

## Crompton Switchboard Meters

### AC WATTMETER AND VARMETER SPECIFICATIONS

Burden per element:	Current Circuit: 2 VA
Voltage Circuit:	1 VA
Accuracy Class:	1.0
Scale Arc:	250° Full Scale Deflection
Position Use:	Vertical (Scale)
Overshoot:	33% Maximum
Dielectric Withstand:	2600 VRMS for 1 minute
Operating Temperature:	0 to 60°C (32 to 140°F)
Size (H x W x D):	4.30" x 4.30" x 5.19" (077 Case)

### AC WATTMETERS

Phase/ Wire	Amp/ Volt	Scale	Standard Case Catalog Number	4½" Square Flange Hi-Shock Case Catalog Number
<b>1 element, transformer rated, 50/60 Hz, Taut Band, integral transducer</b>				
1 / 2	5/120	To Suit	+ □-215A-QQ**	078-215J-QQ**
1 / 2	5/120	To Suit	□-215A-QQ**	078-215J-QQ**
<b>2 element, transformer rated, 50/60 Hz, Taut Band, integral transducer</b>				
3 / 3	5/120	To Suit	+ □-218A-QQ**	078-218J-QQ**
3 / 3	5/208	To Suit	□-218A-QR**	078-218J-QR**
3 / 3	5/240	To Suit	□-218A-QS**	078-218J-QS**
3 / 3	5/380	To Suit	□-218A-QX**	078-218J-QX**
3 / 3	5/480	To Suit	□-218A-QT**	078-218J-QT**
3 / 3	5/600	To Suit	□-218A-QY**	078-218J-QY**
<b>2½ element, transformer rated, 50/60 Hz, Taut Band, integral transducer</b>				
3 / 4	5/69	To Suit	+ □-219A-QL**	078-219J-QL**
3 / 4	5/120	To Suit	+ □-219A-QQ**	078-219J-QQ**
3 / 4	5/277	To Suit	□-219A-QY**	078-219J-QY**
3 / 4	5/346	To Suit	□-219A-QZ**	078-219J-QZ**

- Use 077 for 4½" Standard Case and 079 for 8¾" Standard Case  
 \*\* Specify Current Transformer and Voltage Transformer and Preferred Scale  
 + 077 UL Recognized and CSA Approved, 079 UL Recognized

### AC VARMETERS

Phase/ Wire	Amp/ Volt	Scale	Standard Case Catalog Number	4½" Square Flange Hi-Shock Case Catalog Number
<b>2 element, transformer rated, 50/60 Hz, Taut Band, integral transducer</b>				
3 / 3	5/120	To Suit	+ □-311A-QQ**	078-311J-QQ**
3 / 3	5/208	To Suit	□-311A-QR**	078-311J-QR**
3 / 3	5/240	To Suit	□-311A-QS**	078-311J-QS**
3 / 3	5/380	To Suit	□-311A-QX**	078-311J-QX**
3 / 3	5/480	To Suit	□-311A-QT**	078-311J-QT**
3 / 3	5/600	To Suit	□-311A-VY**	078-311J-VY**

- Use 077 for 4½" Case and 079 for 8¾" Case  
 \*\* Specify Current Transformer and Voltage Transformer and Preferred Scale

<b>2½ element, transformer rated, 50/60 Hz, Taut Band, integral transducer</b>				
3 / 4	5/120	To Suit	+ □-311UA-QL**	078-311UJ-QL**
3 / 4	5/208	To Suit	□-311UA-QR**	078-311UJ-QR**
3 / 4	5/480	To Suit	□-311UA-QT**	078-311UJ-QT**
3 / 4	5/600	To Suit	□-311UA-VY**	078-311UJ-VY**

- Use 077 for 4½" Standard Case and 079 for 8¾" Standard Case  
 \*\* Specify Current Transformer and Voltage Transformer and Preferred Scale  
 + 077 UL Recognized and CSA Approved, 079 UL Recognized



