

kw demand registers

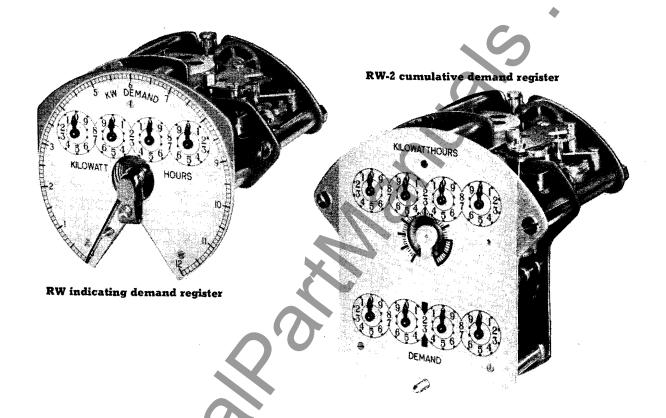
types RW and RW-2

standard, universal or extended-range class 1 or 2 scales

descriptive bulletin

42-300

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for indicating both kilowatt hours and block-interval kilowatt demand

Registers can be supplied in new meters or separately for converting existing watthour meters to demand meters.

RW indicating demand registers use a sweephand pointer to indicate maximum kw demand.

RW-2 cumulative demand registers totalize maximum kw demand readings on a set of register dials.

Both types are available as standard (direct-reading), universal or extended-range registers with either 15 or 30-minute time intervals.

standard registers have direct-reading scales and dials with common decimal multipliers as required by AEIC-EEI-NEMA "Specifications for Indicating and Cumulative Demand Registers Scales" (MSJ-4). Available with class 1 or class 2 scales.

class 1: Full-scale kw is $166\frac{2}{3}\%$ of rated kw class 2: Full-scale kw is $333\frac{1}{3}\%$ of rated kw

universal registers can be used interchangeably on all meters—with proper multiplier; are supplied at lower cost than standard registers. Have either class 1 or class 2 scales; available with kw ratings of 0.6 or 1.2; see table below.

| rated kw of register | register ratio | register full-scale kw | | | | | | | |
|-------------------------|-------------------|------------------------|--------------|----------------|--|--|--|--|--|
| register | $R_{\rm I}$ | universa | ıl registers | extended range | | | | | |
| | | class 1 | class 2 | registers | | | | | |
| 0.6 1.2 | 3600 1800 | 1 2 | 2 4 | 2.4 4.8 | | | | | |

 Used with multiplier equal to rated kw of meter (including transformers) divided by rated kw of register. See table page 6.

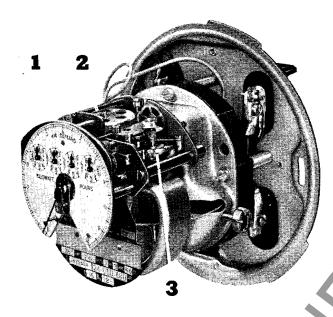
extended-range registers have full-scale kw equal to 400% of rated kw; available with kw ratings of 0.6 or 1.2; see table above.

November, 1952

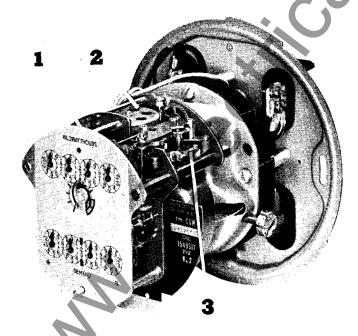


construction features

Single-phase, polyphase and switchboard meters can be supplied as complete demand meters with either RW or RW-2 registers. Or existing meters can be converted to demand meters by replacing register and cover with demand register and reset cover.



watthour meter with RW register CS-W indicating demand meter consists of RW register mounted on CS watthour meter plus glass cover with reset.

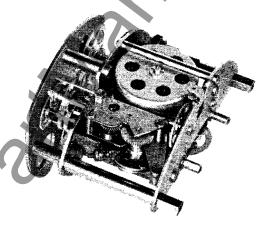


watthour meter with RW-2 register CS-W cumulative demand meter has RW-2 register on CS meter. Meters with either RW or RW-2 registers have suffix "W".

1

register mechanism

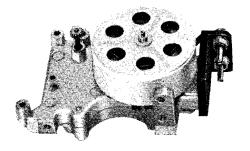
Register uses same bayonet mounting as standard kwh registers, fits any Westinghouse meter manufactured since 1925. First gear meshes directly with pinion on disc shaft without adjustment. Gears are gold-plated for corrosion resistance and precision-milled for accuracy. Entire register mounts on meter as a single unit.



