

Manual Supplement

Manual Title: 345 Calibration
Part Number: 3095315
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This supplement contains information necessary to ensure the accuracy of the above manual.

Change #1

On page 26, under **Power Check-Stage 1**, replace the entire table with:

Calibrator			Specification (k)W		
Volts (V)	Amps (A)	Phase Shift (°)	Min	Nom	Max
19	100	0.00	1820	1900	1980
21	100	0.00	2042	2100	2158
38	100	0.00	3700	3800	3900
44	100	0.00	4.24	4.40	4.56
380	100	0.00	37.00	38.00	39.00
440	100	0.00	42.4	44.0	45.6
Calibrator			Specification (k)VA		
Volts (V)	Amps (A)	Phase Shift (°)	Min	Nom	Max
19	100	0.00	1848	1900	1943
21	100	0.00	2042	2100	2158
38	100	0.00	3700	3800	3900
44	100	0.00	4.24	4.40	4.56
380	100	0.00	37.00	38.00	39.00
440	100	0.00	42.4	44.0	45.6
Calibrator			Specification PF		
Volts (V)	Amps (A)	Phase Shift (°)	Min	Nom	Max
19	100	0.00	0.998	1.00	1.00
21	100	0.00	0.998	1.00	1.00
38	100	0.00	0.998	1.00	1.00
44	100	0.00	0.998	1.00	1.00
380	100	0.00	0.998	1.00	1.00
440	100	0.00	0.998	1.00	1.00

On page 27, under **Power Check-Stage 2**, replace the entire table with:

For 345 with Firmware V1.1					
Calibrator			Specification (k)W		
Volts (V)	Amps (A)	Phase Shift (°)	Min	Nom	Max
19.8681	100	73.00	501	581	661
21.9595	100	-73.00	562	642	722
39.2133	100	73.00	1066	1146	1226
46.0105	100	-73.00	1.27 k	1.35 k	1.43 k
397.363	100	73.00	10.83 k	11.62 k	11.96 k
460.105	100	-73.00	12.6 k	13.5 k	13.8 k
Calibrator			Specification (k)VAR		
Volts (V)	Amps (A)	Phase Shift (°)	Min	Nom	Max
19.8681	100	73.00	1650	1900	2150
21.9595	100	-73.00	-2350	-2100	-1850
39.2133	100	73.00	3500	3750	4000
46.0105	100	-73.00	-4.56 k	-4.40 k	-4.24 k
397.363	100	73.00	37.00 k	38.00 k	39.00 k
460.105	100	-73.00	-45.6 k	-44.0 k	-42.4 k
Calibrator			Specification PF		
Volts (V)	Amps (A)	Phase Shift (°)	Min	Nom	Max
19.8681	100	73.00	0.242	0.292	0.342
21.9595	100	-73.00	0.242	0.292	0.342
39.2133	100	73.00	0.242	0.292	0.342
46.0105	100	-73.00	0.242	0.292	0.342
397.363	100	73.00	0.242	0.292	0.342
460.105	100	-73.00	0.242	0.292	0.342

For 345 with Firmware V1.2 or greater					
Calibrator			Specification (k)W		
Volts (V)	Amps (A)	Phase Shift (°)	Min	Nom	Max
19.8681	100	73.00	501	581	661
21.9595	100	-73.00	562	642	722
39.2133	100	73.00	1066	1146	1226
46.0105	100	-73.00	1.27 k	1.35 k	1.43 k
397.363	100	73.00	10.83 k	11.62 k	11.96 k
460.105	100	-73.00	12.6 k	13.5 k	13.8 k
Calibrator			Specification (k)VAR		
Volts (V)	Amps (A)	Phase Shift (°)	Min	Nom	Max
19.8681	100	73.00	-2150	-1900	-1650
21.9595	100	-73.00	1850	2100	2350
39.2133	100	73.00	-4000	-3750	-3500
46.0105	100	-73.00	4.24 k	4.40 k	4.56 k
397.363	100	73.00	-39.00 k	-38.00 k	-37.00 k
460.105	100	-73.00	42.4 k	44.0 k	45.6 k
345 Calibrator			Specification PF		
Volts (V)	Amps (A)	Phase Shift (°)	Min	Nom	Max
19.8681	100	73.00	0.242	0.292	0.342
21.9595	100	-73.00	0.242	0.292	0.342
39.2133	100	73.00	0.242	0.292	0.342
46.0105	100	-73.00	0.242	0.292	0.342
397.363	100	73.00	0.242	0.292	0.342
460.105	100	-73.00	0.242	0.292	0.342

Change #2, 63545

On page 4, add the following to the **Symbols** table:

	Conforms to relevant South Korean EMC Standards.
	Conforms to CAN/CSA-C22.2 No. 61010-1, second edition, including Amendment 1.

Change #3, 65704

On page 9, under **General Data**:

Change: Battery Eliminator BE345
 Input.....110V / 230V, 50/60 Hz
 Output....15 V dc, 300 mA

To: Battery Eliminator GFP151DA-120125B-1
 Input.....100 V to 240 V, 50/60 Hz, 0.36 A
 Output....12 V dc, 1.25 A

On page 10, in the *Note*:

Change: BE345
 To: GFP151DA-120125B-1

On page 10, under the **Warning** remove the second bullet and in bullets one and three:

Change: BE345
 To: GFP151DA-120125B-1

On page 10, remove **Figure 2**.

On page 12, under **Battery and Battery Eliminator Check** in step 1:

Change: BE345
 To: GFP151DA-120125B-1

On page 15, Table 2:

Change: BE345
 To: GFP151DA-120125B-1

On page 28, Table 4 in the part number column:

Change: BE345
 To: GFP151DA-120125B-1

Change #4, 66326

On page 4, Table 1, replace **CAT III** and **CAT IV**, with:

CAT III	Measurement Category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.
CAT IV	Measurement Category IV is applicable to test and measuring circuits connected at the source of the building's low-voltage MAINS installation.

On page 9, replace **Electrical Safety** and **EMC** sections, with:

General Specifications

Maximum working voltage in CAT IV areas:	
Current measurement:	600 V ac rms or dc between conductor & ground
Voltage measurement	600 V ac rms or dc between either input terminal and ground, or 825 V between energized phase voltages (delta power config.)
Maximum working voltage in CAT III areas	825 V ac rms or dc between either input terminal and ground
Safety	IEC 61010-1: 600 V CAT IV, Pollution Degree 2
IP Rating	IEC 60529: IP40
Electromagnetic Environment	IEC 61326-1: Portable
Electromagnetic Compatibility	Applies to use in Korea only. Class A Equipment (Industrial Broadcasting & Communication Equipment) ^[1]
[1] This product meets requirements for industrial (Class A) electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and is not to be used in homes.	