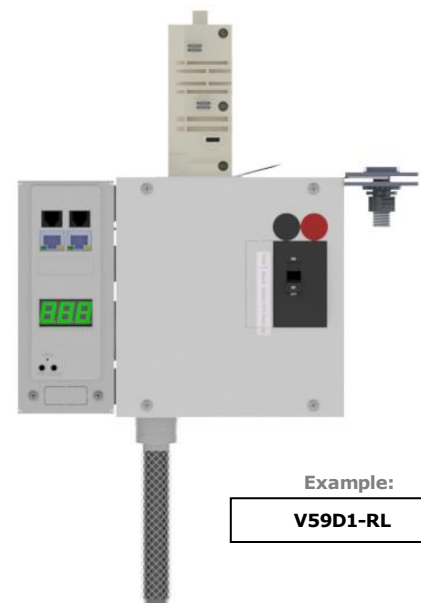
CPM Standalone Right



CPM Standalone Left

Example:

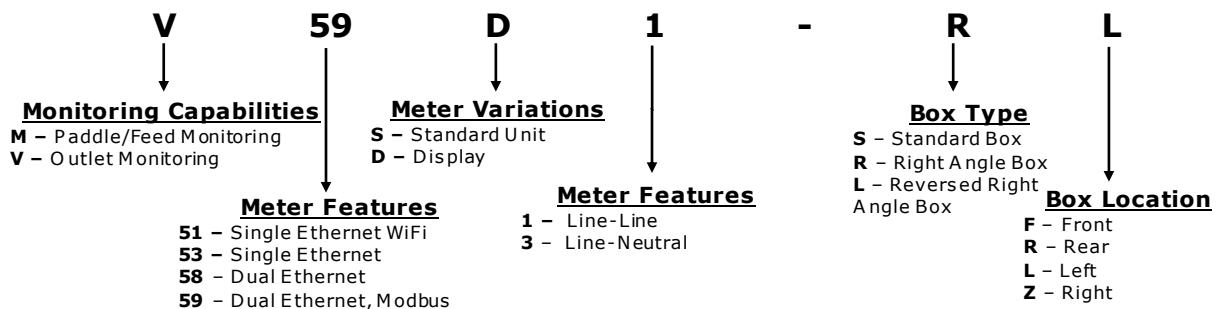
V59D1-SF



Example:

V59D1-RL

### Catalog Number Sequence



## RETROFIT CRITICAL POWER MONITOR

Customer Retrofit: Branch Circuit Monitoring

**MONITORING:** The Retrofit CPM allows for non-metered legacy plug-in units to be upgraded (in the field) to include metering functionality. The unit is capable of monitoring 3 phase energy. A measured neutral option is available.

The Retrofit CPM is not only capable of being installed in Starline plug-in units, but other manufacturers' devices as well.

If you would like to install this into a Starline plug-in unit, contact your applications engineer.

**DISPLAY:** The optional, bright, 3 digit, 7-segment display reports current, voltage, and power factor. The three measurements can be turned on or off via the web page.

The display shows the aggregate measurements of the retrofit unit (will not display measurements of individual outlets).

**COMMUNICATIONS:** A single Ethernet port is standard; choose between optional dual Ethernet, Modbus and Wi-Fi configurations. Ethernet port provides an embedded web (HTTP(S)) interface & supports SNMP, Modbus TCP and BACnet TCP. Users can use Modbus RTU and Ethernet ports simultaneously.

The dual Ethernet configuration (M58 and M59) allows users to implement a daisy-chain topology. Alarm functionality is also included.



CPM Standalone Rear (Standard)



CPM Standalone Right



CPM Standalone Left

\*Below examples are meant to depict sample Retrofit CPM installations (plug not included)



Example:

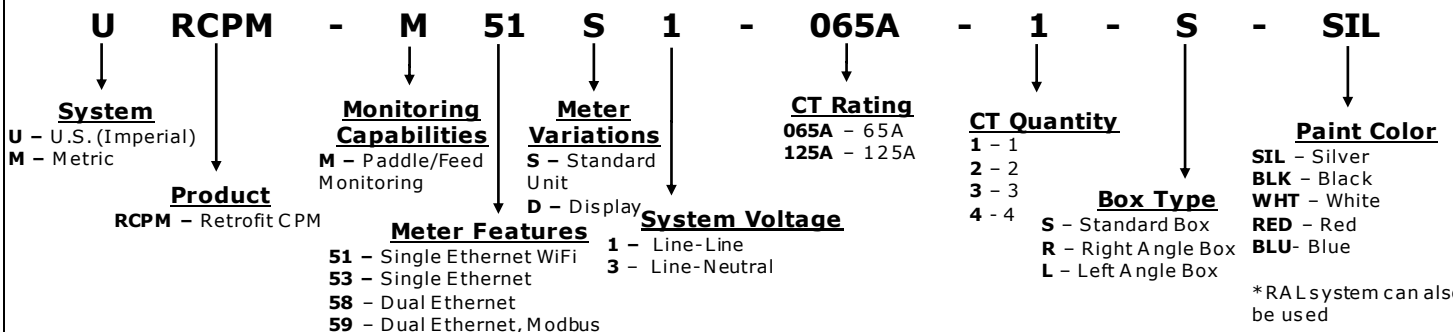
URCPM-M53D3-125A-3-S-SIL



Example:

URCPM-M51D3-065A-S-SIL

### Catalog Number Sequence



## CORDED CRITICAL POWER MONITOR

Branch Circuit Monitoring

**MONITORING:** The Corded CPM has a plug on one end and a connector body or receptacle on the other end; making it ideal for field power monitoring on-the-fly. It is capable of monitoring the energy of any device.

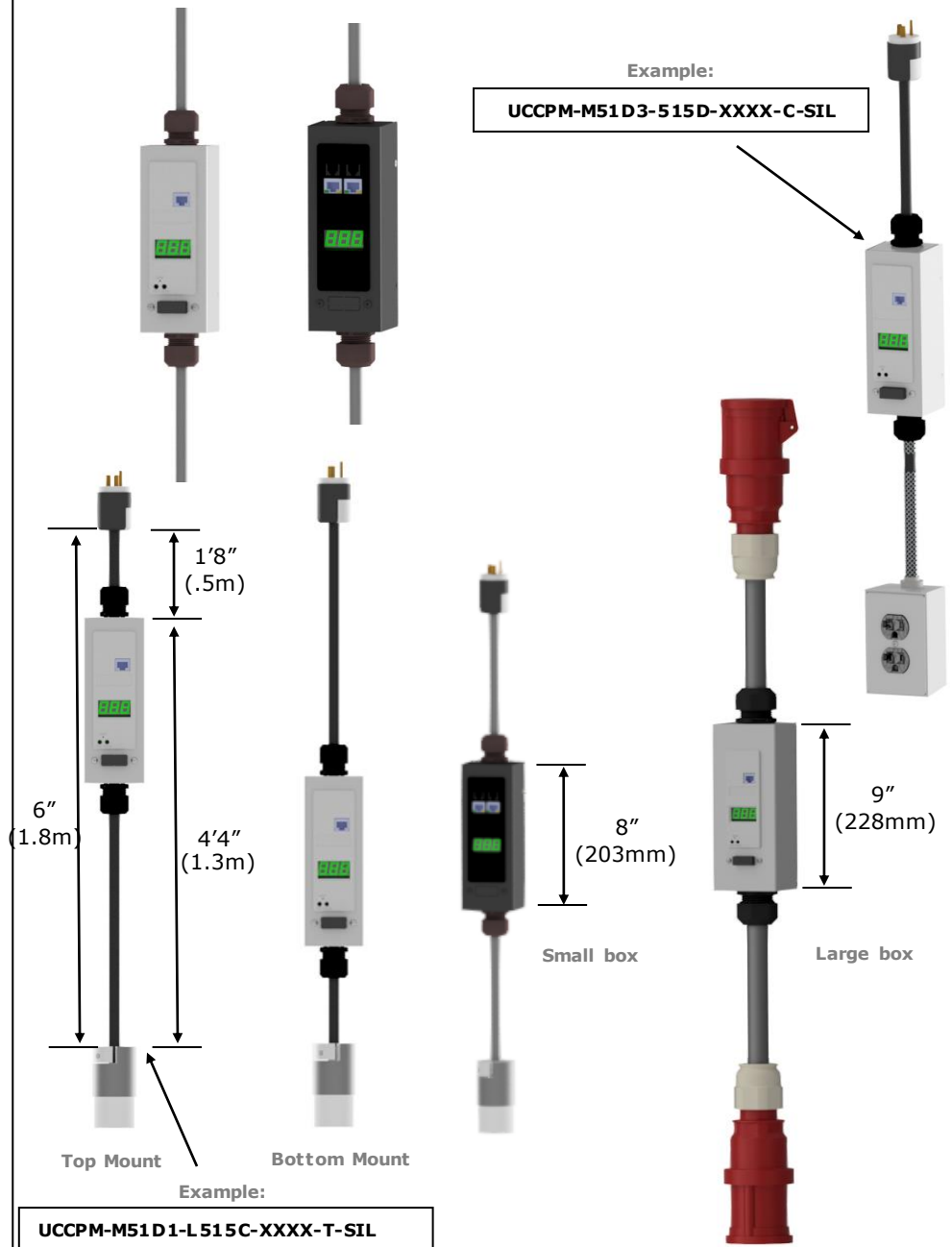
The Corded CPM is also available without connectors.