2

timing motor; reduction gears

Timing motor is 600-rpm 60-cycle synchronous motor; operates on hysteresis or remanence principle; drives through oil-immersed reduction gear train to deliver l-rpm output to time-interval gearing. Motor and gear case mount as single unit. Motor leads can be reversed without affecting meter operation. Motor field is well-shielded, and does not affect meter accuracy.



kw demand registers types RW and RW-2

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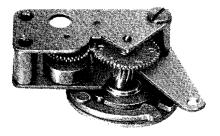
re

3

standard, universal or extended-range class 1 or 2 scales

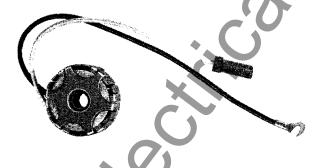
time-interval gearing

Time-interval gearing mounts as a single unit on the motor reduction-gear case. For complete description of time-interval gearing, see "OPERATION" next page.



reactors

All timing motors operate on 120 volts. When used on 240 volts, a reactor is required. For 480 volts, two reactors are required. Reactors mount on meter frame.

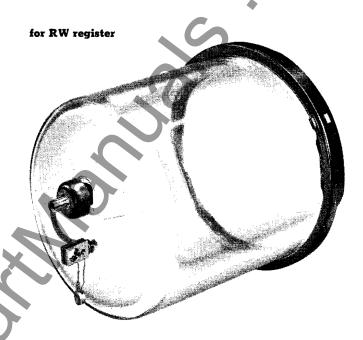


multiplier tag

A detachable multiplier tag is supplied with each register requiring the use of a common multiplier. Multiplier tag mounts on register scale plate.



meter covers with register resets



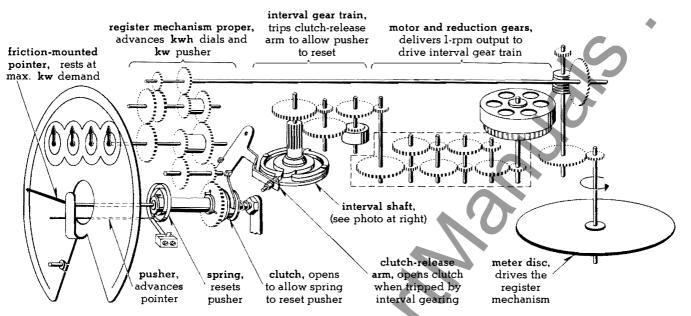
Glass cover for CS-W demand meter with RW register. Lever arm projecting through cover resets frictionmounted pointer.



Glass cover for CS-W demand meter with RW-2 register. Pushbutton operates reset plunger to advance demand reading.

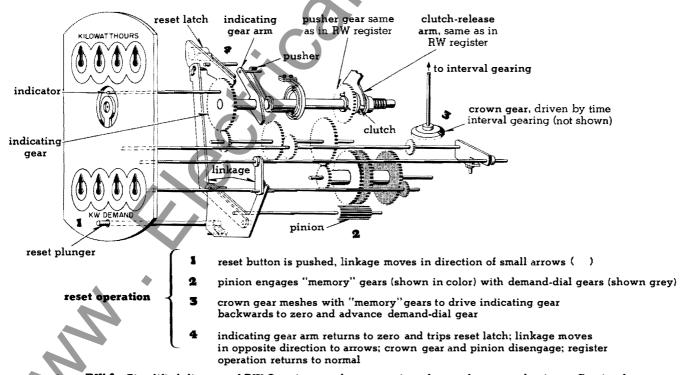


operation: type RW



type RW—Simplified diagram of RW register to show operation of time-interval gearing and clutch mechanism. Gearing has been omitted for all but the first kwh dial.

operation: type RW-2



type RW-2—Simplified diagram of RW-2 register to show operation of manual reset mechanism. Gearing for time-interval mechanism and kwh dials has been omitted. Gearing is shown only for the first demand dial.

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interval gear train

The RW register indicates maximum kw demand by means of a friction-mounted pointer. This pointer in turn is moved by a pusher whose shaft is geared back to the meter disc. Pusher moves in proportion to kwh registered during a definite time interval (15 or 30 min.) At end of interval, pusher resets to zero and starts moving upscale again. This is known as block-interval principle.

Pusher movement corresponds to average kw demand during interval, when indicated on suitable scale. Friction pointer rests at highest point to which it has been advanced by pusher, thus indicating maximum kw demand.

At end of billing period, friction pointer can be returned to zero manually by a lever projecting through meter's glass cover.

