



Built in Transducer

Instrument
Division

Digital Power Factor Meter

Data sheet No.: PFD/10/11



DESCRIPTION

It incorporates solid state circuitry with micro-controller to measure Power Factor of Single Phase and Three Phase system.

FEATURES

- ◆ The Meter does not require external transducer. Hence panel wiring is reduced.
- ◆ "—" sign indicates lagging PF (only for model PFD 65101 & 66301).
- ◆ Glowing of "Reverse LED" for reversal of current (only for model PFD 65102, 66302, 67302, 68302).

ELECTRICAL SPECIFICATIONS

- ◆ TYPE : 1 Ph / 3 Ph – 1 EL / 3 Ph – 2 EL – 3 W / 3 Ph – 3 EL – 4 W
- ◆ INPUT VOLTAGE : 63.5V/110V/240V/440V
- ◆ INPUT CURRENT : 1A/5A
- ◆ ACCURACY : $\pm 2^{\circ}$
- ◆ AUXILIARY SUPPLY : 110V./240V. $\pm 10\%$ 50/60 Hz
- ◆ VA BURDEN : Voltage : 2 VA
Current : 0.5 VA
Aux. Supply : 3 VA
- ◆ DISPLAY COLOUR : Red , (Green On request.)
- ◆ DISPLAY TYPE : 4 Digit, Seven Segment, 12.5mm LED Display
- ◆ RESOLUTION : 0.001
- ◆ RANGE : 0.1Lag-1-0.1Lead
- ◆ INSULATION RESISTANCE : Greater than 20M. Ω at 500V. DC
- ◆ DIELECTRIC TEST : 2kV RMS for 1 minute.
- ◆ OPERATING TEMP. : 0°C to 55° C.
- ◆ STORAGE TEMP. : -20°C to 70°C.
- ◆ HUMIDITY : Up to 95% RH.
- ◆ PROTECTION : IP 30

MECHANICAL SPECIFICATIONS

Data Sheet	Model	System	Acc.	Indication incase of absence of current / voltage signal	Size (mm)	Weight (@ gms)	Panel Cutout (mm)
PFD	AE 65101	Single Phase	$\pm 2^{\circ}$	Err	48 X 96 X 150	550	45 ^{+0.6} X 92 ^{+0.8}
	AE 65102	Single Phase		Err	96 X 96 X 115	800	92 X 92 ^{+0.8}
	AE 66301	3 Ph-1 EL	$\pm 2^{\circ}$	Err	48 X 96 X 150	550	45 ^{+0.6} X 92 ^{+0.8}
	AE 66302	3 Ph-1 EL		Err	96 X 96 X 115	800	92 X 92 ^{+0.8}
	AE 67301	3 Ph-2 EL-3 W	$\pm 2^{\circ}$	Blinking of reverse LED	96 X 96 X 150	550	45 ^{+0.6} X 92 ^{+0.8}
	AE 67302	3 Ph-2 EL-3 W		Blinking of reverse LED	96 X 96 X 115	800	92 X 92 ^{+0.8}
	AE 68302	3 Ph-3 EL-4 W	$\pm 2^{\circ}$	Blinking of reverse LED	96 X 96 X 115	800	92 X 92 ^{+0.8}



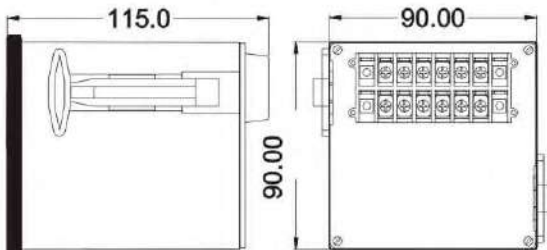
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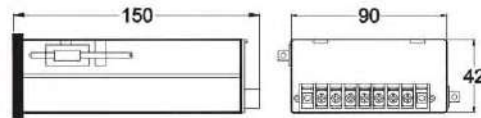
Digital Power Factor Meter

DIMENSIONS

For 96 x 96



For 48 x 96



TERMINAL CONNECTIONS

For 96 x 96

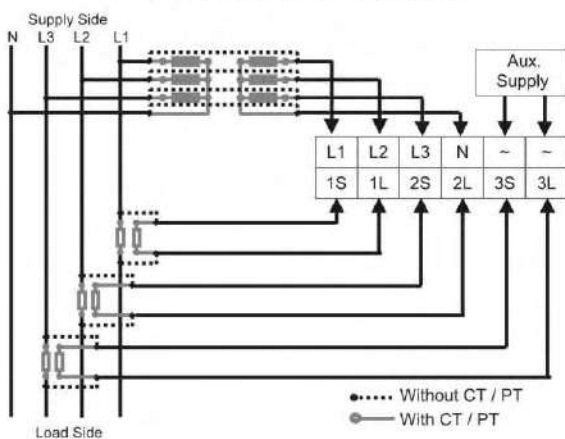
Type	Voltage	Current	Aux. Supply
1Ph	L1, N	1S, 1L	~ , ~
3Ph – 1EL	L2, L3	1S, 1L	
3Ph – 2EL – 3W	L1, L2, L3	1S, 1L 3S, 3L	
3Ph – 3EL – 4W	L1, L2, L3, N	1S, 1L 2S, 2L 3S, 3L	

For 48 x 96

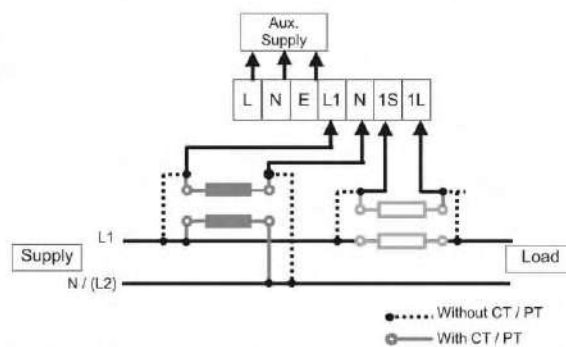
Type	Voltage	Current	Aux. Supply
1Phase	L1, N	1S, 1L	~ , ~
	L2, L3	1S, 1L	
	L3, L1	2S, 2L	
3 Ph 1 EL	L1, L2	3S, 3L	

TYPICAL WIRING DIAGRAM

For Three Phase System



For Single Phase System



* Note :- For 3 Ph – 1EL type, connect current of 1 phase (CT secondary) & Voltage across other two phases (PT secondary).