All M50 meter features, communication options and accessories are available except for measured neutral.

**BOX SIZE:** There are two different Corded CPM box sizes. The smaller is designed for single phase (2 pole/3 wire, 1 pole+N/3W) wiring devices rated from 0-32A & 0-480V. The color is black unless specified. The larger enclosure is designed for all other configurations. These include single phase (2 pole/3 wire) rated at 32A-63A & 0-480V, three phase delta (3 pole/4 wire) rated at 0-63A & 0-480V and three phase wye (4 pole/5 wire) rated at 0-63A & 0-480V.

**METER LOCATION:** The meter can be placed in the center or offset from the top or bottom of the cord. Top or Bottom meters will always be 1'8" (.5m) from the end of the connector.

**LENGTH:** Length of corded units range from 4 to 25 feet in increments of 1 foot for domestic units. International corded CPMs can be ordered in 1m, 3m or 9m. No other lengths are offered at this time.



### Catalog Number Sequence

<b>U</b>	<b>CCPM</b>	<b>-</b>	<b>M</b>	<b>51</b>	<b>S</b>	<b>1</b>	<b>-</b>	<b>L515</b>	<b>C</b>	<b>-</b>	<b>XXXX</b>	<b>-</b>	<b>C</b>	<b>-</b>	<b>BLK</b>
<b>System</b>	<b>Product</b>		<b>Monitoring Capabilities</b>	<b>Meter Features</b>	<b>Meter Variations</b>	<b>System Voltage</b>		<b>Wiring Device OR Cord Set</b>	<b>Device Style</b>		<b>Length (end to end)</b>		<b>Meter Location on the cord</b>		<b>Paint Color</b>
U - U.S. (Imperial) M - Metric	CCPM - Corded CPM		M - Paddle/Feed Monitoring	51 - Single Ethernet WiFi 53 - Single Ethernet 58 - Dual Ethernet 59 - Dual Ethernet, Modbus	S - Standard Unit D - Display	1 - Line-Line 3 - Line-Neutral		(options listed on pg. 13.13)	C - Connector Body R - Receptacle D - Duplex Q - Quad Receptacle		Imperial: Length will be selected via Syteline. There will always be four X's for these characters.		C - Center T - Top B - Bottom		BLK - Black** SIL - Silver WHT - White RED - Red BLU - Blue *RAL system can also be used **Default color is black