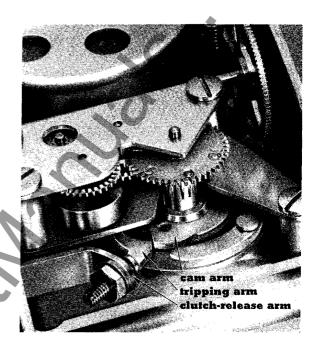
The RW-2 demand mechanism also works on the block-interval principle, except that maximum kw demand is read from register dials instead of friction pointer, thus preserving a cumulative record of maximum demand.

Pusher and interval gearing of the RW-2 work just like those in the RW register. However, pusher movement is translated through an indicating gear to a set of "memory" gears that turn in proportion to the maximum kw demand between readings.

To read maximum demand, meter reader pushes reset plunger projecting through glass cover. This engages "memory" gear train with the time-interval gearing through a crown gear. "Memory" gears are then driven backward the same distance they have been advanced by the pusher. At the same time the demand dials are advanced proportionately.

When "memory" gears have returned to zero, indicating gear trips a reset latch to restore normal operation.

Maximum kw demand is read by subtracting the kw readings before reset from readings after reset.



Closeup of interval gear train showing clutchrelease arm about to be tripped at end of interval. (Note timing gear reads "zero".) Cam and tripping arms turn same direction in 12 to 1 ratio. Tripping occurs when cam arm pushes tripping arm against clutchrelease arm. Pusher then resets.

test features

Registers have been designed so they can be tested on the meter as required by AEIC-EEI-NEMA Spec. MSJ-4:

Timing mechanism can be advanced manually through cycle by turning interval-shaft gear clockwise.

Unexpired time in interval and instant of reset can be read from numbers on interval-shaft gear.

Speed of timing motor can be checked by focusing stroboscopic light on holes in top of rotor.

portable test devices

A complete line of portable test devices for RW and RW-2 registers is available, including gear checker, torque tester and over-all mechanical tester. For complete description see Descriptive Bulletin 42-900.



ratings: full scale markings and multipliers

For style numbers, list prices and complete ordering information for demand meters and registers, see Price List 42-020.

Listed here are register full-scale kw markings and common multipliers according to register type and meter rating. Full-scale kw and multipliers are normally supplied in accordance with AEIC-EEI-NEMA Spec. MSI-4.

example: Full-scale kw of self-contained, two-element, 120-volt, 15-amp meter with universal register, class 1, 1800 Rr is "2 x 3" or "2 kw full scale with a multiplier of 3".

To figure full-scale kw and multipliers for transformer ratios not listed:

1. For secondary-rated, universal or extended range registers: substitute actual transformer ratios for symbol Tr in table, page 7.

example: For meter using 480/120 potential transformers and 100/5 current transformers: $T_r = 480/120 \times 100/5 = 4 \times 20 = 80$.

2. For primary-rated registers: rated kw of meter ▲ (including transformer ratios)

multiplier

0.6 to 12
above 12 to 120
above 120 to 1200
above 1200 to 12,000
above 12,000
10,000

▲ To get full-scale kw:

class 1—Multiply rated kw by 1.667

class 2—Multiply rated kw by 3.333

Unless otherwise specified class 1 registers are supplied with all self-contained polyphase meters and 5-amp transformer-type meters. Class 2 registers are normally supplied with all self-contained single-phase meters and 2½-amp transformer-type meters.

All registers available with either 15 or 30-min. intervals.

Registers can be used on voltages up to 10% above or below rated voltage. Frequency is 60 cycles unless otherwise specified.

RW and RW-2 registers for self-contained meters

| meter ratings | register full-scale kw X multiplier |
|---------------|-------------------------------------|
| | |

