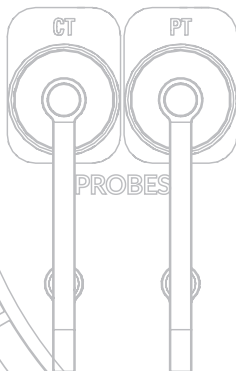




PROBEWELL

MAKING FIELD TESTING EASY

FORM COMPATIBILITIES AND CONFIGURATION BOOKLET



MODEL NO:	ST-3/XT3	<input type="checkbox"/>	<input type="checkbox"/>
FORM:	38/48/68/88/96	<input type="checkbox"/>	<input type="checkbox"/>
SERIAL NO:	12345678	<input type="checkbox"/>	<input type="checkbox"/>
LINE:	100-000V, 60-62Hz	<input type="checkbox"/>	<input type="checkbox"/>
SSID:	PW-XT3-12345678-AP	<input type="checkbox"/>	<input type="checkbox"/>
MAC:	0C B2 B6 10 22 06	<input type="checkbox"/>	<input type="checkbox"/>



ST-3/XT3
TRANSFORMER RATED SITE TESTER



IT IS ESSENTIAL THAT OPERATORS THOROUGHLY READ THIS INSTRUCTION BOOKLET **BEFORE PUTTING THIS PRODUCT INTO SERVICE.**



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Limited Warranty

Your XT series site tester comes with a two-year hardware warranty. Probewell Lab Inc. (Probewell) warrants XT series site tester against defects in material and workmanship for a period of two (2) years from the date of purchase from Probewell. This warranty applies only to the original purchaser of the XT series site tester and is not transferable.

For additional information regarding your tester warranty, please refer to the related XT series site tester user guide.

PROBEWELL IS NOT RESPONSIBLE FOR ANY LOST PROFITS, LOST SAVINGS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE, OR INABILITY TO USE, OF THIS PRODUCT. THIS INCLUDES DAMAGE TO PROPERTY AND DAMAGES FOR PERSONAL INJURY. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Disclaimer

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Features and specifications are subject to change without notice.

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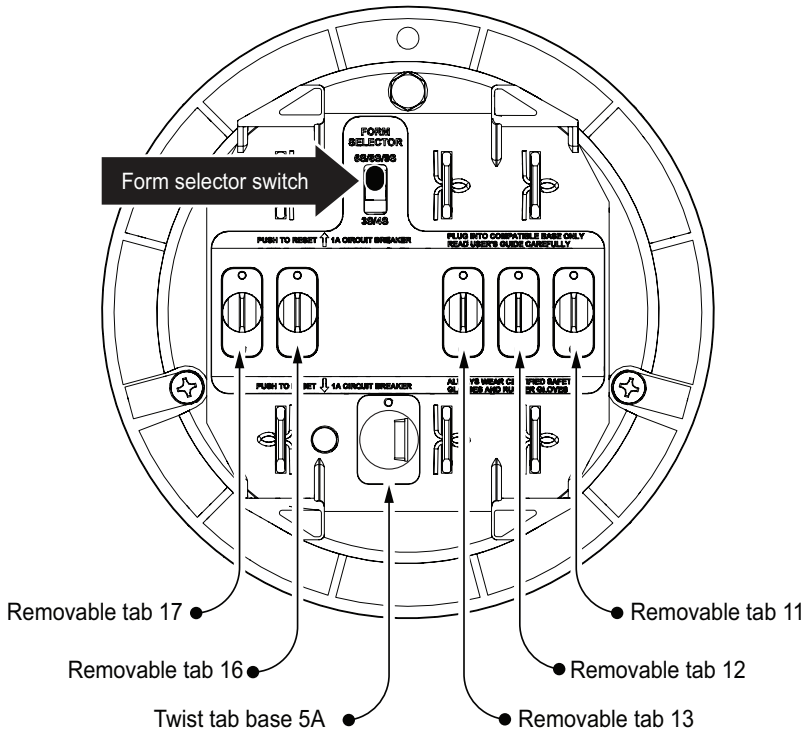
Chapter 1

Form Configurations



Caution: This procedure involves high voltage. Use extreme caution in working with and making connections. Always wear appropriate protective equipment.

The ST-3/XT3 allows for several tab configurations depending on the base in which it will be inserted. Use the graphic below as a reference to identify the position of the different ports needed to properly configure your device.



Chapter 2


Compatible Meter Installations


This chapter covers meter installations compatible with the ST-3/XT3. For each installation, an illustration showing the positions of the removable twist tabs appears at the top left of the page, the electrical service is shown at the top center and an internal meter schematic at the top right. The wiring connection between the meter, the line and the load is also shown on the bottom part of the page.

Before proceeding with a field test, make sure that the connections to the socket for a given form are like those shown hereafter.


The symbols used are described here:

Circuit


Current conductor



Voltage conductor



Ground



No connection



Connection


Meter & meter socket


Current coil



Tab (meter)


Voltage coil


Jaw
(meter socket)


Circuit-closing device

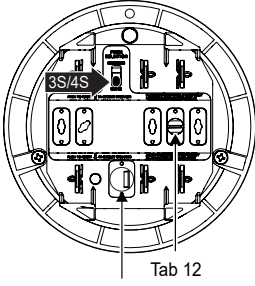
Instrument transformer


Current transformer (CT)
with polarity marks


Potential Transformer
With Polarity Marks

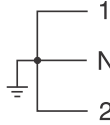
Form 3S (1CT)

**ST-3/XT3
Rear view**



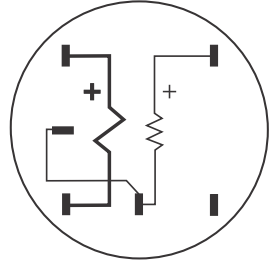
Tab 5A

**Single-phase
three-wire
with CT**

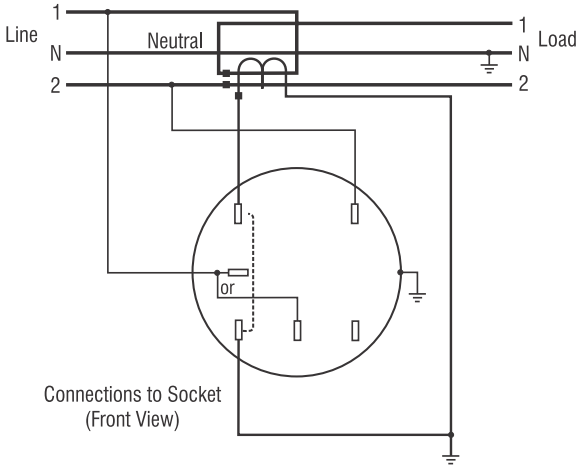


120 volts line-to-neutral
240 volts line-to-line

Form 3S



Meter Internal Wiring
(Front View)

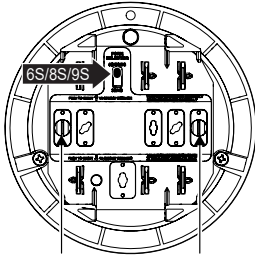


Form 3S single-phase, 120 volts two-wire with CT is also compatible.

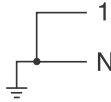
Caution: Never open a circuit-closing device if current is flowing in the CT primary. Serious personal injury may result.

Form 3S Fitzall™ (1CT 1PT)

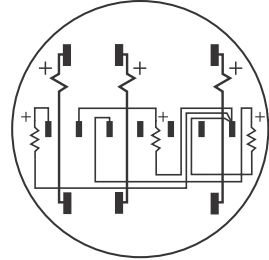
**ST-3/XT3
Rear view**



**Single-phase
two-wire
with CT and PT**

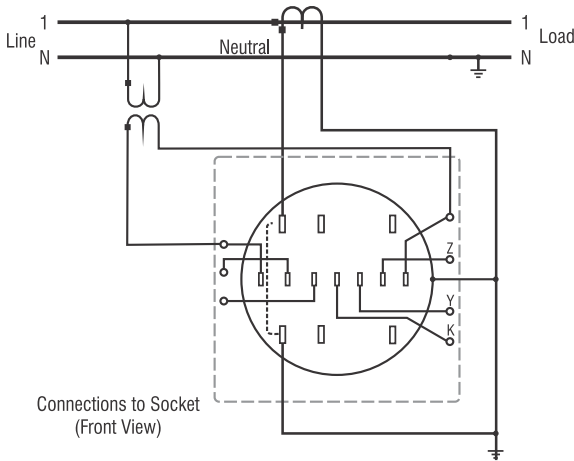


**FITZALL
Form 3S**



**Meter Internal Wiring
(Front View)**

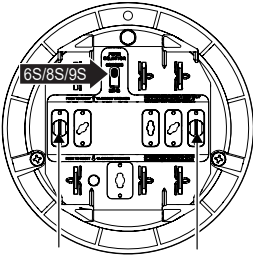
480 volts line-to-neutral



Caution: Never open a circuit-closing device if current is flowing in the CT primary. Serious personal injury may result.