▲ 077-218A



▲ 077-KH

### AC WATT/WATT HOUR METERS (SELF CONTAINED)

Phase/ Wire	Amp/ Volt	Scale	Standard Case Catalog Number	4½" Square Flange Hi-Shock Case Catalog Number
<b>Single element, transformer rated, 50/60 Hz, Taut Band, integral transducer</b>				
1 / 2	5 / 120	To Suit	077-KHBU-QQ**	077-KHBJ-QQ**
<b>2 element, transformer rated, 50/60 Hz, Taut Band, integral transducer</b>				
3 / 3	5 / 120	To Suit	077-KHEU-QQ**	078-KHEU-QQ**
3 / 3	5 / 208	To Suit	077-KHEU-QR**	078-KHEU-QR**
<b>2½ element, transformer rated, 50/60 Hz, Taut Band, integral transducer</b>				
3 / 4	5 / 69	To Suit	077-KHGU-QL**	078-KHGU-QL**
3 / 4	5 / 120	To Suit	077-KHEU-QQ**	078-KHEU-QQ**
3 / 4	5 / 277	To Suit	077-KHGU-QY**	078-KHGU-QY**

- \*\* - Specify pulse rate and external power supply

### AC SYNCHROSCOPES - PIVOT AND JEWEL - 360°

Volts	Hz	Scale	Standard Case Catalog Number	4½" Square Flange Hi-Shock Case Catalog Number
120V	50 Hz	SLOW FAST	+ □-145A-PRAE-C5	078-145J-QQAB-C5
120V	60 Hz	SLOW FAST	+ □-146A-PRAE-C5	078-146J-QQAB-C5
120V	400 Hz	SLOW FAST	□-144A-PRAE-C4	078-144J-QQAB-C4

- Use 077 for 4½" Standard Case and 079 for 8¾" Standard Case  
 + - 077 UL Recognized and CSA Approved, 079 UL Recognized

### AC LED 360° SYNCHROSCOPES

Volts	Hz	Scale	Standard Case Catalog Number
120V	40/65 Hz	SLOW FAST	077-14AU-PQYF-FQ
240V	40/65 Hz	SLOW FAST	077-14AU-RRYF-FQ
480V	40/65 Hz	SLOW FAST	077-14AU-SEYF-FQ

## Crompton Switchboard Meters



- Rugged taut bank construction
- 3½ digit LED display
- Wide selection of inputs
- Standard ANSI 4½" switchboard mounting

**077-D1**  
**Ana-Digi Meter**

### PHASE SHIFTING TRANSFORMERS

For use with Wattmeters, when VAR measurement with external phase shifter is required

Phase/ Wire	Amp/ Volt	Scale	Standard Case Catalog Number	4½" Square Flange Hi-Shock Case Catalog Number
3 / 3	120V	To Suit	□-956-A-PR	857-956J-PR
3 / 4	120V	To Suit	□-957-A-PR	857-957J-PR
3 / 4	69V	To Suit	□-956-A-NZ	857-956J-NZ

□ Use 855 for 4½" or 8¾" Case

### AC POWER FACTOR METERS (BALANCED LOAD)

Phase/ Wire	Amp/ Volt	Scale	Standard Case Catalog Number	4½" Square Flange Hi-Shock Case Catalog Number
1 / 2	5/120	0.5-1-0.5	+ □-425A-QQAD	078-425J-QQAD
1 / 2	5/240	0.5-1-0.5	+ □-425A-QSAD	078-425J-QSAD
3 / 3 or 4	5/120	0.5-1-0.5	+ □-427A-QQAD	078-427J-QQAD
3 / 3 or 4	5/208	0.5-1-0.5	+ □-427A-QRAD	078-427J-QRAD
3 / 3 or 4	5/240	0.5-1-0.5	+ □-427A-QSAD	078-427J-QSAD
3 / 3 or 4	5/480	0.5-1-0.5	□-427A-QTAD	078-427J-QTAD
3 / 3 or 4	5/600	0.5-1-0.5	□-427A-QVAD	078-427J-QVAD

□ Use 077 for 4½" Case and 079 for 8¾" Case  
+ 077 UL Recognized and CSA Approved, 079 UL Recognized

