QUICK START GUIDE

RGM40 meter

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Safety warnings

⚠️ **CAUTION**

Installation of the RGM40 meter must be performed only by qualified personnel who follow standard safety precautions during all procedures. Those personnel should have appropriate training and experience with high voltage devices. Appropriate safety gloves, safety glasses and protective clothing are recommended.

During normal operation of the RGM40 meter, dangerous voltages flow through many parts of the unit, including: Terminals and any connected CTs (current transformers) and PTs (potential transformers), all I/O modules and their circuits. All primary and secondary circuits can, at times, produce lethal voltages and currents. Avoid contact with any current-carrying surfaces.

Do not use the meter or any I/O device for primary protection or in an energy-limiting capacity. The meter can only be used as secondary protection.

IMPORTANT! Refer to your meter's user manual for additional safety warnings before performing installation, wiring or maintenance of your meter.

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Mechanical installation

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01 DIN mount

1. Slide top groove of meter onto the DIN rail.

2. Press gently until the meter clicks into place.

3. Use two screws to secure the meter to the DIN rail.

Mount DIN

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01
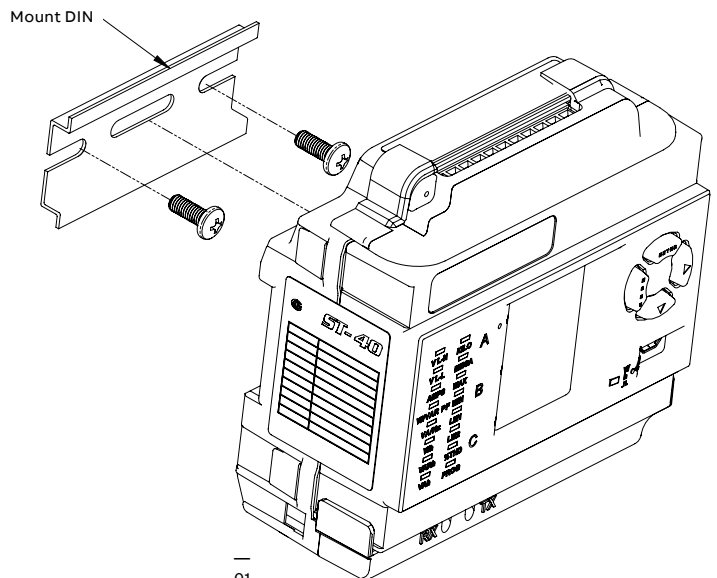
Electrical installation

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02 Wye/Delta*, 4-wire, no PTs, 3 CTs

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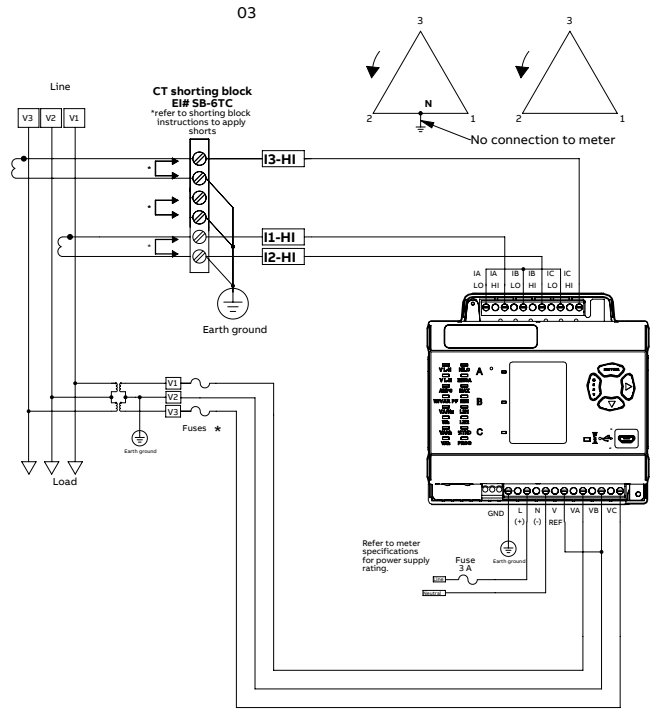03 Wye/Delta*, 4-wire, 3 PTs, 3 CTs