Form 3S Fitzall™ (1CT)

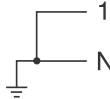
**ST-3/XT3
Rear view**



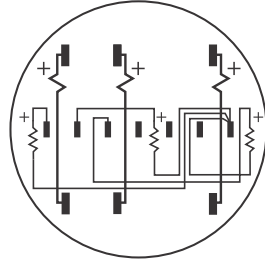
Tab 17

Tab 11

**Single-phase
two-wire
with CT**

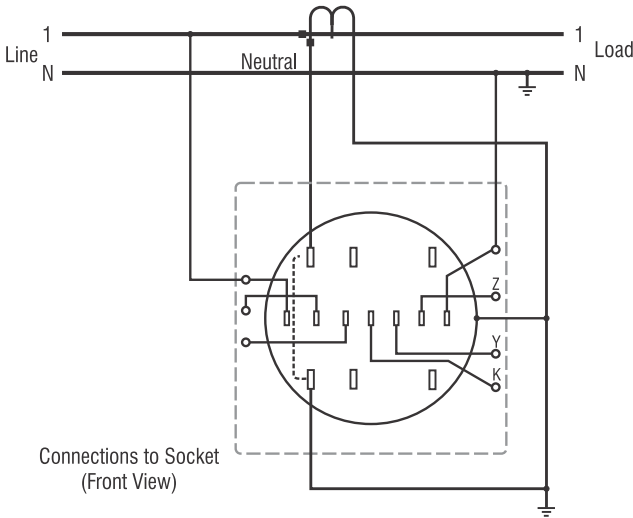


**FITZALL
Form 3S**



**Meter Internal Wiring
(Front View)**

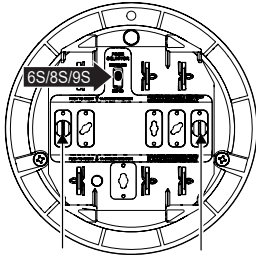
120 or 240 volts line-to-neutral



Caution: Never open a circuit-closing device if current is flowing in the CT primary. Serious personal injury may result.

Form 3S Fitzall™ (1CT 1PT)

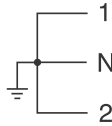
**ST-3/XT3
Rear view**



Tab 17

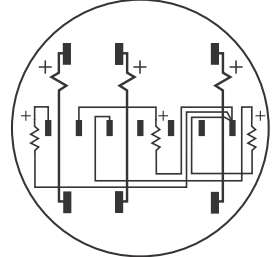
Tab 11

**Single-phase
three-wire
with CT and PT**

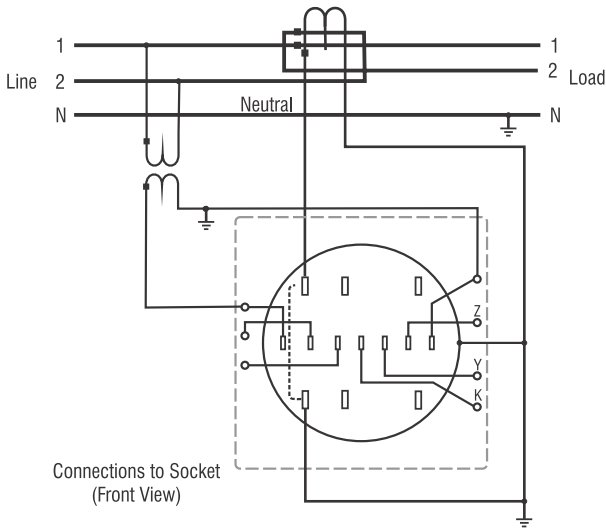


120 volts line-to-neutral
240 volts line-to-line

**FITZALL
Form 3S**



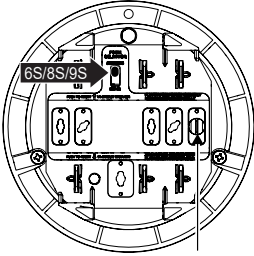
Meter Internal Wiring
(Front View)



Caution: Never open a circuit-closing device if current is flowing in the CT primary. Serious personal injury may result.

Form 3S Fitzall™ (1CT)

**ST-3/XT3
Rear view**

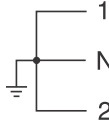


Tab 11



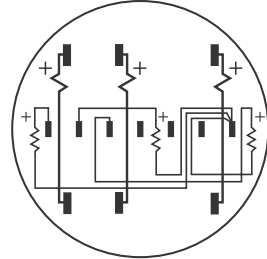
Remember to remove tab 17

**Single-phase
three-wire
with CT**

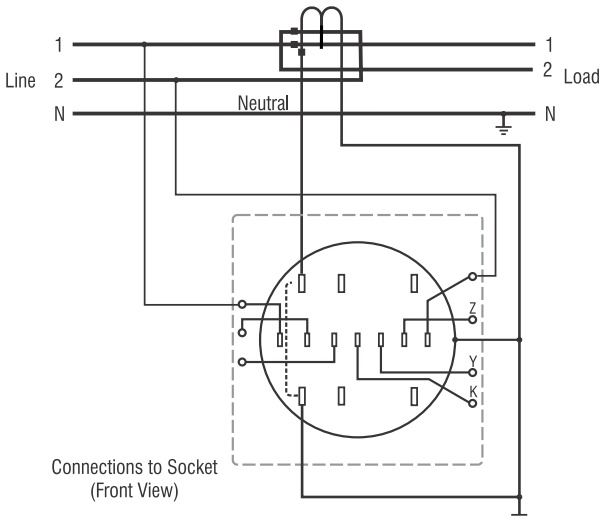


**240 volt line-to-line
120 line-neutral**

**FITZALL
Form 3S**



**Meter Internal Wiring
(Front View)**

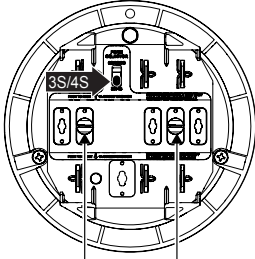


Connections to Socket
(Front View)

Caution: Never open a circuit-closing device if current is flowing in the CT primary. Serious personal injury may result.

Form 4S (2 CT)

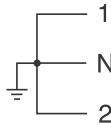
**ST-3/XT3
Rear view**



Tab 16

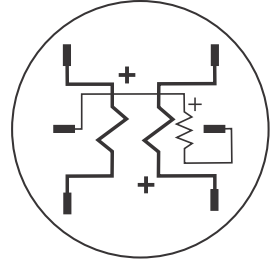
Tab 12

**Single-phase
three-wire
with two CTs**

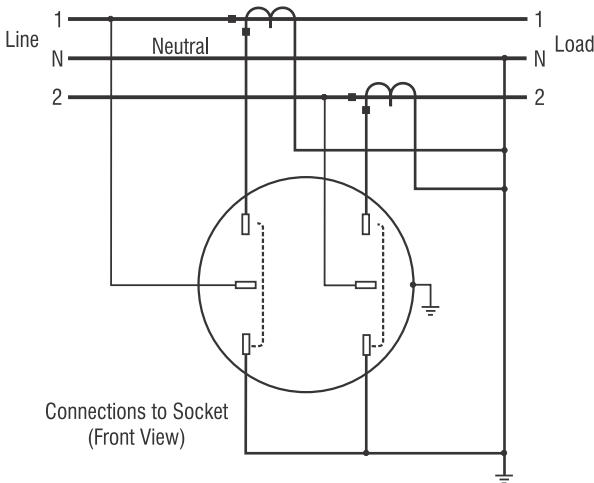


120 volts line-to-neutral
240 volts line-to-line

Form 4S



Meter Internal Wiring
(Front View)

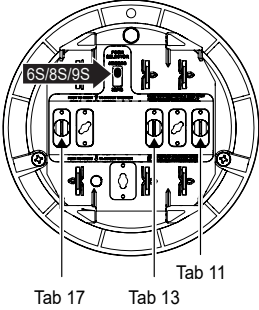


Connections to Socket
(Front View)

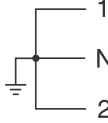
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 4S Fitzall™ (2CT 2PT)

