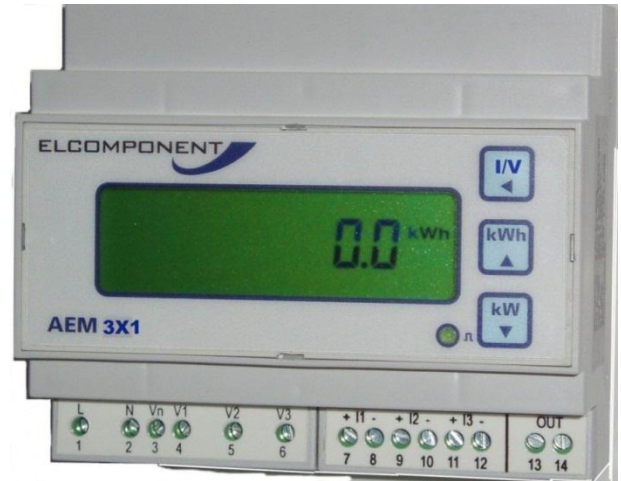


AEM 3X1 - Triple Single Phase Meter

- 3 Single Phase Meters in a Single Enclosure
- Standard DIN Rail Format
- Accuracy better than Class 1
- 3 x Isolated Pulse Outputs
- RS485 MODBUS[®]
- Fully isolated current inputs



Elcomponent's new AEM3X1 is ideal for applications requiring multiple single phase meters, particularly if the meters are to form part of an automatic meter reading (AMR) system.

With three meters in a single 6DIN wide enclosure the AEM3X1 is very compact, and less wiring saves installation time too. The meters are available for use with standard 5A CTs, or our new 0.33VAC voltage output CTs which are both more compact and easier to install than traditional types. Designed specifically for AMR applications the AEM3X1 is fitted with 3 off isolated pulse outputs (one for each meter) as well as an RS485 output which also provides multi-parameter information for each meter. However, the meter also features a large crisp display and simple screen navigation for point-of-use information and set-up.

Displayed		Additionally available via MODBUS	
Meters	Meters	Meters	Meters
Volts, L-N	1, 2, 3	PF	1, 2, 3 & Σ
Amps	1, 2, 3	kVAr	1, 2, 3 & Σ
kW	1, 2, 3	Average Current	Σ
kWh	1, 2, 3	Average Volts	Σ
True RMS measurement of Volts & Amps – and True Power Measurement		Total kW	Σ
		Total kWh	Σ

SPECIFICATION

ACCURACY All errors ± 1 digit		DISPLAY	
kWh	Better than Class 1 per EN 62053-21 & BS 8431	Type	Custom, Supertwist, LCD
kW	Better than Class 0.25 IEC 60688		
Amps & Volts	Class 0.1 IEC 60688 ($0.01I_n - 1.2I_n$ or $0.1U_n - 1.2U_n$)	Scaling	Direct reading. User programmable CT CT Primary programmable from 10A to 25kA
kVAr (via MODBUS)	Better than Class 0.5 IEC 60688		
PF (via MODBUS)	$\pm 0.2^\circ$ ($0.05I_n - 1.2I_n$ and $0.2U_n - 1.2U_n$)		
INPUTS		MECHANICAL	
System	3 x Single Phase Load with common Neutral	Enclosure	DIN 42880 6 Modules
Voltage U_n	3 x 230V.	Material	Noryl with fire protection to UL94-V-O. Self-extinguishing
Current I_n 5A CT	5A from external CTs	Dimensions	106mm x 90mm x 58mm (6 modules wide)
Current I_n Voltage Output CT	0.333V from external CT (fully isolated)	Weight	~ 325 gms
Measurement Range	Voltage 50% to 120% Current 0.2% to 120%	Terminals	Rising Cage. 4mm ² (12 AWG) cable max.
Burden	Voltage <0.1VA per phase Current <0.1VA per phase	GENERAL	
Overload	Voltage x4 for 1 hour Current x40 for 0.5 second max	Temperature	Operating -10°C to +65°C Storage -25°C to +70°C
		Humidity	< 75% non-condensing
		Environment	IP20 standard
PULSE OUTPUTS		MODBUS [®] SERIAL COMMS	
Function	1 Pulse per kWh per phase	Bus Type	RS485 2 wire + 0v. ½ Duplex, ¼ unit load
Scaling	Settable between 1 & 1000 counts of kWh register	Protocol	MODBUS [®] RTU with 16 bit CRC
Pulse Period	0.1 sec. default; Settable between 0.1 and 20 sec	Baud Rate	4800, 9600 or 19,200 User settable
Rise & Fall Time	< 2.0ms	Address	1 – 247 User settable
Type	N/O Volt free contact. Optically isolated BiFET	Latency	Reply within 250ms max.
Contacts	100mA ac/dc max., 100V ac/dc max.	Command Rate	New command within 5ms of previous one
Isolation	2.5kV 50Hz 1 minute		
AUXILIARY SUPPLY		SAFETY	
Standard	230V 50/60 Hz $\pm 15\%$	Conforms to	EN 61010-1 Installation Category III
Options	110V 50/60 Hz $\pm 15\%$ 24Vdc, 48Vdc or 110Vdc		
Load	2VA max.		
Overload	x1.2 continuous		

