Order Code - 17717A
Clamp-On TRMS Power Meter with Automatic computation of 1φ and 3φ (3P3W/3P4W) Parameters

17717A

Features
- 4 Digit LCD, 9999 Count, Autoranging
- Data Hold, Auto Power Off
- Dual Display KW+HP, KW+PF, KW+KVAR, KVA+φ,V+A, A+Hz, V+Hz
- Cable of Diameter upto 43mm / Busbar upto 65mm x 16mm

Applications
- Check Current drawn in Motors and Compressors
- Use MAX/MIN/REC in Temperature Mode to Assess Efficiency
- Test Run/Start Capacitors
- Analyze Temperature Data with the Aid of the Time Stamp
- Resistance upto 100MΩ
- Check for Energized Circuits & Balance Loads
- Capture Motor In-Rush Current Readings
- Determine Peak Power Demand Periods
- Ideal for Electrical Audit of Heating, Ventilation & Aircon Systems (HVAC)
- To Identify Low Voltage Control Signal
- To Identify Power Sources
- 1φ & 3φ (3p3w/3p4w) Power Analyzer
- Evaluate Electrical Contacts
- Verify the Stability of Voltage
- Check Motor Run / Start Capacitor Values
- Check 3φ Phase Sequence

1φ/3φ TRUE Power : (PF > 0.5 or θ < 60°) (1hp = 0.7457KW)

Range	Resolution	Accuracy ±(%rdg+dgts)	Overload Protection
99.99KW	0.01KW	±(5%+30)	600VAC/
600.0KW	0.1KW	(50, 60Hz)	1000AAC

1φ/3φ HP (1HP = 745.7W) : (PF > 0.5 or θ < 60°)

Range	Resolution	Accuracy ±(%rdg+dgts)	Overload Protection
99.99HP	0.01HP	±(5%+30)	600VAC/
800.0HP	0.1HP	(50, 60Hz)	1000AAC

1φ/3φ Apparent Power

Range	Resolution	Accuracy ±(%rdg+dgts)	Overload Protection
99.99KVA	0.01KVA	±(2.5%+30)	600VAC/
600.0KVA	0.1KVA		1000AAC

1φ & 3φ Reactive Power : (PF > 0.5 or θ < 60°)

Range	Resolution	Accuracy ±(%rdg+dgts)	Overload Protection
99.99KVAR	0.01KVAR	±(5%+30dgts)	600V AC/
600.0KVAR	0.1KVAR	(50, 60Hz)	1000A AC

3φ Phase Sequence Indication

Range	Frequency Response	Overload Protection
80V to 480V	(50Hz / 60Hz)	600V

ACA Inrush Current

Range	Resolution	Sensitivity	Measurement Time	Overload Protection
99.99A	0.01A	>5A	100ms	1000A AC
999.9A	0.1A	>50A		

1φ / 3φ PF & Phase Angle (50Hz, 60Hz)

Range	Resolution	Accuracy	Sensitivity
-60°/0°/+60°	0.1°	± 6.0°	ACV>100V, ACA>10A
-0.5/1/+0.5			

Frequency

Range	Resolution	Accuracy ±(%rdg+dgts)	Sensitivity
40Hz/1KHz	0.1Hz	±(0.5%+2)	ACV>1.2V, ACA>6A

AC Current (50Hz to 400Hz) : TRMS

Range	Resolution	Accuracy ±(%rdg+dgts)	Sensitivity	Overload Protection
99.99A	0.01A	±(2%+30) (50,60Hz)	0.10A	1000A
999.9A	0.1A	±(4%+30) (40-400Hz)	1.0A	

µA TRMS : (AC + DC) (Burden Voltage : 5mV/µA) (50Hz to 400Hz)

Range	Resolution	Accuracy ±(%rdg+dgts)	Sensitivity	Overload Protection
99.99µA	0.01µA	±(1%+30)	0.20µA	600V
999.9µA	0.1µA		2.0µA	

AC Voltage (50Hz to 400Hz) : TRMS

Range	Resolution	Accuracy ±(%rdg+dgts)	Sensitivity	Overload Protection
999.9mV	0.1mV	±(1%+30) (50,60Hz) ±(2%+30) (40-400Hz)	2.0mV	600V
9.999V	0.001V		0.020V	
99.99V	0.01V		0.20V	
600.0V	0.1V		2V	
Input Impedance : 3MΩ				