**ST-3/XT3
Rear view**

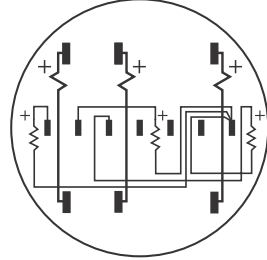


**Single-phase
three-wire with
two CTs and two PTs**

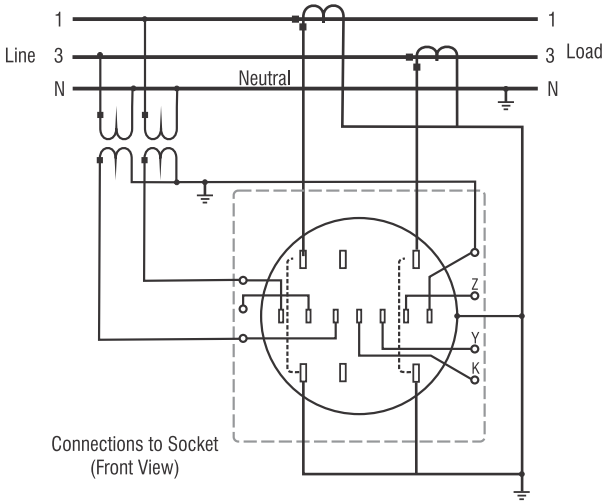


120 volts line-to-neutral
240 volts line-to-line

**FITZALL
Form 4S**

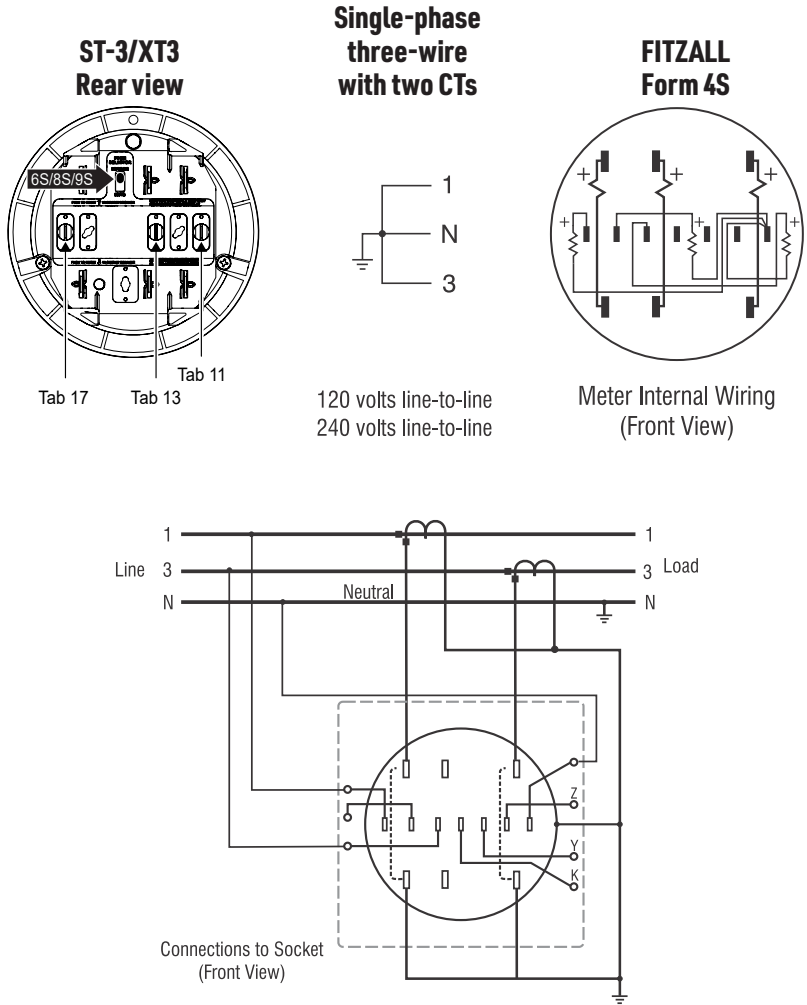


**Meter Internal Wiring
(Front View)**



Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

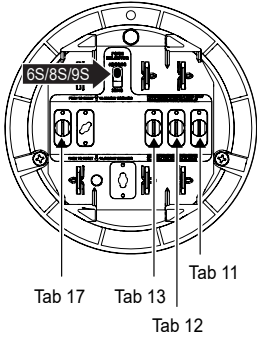
Form 4S Fitzall™ (2CT)



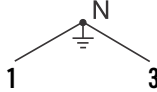
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 5S (N 2CT)

**ST-3/XT3
Rear view**

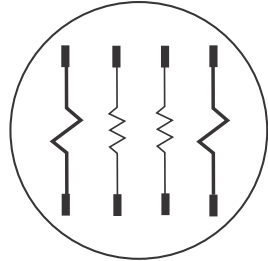


**Three-wire network
with two CTs**



120 volts line-to-neutral
208 volts line-to-line

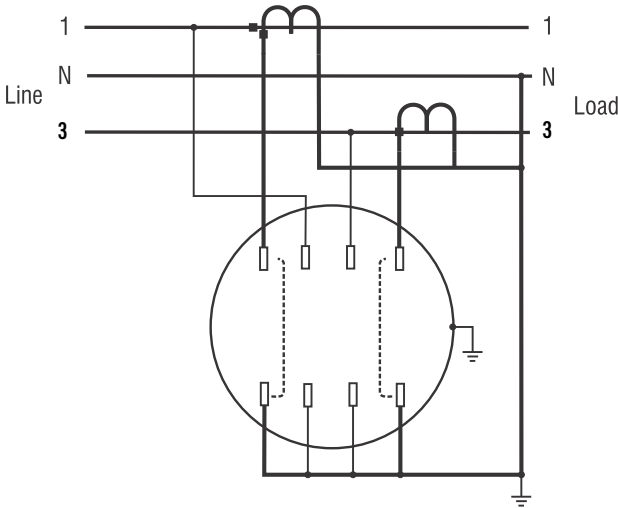
Form 5S



**Meter Internal Wiring
(Front View)**



*Must use
5S adapter*

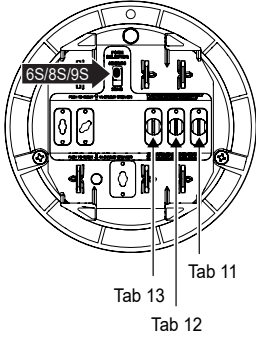


**Connections to Socket
(Front View)**

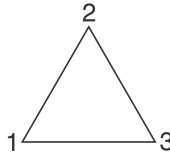
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 5S (3Δ 2CT)

**ST-3/XT3
Rear view**

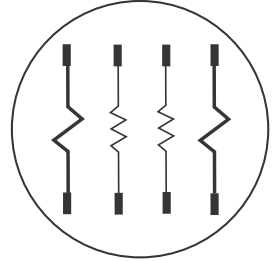


**Three-phase
three-wire delta
with two CTs**



240 volts line-to-line
or 480 volts line-to-line
or 120 volts line-to-line

Form 5S



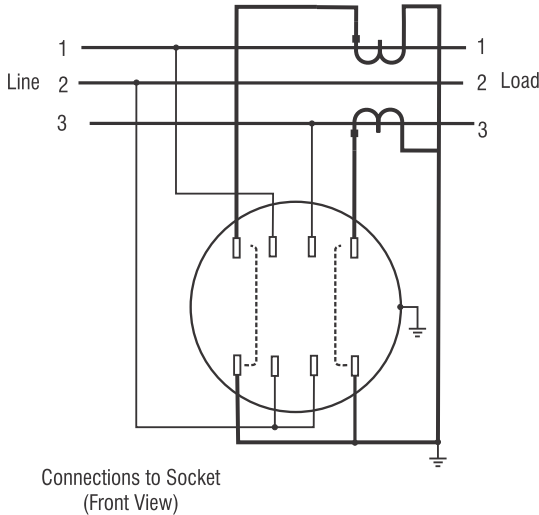
**Meter Internal Wiring
(Front View)**



Must use
5S adapter



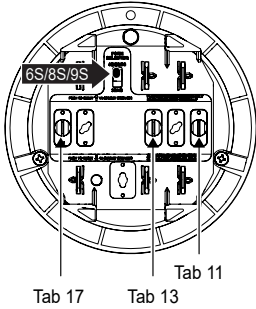
Remember to
remove tab 17



Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

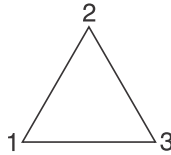
Form 5S (3Δ 2CT 2PT)

**ST-3/XT3
Rear view**



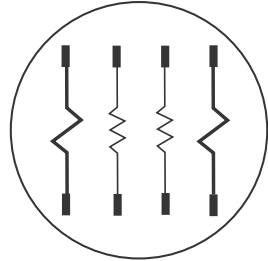
Must use
5S adapter

**Three-phase
three-wire delta
with two CTs
and two PTs**

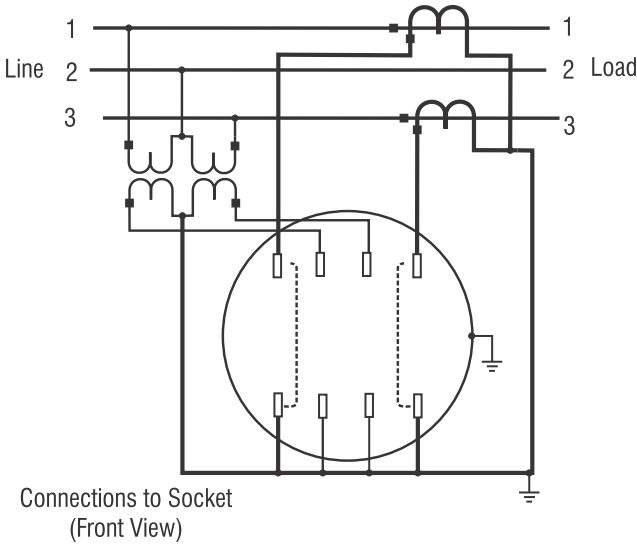


240 volts line-to-line
or 480 volts line-to-line
or 120 volts line-to-line

Form 5S



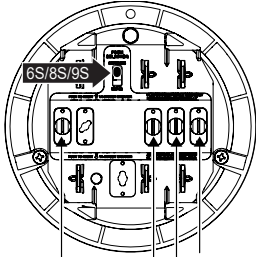
**Meter Internal Wiring
(Front View)**



Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

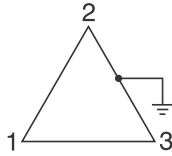
Form 5S (4Δ 2CT)

**ST-3/XT3
Rear view**



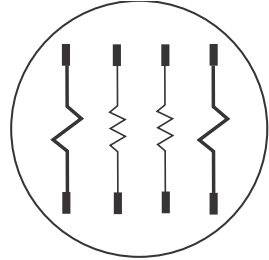
Tab 17 Tab 13 Tab 11
Tab 12

**Three-phase
four-wire delta with
two equal-ratio CTs**



240 volts: 1 to 2, 2 to 3, 3 to 1
120 volts: 2 to neutral, 3 to neutral
208 Volts: 1 to neutral