| meter raunys | | register it | register run-scale kw / murupher | | | | | | | | | |
|--------------|-----------------|-------------|----------------------------------|--------------|---------------------|---------------------|-----------------------------|---------|----------------|-----------|--|--|
| | | | standard registers | | universa | l registers | extended-range registers | | | | | |
| volts | amps | kw | class l | class 2 | class 1 | | class 2 | | | | | |
| | | | • | | 3600 R _r | 1800 R _r | 3600 Rr | 1800 Rr | 3600 Rr | 1800 R | | |
| ingle-e | lement n | neters | | | | | | | | | | |
| 120 | 5 | 0.6 | l x l | 2 x 1 | 1 x 1 | 2 x 0.5 | 2 x 1 | 4 x 0.5 | 2.4 x 1 | 4.8 x 0.5 | | |
| 120 | 15 | 1.8 | 3 x 1 | 6 x 1 | 1 x 3 | 2 x 1.5 | 2 x 3 | 4 x 1.5 | 2.4 x 3 | 4.8 x 1.5 | | |
| 120 | 50 | 6.0 | 10 x 1 | 20 x 1 | 1 x 10 | 2 x 5 | 2 x 10 | 4 x 5 | 2.4 x 10 | 4.8 x 5 | | |
| 240 | 5 | 1.2 | 2 x 1 | 4 x 1 | 1 x 2 | 2 x 1 | 2 x 2 | 4 x 1 | 2.4 x 2 | 4.8 x 1 | | |
| 240 | 15 | 3.6 | 6 x 1 | | 1 x 6 | 2 x 3 | 2 x 6 | 4 x 3 | 2.4 x 6 | 4.8 x 3 | | |
| 240 | 50 | 12.0 | 2 x 10 | 4 x 10 | 1 x 20 | 2 x 10 | 2 x 20 | 4 x 10 | 2.4 x 20 | 4.8 x 10 | | |
| wo-eler | nent me | ters | | | | | | | | | | |
| 120 | 5 | 1.2 | 2 x 1 | 4 x 1 | 1 x 2 | 2 x 1 | 2 x 2 | 4 x 1 | 2.4 x 2 | 4.8 x 1 | | |
| 120 | 15 | 3.6 | 6 x 1 | 12 x 1 | 1 x 6 | 2 x 3 | 2 x 6 | 4 x 3 | 2.4×6 | 4.8 x 3 | | |
| 120 | 50 | 12.0 | 2 x 10 | 4 x 10 | 1 x 20 | 2 x 10 | 2 x 20 | 4 x 10 | 2.4 x 20 | 4.8 x 10 | | |
| 240 | 5 | 2.4 | 4 x 1 | 8 x 1 | 1 x 4 | 2 x 2 | 2 x 4 | 4 x 2 | 2.4 x 4 | 4.8 x 2 | | |
| 240 | 15 | 7.2 | 1.2 x 10 | 2.4 x 10 | 1 x 12 | 2 x 6 | 2 x 12 | 4 x 6 | 2.4 x 12 | 4.8 x 6 | | |
| 240 | 50 | 24.0 | 4 x 10 | 8 x 10 | 1 x 40 | 2 x 20 | 2 x 40 | 4 x 20 | 2.4 x 40 | 4.8 x 20 | | |
| 480 | 5 | 4.8 | 8 x 1 | 16 x 1 | 1 x 8 | 2 x 4 | 2 x 8 | 4 x 4 | 2.4 x 8 | 4.8 x 4 | | |
| 480 | 15 | 14.4 | 2.4 x 10 | 4.8 x 10 | 1 x 24 | 2 x 12 | 2 x 24 | 4 x 12 | 2.4 x 24 | 4.8 x 12 | | |
| 480 | 50 | 48.0 | 8 x 10 | 16 x 1 | 1 x 80 | 2 x 40 | 2 x 80 | 4 x 40 | 2.4 x 80 | 4.8 x 40 | | |
| hree-el | em ent m | eters (In | cluding 2½-6 | element mete | ers, types C | S-8, CA-8, e | tc.) | | | | | |
| 120 | 5 | 1.8 | 3 x 1 | 6 x 1 | 1 x 3 | 2 x 1.5 | 2 x 3 | 4 x 1.5 | 2.4 x 3 | 4.8 x 1.5 | | |
| 120 | 15 | 5.4 | 9 x 1 | 18 x 1 | 1 x 9 | 2 x 4.5 | 2 x 9 | 4 x 4.5 | 2.4 x 9 | 4.8 x 4.5 | | |
| 120 | 50 | 18.0 | 3 x 10 | 6 x 10 | 1 x 30 | 2 x 15 | 2 x 30 | 4 x 15 | 2.4 x 30 | 4.8 x 15 | | |
| 240 | 5 | 3.6 | 6 x 1 | 12 x 1 | 1 x 6 | 2 x 3 | 2 x 6 | 4 x 3 | 2.4 x 6 | 4.8 x 3 | | |
| 240 | 15 | 10.8 | 1.9 x 10 | 3.6 x 10 | 1 x 18 | 2 x 9 | 2 x 18 | 4 x 9 | 2.4 x 18 | 4.8 x 9 | | |
| 240 | 25 | 18.0 | 3 x 10 | 6 x 10 | 1 x 30 | 2 x 15 | 2 x 30 | 4 x 15 | 2.4 x 30 | 4.8 x 15 | | |
| 040 | 60 | 36.0 | 6 - 10 | 12 10 | 1 60 | 2 - 20 | 2 62 | 4 - 20 | 2460 | 40 30 | | |

