



CE



**Electrical Specification (23°C ± 5°C)**

**4500**

**AC + DC True Power (PF 0.2 ~ 1.0, 3φ3W, 3φ4W, 1φ2W, and 1φ3W)**

Range	Resolution	Accuracy (% of rdg)	Input Range
0-99.99KW	0.01KW	±(2.0% + 0.05KW)	AC 600V, DC 800V, ACA/DCA 2000A
100-999.9KW	0.1KW	±(2.0% + 0.5KW)	AC 600V, DC 800V, ACA/DCA 2000A
1000-1200KW	1KW	±(2.0% + 5KW)	AC 600V, DC 800V, ACA/DCA 2000A

**AC + DC True Power (Power Factor 0.2 ~ 1.0, 3φ Balanced Power)**

Range	Resolution	Accuracy (of rdg)	Input Range
0-99.99KW	0.01KW	±(2.0% + 0.05KW)	AC 600V, DC 800V, ACA/DCA 2000A
100-999.9KW	0.1KW	±(2.0% + 0.5KW)	AC 600V, DC 800V, ACA/DCA 2000A
1000-2000KW	1KW	±(2.0% + 5KW)	AC 600V, DC 800V, ACA/DCA 2000A

**AC + DC Voltage (True RMS, Crest Factor < 4, Autorange, Overload Protection 800VAC for all range)**

Range	Resolution	Accuracy (of reading)		Input Impedance
		DC, 50/60 Hz	40-400 Hz	
0-200V	0.1V	±(1.5% + 5 dgt)	±(2.0% + 5 dgt)	10MΩ
200-500V	0.1V	±(1.5% + 5 dgt)	±(2.0% + 5 dgt)	10MΩ
500-800V	1V	±(1.5% + 5 dgt)	±(2.0% + 5 dgt)	10MΩ

**AC + DC Current (True RMS, Crest Factor < 4)**

Range	Resolution	Accuracy (of reading)		Overload Protection
		DC, 50/60 Hz	40-400 Hz	
0-200A	0.1A	±(1.5% + 5 dgt)	±(2.0% + 5 dgt)	AC 3000A
200-500A	0.1A	±(2.0% + 5 dgt)	±(2.5% + 5 dgt)	AC 3000A
500-2000A	1A	±(2.5% + 5 dgt)	±(3.0% + 5 dgt)	AC 3000A

**3φ/1φ Clamp-On Power Meter**

**Features**

- 3φ4 W, 3φ3 W, 1φ2 W, 1φ3 W
- AC + DC 2000 KW (3φ), 1200 KW (1φ)
- Dual display KW + PF, KVA+KVAR, V + A, V + Hz, A + Hz
- Phase Angle Measurement (±90°), Phase Sequence Indication (R,S,T)
- AC 600V, DC 800V, 2000A, Power Factor
- AC/DC Auto Detection
- TRMS Values
- Memory of 4 records
- Auto Range

KVA + KVAR



V + Hz



Power Factor (PF)  $PF = \frac{KW}{KVA}$

AC + DC KVA (Apparent Power)  $KVA = \frac{V \times A}{1000}$

AC + DC KVAR (Reactive Power)  $KVAR = \sqrt{(KVA)^2 - (KW)^2}$

**General Specifications**

Conductor size	Cable Φ55mm. (approx.) Bus Bar 65 (D) x 24 (W) mm
Battery Type	9V, Eveready type 216 or eq.
Display	2x4 Digits Dual Display LCD
Range Selection	Auto
Overload Indication	OL
Power Consumption	25mA(approx.)
Low Battery Indication	<input type="checkbox"/> X <input type="checkbox"/> P
Sampling Time	0.5 sec. (V and A) 1.6 sec. (W)
Operating Temp.	4° to 50°C
Operating Humidity	< 85% RH
Storage Temperature	-20°C to 60°C
Storage Humidity	< 75% RH
Dimensions	271 (L) x 112 (W) x 46 (H) mm
Weight	647gm (battery included) approx.
Accessories	Carry bag x 1, Users manual x 1, 9V Battery (installed) x 1, Test lead x 2 pairs.

