

This paper supplements the User's Manual CW240 Clamp-on Power Meter (IM CW240-E 1st Edition). As an explanation for standards and literal error correction.

<Addition for Standards>

Peripherals (Optional) P4

The followings are added to the Remarks of Peripherals list.

Product Name	Parts No.	Remarks
Clamp-on Probe		
for 200A	96030	Applicable to CE or UL
for 500A	96031	Applicable to CE or UL
for 700A	96032	Not applicable to CE and UL
for 50A	96033	Applicable to CE. Not applicable to UL
for 3000A	96034	Applicable to CE. Not applicable to UL
for 3000A	96035	Applicable to CE. Not applicable to UL
for 2A	96036	Applicable to CE. Not applicable to UL

●NiMH Battery Life P3-13

The following is added to NiMH Battery Life.

Dispose under regional rules when unusable.

4.2 Installing the CW240 P4-3

The following is added to "Ambient Temperature and Humidity".

17.1 CW240 Specifications P17-15

The following is added to "Operating Temperature/Humidity Range".

• **When it is applied to UL**

Maximum relative humidity 80 %RH for temperature up to 31 °C decreasing linearly to 50 %RH relative humidity at 40°C.

17.1 CW240 Specifications (9)General Specifications P17-15

Safety standards	Compliant with EN61010-1, EN61010-2-032 • Measurement category III (Max. input voltage: 600Vrms) • Pollution degree 2 Compliant with UL61010B-1, CAN/CSA-C22.2 No.1010.1-92 • Overvoltage category III (Max. input voltage: 600Vrms) • Pollution degree 2
Emission	Compliant with EN61326 Class A, EN61000-3-2, EN61000-3-3 This product class A for use in an industrial environment and may cause radio interference if used for domestic use. Therefore, appropriate measures must be taken when using it for domestic use.
Conditions of cable	Measured input When using “Voltage Probes” and “Clamp-on Probes” supplied with the CW240. External Control Input/Output, DA Output, Analog Input Shield cable: less than 3m
Immunity	Compliant with EN61326 Performance criterion under immunity test environments: B (self-returnable performance deterioration)

< Literal Error Correction >

17.1 CW240 Specifications (3)Equations P17-5

Wiring Measurement Item	Equations	Symbol	3 Phase 3 Wire 3 Current	3 Phase 4 Wire
Average Voltage	—	U_{ave}	$(U_1+U_2+U_3)/3^{*2}$	
Active Power	—	ΣP	$P_1+P_2+P_3^{*5}$	
Apparent Power	$S=U \times I$	ΣS	$S_1+S_2+S_3^{*5}$	

Appendix 3 Polarity App.3-1

• **The Table of Polarity**

Corrected part are as shown by in the following table.

Phase Difference	LAG			LEAD	
	180	90	0	90	180
Active Power	—	+	+	—	—
Reactive Power	+	+	—	—	—
Power Factor	—	+	—	—	+
Phase Angel	+	+	—	—	—

• **The Circle Diagram**

The circle diagram of Phase Angle is the same as Reactive Power.

Active Power Reactive Power/**Phase Angle** Power Factor

This paper supplement is for the User's Manual CW240 Clamp-on Power Meter (IM CW240-E 1st Edition), and it explains change of AC adapter.

Model and Suffix Codes **Page 2**

Model	Suffix Code	Specifications
AC adapter	-H -P	Power cord: GB standard KC standard

Addition for power cord

Accessories **Page 3**

Product Name	Model	Q'ty	Remarks
1. AC adapter for Power supply with Power cord			
	94011-D	1	UL/CSA standard
	94011-F	1	VDE standard
	94011-R	1	SAA standard
	94011-S	1	BS standard
	94011-H	1	GB standard
	94011-P	1	KC standard

3.2 Connecting a Power Supply **Page 3-4**

 **WARNING**

Do not use any AC adapter other than the one dedicated to the CW240 or the one (part number: 94011) sold separately.
Also, do not use the power cord that came with the instrument on any other device.

AC adapter's Power Rating **Page 3-5**

Rated supply voltage:	100 to 240 VAC
Allowable supply voltage range:	90 to 264 VAC
Rated supply frequency:	50/60 Hz
Maximum input current:	1.5 A or less (at input voltage: 100 V)
Output voltage rating of AC adapter:	12 VDC
Maximum output current rating of AC adapter:	3.75 A

Indication of product: SED80N2-12.0

Accessories **Page 17-1**

1. AC Adapter 1
Power cord 1

This paper supplements the User's Manual of CW240, CW120/121 Clamp-on Power Meters, 94004 NiMH Battery Pack and 96030/31 Clamp-on Probes.

This is to advise the additional explanations for EMC standards and the updated postal address for Yokogawa Europe.

Model User's Manual	Description before the revision	Revised Content
CW240 IM CW240-S01E 1st Edition	Emission Compliant with EN61326 Class A, EN61000-3-2, EN61000-3-3 Immunity Compliant with EN61326	EMC standards Compliant with EN61326-1 Class A, EN61326-2-1, EN61000-3-2, EN61000-3-3, EN55011 Class A Group 1
CW120/121 IM CW120-E 4th Edition	Performance criterion under immunity test environments: B (self-returnable performance deterioration)	Measurement error may temporarily occur under immunity environments.
94004 IM 94004-E 4th Edition	EMI standard: EN55011 Group 1 Class A, EN61326 Immunity standard: EN61000-6-2, EN61326	EMC standards Compliant with EN55011 Class A Group 1, EN61326-1 Class A, EN61000-6-2
96030/31 IM 96030-E 6th Edition	EMI standard: EN55011 Group 1 Class A, EN61326 Immunity standard: EN61000-6-2, EN61326 Effectiveness of radiation immunity Measuring accuracy of within: $\pm 20\%$ of each range.	EMC standards Compliant with EN55011 Class A Group 1, EN61326-1 Class A, EN61326-2-1 EN61000-6-2 Effectiveness of radiation immunity Measuring accuracy of within: $\pm 20\%$ of each range.

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