### AC POWER FACTOR METERS (UNBALANCED LOAD)

Phase/ Wire	Amp/ Volt	Scale	Standard Case Catalog Number	4½" Square Flange Hi-Shock Case Catalog Number
3 / 3	5/120	0.5-1-0.5	077-TFUA-QQAD	N/A
3 / 3	5/120	0.5-1-0.5	077-TFUA-QQAD	N/A

### AC POWER FACTOR METERS - ROTATING IRON - 360°

Phase/ Wire	Amp/ Volt	Scale	Standard Case Catalog Number	4½" Square Flange Hi-Shock Case Catalog Number
3 / 3 or 4	5/120	0-1-0	□-136A-QQAB	078-136J-QQAB
3 / 3 or 4	5/280	0-1-0	□-136A-QRAB	078-136J-QRAB
3 / 3	5/120	0-1-0	□-132A-QQAB	078-136J-QQAB
3 / 3	5/280	0-1-0	□-132A-QRAB	078-136J-QQAB

□ Use 077 for 4½" Standard Case and 079 for 8¾" Standard Case

### Ana-Digi Meters:

#### AC AMMETERS TRANSFORMER RATED (40/2000Hz)

Digital accuracy ±0.1% ±1 counts, analog accuracy ±1%.

Rating	Scaling*	Catalog No.
5A	0-20A	077-DIBA-LSNG-C6-**
5A	0-50A	077-DIBA-LSNT-C6-**
5A	0-100A	077-DIBA-LSPK-C6-**
5A	0-300A	077-DIBA-LSRX-C6-**
5A	0-400A	077-DIBA-LSSC-C6-**
5A	0-500A	077-DIBA-LSSF-C6-**
5A	0-1500A	077-DIBA-LSTC-C6-**

Direct reading AC Ammeters also available, 1A to 10A.

#### AC VOLTMETERS TRANSFORMER RATED (40/2000HZ)

Rating	Scaling*	Catalog No.
150V	0-300V	077-DIWA-PZRX-C6-**
150V	0-600V	077-DIWA-PZSJ-C6-**
150V	0-750V	077-DIWA-PZSM-C6-**
150V	0-3000V	077-DIWA-PZUA-C6-**
150V	0-6000V	077-DIWA-PZUP-C6-**

Direct reading AC Voltmeters also available, 200mV to 600V.

#### AC FREQUENCY METERS

Self contained 110/130 Volt rating. Integral transducer

Center	Accuracy	Scaling*	Catalog No.
50Hz	±0.15	45-55Hz	077-DZLA-PNAG-AG
55Hz	±0.25	45-65Hz	077-DZLA-PNAJ-AJ
60Hz	±0.25	50-70Hz	077-DZLA-PNAL-AL
60Hz	±0.15	55-65Hz	077-DZLA-PNAN-AN
400Hz	±1.25	360-440Hz	077-DZLA-PNBI-BI

Direct reading AC Ammeters also available, 1A to 10A.

#### DC VOLTMETERS - DIRECT READING

Digital accuracy ±0.5% ±1 counts, analog accuracy ±1%.

Rating	Scaling*	Catalog No.
200mV	0-200mV	077-DIVA-KAKA-**
1V	0-1V	077-DIVA-LALA-**
5V	0-5V	077-DIVA-LSLS-**
50V	0-50V	077-DIVA-NTNT-**
150V	0-150V	077-DIVA-PZPZ-**
300V	0-300V	077-DIVA-RXR-**

#### DC AMMETERS - DIRECT READING

Digital accuracy ±0.5% ±1 counts, analog accuracy ±1%.

Rating	Scaling*	Catalog No.
1mA	0-1mA	077-DIAA-FAFA-**
10mA	0-10mA	077-DIAA-GZGZ-**
20mA	0-20mA	077-DIAA-HFHF-**
100mA	0-100mA	077-DIAA-JRJR-**
1A	0-1A	077-DIAA-LALA-**

#### \*\* POWER SUPPLY

MU - 12 Volts DC	PO - 115 Volts AC
BD - 24 Volts DC	PQ - 120 Volts AC
NR - 48 Volts DC	RR - 240 Volts AC
PR - 120 Volts DC	
PS - 125 Volts DC	
ZZ - 130 Volts DC	

Many standard ranges not shown.  
\*Custom scales and custom ranges on request.