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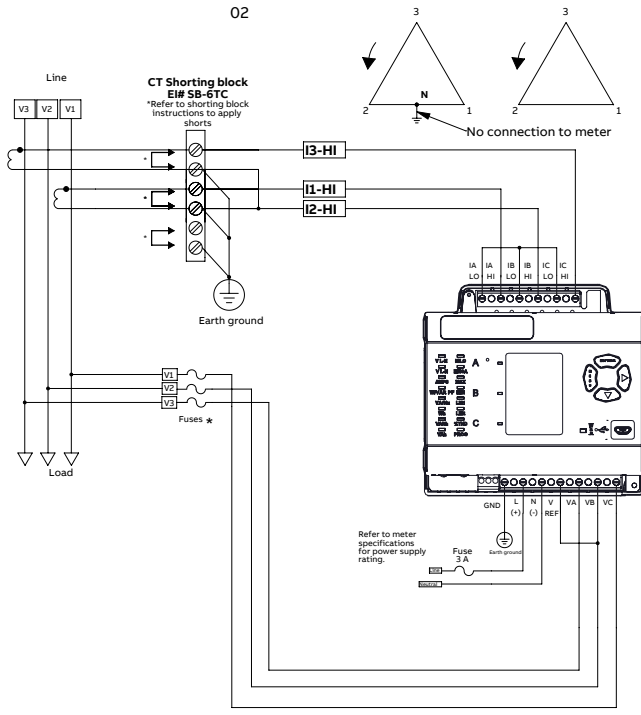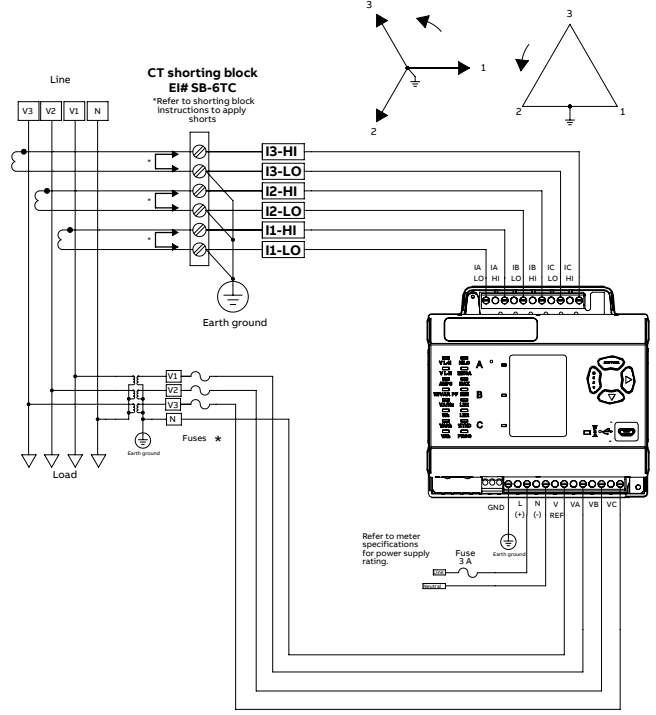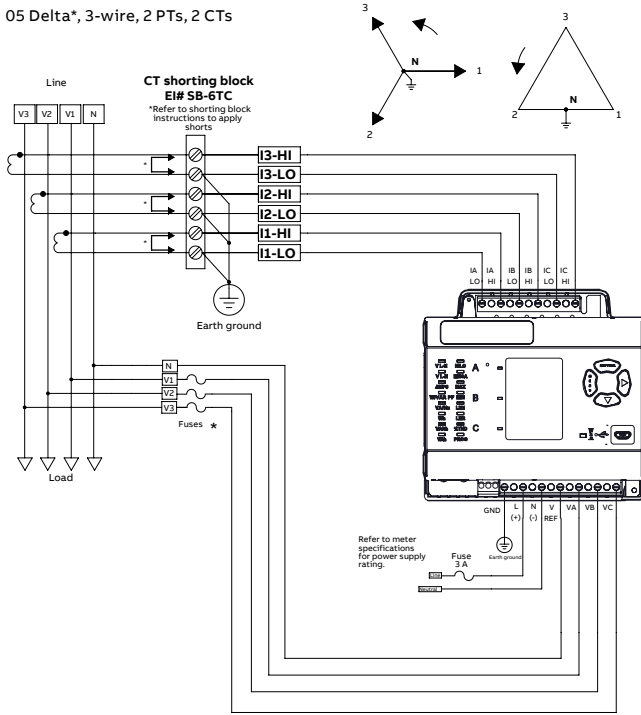04 Delta*, 3-wire, no PTs, 2 CTs

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05 Delta*, 3-wire, 2 PTs, 2 CTs

Select diagram for your application; see user manual for additional diagrams.

IMPORTANT!

For Delta connections, do not exceed 480 V ungrounded or 240 V corner grounded.

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03

04

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Program settings

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01 Faceplate buttons

Program settings using the faceplate buttons: (MENU, ENTER, DOWN ARROW, RIGHT ARROW)
See figure 01 for the location of the faceplate buttons. See the user manual for display details.