**Phase Angle (Must zero the current reading before measurement)**

Range	Accuracy	Sensitivity	Remark
± 0-180° (50/60 Hz)	± 2.0°	V > 100V, A > 10A	Zero Crossing Detection

\* If current signal is not detected, the phase angle will be left blank in LCD.

**Frequency (if < 10 Hz, Hz = 0)**

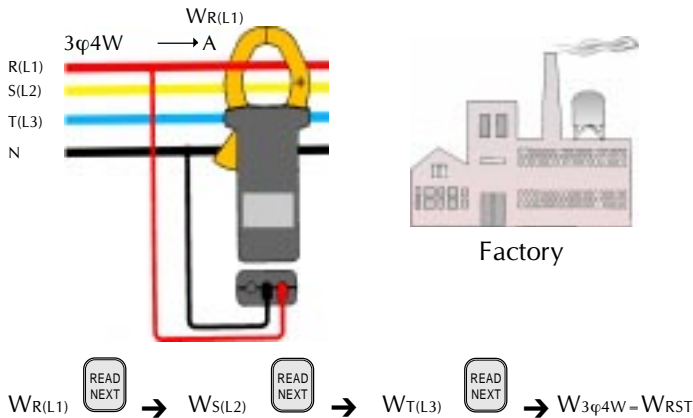
Range	Accuracy	Sensitivity
50/60 Hz	± 2dgt	V > 1V, A > 5A
10-400 Hz	±(0.5% + 2dgt)	V > 1V, A > 5A



How one wished, one could measure 3φ power with a single clamp meter without any manual calculations; well now it is a reality. MECO 4500 Clamp-On Power Meter does this with absolute ease and reliability. Be it 3φ4W, 3φ3W, balanced or unbalanced system. Needless to add, it also works for 1φ2W and 1φ3W systems. Handy and ideal for on-site measurement, energy audit, data recording, Q.C. testing and maintenance of the entire plant.

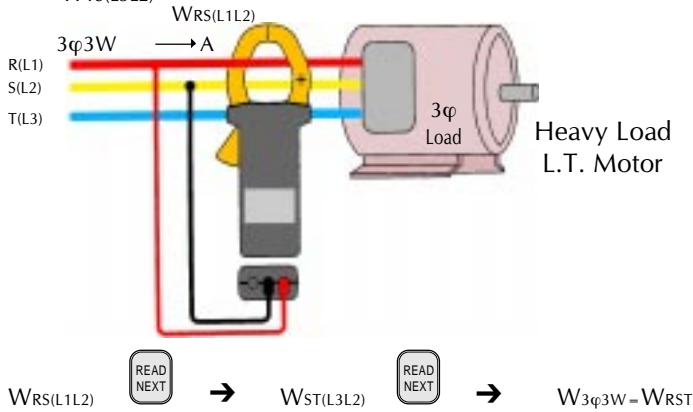
### 1. Usage : 3φ4W Unbalanced System

With three measurements, one in each phase, power clamp will process data automatically & display value of  $W_{3φ4W}$  on LCD.  $W_{3φ4W} = W_{R(L1)} + W_{S(L2)} + W_{T(L3)}$