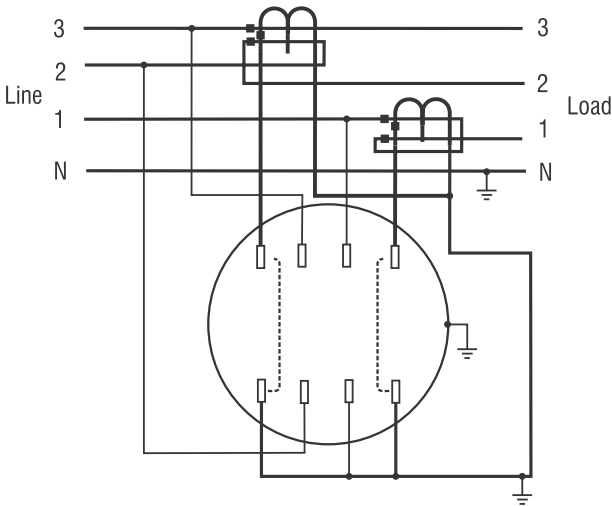
Form 5S



**Meter Internal Wiring
(Front View)**



*Must use
5S adapter*

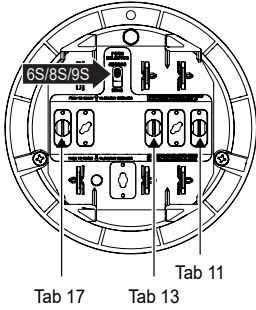


**Connections to Socket
(Front View)**

Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

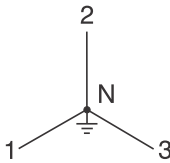
Form 5S (4Y 3CT)

**ST-3/XT3
Rear view**



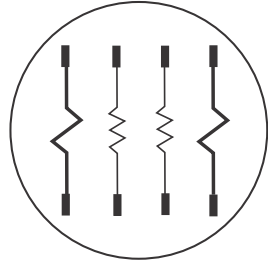
Must use
5S adapter

**Three-phase
four-wire wye
with three CTs**

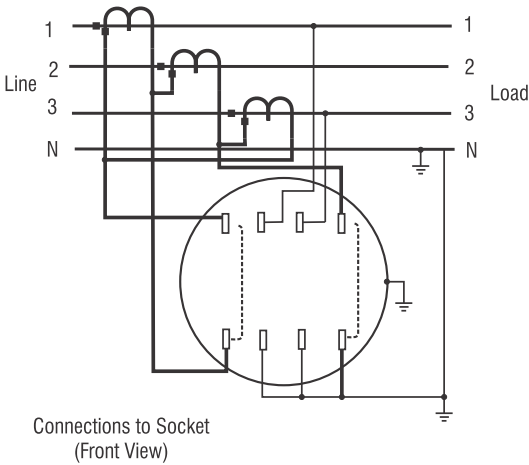


208 volts line-to-line
120 volts line-to-neutral
or
480 volts line-to-line
277 volts line-to-neutral

Form 5S



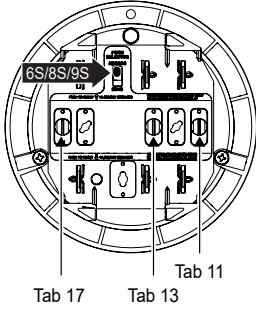
**Meter Internal Wiring
(Front View)**



Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

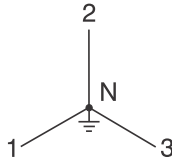
Form 5S (4Y 2CT)

**ST-3/XT3
Rear view**



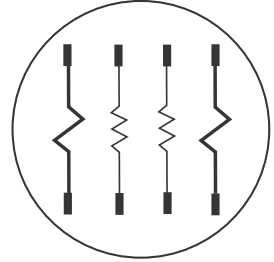
Must use
5S adapter

**Three-phase
four-wire wye with
two equal-ratio CTs**

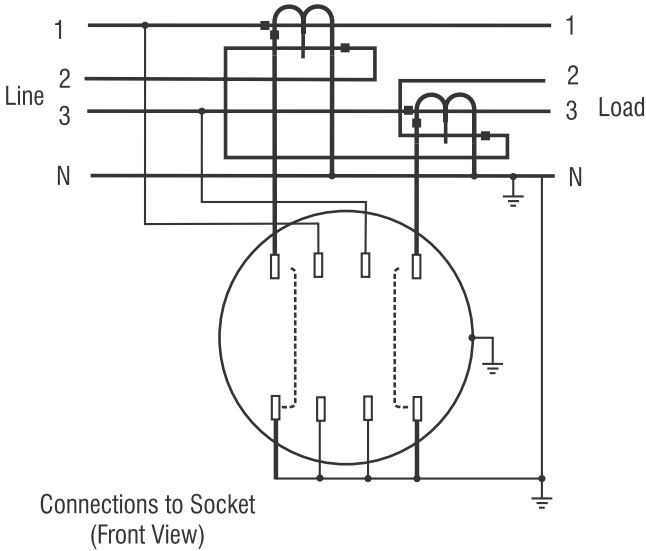


208 volts line-to-line
120 volts line-to-neutral
or
480 volts line-to-line
277 volts line-to-neutral

Form 5S



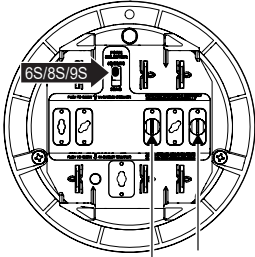
Meter Internal Wiring
(Front View)



Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

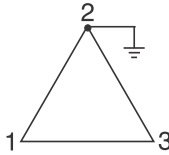
Form 5S, 35S & 45S Fitzall™ (3Δ 2CT)

**ST-3/XT3
Rear view**

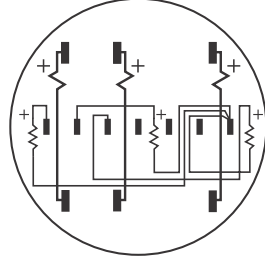


Tab 11
Tab 13

**Three-phase
three-wire delta
with two CTs**



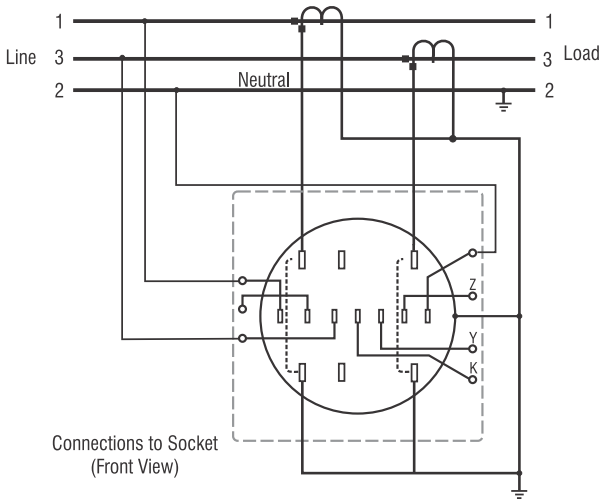
**FITZALL Form
5S, 45S**



Meter Internal Wiring
(Front View)



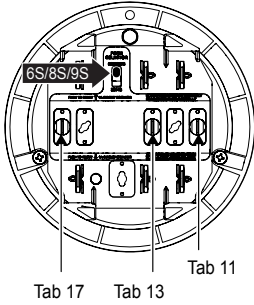
Remember to
remove tab 17



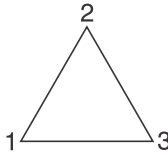
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 5S, 35S & 45S Fitzall™ (3Δ 2CT 2PT)

**ST-3/XT3
Rear view**

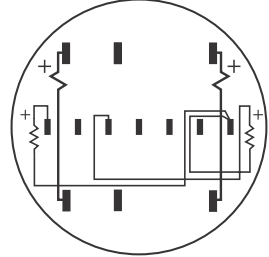


**Three-phase
three-wire delta
with two CTs
and two PTs**

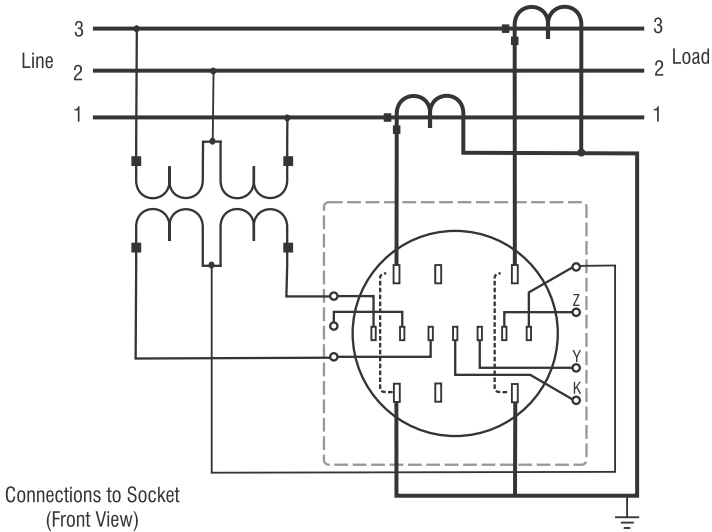


240 volts line-to-line
or 480 volts line-to-line
or 120 volts line-to-line

**FITZALL Form
5S, 35S, 45S**



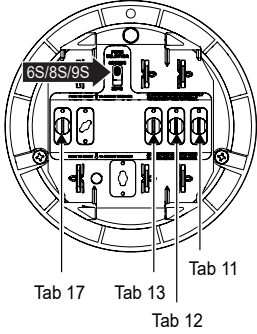
**Meter Internal Wiring
(Front View)**



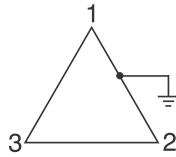
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 5S, 35S & 45S Fitzall™ (4Δ 2CT)