kw demand registers types RW and RW-2

descriptive bulletin

standard, universal or extended-range class 1 or 2 scales

| RW | and RV | V-2 regi | sters for | transformer-t | ype meters |
|----|--------|----------|-----------|---------------|------------|
| | | | | | |

| meter | rating | js | | register | full-scal | le kw X n | ultiplie | r | | | | | |
|------------|------------|------------|----------------------|------------------------|------------------------------|-------------------------|---------------------|-----------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------------------------------|-------------------------------|
| | | | | standar | d registe | rs | | universa | al registers | extended-range | | | |
| volts | amps | kw | ct | class 1 | | class 2 | | class 1 | | class 2 | | - registers | |
| | | | ratio | pri. rated | sec. rated | pri. rated | sec. rated | 3600 Rr | 1800 Rr | 3600 R _r | 1800 Rr | 3600 Rr | 1800 Rr |
| single | -eleme | nt n | eters | | | | - | | | | 0 | | |
| 120 | 5 | 0.6 | Tr | | 1 x T _r | • | 2 x T _r | 1 x Tr | 2 x 0.5 Tr | 2 x T _r | 4 x 0.5 T _T | 2.4 x T _T | 4.8 x0.5T _r |
| 120 120 | 5 5 | 0.6 0.6 | 200/5 400/5 | 4 x 10 8 x 10 | 1 x 40 1 x 80 | 8 x 10 16 x 10 | 2 x 40 2 x 80 | 1 x 40 1 x 80 | 2 x 20 2 x 40 | 2 x 40 2 x 80 | 4 x 20 4 x 40 | 2.4 x 40 2.4 x 80 | 4.8 x 20 4.8 x 40 |
| 120 | 5 | 0.6 | 600/5 | 12 x 10 | 1 x 120 | 24 x 10 | 2 x 120 | 1 x 120 | 2 x 60 | 2 x 120 | 4 x 60 | 2.4 x 120 | 4.8 x 60 |
| 240 | 5 | 1.2 | $T_{\mathtt{r}}$ | • | 2 x T _r | • | 4 x T _r | 1 x 2 <i>T</i> _r | 2 x Tr | 2 x 2Tr | 4 x T _r | 2.4 x 2T _r | 4.8 x T _r |
| 240 | 5 | 1.2 | 200/5 | 8 x 10 | 2 x 40 | 16 x 10 | 4 x 40 | 1 x 80 | 2 x 40 | 2 x 80 | 4 x 40 | 2.4 x 80 | 4.8 x 40 |
| 240 | 5 | 1.2 | 400/5 | 16 x 10 | 2 x 80 | 32 x 10 | 4 x 80 | 1 x 160 | 2 x 80 | 2 x 160 | 4 x 80 | 2.4 x 160 | 4.8 x 80 |
| 240 | 5 | 1.2 | 600/5 | 2.4 x 100 | 2 x 120 | 4.8 x 100 | 4 x 120 | 1 x 240 | 2 x 120 | 2 x 240 | 4 x 120 | 2.4 x 240 | 4.8 x 120 |
| two-el | ement | met | ers | | | | | | | ·1 | Į | | |
| 120 | 2.5 | 0.6 | $T_{\mathtt{r}}$ | • | l x Tr | • | 2 x Tr | 1 x T _r | $2 \times 0.5 T_{\rm r}$ | 2 x T _T | 4 x 0.5Tr | $2.4 \times T_{r}$ | 4.8 x 0.5 Tr |
| 120 | 2.5 | 0.6 | 200/5 | 4 x 10 | 1 x 40 | 8 x 10 | 2 x 40 | 1 x 40 | 2 x 20 | 2 x 40 | 4 x 20 | 2.4 x 40 | 4.8 x 20 |
| 120 120 | 2.5 2.5 | 0.6 0.6 | 400/5 600/5 | 8 x 10 1.2 x 100 | 1 x 80 1 x 120 | 16 x 10 2.4 x 100 | 2 x 80 2 x 120 | 1 x 80 1 x 120 | 2 x 40 2 x 60 | 2 x 80 2 x 120 | 4 x 40 4 x 60 | 2.4 x 80 2.4 x 120 | 4.8 x 40 4.8 x 60 |