# POWER FEED UNIT with IR WINDOW



## End Feed with Infrared (IR) Window

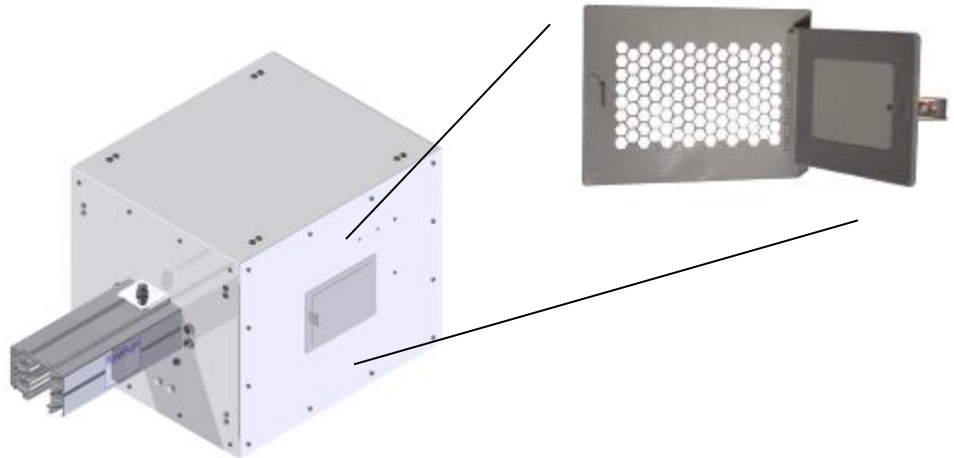
Standard End Power Feed units connect to the end of the Busway. Factory assembled unit consists of a steel junction box, with removable sides, connected to a section of Busway. The IR Window installed in the End Feed provides electrical connection information while the panel doors are safely closed.

IR windows offer:

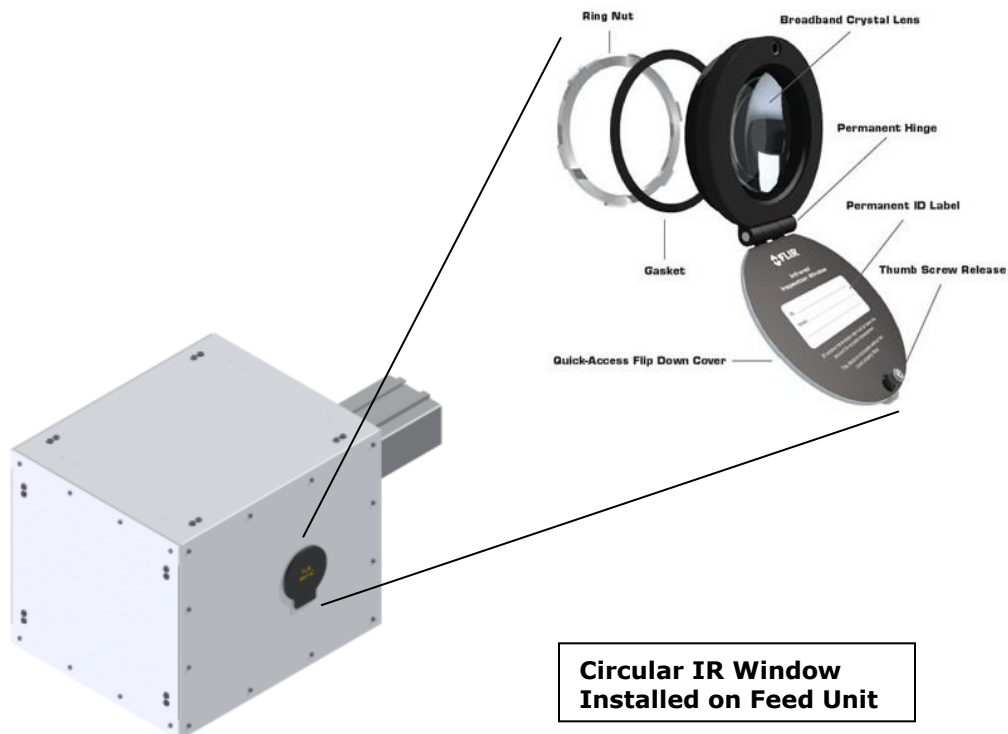
- Enhanced electrical safety
- Increased compliance to NFPA 70E / CSA Z462
- Reduced PPE
- Closed-door infrared inspections
- Stable and consistent transmission over product life
- Largest field of view of any IR window
- Supports visual and infrared imaging for any IR camera

Contact sales for End Feed enclosure dimensions and catalog numbers. This accessory will be denoted with a "IRW" for the rectangular IR window, and a "IRH" for the circular window in the catalog number.

Circular windows can be used when there are external spatial restrictions as it has a smaller footprint.



IR Window Installed on Feed Unit



Circular IR Window Installed on Feed Unit