**ST-3/XT3
Rear view**

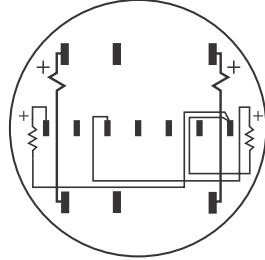


**Three-phase
four-wire delta
with two CTs**

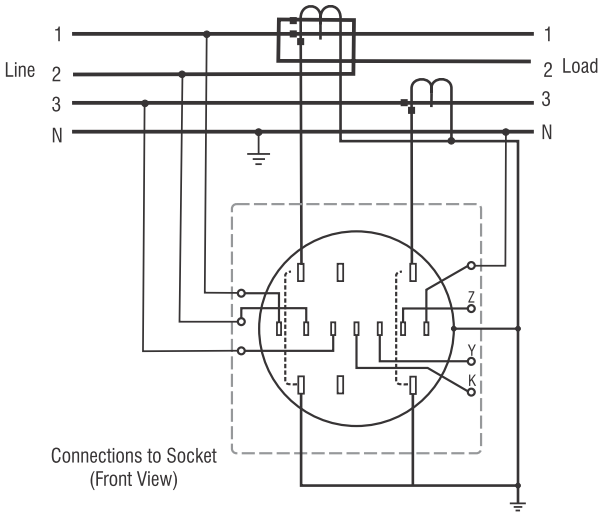


240 volts line-to-line
or 480 volts line-to-line
or 120 volts line-to-line

**FITZALL Form
5S, 45S**



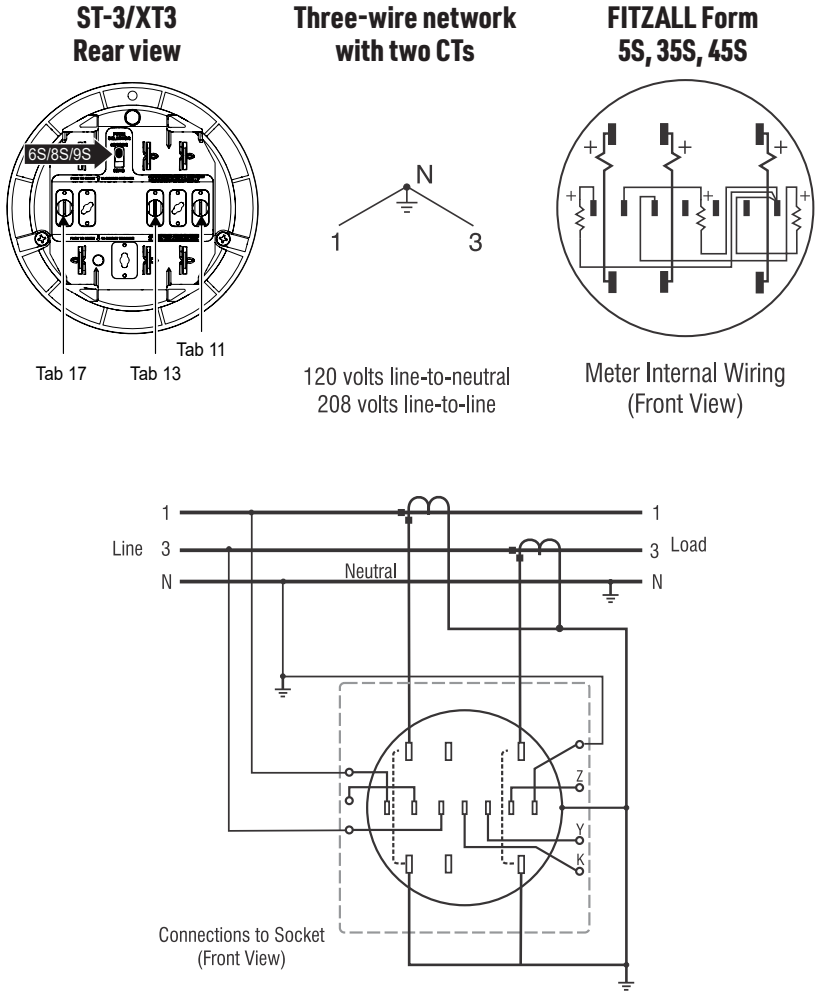
**Meter Internal Wiring
(Front View)**



**Connections to Socket
(Front View)**

Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

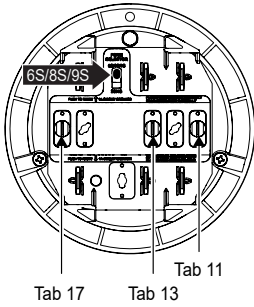
Form 5S, 35S & 45S Fitzall™ (N 2CT)



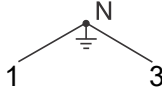
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 5S, 35S & 45S Fitzall™ (N 2CT 2PT)

**ST-3/XT3
Rear view**

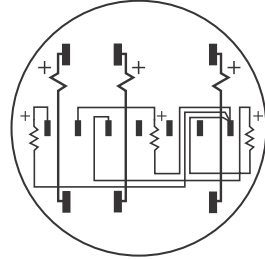


**Three-wire network
with two CTs
and two PTs**

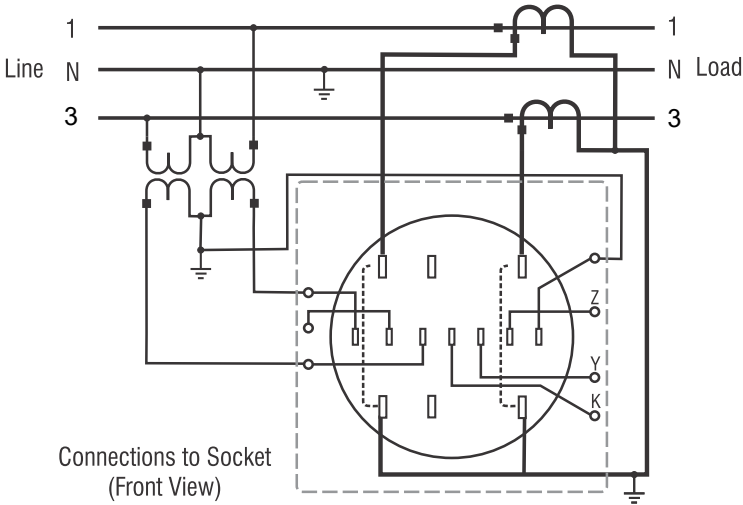


120 volts line-to-neutral
208 volts line-to-line

**FITZALL Form
5S, 35S, 45S**



**Meter Internal Wiring
(Front View)**

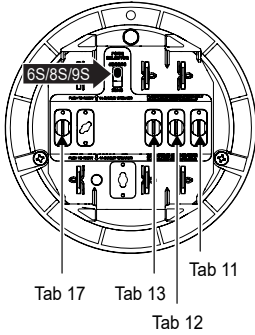


**Connections to Socket
(Front View)**

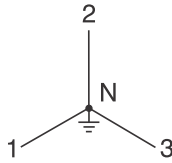
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 5S, 35S & 45S Fitzall™ (4Y 2CT 2PT)

**ST-3/XT3
Rear view**

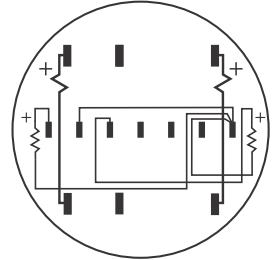


**Three-phase
four-wire wye
with two CTs
and two PTs**

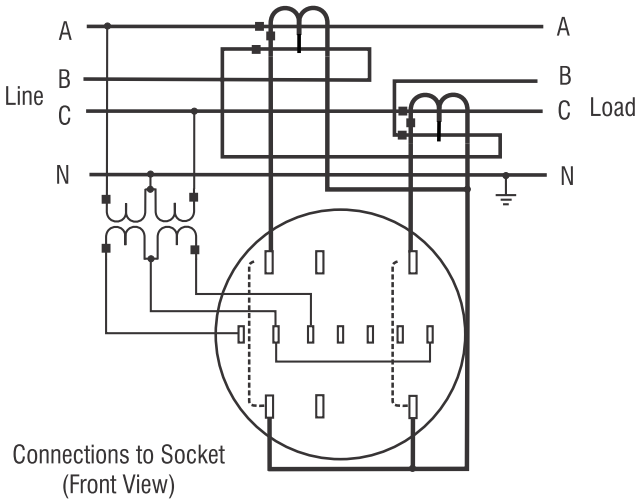


208 volts line-to-line
120 volts line-to-neutral
or
480 volts line-to-line
277 volts line-to-neutral

