

# WIRING INSULATION & CONTINUITY TEST RESULT

PANEL Name: \_\_\_\_\_

Date: \_\_/\_\_/\_\_\_\_

CKT NO.	CKT BKR AMP	WIRE SIZE in sq-mm & INSULATION CLASS	To Equipment	Test Voltage	L1-L2 (M-Ohm)	L2-L3 (M-Ohm)	L3-L1 (M-Ohm)	L1-N (M-Ohm)	L2-N (M-Ohm)	L3-N (M-Ohm)	L1-Gnd (M-Ohm)	L2-Gnd (M-Ohm)	L3-Gnd (M-Ohm)	Continuity Test
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
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24														

General Comment \_\_\_\_\_  
 \_\_\_\_\_  
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Test Instrument Detail		
Serial No:	Equipment Name Type/Model	Date of Calibration

Electrical Inspection Conducted by : \_\_\_\_\_  
 Signature over printed name

PRC License No: \_\_\_\_\_

Witnessed by: \_\_\_\_\_  
 Owner/Representative

Ref  
 PEC 2017 Art 5.50.2.8  
 PEC 2017 Art 1.10.1.3(A)(4)&(8)

## FINAL INSPECTION CHECKLIST (LIGHT AND SWITCHES)

Item	Inspection Activity	PEC 2017 References	Complying	
			Yes	No
1	Check device terminal are tightened and secured	1.10.1.15(A)		
2	Check loads evenly proportioned	2.10.1.11(B)		
3	Check splicing connections are properly insulated	1.10.1.15(B)		
4	Check conductor temperature limitation are not violated	1.10.1.15(C) 4.10.6		
5	Check heavy luminaries are securely supported	4.10.4		
6	Check connection of electric discharge lighting and LEDs	4.10.3.5		
7	Check lighting luminaries in closet are approved type	4.10.2.7		
8	Check luminaries in metallic enclosure are bonded to EGC	2.50.6.3(J) 4.10.5		
9	Check luminaries in bath or shower areas are outside prohibited zone	4.10.2.1		
10	Check luminaries in wet location are appropriate	4.10.2.1 (A)		
11	Check switches faceplates are installed appropriately	4.4.1.9(A) 4.6.1.5(D)		
12	Conduct/submit Continuity Test	5.50.2.8(B)		
13	Conduct/submit Ground Continuity Test	2.50.		
14	Check rating of lamp holders connected to branch circuit in excess of 20A	2.10.2.6.(A)		

General Comment

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Date Inspected: \_\_\_ / \_\_\_ / \_\_\_

Electrical Inspection Conducted by : \_\_\_\_\_

Signature over printed name

PRC License No: \_\_\_\_\_

Witnessed by: \_\_\_\_\_

Owner/Representative

## FINAL INSPECTION CHECKLIST (RECEPTACLE OUTLETS)

Item	Inspection Activity	PEC 2017 References	Complying	
			Yes	No
1	Check all terminals are tightened and secured	1.10.1.15(A)		
2	Check loads are evenly proportioned	2.10.1.11(B)		
3	Check splicing connection are properly insulated	1.10.1.15(B)		
4	Check receptacle rating with respect to branch circuit rating	Table 2.10.2.4(B)(3)		
5	Check receptacle outlet in damp location are GFCI protected	2.10.1.8		
6	Check all outlets are grounding type in required locations	4.6.1.9		
7	Applying derating factor in raceway more than 3-conductors	Table 3.10.2.6(B)(3)(a)		
8	Check faceplates are installed appropriately	4.6.1.6		

General Comment

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Date Inspected: \_\_\_ / \_\_\_ / \_\_\_

