

Data Acquisition System for Synchronous Generator Transient Performance

PREW Generation



Meeting Agenda

- LEM Testing w/ AC
- Encoder
- Termination Accessory





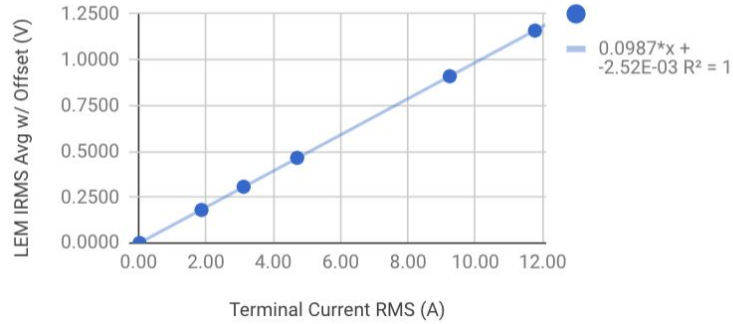
Target Load	LEM Voltage AC (VRMS)	LEM Current RMS Avg (V)	Terminal Voltage Peak (V)	Terminal Current (ARMS)	Current Offset Max (V)	LEM Current w/ Offset
NL	4.0670	0.0073	199.0	0.03	0.0073	0.0000
26Ω	-	0.4716	200.4	4.71	0.0073	0.4643
39Ω	-	0.3142	200.0	3.12	0.0073	0.3069
13Ω	-	0.9170	200.0	9.24	0.0073	0.9097
9.75Ω	-	1.1660	199.0	11.77	0.0073	1.1587
52Ω	-	0.1874	199.0	1.87	0.0073	0.1801

Target Load	LEM Voltage AC (V)	LEM Current RMS Avg (V)	Terminal Voltage Peak (V)	Terminal Current (ARMS)	Current Offset Max (V)	LEM Current w/ Offset
NL	1.5330	0.0138	199.0	0.03	0.0138	0.0000
26Ω	-	0.4581	200.3	4.57	0.0138	0.4443
39Ω	-	0.3055	200.0	3.02	0.0138	0.2917
13Ω	-	0.9370	200.0	9.15	0.0138	0.9232
9.75Ω	-	1.1750	199.0	11.62	0.0138	1.1612
52Ω	-	0.1840	199.0	1.82	0.0138	0.1702

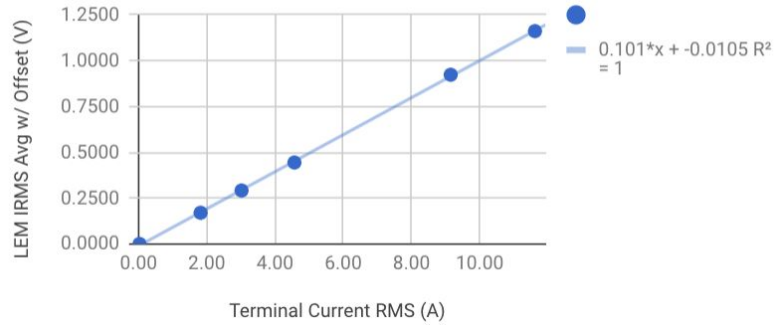
Target Load	LEM Voltage AC (V)	LEM Current RMS Avg (V)	Terminal Voltage Peak (V)	Terminal Current (ARMS)	Current Offset Max (V)	LEM Current w/ Offset
NL	0.1540	0.0113	199.0	0.14	0.0113	0.0000
26Ω	-	0.0896	200.2	4.82	0.0113	0.0783
39Ω	-	0.0610	200.0	3.20	0.0113	0.0497
13Ω	-	0.1602	200.0	9.49	0.0113	0.1489
9.75Ω	-	0.2020	199.0	12.01	0.0113	0.1907
52Ω	-	0.0290	199.0	1.93	0.0113	0.0177



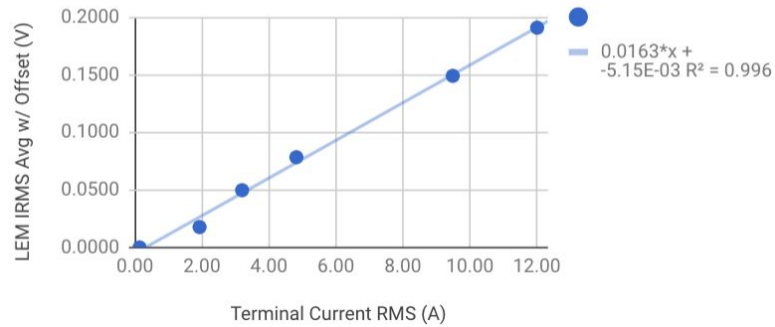
Phase A



Phase B



Phase C



LEM Current I/O Relations

Phase A	$y = 0.0987*x + -2.52E-03$	$R^2 = 1$
Phase B	$y = 0.101*x + -0.0105$	$R^2 = 1$
Phase C	$y = 0.0163*x + -5.15E-03$	$R^2 = 0.996$

$x \equiv$ Terminal RMS Current (A)

$y \equiv$ LEM RMS Current Avg w/ Offset (V)



Screw Terminal Block (Shielded)



Thank you

Any Feedback?