Access configuration mode:

1. Push the **MENU** button — you will see the display below; rSt will be blinking.

2. Press the **DOWN ARROW** once. CFG (configuration) moves to the top of the display.

A `rSt`
B `CFG`
C `OPr`

3. Press the **ENTER** button. You will see the configuration menu, shown below.

A `SCrL`
B `Ct`
C `Pt`

4. Press the **DOWN ARROW** and then press the **ENTER** button. You will see the CT numerator setting screen (Ct-n). The current CT numerator is shown in the second line. To change the setting, press the **DOWN ARROW** until the value you want is displayed. Then press the **RIGHT ARROW** to move to the next digit. Repeat until the setting is done.

A `Ct-n`
B `0010`
C

5. Press the **ENTER** button to go to the CT denominator screen (CT-d). This setting is display only — it can't be changed.

6. Press the **ENTER** button to go to the CT scaling setting screen (CT-S). The current scaling is shown in the second line. Press the **DOWN ARROW** to choose another value. You can choose 1, 10 or 100.

A `Ct-S`
B `1`
C

7. Press the **ENTER** button to go to the PT numerator setting screen (Pt-n).The current PT numerator is shown in the second line. To change the setting, press the **DOWN ARROW** until the value you want is displayed. Then press the **RIGHT ARROW** to move to the next digit. Repeat until the setting is done.

A `Pt-n`
B `0120`
C

8. Press the **ENTER** button to go to the PT-denominator screen (Pt-d). The current PT denominator is shown in the second line. To change the setting, press the **DOWN ARROW** until the value you want is displayed. Then press the **RIGHT ARROW** to move to the next digit. Repeat until the setting is done.

A `Pt-d`
B `0120`
C

9. Press the **ENTER** button to go to the PT scaling setting screen (PT-S). The current scaling is shown in the second line. Press the **DOWN ARROW** to choose another value. You can choose 1, 10, 100 or 1000.

Note: See example CT and PT settings on page 5 of this quick start guide.

A `Pt-S`
B `1`
C

10. Press the **ENTER** button to go to the connection setting screen (Cnct). The current setting is shown in the second line. Press the **DOWN ARROW** to choose another value. You can choose 3 EL (element) Wye, 2 Ct del (Delta) or 2.5 EL Wye.

A `Cnct`
B `3 EL`
C `WYE`

11. Press the **ENTER** button to go to the meter address setting screen (Adr). The meter's current address is shown in the second line. To change the setting, press the **DOWN ARROW** until the value you want is displayed. Then press the **RIGHT ARROW** to move to the next digit. Repeat until the setting is done. Valid addresses are from 001 through 247. If you have the Ethernet option, keep this as 1.

A `Adr`
B `005`
C

12. Press the **ENTER** button to go to the meter baud rate setting screen (bAUd). The meter's current baud rate is shown in the second line. Press the **DOWN ARROW** to choose another baud rate. You can choose 9600 (choose this for RS485 connection), 19.2 (19200), 38.4 (38400) or 57.6 (57600). If you have the Ethernet option, keep this as 57.6.

A `bAUd`
B `57.6`
C

13. Press the **ENTER** button to go to the meter protocol setting screen (Prot). The meter's current protocol is shown in the second and third lines. Press the **DOWN ARROW** to choose another communication protocol. You can choose Mod rtU (Modbus RTU; choose this for RS485 or Ethernet connection), Mod ASCI (Modbus ASCII) or dnp (DNP3).

A `Prot`
B `Mod`
C `rtU`

14. Press the **ENTER** button to go to the scroll setting screen (SCrL). The current setting is shown in the second line. Press the **DOWN ARROW** to choose another setting. You can choose YES (the meter readings will scroll on the display) or no (the meter readings will not scroll on the display).

A `SCrL`
B `YES`
C

15. Press the **MENU** button twice. You will see the store settings screen (Stor ALL?) The default setting is YES. To save the settings you've made, press the **ENTER** button. You will see the confirmation screen (Stor ALL done) and then the meter resets.

Note: If you do not want to save your settings, press the **RIGHT ARROW**. YES changes to NO. Press the **ENTER** button.

A `Stor`　A `Stor`
B `ALL?`　B `ALL`
C `YES`　C `donE`

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Program settings

Example CT settings:
200/5 amps: Set the Ct-n value as 200,
Ct-S value as 1.
800/5 amps: Set the Ct-n value as 800,
Ct-S value as 1.
2000/5 amps: Set the Ct-n value as 2000,
Ct-S value as 1
10,000/5 amps: Set the Ct-n value as 1000,
Ct-S value as 10.

Example PT settings:
14400/120 volts: Set the Pt-n value as 1440,
Pt-d value as 120, Pt-S value as 10.
138000/69 volts: Set the Pt-n value as 1380,
Pt-d value as 69, Pt-S value as 100.
345000/115 volts: Set the Pt-n value as 3450,
Pt-d value as 115, Pt-S value as 100.
345000/69 volts: Set the Pt-n value as 0345,
Pt-d value as 69, Pt-S value as 1000.
For additional programming instructions for
the faceplate buttons, see chapter 5 in the
RGM40 meter user manual.

— Notes