

PANEL METER (INTERCHANGABLE SCALE)

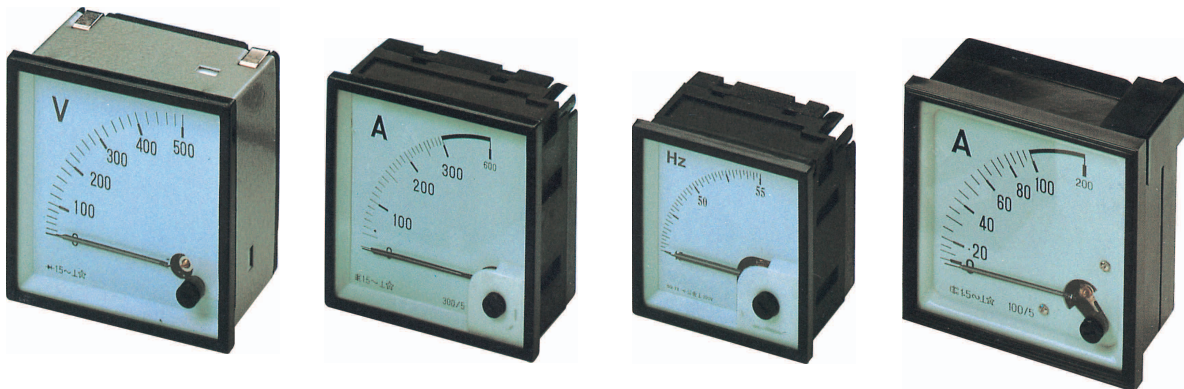
" SUNS " instruments make use of one of the most advanced instrumentations, Interchangeable Scale. This offers several advantages to end users, wholesalers and distributors. advantages like high turn over with minimum stock, more efficient service for customers.

- * The scale is able to be replaced without tool.
- * The housing made of self-extinguishing material.
- * The supporting bracket with guide, easy to operate effectively, allows fastening to panels up to 10mm thick.
- * CM Series : Inner case is made of ABS and Enclosed with outer metallic case.
The metallic case for Better Protection Against Magnetic Fields.
Scale: Interchangeable
- * CA Series: Inner case is made of ABS Resin Contained 10% fiber glass.
Scale: Interchangeable
- * CB Series: Inner case is made of bakelite material.
Scale: Non-interchangeable

TECHNICAL DATA

International Standard	ACCORDING TO IEC 51 AND VDE 0410 DIN 43780, 43800
Temperature Range	-10°C ~+50°C
Accuracy	±1.5%
Dielectric Strength	2000V for 1MIN
Dimension	72 X 72 . 96 X 96mm
Overload Capacity	at least 20% continuous

PICTURE



CM-96

CA-96

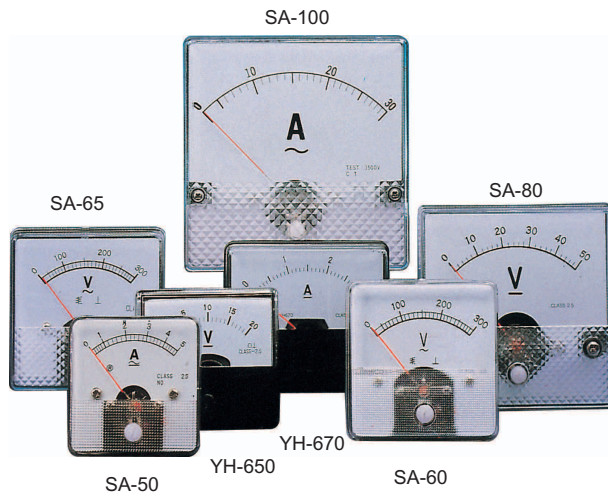
CA-72

CB-96

Following specifications are all available for CM-96, CA-96,CA-72
CM-96, CA-96,CA-72

