



## PROVA-6830A 전력분석계

- Analysis for 3P4W, 3P3W, 1P2W, 1P3W
  - True RMS(실효치) Value(V123 and I123)
  - Active Power(W, KW, MW, GW)
  - Apparent and Reactive Power(KVA, KVAR)
  - Power Factor(PF: 역률), Phase Angle( $\Phi$ : 위상각)
  - Energy (WH, KWH, KVARH, PFH)
  - 0.1mA to 3000A 까지 전류측정
- (Capable of analyzing IT standby power consumption to the maximum demand of a factory)
- 하나의 스크린에서 35 Parameters를 Display(3P4W)
  - CT(1 ~ 600) 와 PT(1 ~ 3000) Ratios를 프로그래밍
  - Display of overlapped Voltage and Current Waveform
  - Average Demand(AD in W, KW, MW)
  - KW, MW, KVA, MVA에서 최대 Demand(기간 설정)
  - 99차까지 고조파 분석
  - 파형으로 하나의 스크린에서 50차 고조파 Display
  - Waveform with Peak Values(1024 Samples/Period) Display
  - Total Harmonic Distortion(%THD-F) 분석
  - Graphic Phasor Diagram with 3 Phase System Parameters
  - Capture 28 Transient Events(Time+Cycles) with Programmable Threshold(%)
  - DIP, SWELL, OUTAGE가 Transient Event에 포함
  - 3 Phase Voltage or Current Unbalance Ratio(VUR, IUR)
  - 3 Phase Voltage or Current Unbalance Factor(d0%, d2%)
  - Calculated Unbalance Current through Neutral Line(In)
  - 512K Memory with Programmable interval 간격 조절가능(2 ~ 3000초, 17,000 records for 3P4W)
  - Output of Waveform, Power Parameters and Harmonics at Command
  - 백라이트 기능 대용 Dot Matrix LCD
  - Optical Isolated RS-232 to USB interface
  - Built-in timer and calendar for data logging
  - Option: Prova-310XP(Portable Thermal Printer)

### PROVA-6830A+6801

- 조달청 물품 목록 번호 : 41113682-22418702
- 조달청 물품 분류 번호 : 41113682
- 조달청 물품 식별 번호 : 22418702

### PROVA-6830A+6802

- 조달청 물품 목록 번호 : 41113682-22418703
- 조달청 물품 분류 번호 : 41113682
- 조달청 물품 식별 번호 : 22418703

### PROVA-6830A+3007

- 조달청 물품 목록 번호 : 41113682-22418704
- 조달청 물품 분류 번호 : 41113682
- 조달청 물품 식별 번호 : 22418704

기술적 세부사항

AC Watt(50 or 60 Hz, PF 0.5 to 1)

Model 6830A+6801(100A)

측정범위(0 ~ 100A)	분해능	정확도
5.0 - 999.9W	0.1W	±1% ± 0.8W
1.000 - 9.999KW	0.001KW	±1% ± 8W
10.00 - 99.99KW	0.01KW	±1% ± 80W
100.0 - 999.9KW	0.1KW	±1% ± 0.8KW
1000 - 9999KW	1KW	±1% ± 8KW

Model 6830A+6802(1000A)

측정범위(0 ~ 1000A)	분해능	정확도
5.0 - 999.9W	0.1W	±1% ± 0.8W
1.000 - 9.999KW	0.001KW	±1% ± 8W
10.00 - 99.99KW	0.01KW	±1% ± 80W
100.0 - 999.9KW	0.1KW	±1% ± 0.8KW
1000 - 9999KW	1KW	±1% ± 8KW
0.000 - 9.999MW	0.001MW	±1% ± 80KW

Model 6830A+3007(3000A)

측정범위(0 ~ 3000A)	분해능	정확도	
		> 20V & > 30A	< 20V 또는 < 30A
10.0 - 999.9W	0.1W	±1% of range	±2% of range
1.000 - 9.999KW	0.001KW	±1% of range	±2% of range
10.00 - 99.99KW	0.01KW	±1% of range	±2% of range
100.0 - 999.9KW	0.1KW	±1% of range	±2% of range
1000 - 9999KW	1KW	±1% of range	±2% of range

Model 6830A+3009(1200A)

측정범위(0 ~ 3000A)	분해능	정확도	
		> 20V & > 30A	< 20V 또는 < 30A
10.0 - 999.9W	0.1W	±1% of range	±2% of range
1.000 - 9.999KW	0.001KW	±1% of range	±2% of range
10.00 - 99.99KW	0.01KW	±1% of range	±2% of range
100.0 - 999.9KW	0.1KW	±1% of range	±2% of range
1000 - 9999KW	1KW	±1% of range	±2% of range