**FITZALL Form
5S, 35S, 45S**



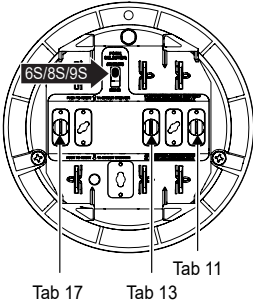
**Meter Internal Wiring
(Front View)**



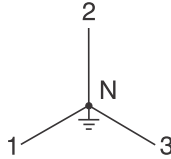
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 5S, 35S & 45S Fitzall™ (4Y 2CT)

**ST-3/XT3
Rear view**

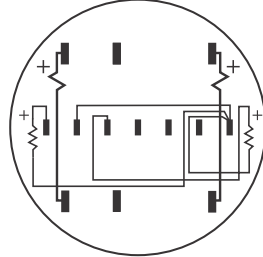


**Three-phase
four-wire wye
with two
equal-ratio CTs**

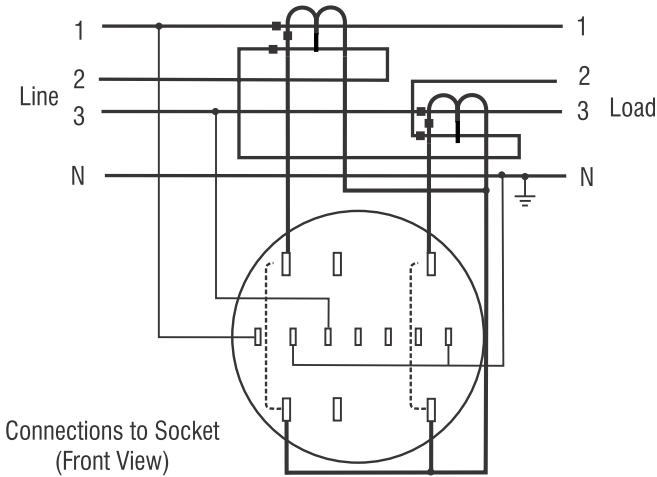


208 volts line-to-line
120 volts line-to-neutral
or
480 volts line-to-line
277 volts line-to-neutral

**FITZALL Form
5S, 35S, 45S**



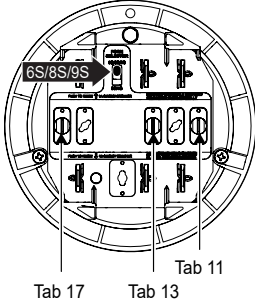
**Meter Internal Wiring
(Front View)**



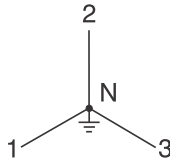
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 5S, 35S & 45S Fitzall™ (4Y 3CT 2PT)

**ST-3/XT3
Rear view**

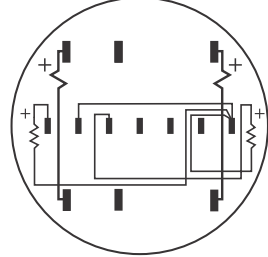


**Three-phase
four-wire wye
with three CTs
and two PTs**

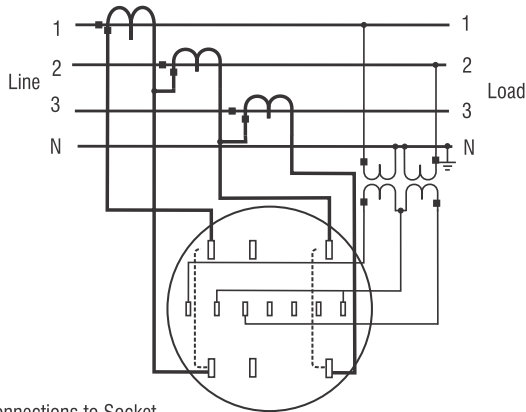


208 volts line-to-line
120 volts line-to-neutral
or
480 volts line-to-line
277 volts line-to-neutral

**FITZALL Form
5S, 35S, 45S**



**Meter Internal Wiring
(Front View)**

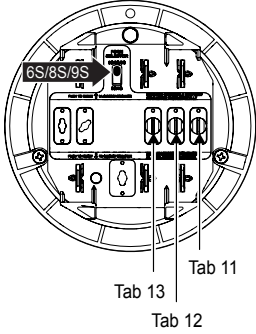


**Connections to Socket
(Front View)**

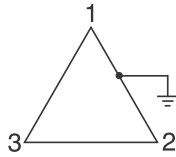
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 5S, 35S & 45S Fitzall™ (4Δ 3CT)

**ST-3/XT3
Rear view**

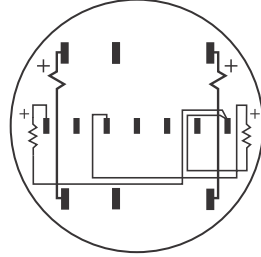


**Three-phase
four-wire delta
with three CTs**

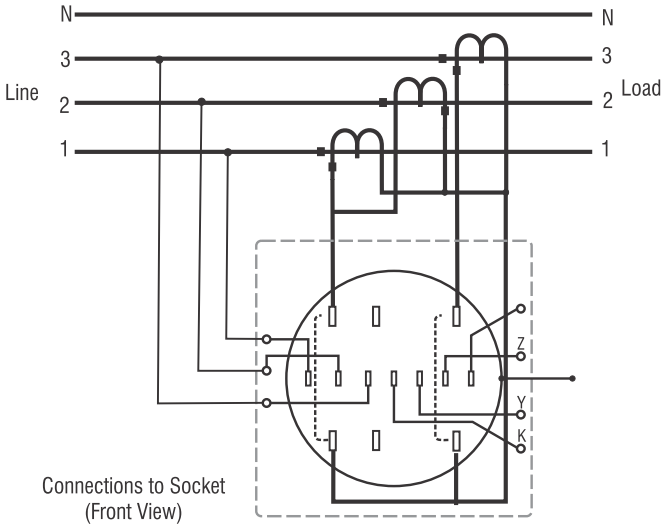


240 volts line-to-line
or 480 volts line-to-line
or 120 volts line-to-line

**FITZALL Form
5S, 45S**



**Meter Internal Wiring
(Front View)**

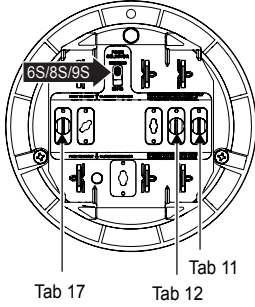


**Connections to Socket
(Front View)**

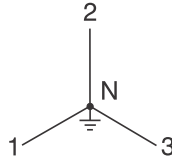
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 6S (36S, 46S) (4Y 3CT)

**ST-3/XT3
Rear view**

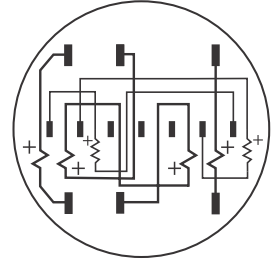


**Three-phase
four-wire wye
with three CTs**

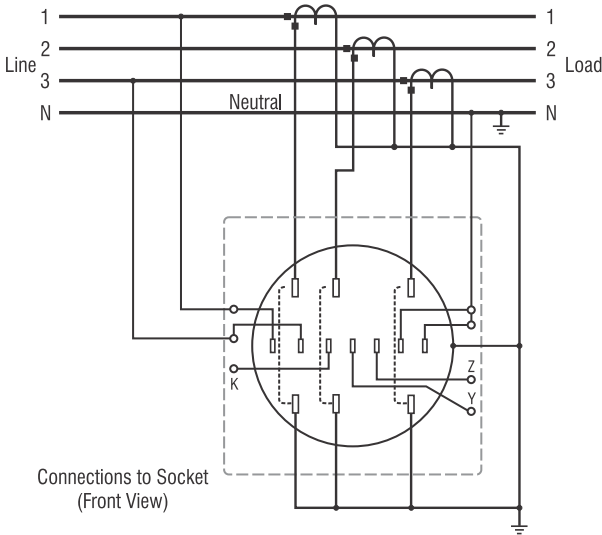


208 volts line-to-line
120 volts line-to-neutral
or
480 volts line-to-line
277 volts line-to-neutral

Form 6S



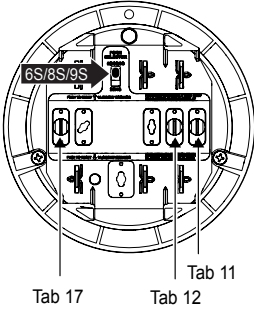
**Meter Internal Wiring
(Front View)**



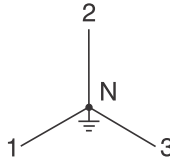
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 6S (36S, 46S) (4Y 3CT 2PT)

**ST-3/XT3
Rear view**

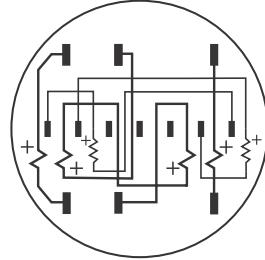


**Three-phase
four-wire wye
with three CTs
and two PTs**

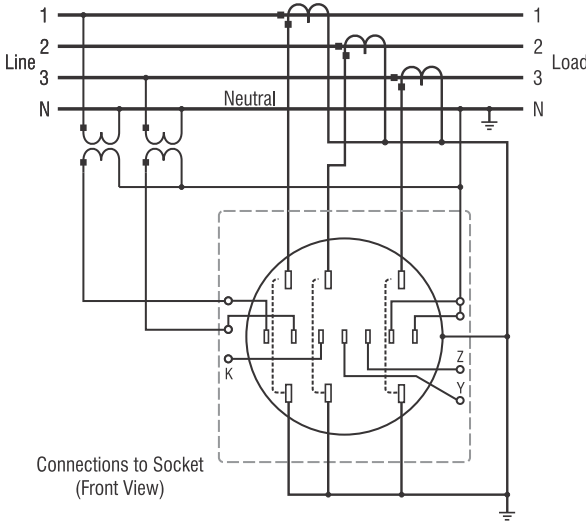


For high voltages.
The VTs apply reduced
voltages to the meter.