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Signature over printed name

PRC License No: \_\_\_\_\_

Witnessed by: \_\_\_\_\_

Owner/Representative

## FINAL INSPECTION CHECKLIST (PANEL BOARD)

Item	Inspection Activity	PEC 2017 References	Complying	
			Yes	No
1	Check all lugs are tightened and secured	1.10.1.15(A)		
2	Check loads evenly proportioned	2.10.1.11(B)		
3	Check against splicing inside enclosure	3.12.1.8(A)		
4	Check directory is accurate	4.8.1.4		
5	Check manufacturer's marking is legible on Over Current Protective Devices OPD's	2.40.7.4		
6	Check for GFCI protection in wet or dump location	2.10.1.8		
7	Check compatibility of CB's/ Fuses and branch circuit conductors	2.40.1.4 Table 3.10.2.6(B)(16)		
8	Check rating of OPD's for Lighting is not more than 30A	2.10.2.6(A)		
9	Check rating of branch circuit supplying single receptacle	2.10.2.4(B)		
10	Check main is provided for six branches or more	2.25.2.4		
11	Check multi-wire branch circuits are provided with means to open OPD simultaneously	2.10.1.4		
12	Check dead front cover is properly fitted	4.8.3.9		
13	Check vacant CB slots are covered	3.12.1.5(A)		

General Comment

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Date Inspected: \_\_\_ / \_\_\_ / \_\_\_\_\_

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Signature over printed name

PRC License No: \_\_\_\_\_

Witnessed by: \_\_\_\_\_

Owner/Representative

## FINAL INSPECTION CHECKLIST (METER CENTER AND FEEDERS)

Item	Inspection Activity	PEC 2017 References	Complying	
			Yes	No
1	Check all lugs are tighten and secured	1.10.1.15(A)		
2	Check labeling or directory is provided	2.25.2.8		
3	Check over current protective devices rating are compatible with feeders	2.15.1.3 2.40.1		
4	Check over current protective devices are "indicating"	2.40.7.2 2.40.3.1(B) 1.10.1.22		
5	Check markings of over current protective devices are legible	2.40.7.2		
6	Check location of over current devices is accessible	2.40.2.4(A)		

General Comment

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Date Inspected: \_\_\_ / \_\_\_ / \_\_\_\_\_

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Signature over printed name

PRC License No: \_\_\_\_\_

Witnessed by: \_\_\_\_\_

Owner/Representative

## FINAL INSPECTION CHECKLIST (SERVICE ENTRANCE AND EQUIPMENT)

Item	Inspection Activity	PEC 2017 References	Complying	
			Yes	No
1	Check all lugs are tighten and secured	1.10.1.15(A)		
2	Check permanent markings of service equipment on enclosure	2.30.5.5 1.10.1.21		
3	Check over current devices of service equipment is indicating	2.30.6.8		
4	Conduct over current devices connected in series with grounded service conductor shall be simultaneously open with all the CB's	2.30.7.1		

General Comment

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Date Inspected: \_\_\_/\_\_\_/\_\_\_

Electrical Inspection Conducted by: \_\_\_\_\_

Signature over printed name

PRC License No: \_\_\_\_\_

Witnessed by: \_\_\_\_\_

Owner/Representative

**Table 2.10.2.4 (B) (2) Maximum Cord and Plug Connected Load to Receptacle**

<b>Circuit Rating</b> (Amperes)	<b>Receptacle Rating</b> (Amperes)	<b>Maximum Load</b> (Amperes)
15 or 20	15	12
20	20	16
30	30	24

**Table 2.10.2.4 (B) (3) Receptacle Ratings for Various Size Circuits**

<b>Circuit Rating</b> (Amperes)	<b>Receptacle Rating</b> (Amperes)
15	Not over 15
20	15 or 20
30	30
40	40 or 50
50	50