AC Current(50 or 60Hz, Auto Range, True RMS)

Model 6830A+6801(Overload Protection AC 100A)

측정범위	분해능	정확도
0.04 - 1A	0.001A	±0.5% ± 0.05A

0.4 – 10A	0.01A	$\pm 0.5\% \pm 0.05A$
4 – 100A	0.1A	$\pm 1.0\% \pm 0.5A$

Model 6830A+6802(Overload Protection AC 1000A)

측정범위	분해능	정확도
10.00A	0.001A/0.01A	–
4 – 100.0A	0.01A/0.1A	$\pm 0.5\% \pm 0.5A$
40 – 1000.0A	0.1A/1A	$\pm 0.5\% \pm 5A$

Model 6830A+3007(Overload Protection AC 3000A)

측정범위	분해능	정확도
0 – 300.0A	0.1A	$\pm 1\%$ of range
300.0 – 3000A	0.1A/1A	$\pm 1\%$ of range

Model 6830A+3009(Overload Protection AC 1200A)

측정범위	분해능	정확도
5.00 – 120.0A	0.01A/0.1A	$\pm 1\% \pm 0.1A$
50.0 – 1200A	0.1A/1A	$\pm 1\% \pm 1A$

AC Voltage(50 or 60Hz, Auto Range, True RMS, Overload Protection AC 800V)

측정범위	분해능	정확도 <sup>7</sup>
20.0V – 500.0V(Phase to Neutral)	0.1V	$\pm 0.5\% \pm 5\text{digits}$
20.0V – 600.0V(Phase to Phase)		$\pm 0.5\% \pm 5\text{digits}$

Harmonics of AC Voltage in Percentage

측정범위	분해능	정확도
1 – 20 <sup>th</sup>	0.1%	$\pm 2\%$
21 – 49 <sup>th</sup>		$\pm 4\%$ of range $\pm 2.0\%$
50 – 99 <sup>th</sup>		$\pm 6\%$ of range $\pm 2.0\%$

Harmonics of AC Voltage in Magnitude

측정범위	분해능	정확도
1 – 20 <sup>th</sup>	0.1V	$\pm 2\% \pm 0.5V$
21 – 49 <sup>th</sup>		$\pm 4\%$ of range $\pm 0.5V$
50 – 99 <sup>th</sup>		$\pm 6\%$ of range $\pm 0.5V$

Harmonics of AC Current in Percentage

Model 6830A+6801

측정범위	분해능	정확도
1 – 10 <sup>th</sup>	0.1%	$\pm 0.2\%$ of range $\pm 1\%$
11 – 20 <sup>th</sup>		$\pm 2\%$ of range $\pm 1\%$
21 – 50 <sup>th</sup> (A range)		$\pm 5\%$ of range $\pm 1\%$
21 – 50 <sup>th</sup> (mA range)		$\pm 10\%$ of range $\pm 1\%$
51 – 99 <sup>th</sup>		$\pm 35\%$ of range $\pm 1\%$

Model 6830A+6802

측정범위	분해능	정확도
------	-----	-----

1 - 20 <sup>th</sup>	0.1%	±2%
21 - 49 <sup>th</sup>		±4% of range ±2.0%
50 - 99 <sup>th</sup>		±6% of range ±2.0%

Model 6830A+3007

측정범위	분해능	정확도
1 - 20 <sup>th</sup>	0.1%	±2%
21 - 50 <sup>th</sup>		±6%
51 - 99 <sup>th</sup>		±10%

Model 6830A+3009

측정범위	분해능	정확도
1 - 20 <sup>th</sup>	0.1%	±2%
21 - 50 <sup>th</sup>		±6%
51 - 99 <sup>th</sup>		±10%

Harmonics of AC Current in Magnitude

Model 6830A+6801

측정범위	분해능	정확도
1 - 10 <sup>th</sup>	0.1mA/0.1A	±0.2% of range ±7digits
11 - 20 <sup>th</sup>		±2% of range ±7digits
21 - 50 <sup>th</sup> (A range)		±5% of range ±7digits
21 - 50 <sup>th</sup> (mA range)		±10% of range ±7digits
51 - 99 <sup>th</sup>		±35% of range ±7digits

Model 6830A+6802

측정범위	분해능	정확도
1 - 20 <sup>th</sup>	0.1A	±2% of range ±0.4A
21 - 49 <sup>th</sup>		±4% of range ±0.4A
50 - 99 <sup>th</sup>		±6% of range ±0.4A

Model 6830A+3007

측정범위 (0 - 300A)	분해능	정확도
1 - 20 <sup>th</sup>	0.1%	±2% of range ±4A
21 - 50 <sup>th</sup>		±4% of range ±4A
51 - 99 <sup>th</sup>		±6% of range ±4A

