

## Yokogawa AC Watt & VAR Switchboard Meters

- Rugged, Durable Construction
- No Shadows on Scale
- Accurate and Readable, Even from Sharp Angles
- Accurate to Within ±1% of Full Scale
- Attractive, Uncluttered Scales
- Weathertight Construction Ideal for Adverse Conditions (AB-40)
- Easy to Read Up to 30 Feet Away (AB-16)
- Taut-Band Suspension

### SPECIFICATIONS

In accordance with ANSI Specifications C39.1

Accuracy	±1% of FS basic accuracy class	
Rectifier Instruments	±1½% @ 25°C calibrated on sine wave	
Operating Temperature Range	0-40°C (32°F-104°F)	
Dielectric Level	2,300VAC for 1 minute between circuit & case	
Overload Rating	Voltmeter or potential coils—1.2x continuous; AC ammeters—2x continuous, 10x for 1 second; Current coils other than AC ammeters 1.5x continuous, 10x for 1 second	
Response Time	Approx. 2.5 seconds (except AB-16)	
Position of Use	Vertical (scale)	
Full Scale Deflection Angle	250° (360° for synchrosopes)	
Case Size	4¼"	8¾"
Model	AB-40	AB-16
Size (H x W x D)	4.33" x 4.33" x 4.85"	8.69" x 8.69" x 4.85"
Barrel (cutout)	4.03"	
Full Scale Length	6.9"	13.8"

### VAR METER ORDERING INFORMATION

Rating (Amperes)	Rating (Volts)	Scale	AB-40 Cat. No.	AB-16 Cat. No.
<b>Single Phase/2-Wire, 1-Element, Transformer Rated, 60 Hz</b>				
5	120	†	103 31□A...	121 31□A...
5	120	†	103 762 A...*	121 762A...*
<b>3-Phase/3-Wire, 2-Element, Transformer Rated, 50/60 Hz (Cannot Use with External Phase Shifter)</b>				
5	120	†	103 28□A...	121 28□A...
5	120	†	103 812A...•	121 812A...•
<b>3-Phase, 3-Wire, 2-Element, Transformer-Rated, 60 Hz for Use with External Phase Shifters</b>				
5	120	†	103 32□A...	121 32□A...
5	120	†	103 772A...*	121 772A...*
<b>3-Phase/4-Wire, 2½-Element, Transformer-Rated, 50/60 Hz (Cannot Use External Phase Shifter)</b>				
5	208☆	†	103 29□B...	121 29□B...
5	208☆	†	103 742B...▲	121 742B...▲
<b>3-Phase/4-Wire, 2½-Element, Transformer-Rated, 60 Hz for Use with External Phase Shifters</b>				
5	120	†	103 34□A...	121 34□A...
5	120	†	103 792A...*	121 792A...*

- † Order by description. Specify CT (Current Transformer) and/or PT (Potential Transformer) ratios if used and scale desired.
- \* Used for 0-Center when calibrating watts are less than ±380.
- Used for 0-Center when calibrating watts less than ±658.
- ▲ Used for 0-Center when calibrating watts are less than ±760.
- ☆ The 2½-element varmeters used on 4-wire 3-phase 120V L-N systems are rated 208V because they are connected line-to-line.
- Sixth digit signifies pointer deflection (1-zero left, 2-zero center).



AB-16 ▲



AB-40 ▲

Photos not to scale

### WATT METER ORDERING INFORMATION

AC Wattmeters Non-Isolated (cannot be use with external phase shifter for VARs)  
Single-Phase/2-Wire, 1-Element, Self-Contained, 50/60 Hz

Rating Amperes/Volts	Scale	AB-40 Cat. No.	AB-16 Cat. No.
1.25 120	0-125 Watts	103 211AARC7GCB	121 211AARC7GCB
2.50 120	0-250 Watts	103 211AACP7CJB	121 211AACP7CJB
5 120	0-500 Watts	103 211ARBU7CRB	121 211ARBU7CRB
10 120	0-1000 Watts	103 211AWDP7DAB	121 211AWDP7DAB
<b>Single-Phase/2-Wire, 1-Element, Transformer-Rated, 50/60 Hz</b>			
5 120	+	103 21□A.....	121 21□A.....
<b>3-Phase/3-Wire, 2-Element, Transformer-Rated, 50/60 Hz</b>			
5 120	+	103 22□A.....	121 22□A.....
5 240		103 22□C.....	121 22□C.....
5 480*		103 22□D.....	121 22□D.....
5 600*		103 22□E.....	121 22□E.....
<b>3-Phase/4-Wire, 2½-Element, Transformer-Rated, 50/60 Hz (voltage balanced)</b>			
5 69	+	103 25□F.....	121 25□F.....
5 120		103 25□A.....	121 25□A.....
5 240		103 25□C.....	121 25□C.....

- + Order by Description. Specify CT (Current Transformer) and/or PT (Potential Transformer) Ratios if Used, and Scale Desired.
- \* UL Version in Short Case, Non-UL Version in Long Case.
- Sixth Digit Signifies Pointer Deflection (1-Zero Left, 2-Zero Center)

### OPTIONS (WHERE APPLICABLE)

- Custom Scaling
- Nonstandard Ranges
- Zero-Center
- Color Bands
- Nonstandard Frequencies