**Table 2.10.2.7 Summary of Branch-Circuit Requirements**

<b>Circuit Rating</b>	<b>15 A</b>	<b>20 A</b>	<b>30 A</b>	<b>40 A</b>	<b>50 A</b>
Conductors ( min. size)					
Circuit Wires <sup>1</sup>	2.0 (1.6)	3.5 (2.0)	5.5 (2.6)	8.0 (3.2)	14
Taps <sup>1</sup>	2.0 (1.6)	2.0 (1.6)	2.0 (1.6)	3.5 (2.0)	3.5 (2.0)
Fixture wires and cords - see 2.40.1.5					
<b>Overcurrent Protection</b>	<b>15 A</b>	<b>20 A</b>	<b>30 A</b>	<b>40 A</b>	<b>50 A</b>
Outlet devices:					
Lampholders permitted	Any type	Any type	Heavy duty	Heavy duty	Heavy duty
Receptacle rating <sup>2</sup>	15 max. A	15 or 20 A	30 A	40 or 50 A	50 A
<b>Maximum Load</b>	<b>15 A</b>	<b>20 A</b>	<b>30 A</b>	<b>40 A</b>	<b>50 A</b>
Permissible load	See 2.10.2.6(A)	See 2.10.2.6(A)	See 2.10.2.6(B)	See 2.10.2.6(C)	See 2.10.2.6(C)

<sup>1</sup>These wires sizes are for 60°C insulated copper conductors-mm<sup>2</sup> (mm dia).

<sup>2</sup>For receptacle rating of cord-connected electric-discharge luminaires, see 4.10.6.15

**Table 2.50.6.13 Minimum Size Equipment Grounding Conductors for Grounding Raceway and Equipment**

Rating or Setting of Automatic Overcurrent Device in Circuit Ahead of Equipment, Conduit, etc., <b>Not Exceeding</b> (Amperes)	Size mm <sup>2</sup> (mm dia.)	
	Copper	Copper Aluminum or Copper -Clad Aluminum*
15	2.0 (1.6)	3.5 (2.0)
20	3.5(2.0)	5.5 (2.6)
30	5.5 (2.6)	8.0 (3.2)
40	5.5 (2.6)	8.0 (3.2)
60	5.5 (2.6)	8.0 (3.2)
100	8.0 (3.2)	14
200	14	22
300	22	30
400	30	38
500	30	50
600	38	60
800	50	80
1000	60	100
1200	80	125
1600	100	175
2000	125	200
2500	175	325
3000	200	325
4000	250	375
5000	375	600
6000	400	600

Note: Where necessary to comply with 2.50.1.4(A)(5) or (B)(4), the equipment grounding conductor shall be sized larger than given in this table.

\*See installation restrictions in 2.50.6.11

**Table 2.50.3.17 Grounding Electrode Conductor for Alternating-Current Systems**

Size of Largest Ungrounded Service-Entrance Conductor or Equivalent Area for Parallel Conductors <sup>a</sup> mm <sup>2</sup>		Size of Grounding Electrode Conductor mm <sup>2</sup>	
Copper	Aluminum or Copper-Clad Aluminum	Copper	Aluminum or Copper-Clad Aluminum <sup>b</sup>
30 or smaller	50 or smaller	8.0 (3.2)	14
38 or 50	60 or 80	14	22
60 or 80	100 or 125	22	30
Over 80 through 175	Over 125 through 250	30	50
Over 175 through 325	Over 250 through 400	50	80
Over 325 through 500	Over 400 through 850	60	100
Over 500	Over 850	80	125