Form 6S



**Meter Internal Wiring
(Front View)**

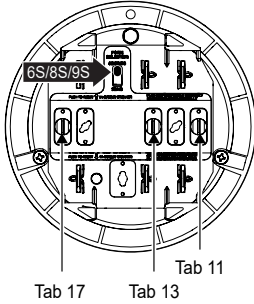


**Connections to Socket
(Front View)**

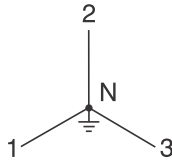
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 6S (36S, 46S) Fitzall™ (4Y 3CT)

**ST-3/XT3
Rear view**

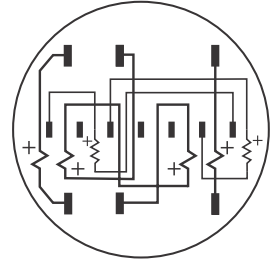


**Three-phase
four-wire wye
with three CTs**

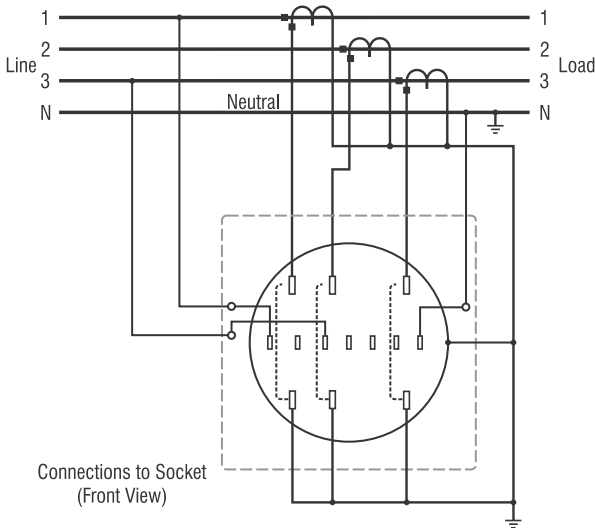


208 volts line-to-line
120 volts line-to-neutral
or
480 volts line-to-line
277 volts line-to-neutral

**FITZALL
Form 6S**



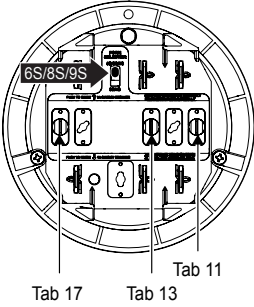
**Meter Internal Wiring
(Front View)**



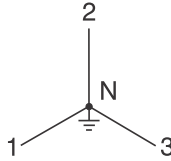
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 6S (36S, 46S) Fitzall™ (4Y 3CT 2PT)

**ST-3/XT3
Rear view**

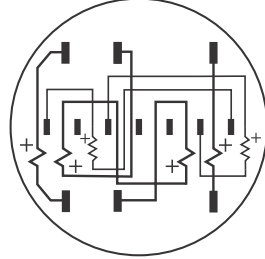


**Three-phase
four-wire wye
with three CTs
and two PTs**

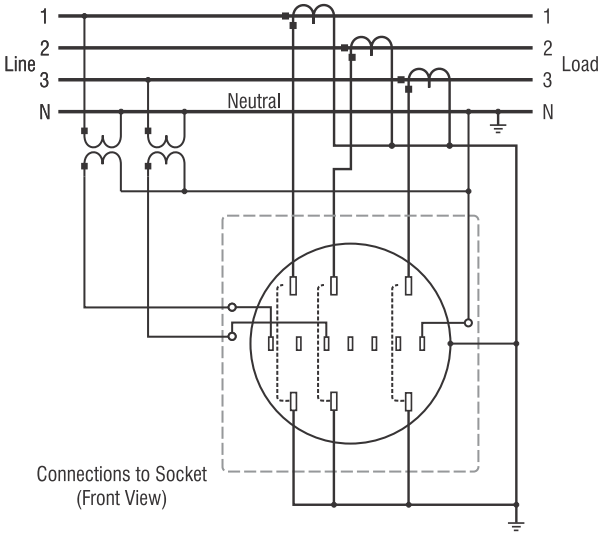


For high voltages.
The VTs apply reduced
voltages to the meter.

**FITZALL
Form 6S**

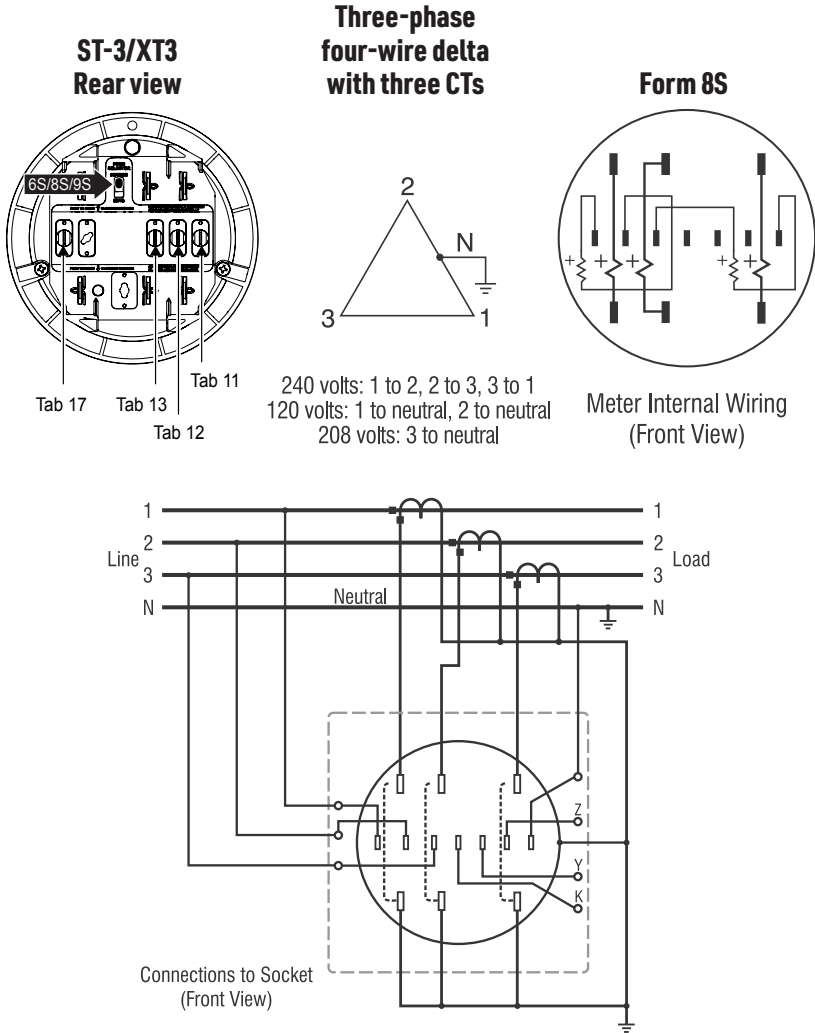


**Meter Internal Wiring
(Front View)**



Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

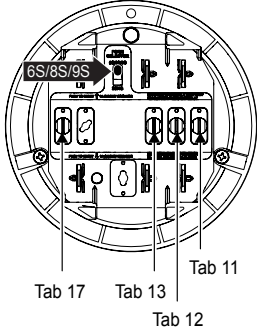
Form 8S (4Δ 3CT)



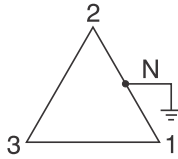
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 8S Fitzall™ (4Δ 3CT)

**ST-3/XT3
Rear view**

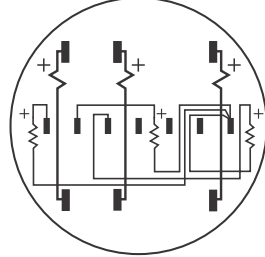


**Three-phase
four-wire delta
with three CTs**

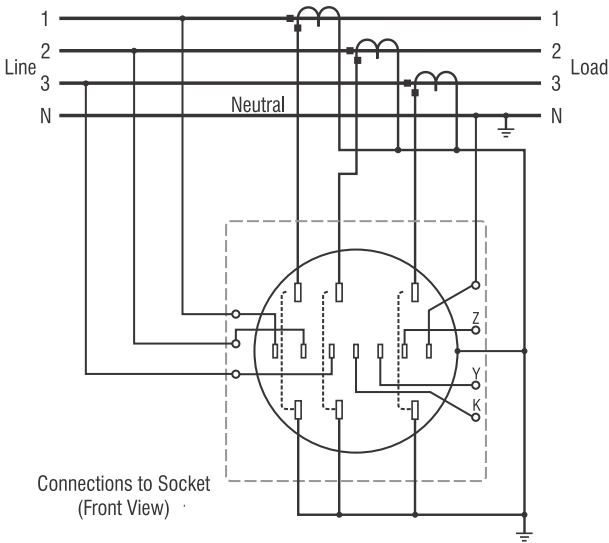


240 volts: 1 to 2, 2 to 3, 3 to 1
120 volts: 1 to neutral, 2 to neutral
208 volts: 3 to neutral