DC Voltage

Range	Resolution	Accuracy ±(%rdg+dgts)	Sensitivity	Overload Protection
999.9mV	0.1mV	±(1%+30)	2.0mV	600V
9.999V	0.001V		0.020V	
99.99V	0.01V		0.20V	
600.0V	0.1V		2V	
Input Impedance : 3MΩ				

Resistance (Continuity < 40Ω on the 999.9Ω range)

Range	Resolution	Accuracy ±(%rdg+dgts)	Overload Protection
999.9Ω	0.1Ω	±(1%+10)	600V
9.999KΩ	0.001KΩ		
99.99KΩ	0.01KΩ		
999.9KΩ	0.1KΩ		

MΩ (Auto Ranging)

Range	Resolution	Accuracy ±(%rdg+dgts)	Overload Protection
9.999MΩ	0.001MΩ	±(5%+10)	600V
99.99MΩ	0.01MΩ		

Note: Specifications are subject to change.

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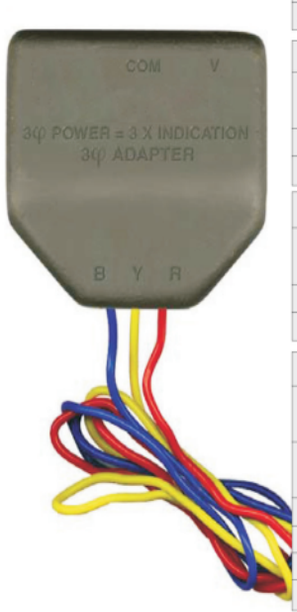
Order Code - 17717B
Clamp-On TRMS Power Meter with 3φ Adapter

17717B



Features

- 4 Digit LCD, 9999 Count, Autoranging
- Data Hold, Auto Power Off
- Dual Display KW + PF, KVA + φ, KW + HP, KW + KVAR, V + A, A + Hz, V + Hz
- Cable of Diameter upto 43mm / Busbar upto 65mm x 16mm
- 3 Phase Adapter

Applications

- Check Current drawn in Motors and Compressors
- Use MAX/MIN/REC in Temperature Mode to Assess Efficiency
- Test Run/Start Capacitors
- Analyze Temperature Data with the Aid of the Time Stamp
- Resistance upto 100MΩ
- Check for Energized Circuits
- Capture Motor In-Rush Current Readings
- Determine Peak Power Demand Periods
- Ideal for Electrical Audit of Heating, Ventilation & Aircon Systems

TRUE Power : (PF > 0.5 or θ < 60⁰) (1hp = 0.7457KW)

Range	Resolution	Accuracy ±(%rdg + dgts)	Overload Protection
60.00KW (<100A)	0.01KW	±(5% + 20)	600VAC/
600.0KW (>100A)	0.1KW	(50, 60Hz)	1000AAC

HP (1HP = 745.7W) : (PF > 0.5 or θ < 60⁰)

Range	Resolution	Accuracy ±(%rdg + dgts)	Overload Protection
80.00HP (<100A)	0.01HP	±(5% + 20)	600VAC/
800.0HP (>100A)	0.1HP	(50, 60Hz)	1000AAC

Apparent Power

Range	Resolution	Accuracy ±(%rdg + dgts)	Overload Protection
60.00KVA (<100A)	0.01KVA	±(2.5% + 20)	600VAC/
600.0KVA (>100A)	0.1KVA		1000AAC

PF & Phase Angle (50Hz, 60Hz)

Range	Resolution	Accuracy	Sensitivity
-60⁰/0⁰/+60⁰	0.1⁰	± 3.0⁰	ACV > 100V, ACA > 10A
-0.5/1/+0.5			

Frequency

Range	Resolution	Accuracy ±(%rdg + dgts)	Sensitivity
40Hz/1KHz	0.1Hz	±(0.5% + 2)	ACV > 1.2V, ACA > 6A

AC Current (50Hz to 400Hz) : TRMS

Range	Resolution	Accuracy ±(%rdg + dgts)	Sensitivity	Overload Protection
99.99A	0.01A	±(2% + 20) (50,60Hz)	0.10A	1000A
999.9A	0.1A	±(4% + 20) (40-400Hz)	1.0A	