Ordering information

- 1) Model
- 2) Input Voltage
- 3) Input Current
- 4) Auxiliary supply
- 5) Power Factor Range

**DESCRIPTION**

'AE' Built in Transducer type Digital Power Meter is equipped with a measuring transducer & Digital indicator. It measures Active, Reactive & Apparent power in Single Phase & Three Phase system.

FEATURE

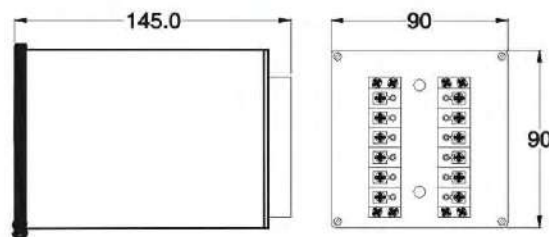
- ◆ The meter doesn't require external transducer, hence panel wiring is reduced.

ELECTRICAL SPECIFICATIONS

- ◆ TYPE : Active, Reactive & Apparent Power.
1 Ph / 3 Ph – 2 EL – 3 W / 3 Ph – 3 EL – 4 W
- ◆ INPUT VOLTAGE : 110V / 240V / 415V / 440V.
- ◆ INPUT CURRENT : 1A / 5A
- ◆ OPERATING FREQUENCY : 50Hz or 60Hz
- ◆ MEASURING UNIT : Active Power : W, kW, MW.
Reactive Power : Var, kVar, MVar.
Apparent Power : VA, kVA, MVA
- ◆ ACCURACY : $\pm 0.5\%$ of full scale deflection ± 2 Digits
- ◆ AUX. SUPPLY : 110 V / 240 V AC, 50 Hz
- ◆ VA BURDEN : Voltage : 3 VA
Current : 1 VA
Aux. Supply : 4 VA
- ◆ DISPLAY COLOUR : Red.(Green On request.)
- ◆ INSULATION RESISTANCE : Greater than $20M \Omega$ at 500V DC
- ◆ DIELECTRIC TEST : 2kV RMS for 1 minute.
- ◆ OPERATING TEMP. : 0°C to 55°C
- ◆ STORAGE TEMP. : -20°C to 70°C
- ◆ HUMIDITY : Up to 95% RH

MECHANICAL SPECIFICATIONS

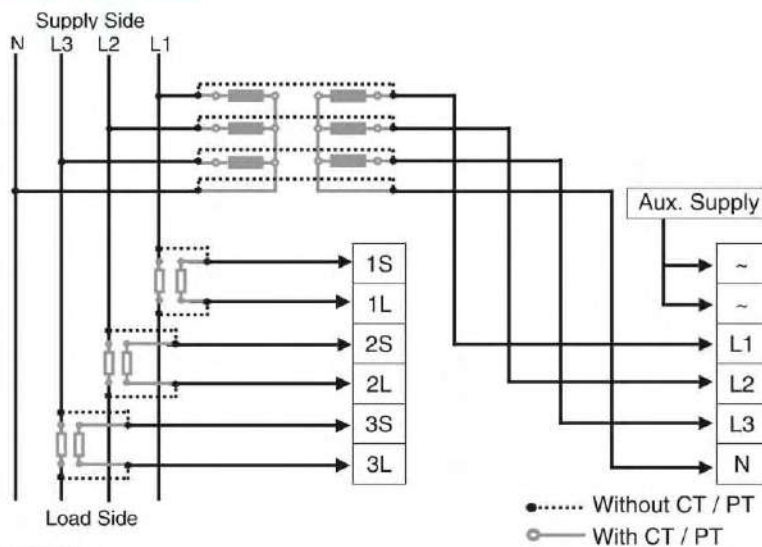
Data sheet	Model	System	Acc. Class	Size (mm)	Weight (@ gms)	Panel Cutout (mm)
BIDPM	AE 73132	Single Phase	0.5	96 x 96 x 145	800	92 x 92 ^{+0.8}
	AE 73332	3 Ph – 2 EL – 3W	0.5	96 x 96 x 145	800	92 x 92 ^{+0.8}
	AE 74332	3Ph – 3EL – 4W	0.5	96 x 96 x 145	800	92 x 92 ^{+0.8}
	AE 74334	3 Ph – 2 EL – 3W	0.5	144 x 144	800	138 x 138 ^{+1.0}
	AE 74334	3 Ph – 3 EL – 4W	0.5	144 x 144	800	138 x 138 ^{+1.0}



TERMINAL CONNECTION

TYPE	VOLTAGE	CURRENT	Aux. Supply
Single Phase	L1, N	1S, 1L	~ , ~
Three Phase, Two Element, Three Wire	L1, L2, L3	1S, 1L 3S, 3L	
Three Phase, Three Element, Four Wire	L1, L2, L3, N	1S, 1L 2S, 2L 3S, 3L	

TYPICAL WIRING DIAGRAM



Ordering information

- 1) Model
- 2) Active, Reactive & Apparent Power
- 3) Resolution
- 4) PTR (if any)
- 5) CTR (if any)
- 6) Full Scale Indication.