D.C. Ammeters	1mA, 2.5mA, 5mA, 10mA, 1A,2.5A,6A,10A,25A,40A,50A, above 50A with separate external shunt(70mV) 60A,100a,150a,250a,400a,600a
D.C. Voltmeters	60mV, 80mV, 100mV, 120mV, 150mV, 300mV,500mV 10V,15V,25V,40V,60V,100V,150V,250V, 400V, 600V
A.C. Ammeters	1A,2.5A,5A,10A, Direct 2.5A,40A,50A,60A,100A,10/5A,15/5A,25/5A,40/5A,60/5A,100/5A,150/5A,250/5A, 400/5A,600/5A,1000/5A,1500/5A,2500/5A,4000/5A,6000/5A
A.C. Voltmeters	100V,150V, 300V, 500V, 600V
Pointer Frequency meters	Line supply : 110;220;380;440V Measuring range: 45~55; 45~65Hz; 55~65Hz
Vibrating Reed Frequency meters	Line supply : 110;220;380;440V Frequency spans: 11 Reed : 45~55Hz;55~65Hz
Power factor meters	3-phase,3-wire balanced line : 110,220,380,440V; 5A
Wattmeters	3-phase,3-wire balanced line : 110,220,380,440V; 5A 3-phase,4-wire unbalanced line : 110,220,380,440V; 5A

SWITCHBOARD PANEL METER

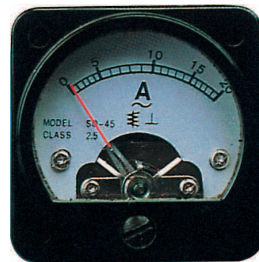


- Cap & Base : Acrylic resin front cap, bakelite base
- * AC Ammeter - For more than 30A connect to current transformer X/5A
- * AC Voltmeter - For more than 600V connect to potential transformer X/10A
- * DC Ammeter - For more than 30A connect to EXT.shunt
- * Accuracy - Class 2.5

MODEL	DIMENSION	MOVING IRON	MOVING COIL
SA-100	100 X 100mm	(AC)5-600V 0.03-50A	(DC)50-500mA 1-500mA.1-50A 10-300mV.1-600V
SA-80	80 X 80mm		
SA-65	65 X 65mm		
SA-60	60 X 60mm		
SA-50	50 X 50mm		
YH-670	60 X 70mm		
YH-650	50 X 60mm		



SR-65







SR-45



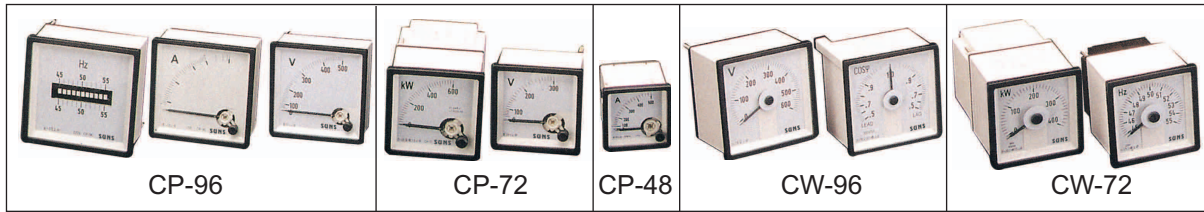
SR-52

MODEL	DIMENSION	MOVING IRON	MOVING COIL
SR-65	f 64.4mm	(AC)5-600V 0.03-60A	(DC)50-500uA 1-500mA.1-50A 10-300mV.1-600V
SR-52	f 51.3mm	(AC)5-600V 0.03-30A	
SR-45	f 44.7mm	(AC)5-600V 0.03-20A	

PANEL METER

PICTURE	APPLICATION	SPECIFICATION
<p>BIMETAL MAXIMUM DEMAND AMMETERS</p>  <p>MODEL NO. CP-96B(96*96mm) CP-72B(72*72mm)</p>	<p>For measuring the long time overloads of any electrical equipment.</p> <p>The display corresponds to the maximum RMS average value in periods of time of 15 minutes, optionally 8 and 30 minutes.</p>	<ul style="list-style-type: none"> . Input current: 5A . Accuracy Class: ±3% . Temperature Reference temperature : 20°C . Rated temperature range: 20±10°C . Limits: -25°C~+40°C . Isolating voltage :2KV/1MIN
<p>BIMETAL MAXIMUM DEMAND AMMETER & AMMETER COMBINATION</p>  <p>MODEL NO. CP-96B2(96*96mm) CP-72B2(72*72mm)</p>	<p>For measuring the long time overloads of any electrical equipment.</p> <p>The display corresponds to the maximum RMS average value in periods of time of 15 minutes, optionally 8 and 30 minutes.</p> <p>Also incorporate a moving iron system that shows the instantaneous current.</p>	<ul style="list-style-type: none"> . Input current : 5A . Accuracy Class: Bimetallic system: ±3% Instantaneous system : ±1.5% . Temperature Reference temperature : 20°C Rated temperature range: 20±10°C Limits: -25°C~+40°C . Isolating voltage :2KV/1MIN
<p>SYNCHRONOSCOPES</p>  <p>MODEL NO. CP-96(96*96mm) CP-72(72*72mm)</p>	<p>For the indication of the difference of frequencies and phase angle between two generators, or a generator and a system. When the difference is zero, the instrument pointer remains at the synchronizing mark at the scale center. The pointer starts tuning in the correct sense when the frequency difference is 1.5Hz for three-phase networks.</p>	<ul style="list-style-type: none"> . Input Voltage : 110V, 220V,380V ,500V . Accuracy Class : ±1.35% electrical degrees in the synchronism mark . Temperature Reference temperature : 20°C Rated temperature range: 20±10°C Limits: -25°C~+40°C . Isolating voltage :2KV/1MIN
<p>PHASE-SEQUENCE</p>  <p>MODEL NO. CP-96(96*96mm) CP-72(72*72mm)</p>	<p>This indicator is used for testing phase sequence in 3 phase systems with permissible operating voltage up to 500V. If the phase sequence is correct, the disc rotates in the direction of the arrow on the scale. Otherwise, please exchange two wires in the system.the phase sequence will be back to correct ,But any test must be under 5 minutes</p>	<ul style="list-style-type: none"> . Input Voltage : 150V~500VAC . But test must be under 5 minutes. . Isolating voltage :2KV/1MIN