µA TRMS : (AC + DC) (Burden Voltage : 5mV/µA) (50Hz to 400Hz)

Range	Resolution	Accuracy ±(%rdg + dgts)	Sensitivity	Overload Protection
99.99µA	0.01µA	±(1% + 20)	0.20µA	600V
999.9µA	0.1µA		2.0µA	

AC Voltage (50Hz to 400Hz) : TRMS

Range	Resolution	Accuracy ±(%rdg + dgts)	Sensitivity	Overload Protection
999.9mV	0.1mV	±(1% + 20) (50,60Hz) ±(2% + 20) (40-100Hz)	2.0mV	600V
9.999V	0.001V	±(1% + 20) (50,60Hz) ±(2% + 20) (40-400Hz)	0.020V	
99.99V	0.01V		0.20V	
600.0V	0.1V		2V	
Input Impedance : 3MΩ				

DC Voltage

Range	Resolution	Accuracy ±(%rdg + dgts)	Sensitivity	Overload Protection
999.9mV	0.1mV	±(1% + 20)	2.0mV	600V
9.999V	0.001V		0.020V	
99.99V	0.01V		0.20V	
600.0V	0.1V		2V	
Input Impedance : 3MΩ				

Resistance (Continuity < 40Ω on the 999.9Ω range)

Range	Resolution	Accuracy ±(%rdg + dgts)	Overload Protection
999.9Ω	0.1Ω	±(1% + 10)	600V
9.999KΩ	0.001KΩ		
99.99KΩ	0.01KΩ		
999.9KΩ	0.1KΩ		

MΩ

Range	Resolution	Accuracy ±(%rdg + dgts)	Overload Protection
9.999MΩ	0.001MΩ	±(5% + 10)	600V
99.99MΩ	0.01MΩ		

Note: Specifications are subject to change.

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Website: www.tesca.in

Order Code - 17717B
Clamp-On TRMS Power Meter with 3φ Adapter

Capacitance			
Range	Resolution	Accuracy ±(%rdg+dgts)	Overload Protection
10.000µF	0.001µF	±(1.5% + 5)	600V
100.00µF	0.01µF		
1000.0µF	0.1µF		
7000µF	1µF	±(2.5% + 15)	

Diode (Continuity < 40mV)			
Range	Resolution	Accuracy ±(%rdg+dgts)	Overload Protection
2.000V	0.001V	±(2% + 1)	600V

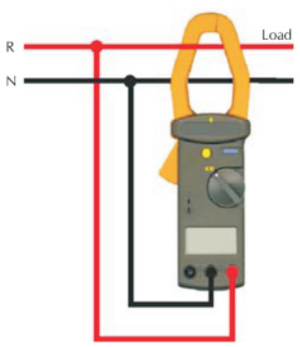
Temperature (K-Type Thermocouple) (Thermocouple is Optional)			
Range	Resolution	Accuracy ±(%rdg+dgts)	Overload Protection
-50°C to 900°C	0.1°C	±(1% + 1°C)	30VAC or 60VDC
-58°F to 1000°F	0.1°F	±(1% + 2°F)	

General Specifications

Numerical Dual Display	: 4 Digit 9999 Count LCD
Low Battery Indication	: is displayed
Power Source	: 9V Battery x 1
Battery Life	: 32 hours approx.
Sampling Rate	: 2.5 times/sec. (on KW, KVA, HP)
Operating Temperature and Humidity	: 0°C to 50°C (32°F to 122°F) RH < 80%
Storage Temperature and Humidity	: -10°C to 60°C (14°F to 140°F) RH < 70%
Dimensions	: 247 x 90 x 40mm
Weight	: 425gms Including Battery (approx.)
Jaw Opening	: Cable Dia 43mm (max.) Bus Bar 16mm x 65mm
Accessories	: Carrying Case, Battery (installed), One Pair of Alligator Clip Test Lead, 3 Phase Adapter & Instruction Manual