Model 6830A+3009

측정범위	분해능	정확도
1 - 20 <sup>th</sup>	0.1%	±2% of range ±0.4A
21 - 50 <sup>th</sup>		±4% of range ±0.4A
51 - 99 <sup>th</sup>		±6% of range ±0.4A

Power Factor (PF, 역률)

Model 6830A+6801 또는 6830A+6802

측정범위	분해능	정확도
0.00 - 1.00	0.01	±0.04

Model 6830A+3007

측정범위	분해능	정확도	
		> 20V & > 30A	< 20V 또는 < 30A
0.000 - 1.000	0.001	±0.04	±0.1

Model 6830A+3009

측정범위	분해능	정확도	
		> 20V & > 30A	< 20V 또는 < 30A
0.000 - 1.000	0.001	±0.04	±0.1

Phase Angle(∅)

Model 6830A+6801 또는 6830A+6802

측정범위	분해능	정확도
-180° to 180°	0.1°	±1°

Model 6830A+3007

측정범위	분해능	정확도
-180° to 180°	0.1°	±2°
0° to 360°	0.1°	±2°

Model 6830A+3009

측정범위	분해능	정확도
-180° to 180°	0.1°	±2°
0° to 360°	0.1°	±2°

Peak Value of AC Voltage or AC Current, VT=1

측정범위	샘플링타임	정확도
50Hz	19μs	±5%±30digits
60Hz	16μs	±5%±30digits

Crest Factor (C.F.) of AC Voltage or AC Current, VT=1

측정범위	분해능	정확도
1.00 - 99.99	0.01	±5%±30digits

Frequency in AUTO mode

Model 6830A+6801, 6830A+6802

측정범위	분해능	정확도
45 - 65Hz	0.1Hz	0.1Hz

Frequency(RMS value >10V) or ACA(RMS value > 30A)

측정범위	분해능	정확도
45 - 65Hz	0.1Hz	0.2Hz

Total Harmonic Distortion (교주파 왜곡율)

Model 6830A+6801

측정범위	분해능	정확도
0.0 - 20.0%		±1%

20.0 - 100%	0.1%	±3% of range ±5%
100 - 999.9%		±10% of range ±10%

Model 6830A+6802

측정범위	분해능	정확도
0.0 - 20%	0.1%	±2%
20 - 100%		±6% of range ±1%
100 - 999.9%		±10% of range ±1%

Model 6830A+3007

측정범위	분해능	정확도
0.0 - 20.0%	0.1%	±2%
20 - 100%		±6% of range ±5%
100 - 999.9%		±10% of range ±10%

Model 6830A+3009

측정범위	분해능	정확도
0.0 - 20.0%	0.1%	±2%
20 - 100%		±6% of range ±1%
100 - 999.9%		±10% of range ±1%

제품사양

세부사항	내 용	
표시	Dot Matrix LCD with backlight	
LCD update rate	1 times / sec	
No. of Samples	1024 samples / period	
Data Logging File	85	
최대 File 용량	3P4W(3상 4선) 3P3W(3상 3선)	17474 records
	1P3W(단상 3선)	26210 records
	1P2W(단상 2선)	52420 records
	50 Harmonics/record	4096 records
Sampling time	2 ~ 3000 sec	
Low battery 표시	[BT] 표시	
측정범위 초과 표시	"OL" 표시가 뜨면 측정 허용 범위를 벗어남을 뜻함	
사용온도/습도	-10°C ~ 50°C / 0 ~ 85% RH 이하	
보관온도/습도	-20°C ~ 60°C / 0 ~ 75% RH 이하	
전원	알카라인 1.5V AA × 8EA	
External DC input	DC 12V adaptor	
크기/무게	6830A(본체)	257mm(L) × 155mm(W) × 57mm(H) / 1160g(Battery 포함)
	6801(Current probe)	210mm(L) × 62mm(W) × 36mm(H) / 200g
	6802(Current probe)	244mm(L) × 97mm(W) × 46mm(H) / 600g
	3007(Flexible Current probe)	130mm(L) × 80mm(W) × 43mm(H) / 410g
	3009(Flexible Current probe)	130mm(L) × 80mm(W) × 43mm(H) / 390g
	6801(Current probe)	30mm

Conductor size	6802(Current probe)	55mm
Flexible probe length	3007(Flexible Current probe)	610mm / 24in
	3009(Flexible Current probe)	460mm / 18in
기본악세서리	사용설명서, 소프트웨어 사용설명서, Battery (1.5V×8EA), Carrying Bag, AC Adaptor, Test Leads × 4EA, Alligator Clip×4EA, Probe×3EA, Software CD, Optical USB Cable	
옵션악세서리	Prova-310XP(Portable Thermal Printer)	