PANEL METER (INTERCHANGEABLE SCALE)



TECHNICAL DATA

- . Standard specifications according to IEC 51 4th Edition
- . Temperature Range -10°C ~+50°C
- . Accuracy: ±1.5%
- . Dielectric Strength: 2000V for 1MIN

SPECIFICATIONS

MODEL	MEASUREMENT	MEASUREMENT RANGE	MOVEMENT	SCALES
CP-96 CP-72 CP-48	AMMETERS	AC Direct: 0.1, 0.5, 1, 1.5, 3, 5, 7.5, 10, 15, 20, 25, 30, 50, 60, 100A *CP-48 MAX. 50A Above 100A with separate external current transformer, which secondary current is 5A	Moving Iron	90°
		DC Direct: 100, 150, 200, 300, 500mA, 1, 3, 5, 10, 15, 20, 30, 50, 75, 100, 150, 200, 250, 300, 500mA, 1, 3, 5, 7.5, 10, 20, 30, 50A Above 50A with separate external shunt (50 or 75mv)	Moving Coil	
CP-96 CP-72 CP-48	VOLTMETERS	DC 3, 5, 7.5, 10, 15, 20, 30, 50, 75, 100, 150, 200, 250, 300, 450, 500, 600V	Moving Coil	90°
		AC 30, 50, 75, 100, 120, 150, 200, 250, 300, 400, 450, 500, 600V	Moving Iron	
CP-96 CP-72 *CP-48 (POINTER TYPE ONLY)	FREQUENCY METER LINE SUPPLY 110V, 220V, 380V, 440V AC	POINTER TYPE 45~55Hz, 55~65Hz, 45~65Hz	Moving Coil	90°
		REED TYPE CP-96 11REED 45~55Hz, 55~65Hz CP-72 7REED 47~53Hz, 57~63HZ		
CW-96	AMMETERS	AC Direct: 0.1, 0.5, 1, 1.5, 3, 5, 7.5, 10, 15, 20, 25, 30A, Above 30A with separate external current transformer which secondary current is 5A	Moving Coil	240°
		DC Direct: 1, 3, 5, 10, 15, 20, 30, 50, 75, 100, 150, 200, 250, 300, 500 mA 1, 3, 5, 7.5, 10, 20, 30, 50A Above 50A with separate external shunt (50 or 75mv)		
CW-72	VOLTMETERS	DC 3, 5, 7.5, 10, 15, 20, 30, 50, 75, 100, 150, 200, 250, 300, 450, 500, 600V	Frame"1"	unit(mm)
		AC 30, 50, 75, 100, 120, 150, 200, 250, 300, 400, 450, 500, 600V		
	FREQUENCY METER LINE SUPPLY 110V, 220V, 380V, 440V AC	REED TYPE 45~55Hz 55~65Hz	Frame"2"	
CP-96 CP-72 CW-96 CW-72	Power factor meters	3-phase, 3-wire balanced line : Line supply: 5A; L-L: AC 110, 220, 380, 440V;	Moving Coil	CP-96 90° CP-72 90° CW-96 240° CW-72 240°
	Wattmeters	3-phase, 4-wire (Wattmeters only) unbalanced line : Line supply: 5A; L-N: 110, 220, 240V;		