

# **CERTIFICATE OF CALIBRATION**

Test Result: Certificate No. / Date: Serial No. / Model: Calibration / Measurement Date: Description: Sensors Used: Standard Used: Ambient Temp. / Humidity / Voltage / Freq:

### 0.5% PASS

[EXAMPLE] / April 2, 2025 [EXAMPLE] / EG4230 March 28, 2025 / March 28, 2025 Multi-channel power meter, data-logger, and web-server. D1–15, A1–15: Continental Control ACT-0750-100 (100A/0.75") Radian RD-20-103, S/N 207506, v07.22.04 22.8 °C / 23% 118.8 Vrms / 59.0 Hz

## Power Factor 1 (current in phase with voltage)

Арр	lied					м	leasured	Error [%	5] <sup>3</sup>							
Current	Energy Tol.	#1	#2	#3	#4	#5	5 #6	#7	#8	#9	#10	#11	#12 #	13	#14	#15
15.0 A	29.8 Wh±0.2% <sup>1</sup>	+0.01	+0.00	+0.00	+0.01	+0.01	+0.01 +	+0.01 +	0.01 +0.	.00 +0.0	00 -0.	00 +0.0	1 -0.00	+0.01	+0.02	1
1.5 A	3.0 Wh $\pm 0.5\%^2$	+0.01	-0.01	-0.03	-0.01	-0.01	-0.03 -	-0.01 -	0.01 -0.	.03 -0.0	02 -0.	)2 -0.0	8 +0.01	-0.02	-0.00	0
50.5 A	51.8 Wh±0.5% <sup>2</sup>	+0.05	+0.03	+0.01	+0.04	+0.03	+0.01 +	+0.04 +	0.02 +0.	.02 + <b>0</b> .0	05 +0.	)3 +0.0	1 +0.05	+0.02	+0.02	2
99.9 A	99.7 Wh±0.5% <sup>2</sup>	+0.05	+0.02	+0.00	+0.04	+0.02	+0.01 +	+0.04 +	0.02 +0.	.02 <b>+0</b> .0	07 +0.	03 +0.0	0 +0.05	+0.02	+0.02	2
Current	Energy Tol.	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27 #	28	#29	#30
15.0 A	29.8 Wh±0.2% <sup>1</sup>	+0.01	-0.00	-0.03	-0.07	-0.01	-0.00 -	-0.01 -	0.01 +0.	.00 -0.	01 -0.	0.0-0	2 -0.01	-0.01	-0.00	0
1.5 A	3.0 Wh $\pm 0.5\%^2$	+0.05	+0.04	+0.03	+0.05	+0.04	+0.03 +	+0.05 +	0.04 +0.	.04 <b>+0</b> .	<b>05</b> +0.	04 +0.0	4 +0.05	+0.04	+0.04	4
50.5 A	51.8 Wh±0.5% <sup>2</sup>	+0.04	+0.03	+0.02	+0.05	+0.03	+0.02 +	+0.04 +	0.02 +0.	.02 +0.	04 +0.	03 +0.0	1 +0.04	+0.03	+0.02	2
99.9 A	99.7 Wh±0.5% <sup>2</sup>	+0.04	+0.02	+0.01	+0.05	+0.03	+0.01 +	+0.03 +	0.02 +0.	.01 +0.	03 +0.	03 +0.0	1 +0.04	+0.02	+0.02	1

### Power Factor 0.5 leading (current leading voltage by 60°)

Current	Energy	Tol.	#1	#2	#3	#4		#5	#6	#	7 #	#8 i	#9 #	10 #	<b>11</b> #	<b>#12</b> ;	#13	#14	#15
15.0 A	7.4 Wh.	±0.6% <sup>2</sup>	-0.06	-0.10	-0.06	-0.00	-0.	08 -0	.03 -	-0.10	-0.06	-0.00	-0.01	-0.00	+0.08	-0.02	+0.01	+0.1	4
1.5 A	1.5 Wh.	±1.0% <sup>2</sup>	+0.08	+0.04	+0.07	+0.15	+0.	08 +0	.09 -	-0.01	+0.06	+0.10	+0.10	+0.11	+0.17	+0.06	+0.14	+0.2	5
50.4 A	25.7 Wh.	±0.6% <sup>2</sup>	+0.05	+0.02	+0.05	+0.04	-0.	00 +0	.06 +	+0.01	+0.03	+0.05	+0.06	+0.06	+0.12	+0.04	+0.09	+0.2	2
99.6 A	50.4 Wh.	±0.6% <sup>2</sup>	+0.17	+0.13	+0.15	+0.13	+0.	08 +0	.15 +	+0.11	+0.12	+0.14	+0.15	+0.14	+0.20	+0.12	+0.18	3 +0.3	2