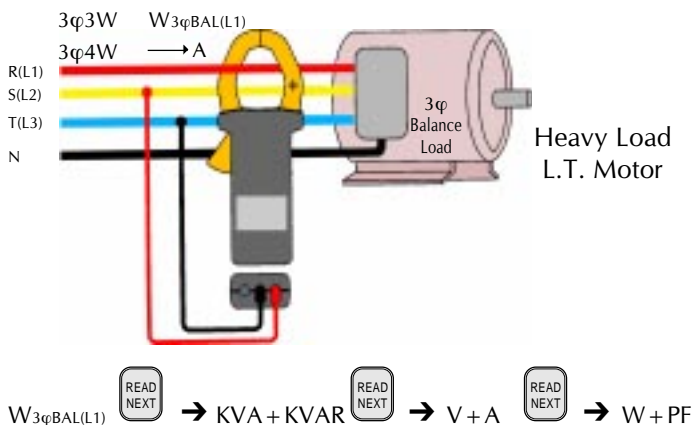
### 2. Usage : 3φ3W Unbalanced System

With two measurements, between phases R&S and T&S, power clamp will process the data automatically and display value of  $W_{3φ3W}$  on LCD.  $W_{3φ3W} = W_{RS(L1L2)} + W_{TS(L3L2)}$



### 3. Usage : 3φ3W or 3φ4W Balanced System

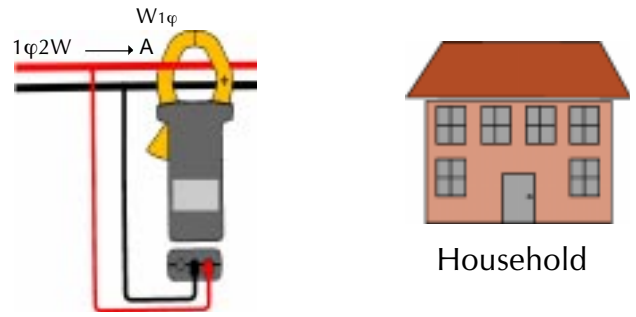
With just one measurement, power clamp displays values of  $W_{3φBAL}$  and PF on LCD.



## 3φ/1φ Clamp-On Power Meter

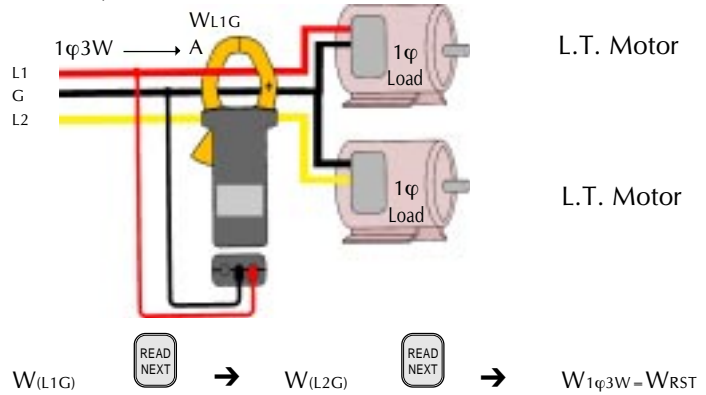
### 4. Usage : 1φ2W System

With just one measurement, power clamp will display values of  $W_{1φ2W}$  and PF on LCD.



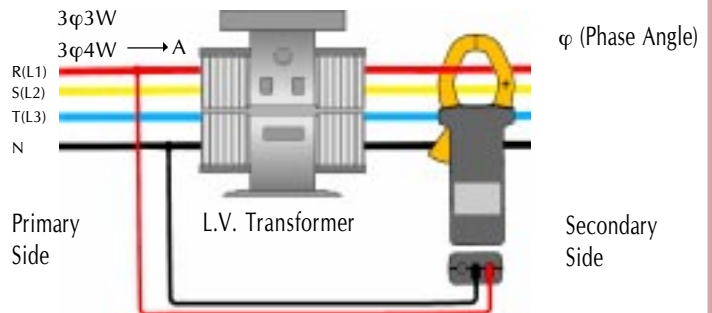
### 5. Usage : 1φ3W System

With two measurements, power clamp will process the data automatically and display values of  $W_{1φ3W}$  on LCD.  $W_{1φ3W} = W_{(L1G)} + W_{(L2G)}$



### 6. Usage : Phase angle Indication

With three measurements one in each phase in 3 phase or just one measurement in 1 phase power clamp will display phase angle between V & A of given phase.



### 7. Usage : Phase Sequence Auto Indication

With just one measurement, power clamp will display phase sequence.