| 120 | 5 | 1.2 | $T_{\mathtt{r}}$ | • | 2 x T _r | ١ . | 4 x T ₂ | $1 \times 2T_{\rm F}$ | 2 x T _r | 2 x 2T _T | 4 x T _r | 2.4 x 2T _r | 4.8 x T _r |
| 120 | 5 | 1.2 | 200/5 | ● 8 x 10 | 2 x 40 | 16 x 10 | 4 x 40 | 1 x 80 | 2 x 40 | 2 x 80 | 4 x 40 | 2.4 x 80 | 4.8 x 40 |
| 120 | 5 | 1.2 | 400/5 | 16 x 10 | 2 x 80 | 32 x 10 | 4 x 80 | 1 x 160 | 2 x 80 | 2 x 160 | 4 x 80 | 2.4 x 160 | 4.8 x 80 |
| 120 | 5 | 1.2 | 600/5 | 2.4 x 100 | 2 x 120 | 4.8 x 100 | 4 x 120 | 1 x 240 | 2 x 120 | 2 x 240 | 4 x 120 | 2.4 x 240 | 4.8 x 120 |
| 240 | 2.5 | 1.2 | $T_{\mathtt{r}}$ | • | 2 x T _r | | 4 x T _r | 1 x 2T _r | 2 x Tr | 2 x 2Tr | 4 x T _r | $2.4 \times 2T_{r}$ | 4.8 x T _T |
| 240 | 2.5 | 1.2 | 200/5 | 8 x 10 | 2 x 40 | 16 x 10 | 4 x 40 | 1 x 80 | 2 x 40 | 2 x 80 | 4 x 40 | 2.4 x 80 | 4.8 x 40 |
| 240 | 2.5 | 1.2 | 400/5 | 1.6 x 100 | 2 x 80 | 3.2 x 100 | 4 x 80 | 1 x 160 | 2 x 80 | 2 x 160 | 4 x 80 | 2.4 x 160 | 4.8 x 80 |
| 240 | 2.5 | 1.2 | 600/5 | 2.4 x 100 | 2 x 120 | 4.8 x 100 | 4 x 140 | 1 x 240 | 2 x 120 | 2 x 240 | 4 x 120 | 2.4 x 240 | 4.8 x 120 |
| 240 | 5 | 2.4 | $T_{\mathtt{r}}$ | • | 4 x T _r | | 8 x T _r | $1 \times 4T_{r}$ | 2 x 2T _T | $2 \times 4T_{T}$ | 4 x 2Tr | $2.4 \times 4T_{r}$ | 4.8 x 2T _T |
| 240 | 5 | 2.4 | 200/5 | 16 x 10 | 4 x 40 | 32 ± 10 | 8 x 40 | 1 x 160 | 2 x 80 2 x 160 | 2 x 160 2 x 320 | 4 x 80 4 x 160 | 2.4 x 160 | 4.8 x 80 |
| 240 240 | 5 5 | 2.4 2.4 | 400/5 600/5 | 3.2 x 100 4.8 x 100 | 4 x 80 4 x 120 | 6.4 x 100 9.6 x 100 | 8 x 80 8 x 120 | 1 x 320 1 x 480 | 2 x 160 2 x 240 | 2 x 320 2 x 480 | 4 x 160 4 x 240 | 2.4 x 320 2.4 x 480 | 4.8 x 160 4.8 x 240 |
| 480 | 2.5 | 2.4 | T_{r} | • | 4 x T ₁ | | 8 x T _T | 1 x 4 <i>T</i> r | 2 x 2T _T | 2 x 4 Tr | 4 x 2T _r | 2.4 x 4T _r | 4.8 x 2 <i>T</i> _r |
| 480 | 2.5 | 2.4 | 200/5 | 1.6 x 100 | | 3.2 x 100 | 8 x 40 | 1 x 160 | 2 x 80 | 2 x 160 | 4 x 80 | 2.4 x 160 | 4.8 x 80 |
| 480 | 2.5 | 2.4 | 400/5 | 3.2 x 100 | | 6.4 x 100 | 8 x 80 | 1 x 320 | 2 x 160 | 2 x 320 | 4 x 160 | 2.4 x 320 | 4.8 x 160 |
| 480 | 2.5 | 2.4 | 600/5 | 4.8 x 100 | 4 x 120 | 9.6 x 100 | 8 x 120 | 1 x 480 | 2 x 240 | 2 x 480 | 4 x 240 | 2.4 x 480 | 4.8 x 240 |
| 480 | 5 | 4.8 | Tr | • | 8 x T _T | • | 16 x T _r | 1 x 8T _r | 2 x 4T _r | 2 x 8 T _T | 4 x 4T _T | 2.4 x 8T _T | 4.8 x 4T _T |
| 480 480 | 5 5 | 4.8 4.8 | 200/5 400/5 | 3.2 x 100 6.4 x 100 | 8 x 40 8 x 80 | 6.4 x 100 12.8 x 100 | 16 x 40 16 x 80 | 1 x 320 1 x 640 | 2 x 160 2 x 320 | 2 x 320 2 x 640 | 4 x 160 4 x 320 | 2.4 x 320 2.4 x 640 | 4.8 x 160 4.8 x 320 |
