



Supplier of Control Instrumentation to the South African Electrical Industry

## ACTIVE OR REACTIVE POWER METERS



EQ 0207



EQ 2207

Power meters are electronic meters intended for measuring active or reactive power in single phase or three-phase networks, with balanced or unbalanced load. The accuracy class is 1.5.

The scale value depends on primary values of current and voltage. It is defined by the following formulas:

	active power	reactive power
<b>for single phase system</b>	1b $I_{prim} \times U_{prim} \times \cos \phi$	1br $I_{prim} \times U_{prim} \times \sin \phi$
<b>for three-phase system</b>	3u $\sqrt{3} I_{prim} \times U^*_{prim} \times \cos \phi$	3ur $\sqrt{3} I_{prim} \times U^*_{prim} \times \sin \phi$
<b>for three-phase system</b>	4u $3 I_{prim} \times U_{prim} \times \cos \phi$	4ur $3 I_{prim} \times U_{prim} \times \sin \phi$

\*  $U_{L-L}$  In the equations U means phase voltage at single phase network and three-phase four-wire network 4u as well as line-to-line voltage at three-phase three-wire network 3u. Ratio between the selected final scale value and calculated power should be within the limits from 0.6 to 1.2 at  $\cos \phi = 1$  or  $\sin \phi = 1$ .

TYPE	EQ 0307	EQ 0207	EQ 0107	EQ 2307	EQ 2207**	EQ 2107
Front frame (mm)	72 x 72	96 x 96	144 x 144	72 x 72	96 x 96	144 x 144
Cutting for mounting (mm)	68 x 68	92 x 92	138 x 138	68 x 68	92 x 92	138 x 138
Scale length (mm)	63	95	135	113	135	220
Voltage input*	100 V, 110 V, 230 V, 400 V					
Current input	1 A, 5 A					
1b single phase system	•	•	•	•	•	•
3b three-phase three-wire system with balanced load	•	•	•	•	•	•
3u three-phase three-wire system with unbalanced load	•	•	•	•	•	•
4b three-phase four-wire system with balanced load	•	•	•	•	•	•
4u three-phase four-wire system with unbalanced load	•	•	•	•	•	•
<b>Option</b>						
Separated AC auxiliary supply 57 V, 63.5 V, 100 V, 230 V, 400 V	-	•	•	-	•	•

Class I on request (only for 90 degree dials). Self-consumption of current circuits approx. 0.1 VA and voltage circuits 0.2 VA.

\* Max. voltage input for EQ 0307, EQ 2307 for 3u, 3b: 150 V/250 V AC

\* Max. voltage input for EQ 0307, EQ 2307 for 4u, 4b, 1b: 230 V/400 V AC

\*\* Overloads of short duration on page 230.

Ship version meters EQ0207, EQ0107 are available on request.