

ALL PANELBOARDS, TRANSFORMERS, TRANSFER SWITCH KIT AND DISCONNECTS WILL BE SUPPLIED BY THE OWNER (O'REILLY). ELECTRICAL GEAR SHALL BE DIRECT ORDERED AND/OR RELEASED FROM THE LISTED ELECTRICAL EQUIPMENT DISTRIBUTOR. SEE "ELECTRIC SERVICE RESPONSIBILITIES" FOR ADDITIONAL CLARIFICATION.

GRAYBAR ELECTRIC CO. INC.
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GRAYBAR O'REILLY TEAM
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MP PANELBOARD SCHEDULE													
MAINS: 400A MAIN LUGS ONLY		VOLTAGE: 208		ACCESSORIES:									
TYPE: SQUARE D, NOOD	PHASE: 3P, 4W	1. EQUIPMENT GROUND BAR 2. ISOLATED GROUND BAR 3. * "SQ. D" #001PAF - WITH LOCKABLE CLIPS 4. * MUST BE TYPE "HACR" BREAKER											
MOUNTING: SURFACE	WIDTH: 20												
SCCR: 65/10K AIC	SPACE(S): 42												
CKT	CKT BRK	WIRE	LOAD DESCRIPTION	(KVA)	(A)(KVA)	(B)(KVA)	(C)(KVA)	(KVA)	LOAD DESCRIPTION	WIRE	CKT BRK	CKT	
1	20A/1P	#12s	LIGHTING/EXHAUST FAN	0.54	4.47			3.93	RTU-1 7.5-TON	#8s	+50A/3P	2	
3	20A/1P	#12s	LIGHTING	1.20		5.13		3.93				4	
5	20A/1P	#12s	LIGHTING	1.45			5.38	3.93				6	
7	20A/1P	#12s	LIGHTING	1.34	5.27			3.93	RTU-2 7.5-TON	#8s	+50A/3P	8	
9	20A/1P	#12s	LIGHTING	1.21		5.14		3.93				10	
11	20A/1P	#12s	LIGHTING	0.84			4.77	3.93				12	
13	20A/1P	#12s	LIGHTING	0.60	3.58			2.78	RTU-3 5-TON	#8s	+45A/3P	14	
15			SPACE	0		2.78		2.78				16	
17			SPACE	0	2.78			2.78				18	
19			SPACE	0		2.78		2.78	RTU-4 5-TON	#8s	+45A/3P	20	
21			SPACE	0		2.78		2.78				22	
23	20A/1P	#12s	BUILDING LIGHTING	0.28			3.06	2.78				24	
25	20A/1P	#12s	SITE LIGHTING	0.00	0.00			0	SPACE			26	
27	20A/1P	#12s	SITE LIGHTING	0.00				0	SPACE			28	
29	20A/1P	#12s	SITE SIGN	1.30			1.30	0	SPACE			30	
31	20A/1P	#12s	SITE SIGN	1.30	1.30			0	SPACE			32	
33	*20A/1P	#12s	LED SIGN BUILDING	1.20			1.20	0	SPACE			34	
35			SPACE	0		0.03		0	SPACE			36	
37	15A/3P	#12s	VENSTAR SURVEYOR POWER MONITOR	0.03	8.07			8.04				38	
39			SPACE	0		0.03	12.68	12.65	PLP PANEL		100A/3P	40	
41	15A/1P	#12s	DATA CONCENTRATOR RECEPT.	0.60			9.27	8.67				42	
TOTAL PHASE A (KVA)		TOTAL PHASE B (KVA)		TOTAL PHASE C (KVA)		TOTAL CONNECTED LOAD (KVA)		TOTAL AMPS					
25.47		29.71		26.59		81.77		226.98					
LIGHTING 7.38		EXTERIOR LIGHTING 4.08		TOTAL LIGHTING 11.46		HVAC 40.26		RECEPTACLES 13.61		MISCELLANEOUS 14.79		WATER HEATER 1.65	