| 480 | 5 | 4.8 | | 9.6 x 100 | T . | 19.2 x 100 | 16 x 120 | 1 x 960 | 2 x 480 | 2 x 960 | 4 x 480 | 2.4 x 960 | 4.8 x 480 |
| three- | eleme | nt m | eters (| Including | g 2½-eler | nent met | ers, typ | es CS-8, C | A-8, etc.) | | | | |
| 120 | 2.5 | 0.9 | $T_{ m r}$ | | 1.5 x T _r | • | 3 x T _r | 1 x 1.5T _r | 2 x 0.75T _T | 2 x 1.5T _r | 4 x 0.75Tr | 2.4 x 1.5T _r | 4.8 x 0.757 |
| 120 | 2.5 | <i>y</i> | 200/5 | 6 x 10 | 1.5 x 40 | 12 x 10 | 3 x 40 | 1 x 60 | 2 x 30 | 2 x 60 | 4 x 30 | 2.4 x 60 | 4.8 x 30 |
| 120 | 2.5 | 0.9 | 400/5 | 1.2 x 100 | 1.5 x 80 | 2.4 x 100 | 3 x 80 | 1 x 120 | 2 x 60 | 2 x 120 | 4 x 60 | 2.4 x 120 | 4.8 x 60 |
| 120 | 2.5 | 0.9 | 600/5 | 1.8 x 100 | 1.5 x 120 | 3.6 x 100 | 3 x 120 | 1 x 180 | 2 x 90 | 2 x 180 | 4 x 90 | 2.4 x 180 | 4.8 x 90 |
| 120 | 5 | 1.8 | $T_{\mathtt{r}}$ | • | 3 x T _r | • | 6 x T _r | $1 \times 3T_{r}$ | 2 x 1.5Tr | 2 x 3T _T | 4 x 1.5T _r | $2.4 \times 3T_{r}$ | 4.8 x 1.5T _r |
| 120 | 5 | 1.8 | 200/5 | 12 x 10 | 3 x 40 | 24 x 10 | 6 x 40 | 1 x 120 | 2 x 60 | 2 x 120 | 4 x 60 | 2.4 x 120 | 4.8 x 60 |
| 120 120 | 5 5 | 1.8 1.8 | 400/5 600/5 | 2.4 x 100 3.6 x 100 | 3 x 80 3 x 120 | 4.8 x 100 7.2 x 100 | 6 x 80 6 x 120 | 1 x 240 1 x 360 | 2 x 120 2 x 180 | 2 x 240 2 x 360 | 4 x 120 4 x 180 | 2.4 x 240 2.4 x 360 | 4.8 x 120 4.8 x 180 |
| | | | | 2.200 | | | | | | | | | |
| 240 | 2.5 | 1.8 | T _T | | 3 x T _T | 0.4 . 100 | 6 x T _T | $1 \times 3T_{r}$ | $2 \times 1.5 T_{\rm r}$ | $2 \times 3T_{r}$ | 4 x 1.5 T _r | $2.4 \times 3T_{\rm T}$ | 4.8 x 1.5 Tr |
| 240 240 | 2.5 2.5 | 1.8 1.8 | 200/5 400/5 | 1.2 x 100 2.4 x 100 | 3 x 40 3 x 80 | 2.4 x 100 4.8 x 100 | 6 x 40 6 x 80 | 1 x 120 1 x 240 | 2 x 60 2 x 120 | 2 x 120 2 x 240 | 4 x 60 4 x 120 | 2.4 x 120 2.4 x 240 | 4.8 x 60 4.8 x 120 |
| 240 | 2.5 | 1.8 | 600/5 | 3.6 x 100 | 3 x 120 | 7.2 x 100 | 6 x 120 | 1 x 360 | 2 x 120 2 x 180 | 2 x 360 | 4 x 120 4 x 180 | 2.4 x 240 2.4 x 360 | 4.8 x 120 4.8 x 180 |
| | | , | 7 | _ | 6 77 | ۱ ـ | 12 - 7 | 167 | 2 2 | 2 = 6 = | 4 = 27 | | |
| 240 240 | 5 5 | 3.6 3.6 | T _r 200/5 | ● 2.4 x 100 | 6 x T _T 6 x 40 | 4.8 x 100 | 12 x T _r | 1 x 6 <i>T</i> r 1 x 240 | 2 x 3 T _r 2 x 120 | 2 x 6T _r 2 x 240 | 4 x 3T _r 4 x 120 | $2.4 \times 6T_{T}$ 2.4×240 | 4.8 x 3T _T |
| | 5 | 3.6 | 400/5 | 4.8 x 100 | 6 x 80 | 9.6 x 100 | 12 x 40 | 1 x 240 1 x 480 | 2 x 120 2 x 240 | 2 x 240 2 x 480 | 4 x 240 | 2.4 x 240 2.4 x 480 | 4.8 x 120 4.8 x 240 |
| 240 | | | | | | | | | | | | | |