**Table 3.10.2.6 (B)(2)(b) Ambient Temperature Correction Factors Based on 40°C**

For ambient temperatures other than 40°C, multiply the allowable ampacities specified in the ampacity tables by the appropriate correction factor shown below						
Ambient Temperature°C	Temperature Rating of Conductor					
	60°C	75°C	90°C	150°C	200°C	250°C
10 or less	1.58	1.36	1.26	1.13	1.09	1.07
11 - 15	1.5	1.31	1.22	1.11	1.08	1.06
16 - 20	1.41	1.25	1.18	1.09	1.06	1.05
21 - 25	1.32	1.2	1.14	1.07	1.05	1.04
26 - 30	1.22	1.13	1.1	1.04	1.03	1.02
31 - 35	1.12	1.07	1.05	1.02	1.02	1.01
36 - 40	1	1	1	1	1	1
41 - 45	0.87	0.93	0.95	0.98	0.98	0.99
46 - 50	0.71	0.85	0.89	0.95	0.97	0.98
51 - 55	0.5	0.76	0.84	0.93	0.95	0.96
56 - 60	-	0.65	0.77	0.9	0.94	0.95
61 - 65	-	0.53	0.71	0.88	0.92	0.94
66 - 70	-	0.38	0.63	0.85	0.9	0.93
71 - 75	-	-	0.55	0.83	0.88	0.91
76 - 80	-	-	0.45	0.8	0.87	0.9
81 - 90	-	-	-	0.74	0.83	0.87
91 - 100	-	-	-	0.67	0.79	0.85
101 - 110	-	-	-	0.6	0.75	0.82
111 - 120	-	-	-	0.52	0.71	0.79
121 - 130	-	-	-	0.43	0.66	0.76
131 - 140	-	-	-	0.3	0.61	0.72
141 - 160	-	-	-	-	0.5	0.65
161 - 180	-	-	-	-	0.35	0.58
181 - 200	-	-	-	-	-	0.49
201 - 225	-	-	-	-	-	0.35

**Table 3.10.2.6 (B)(3)(a) Adjustment Factors for More Than Three Current-Carrying Conductors**

Number of Conductors <sup>1</sup>	Percent of Values in Table 3.10.2.6(B)(16) Through Table 3.10.2.6(B)(19) as adjusted for Ambient Temperature if Necessary
4 - 6	80
7 - 9	70
10 - 20	50
21 - 30	45
31 - 40	40
41 and above	35

**Table 3.10.2.6(B)(16) Allowable Ampacities of Insulated Conductors Rated Up to and Including 2000 Volts, 60°C Through 90°C, Not More Than Three Current-Carrying Conductors in Raceway, Cable, or Earth (Directly Buried), Based on Ambient Temperature of 30°C\***

Conductor Size mm <sup>2</sup>	Temperature Rating of Conductor [See Table 3.10.3.1(A)]					
	60°C	75°C	90°C	60°C	75°C	90°C
	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, USE, ZW	Types TBS, SA, SIS, FEP, FEPB, MI, RHH, RHW-2, THHN, THHW, THW-2, THWN-2 USE-2, XHH, XHHW, XHHW- 2, ZW-2	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, USE	Types TBS, SA, SIS, RHH, RHW-2, THHN, THHW, THW-2, THWN-2 USE-2, XHH, XHHW, XHHW- 2, ZW-2
	COPPER			ALUMINUM OR COPPER-CLAD ALUMINUM		
2.0 (1.6)*	15	20	25	-	-	-
3.5 (2.0)*	20	25	30	15	20	25
5.5 (2.6)*	30	35	40	25	30	35
8.0 (3.2)	40	50	55	30	40	45
14	55	65	75	40	50	65
22	70	85	95	55	65	80
30	85	100	115	65	80	90
38	100	115	130	75	90	105
50	115	140	150	90	110	125
60	130	155	170	100	120	135
80	155	190	205	120	145	165
100	185	220	240	140	170	190
125	210	255	285	165	200	225
150	240	285	320	190	230	255
175	260	305	345	205	245	275
200	275	325	360	220	265	300
250	315	375	425	255	305	345
325	370	435	490	300	355	405
375	395	470	530	315	380	430
400	400	480	535	320	385	440
500	445	530	595	365	435	485

\*Refer to 3.10.2.6(B)(2)(a) for the ampacity correction factors where the ambient temperature is other than 30°C. Refer to 3.10.2.6(B)(3)(a) for more than three current-carrying conductors.

\*\* Refer to 2.40.1.4(D) for conductor overcurrent protection limitations.