PLP PANELBOARD SCHEDULE												
MAINS: 225A MAIN LUGS ONLY		VOLTAGE: 208		ACCESSORIES:								
TYPE: SQUARE D, NOOD	PHASE: 3P, 4W	1. EQUIPMENT GROUND BAR 2. ISOLATED GROUND BAR 3. * "SQ. D" #001PAF - WITH LOCKABLE CLIPS 4. * MUST BE TYPE "HACR" BREAKER										
MOUNTING: SURFACE	WIDTH: 20											
SCCR: 65/10K AIC	SPACE(S): 42											
CKT	CKT BRK	WIRE	LOAD DESCRIPTION	(KVA)	(A)(KVA)	(B)(KVA)	(C)(KVA)	(KVA)	LOAD DESCRIPTION	WIRE	CKT BRK	CKT
1	20A/1P	#10s	LATHE	1.70	2.20			0.50	CHECK IN RECEPT. (I.G.)	#12s	20A/1P	2
3	20A/1P	#10s	CUTOFF SAW	1.73		1.91		0.18	BATTERY RACK RECEPT.	#10s	20A/1P	4
5	20A/1P	#12s	CRIMPER	1.77			1.95	0.18	BATTERY RACK RECEPT.	#10s	20A/1P	6
7	20A/1P	#12s	RECEPTACLES	0.54	0.90			0.36	BREAK AREA RECEPT.	#12s	20A/1P	8
9	20A/1P	#10s	STARTER/ALT. TESTER	1.68		1.68		0	SPACE			10
11	20A/1P	#10s	STARTER/ALT. TESTER	1.68			2.40	0.72	RTU RECEPTACLES	#12s	20A/1P	12
13	20A/1P	#10s	STARTER/ALT. TESTER	1.64	2.00			0.36	RECEPTACLES	#12s	20A/1P	14
15	20A/1P	#12s	RECEPTACLES	0.36	2.11			1.75	COKE MACHINE (ONLY)	#12s	**20A/1P	16
17	20A/1P	#12s	ISOLATED GRD. RECEPT.	0.72		1.08		0.36	ISOLATED GRD. RECEPT.	#12s	20A/1P	18
19	20A/1P	#12s	RECEPTACLES	0.36	0.72			0.36	ISOLATED GRD. RECEPT.	#12s	20A/1P	20
21	30A/1P	#10s	BATTERY BACKUP (I.G.)	3.00		3.36		0.36	ISOLATED GRD. RECEPT.	#12s	20A/1P	22
23	**20A/1P	#12s	WATER COOLER RECEPT.	0.90		1.26		0.36	ISOLATED GRD. RECEPT.	#12s	20A/1P	24
25	20A/1P	#12s	RECEPTACLES	1.00	1.36			0.36	ISOLATED GRD. RECEPT.	#12s	20A/1P	26
27	20A/1P	#12s	SECURITY	0.50		0.86		0.36	ISOLATED GRD. RECEPT.	#12s	20A/1P	28
29			SPACE	0		0.36		0.36	ISOLATED GRD. RECEPT.	#12s	20A/1P	30
31			SPACE	0	0.36			0.36	ISOLATED GRD. RECEPT.	#12s	20A/1P	32
33	**20A/1P	#12s	TANK WATER HEATER	1.65	2.01			0.36	ISOLATED GRD. RECEPT.	#12s	20A/1P	34
35	20A/1P	#12s	ISOLATED GRD. RECEPT.	0.36	0.72			0.36	ISOLATED GRD. RECEPT.	#12s	20A/1P	36
37			SPACE	0	0.50			0.50	PRINTER RECEPTACLE	#12s	20A/1P	38
39			SPACE	0		0.72		0.72	PHONE EQUIP. RECEPT.	#12s	15A/1P	40
41			SPACE	0		0.90		0.90	RECEPTACLES	#12s	20A/1P	42
TOTAL PHASE A (KVA)		TOTAL PHASE B (KVA)		TOTAL PHASE C (KVA)		TOTAL CONNECTED LOAD (KVA)		TOTAL AMPS				
8.04		12.85		8.67		29.36		81.50				
RECEPTACLES 13.61		MISCELLANEOUS 14.79		WATER HEATER 1.65								