Current	Energy	Tol.	#16	#17	#18	#19	#20	) #2 <sup>.</sup>	1 #2	2 #	23 #	24 #	25	#26	#27	#28	#29	#30
15.0 A	7.4 Wh	±0.6% <sup>2</sup>	-0.29	-0.28	-0.23	-0.20	-0.31	-0.19	-0.25	-0.13	-0.15	-0.17	+0.04	+0.0	4 +0.0	3 -0.1	3 -0.1	8
1.5 A	1.5 Wh	±1.0% <sup>2</sup>	-0.21	-0.14	-0.13	-0.07	-0.20	-0.08	-0.13	-0.00	-0.08	-0.10	+0.18	3 +0.1	9 +0.1	8 -0.0	)7 -0.1	۱0
50.4 A	25.7 Wh	n±0.6%²	-0.13	-0.15	-0.07	-0.07	-0.13	-0.02	-0.08	+0.03	+0.03	-0.01	+0.11	+0.1	0 +0.0	9 +0.0	)5 -0.C	)3
99.6 A	50.4 Wh	n±0.6%²	+0.01	-0.03	+0.06	+0.04	+0.01	+0.10	+0.06	+0.13	+0.15	+0.12	+0.21	+0.1	9 +0.1	8 +0.1	7 +0.C	)8

## **Power Factor 0.5 lagging** (current lagging voltage by 60°)

Current	Energy	/ Tol.	#1	#2	#3	#4	#	5 #	6	#7	,	#8 ;	#9 #	10	#11	#12	#13	#14	#15
15.0 A	7.6 W	√h ±0.6% <sup>2</sup>	+0.10	+0.13	+0.10	+0.05	+0.12	+0.06	+0	.14	+0.09	+0.03	+0.05	+0.03	8 -0.0	6 +0.06	+0.0	2 -0.1	2
1.5 A	1.5 0	√h ±1.0% <sup>2</sup>	-0.02	+0.01	+0.00	-0.10	-0.01	-0.04	+0	.11	-0.01	-0.05	-0.03	-0.04	-0.1	3 -0.01	-0.0	5 -0.2	3
50.4 A	25.5	Wh <i>±</i> 0.6% <sup>2</sup>	-0.04	-0.02	-0.05	-0.04	+0.01	-0.05	-0	.00	-0.02	-0.05	-0.02	-0.03	3 -0.1	2 -0.04	-0.0	8 -0.2	1
99.7 A	50.8	Wh <i>±</i> 0.6% <sup>2</sup>	-0.14	-0.11	-0.14	-0.11	-0.07	-0.13	-0	.09	-0.11	-0.13	-0.11	-0.13	3 -0.1	9 -0.11	-0.1	6 <b>-0.3</b>	0
<b>.</b> .	_																		

Current	Energy Iol.	#16	#17	#18	#19	#20	0 #2	1 #2	2 #2	:3 #2	24 #	25 #	26 7	Ŧ27	#28	#29	#30
15.0 A	7.6 Wh ±0.6%	+0.32	+0.31	+0.25	+0.23	+0.34	+0.21	+0.29	+0.16	+0.18	+0.21	+0.00	-0.02	+0.01	+0.17	+0.21	-
1.5 A	1.5 Wh ±1.0%	+0.23	+0.19	+0.16	+0.13	+0.24	+0.15	+0.20	+0.07	+0.13	+0.11	-0.13	-0.16	-0.13	+0.10	+0.11	-
50.4 A	25.5 Wh±0.6%	40.13	+0.16	+0.07	+0.08	+0.13	+0.03	+0.09	-0.02	-0.02	+0.02	-0.11	-0.10	-0.08	-0.04	+0.03	3
99.7 A	50.8 Wh±0.6%	2 +0.00	+0.05	-0.05	-0.03	+0.00	-0.08	-0.04	-0.11	-0.14	-0.09	-0.19	-0.18	-0.16	-0.15	-0.07	/

#### Footnotes:

- <sup>1</sup>: Absolute tolerance. This test establishes the reference condition.
- <sup>2</sup>: Tolerance relative to reference condition.
- <sup>3</sup>: Maximum deviation(s) shown in **bold**, out of tolerance shown in red.