**FITZALL
Form 8S**



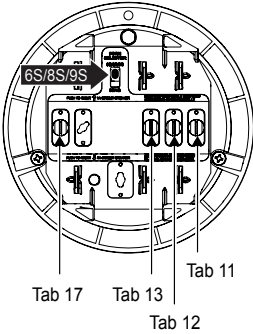
**Meter Internal Wiring
(Front View)**



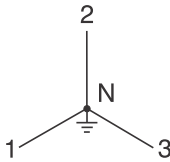
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 9S (4Y 3CT)

**ST-3/XT3
Rear view**

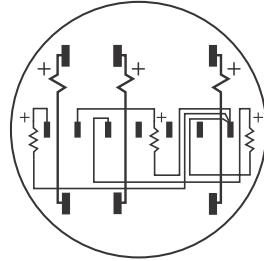


**Three-phase
four-wire wye
with three CTs**

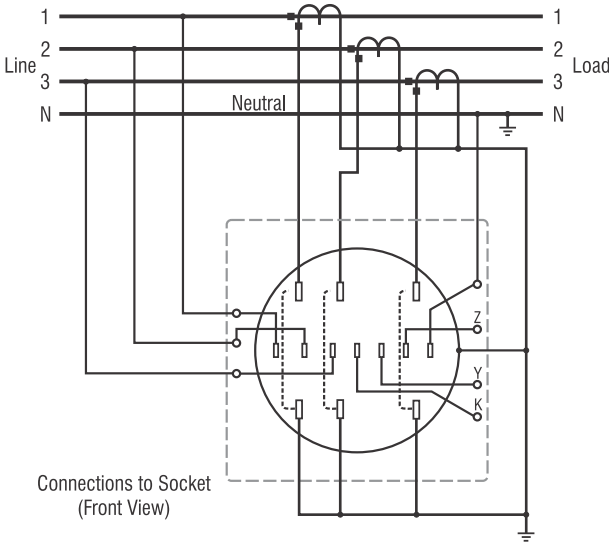


208 volts line-to-line
120 volts line-to-neutral
or
480 volts line-to-line
277 volts line-to-neutral

Form 9S

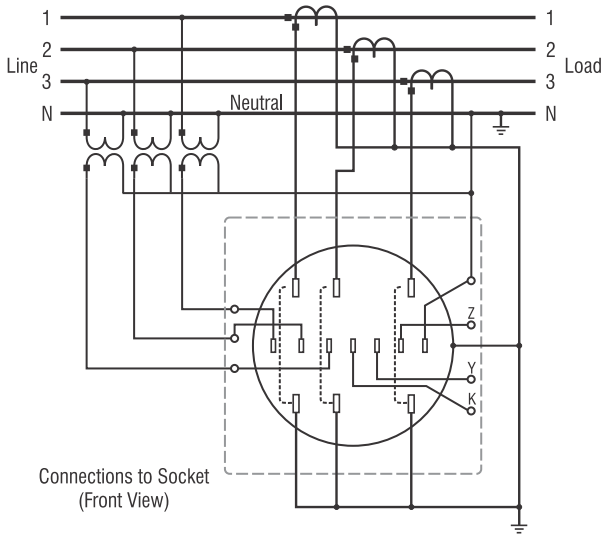
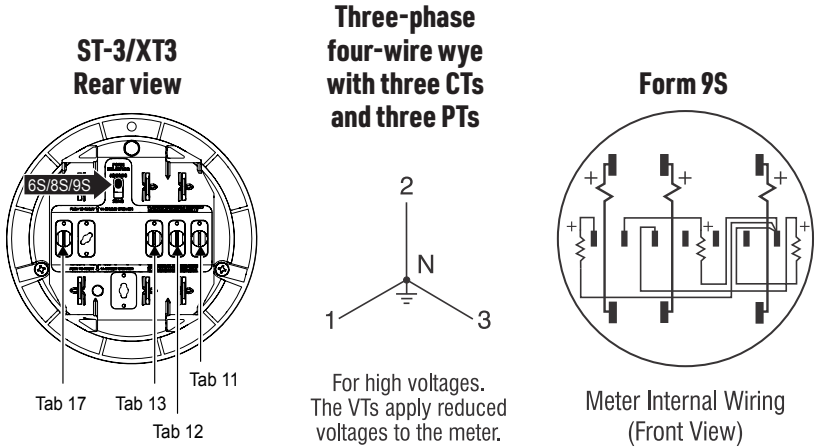


**Meter Internal Wiring
(Front View)**



Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

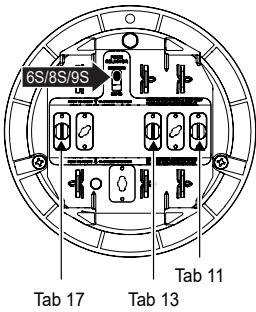
Form 9S (4Y 3CT 3PT)



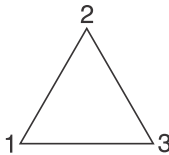
Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

Form 35S (3Δ 2CT)

**ST-3/XT3
Rear view**

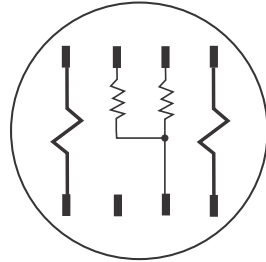


**Three-phase
three-wire delta
with two CTs**



240 volts line-to-line
or 480 volts line-to-line
or 120 volts line-to-line

Form 35S



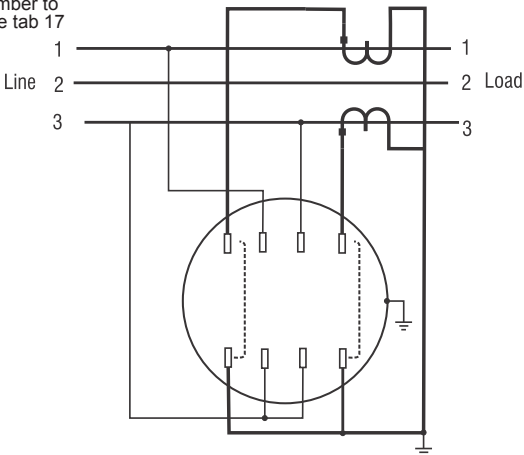
**Meter Internal Wiring
(Front View)**



*Must use
5S adapter*



Remember to
remove tab 17

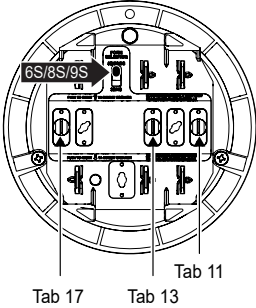


**Connections to Socket
(Front View)**

Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.

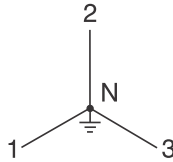
Form 45S (4Y 2CT 2PT)

**ST-3/XT3
Rear view**



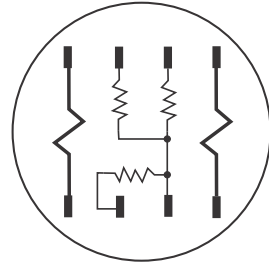
Must use
5S adapter

**Three-phase
four-wire wye with
two equal-ratio CTs
and two PTs**

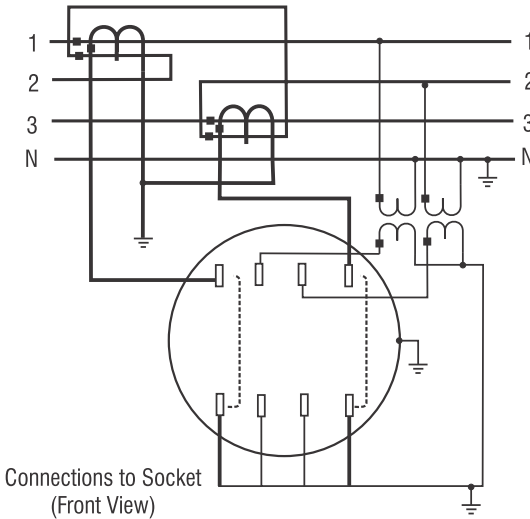


208 volts line-to-line
120 volts line-to-neutral
or
480 volts line-to-line
277 volts line-to-neutral

Form 45S



**Meter Internal Wiring
(Front View)**



Caution: Never open a circuit-closing device if current is flowing in either CT primaries. Serious personal injury may result.



PROBEWELL

MAKING FIELD TESTING EASY

We believe that field testers should be portable, safe and easy to use.

Probewell generates added value for electric utility companies and their customers by means of innovative metering solutions that provide accurate data-driven insight as well as flexibility and efficiency.

Through our expertise and constant innovation, we develop cutting-edge field testing technologies that deliver a premier solution for utility companies when it comes to quality, ease of use, sturdiness and customer satisfaction.

Leverage proven technologies to streamline productivity in the field while improving efficiency.

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