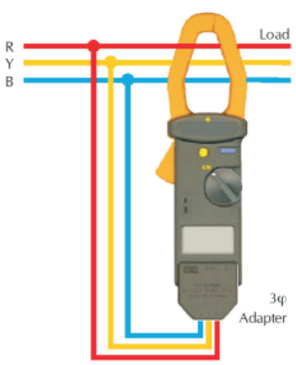
Usage

1φ 2W System



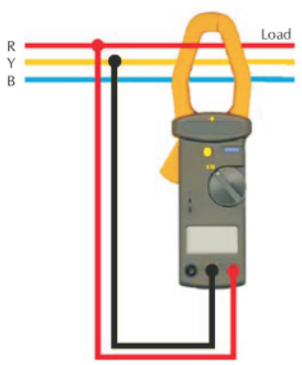
KW, HP, PF, φ, KVAR, KVA

3φ 3W Balanced System

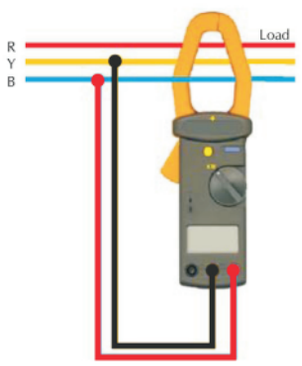


3φ Values
= 3 x Displayed Value for
KW, HP, KVAR & KVA

3φ 3W Unbalanced System



Measured Value
= KW1, HP1 & KVAR1

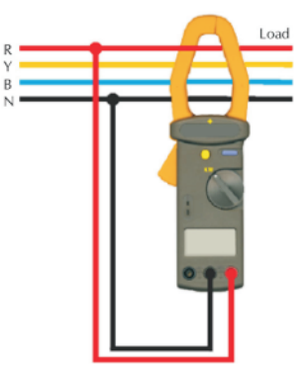


Measured Value
= KW2,a HP2 & KVAR2

3φ Values = (KW1+KW2) or (HP1+HP2) or (KVAR1+KVAR2)

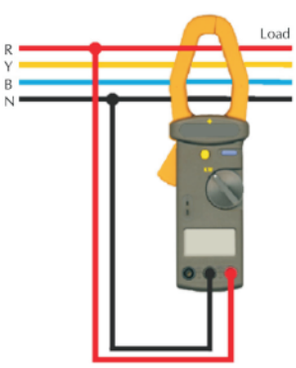
3φ PF = $\text{Cos}[\tan^{-1}\sqrt{3(KW1-KW2)} / (KW1+KW2)]$

3φ 4W Balanced System

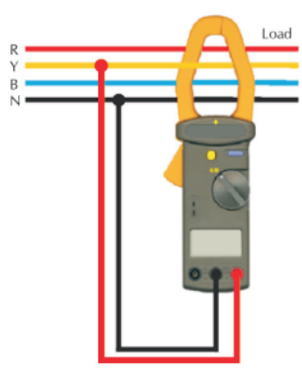


3φ Values
= 3 x Displayed Value for
KW, HP, KVAR & KVA

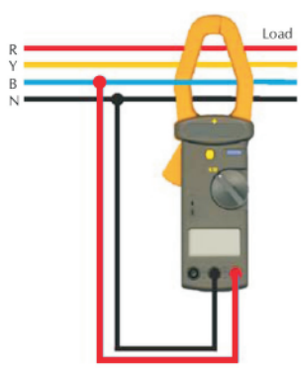
3φ 4W Unbalanced System



Measured Value
= KW1, HP1, KVAR1 & KVA1



Measured Value
= KW2, HP2, KVAR2 & KVA2



Measured Value
= KW3, HP3, KVAR3 & KVA3

3φ Values = (KW1+KW2+KW3) or (HP1+HP2+HP3) or (KVAR1+KVAR2+KVAR3) or (KVA1+KVA2+KVA3)

3φ PF = $KW_T / \sqrt{KW_T^2 + KVAR_T^2}$ or KW_T / KVA_T

Note: Specifications are subject to change.

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Website: www.tesca.in

Order Code - 17717C
3Phase/ 1Phase TRMS Clamp-On Autoranging Power Meter

17717C

Features :

- 3φ W, 3φ3W, 3φ Balanced, 1φ2W, 1φ3W
- 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 Selection
- Conductor Size : Cable φ 55mm. (approx.) Bus Bar 65 (D) x 24 (W) mm

Note: Specifications are subject to change.

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