E TRANSFER SWITCH SCHEDULE			
POSITION	CIRCUIT BREAKER	LOAD DESCRIPTION	(KVA) BREAKER
A	20A/1P	OFFICE COMPUTER	0.36 PLP-38
B	20A/1P	COUNTER RECEPTACLES	0.36 PLP-34
C	20A/1P	PRINTER	0.50 PLP-38
D	20A/1P	TELEPHONE EQUIPMENT RECEPTACLE	0.72 PLP-40
E	20A/1P	LIGHTING OFFICE/BATHROOMS(100% ON)	0.54 MP-1
F	20A/1P	LIGHTING HARD PARTS(DIMMED TO 35% ON)	0.42 MP-3
G	20A/1P	LIGHTING HARD PARTS(DIMMED TO 35% ON)	0.51 MP-5
H	20A/1P	LIGHTING SECURITY(DIMMED TO 35% ON)	0.47 MP-13
I	20A/1P	INSTALLER(SOLATED GRD RECEPTACLE)	0.72 PLP-17
J	20A/1P	INSTALLER(RECEPTACLE)	0.36 PLP-19
GENERATOR (6,000 WATTS) RATED. MAX KVA=5.0 LOAD			4.96 TOTAL

NOTE:
ALL BRANCH CIRCUITS SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR ROUTED WITH THE CIRCUIT CONDUCTORS. THIS MEANS ALL CONDUITS MUST HAVE A GREEN WIRE INSTALLED IN THEM AND SIZED IN ACCORDANCE WITH TABLE 250.122 OF THE N.E.C.
DOT-HATCH REPRESENTS CIRCUITS THAT ARE ASSOCIATED WITH OPTIONAL STANDBY GENERATOR CONTROL.

WIRING & LABELING OF EXIT & EMERGENCY LIGHT CIRCUITS
1. SEE DETAIL 1/E1 FOR WIRING OF EXIT & EMERGENCY LIGHTS ON THESE CIRCUITS.
2. ALL EXIT & EMERGENCY LIGHTING CIRCUITS SHALL BE LABELED BY THE CONTRACTOR ON THE "PANEL DIRECTORY". (SPEC: NEPA 70.408.4 & 700.12.)

EQUIPMENT	LABELS				
	SERVICE DISCONNECT	OPTIONAL SOURCE	SERIES RATING	GENERATOR POWER INLET	STANDBY SOURCE
DISCONNECT	X	X	X		
MP			X		
PLP			X		
E				X	
GENERATOR POWER INLET				X	
CT CABINET					X

GENERATOR POWER INLET LABEL
PERMANENT LABEL SHALL BE 2 x 3 IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. LABEL TO BE PLACED 6 INCHES ABOVE GENERATOR RECEPTACLE.
WARNING:
FOR CONNECTION OF A NONSEPARATELY DERIVED (FLOATING NEUTRAL) SYSTEM ONLY (MAX. 6,000 WATT GENERATOR)
EXAMPLE OF LABELING ABOVE.

OPTIONAL STANDBY SOURCE LABEL
PERMANENT LABEL SHALL BE 2 x 3 IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. LABEL TO BE PLACED ON DISCONNECT DOOR.
CAUTION
TWO SOURCES OF SUPPLY
STANDBY POWER SOURCE (PORTABLE GENERATOR) LOCATION: HEAD DOOR
EXAMPLE OF LABELING ABOVE.

SERIES RATING LABELS REQUIRED
WHERE CIRCUIT BREAKERS OR FUSES ARE APPLIED IN COMPLIANCE WITH SERIES COMBINATION RATINGS MARKED ON THE EQUIPMENT BY THE MANUFACTURER, THE EQUIPMENT SHALL BE LABELED IN THE FIELD TO INDICATE THE SERIES COMBINATION RATINGS. THE LABEL SHALL BE READILY VISIBLE AND STATE THE FOLLOWING: "SERIES COMBINATION SYSTEM" AND "65K/10K AMPERES". IDENTIFIED REPLACEMENT COMPONENTS REQUIRED.

SERVICE DISCONNECT LABEL
THE SERVICE DISCONNECTING MEANS SHALL BE PROPERLY MARKED "SERVICE DISCONNECT". REFER TO SPEC SECTION 26_00_20 FOR FURTHER IDENTIFICATION PLATE REQUIREMENTS.