Supplied with direct-reading dials and common decimal multipliers in accordance with AEIC-EEI-NEMA Specs. MSI-4; transformer ratios must be specified.

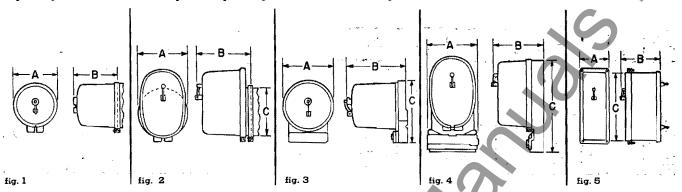
 When used with potential transformers, also multiply "multiplier" by potential-transformer ratio.



dimensions: for complete demand meters

Outline dimensions for demand meters are the same as for corresponding watthour meters except for depth of glass cover.

Dimensions given here are for reference only. Apply nearest Westinghouse Sales Office for official dimensions.



| meter type | fig. no. | outline dimensions, in. no. | | | | export shipping weight, lb. | | | export packing dimensions, in. | | |
|--------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|----------------------------|----------------------------|-----------------------------------|----------------------|----------------------------|
| | | A | В | С | ton | net | legal ▲ | gross | length | width | height |
| with RW register | | | | | • | | | | | | |
| CS-W. CS-5W, CS-7W, CS-8W, CS-10W. CS-3W, CS-9W. | 1 1 2 | 6 ¹⁵ / ₁₆ 6 ¹⁵ / ₁₆ 6 ¹⁵ / ₁₆ | 7 ¹¹ / ₁₆ 8 ³ / ₁₆ 7 ⁷ / ₈ | 9½ | 4 4 1 | 34 42 15 | 38 46 18 | 48 56 28 | 21 21 20 | 19 19 15 | 11 11 20 |
| CA-W CA-5W CA-2W, CA-7W, CA-8W, CA-10W CA-3W, CA-9W | 3 | 61/4 73/16 73/16 63/4 | 73/4 85/8 93/16 83/8 | 8 ³ / ₁₆ 8 ⁷ / ₈ 9 ¹ / ₂ 12 ⁷ / ₈ | 4 1 1 | 34 12 12 15 | 38 16 16 22 | 50 26 26 36 | 20 15 15 20 | 15 14 14 15 | 9 14 14 15 |
| CB-FW, CB-2FW, CB-8FW | 5 5 | 6 ⁵ / ₁₆ | 83/8 83/8 | 105/ ₁₆ 16 ⁷ / ₁₆ | 1 | 14 24 | 17 31 | 27 45 | 17 24 | 14 14 | 15 20 |
| with RW-2 register | | | | _ | | | | | | | |
| CS-W. CS-2W, CS-5W. CS-7W, CS-8W, CS-10W (2½ to 15a) CS-7W, CS-8W, CS-10W (50 amp) CS-3W, CS-4W. | 1 1 2 | 6 ¹⁵ / ₁₆ 6 ¹⁵ / ₁₆ 6 ¹⁵ / ₁₆ 6 ¹⁵ / ₁₆ | 715/16 715/16 715/16 83/8 83/8 | 9½ | 4 4 4 1 | 34 42 42 42 42 24 | 38 46 46 46 31 | 48 56 56 56 45 | 21 21 21 21 21 20 | 19 19 19 19 | 11 11 11 11 11 |
| CA-W | 3 3 4 | 61/4 73/16 73/16 63/4 | 81/8 91/4 93/4 85/8 | 8¾ 878 9½ 1278 | 4 1 1 1 | 34 12 12 15 | 38 16 16 22 | 50 26 26 36 | 20 15 15 20 | 15 14 14 15 | 9 14 14 15 |
| CB-FW, CA-2FW, CA-8FWCB-3FW | 5 5 | 65/16 65/16 | 8 ¹³ / ₁₆ 8 ¹³ / ₁₆ | 105/ ₁₆ 167/ ₁₆ | 1 1 | 15 24 | 18 31 | 28 45 | 17 24 | 14 14 | 15 20 |
| ▲ domestic gross weight | | | ř | i | | | 1 | 1 | | ī | • |

further information

prices style numbers watthour meters switchboard meters accessories test devices

price list 42-020

descriptive bulletin 42-100 descriptive bulletin 42-104 descriptive bulletin 42-900

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