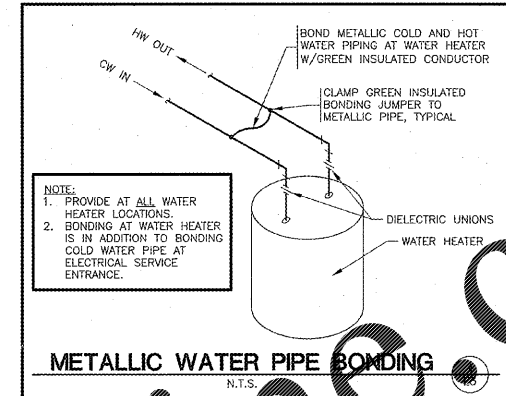
Series Ratings NQ Panelboards Class 1640
by Schneider Electric
www.us.schneider-electric.com
FOR CURRENT INFORMATION

This page contains UL Tested and Certified series combination ratings for panelboards. These ratings apply to either an integral main located in the same enclosure or a remote main located in a separate enclosure.

Table 9.1: NQ Series Connected Circuit Breaker Ratings (RMS Symmetrical)

Max. System Voltage AC Δ	Max. Short Circuit Current Rating	Square D Brand Integral or Remote Main Circuit Breakers and Remote Main Fuses	Square D Brand Branch Circuit Breaker Designation and Allowable Ampere Ranges ΔΔΔ			
			Type	1 Pole	2 Pole	3 Pole
208Y/120 3P/4W	200,000	200 A Max. Class T8 or J Fuses 400 A Max. Class T3 Fuses	QO (B)	15-70 A	15-125 A	—
240/120 V 3P/4W	100,000	200 A Max. Class T3 Fuses	QO (B)	15-70 A	15-125 A	15-100 A
	200,000	400 A Max. Class T3 Fuses	QO (B)	15-70 A	15-125 A	15-100 A

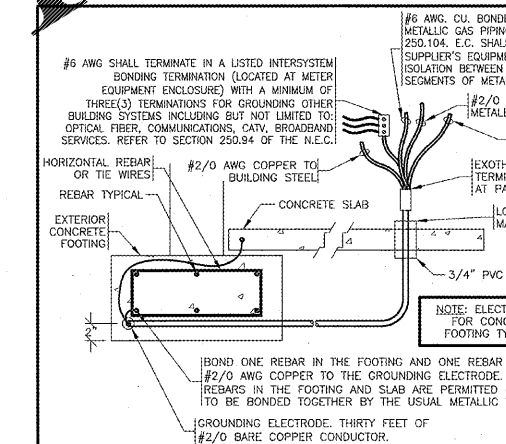
- For shown circuit breakers rated less than this maximum voltage, the indicated short circuit current rating also applies, but at the voltage rating of the circuit breaker.
- Short circuit tests are conducted at 100-105% of the maximum rated voltage of the panelboard.
- Suffixes MID, SWD, and SWN may also be applied to the applicable branch circuit breakers shown above. Suffix SWN may not be applied in combination with LC main breakers.
- Where QO (B) circuit breakers are shown above, QO (B) H, QO (B) VH, and QH (B) circuit breakers may also be used.
- Where QO (B) (GF) circuit breakers are shown above, QO (B) EPD circuit breakers may also be used.
- To achieve selective coordination, the rating of the DJ main circuit breaker must be at least two times greater than the ampere rating of any branch circuit breaker.



METALLIC WATER PIPE BONDING
N.T.S.
DRAWN BY: CEV

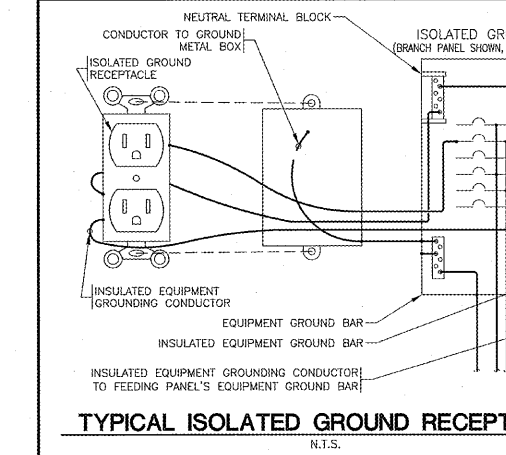
BONDING REQUIREMENTS
N.T.S.
E3

NOTE:
1. BOND ALL NONCURRENT CARRYING METAL PARTS OF SERVICE EQUIPMENT (INCLUDING METER ENCLOSURE) TO GROUNDING ELECTRODE AS REQUIRED. PER NEC 250.104.
2. THE GROUNDING NEUTRAL CONDUCTOR SHALL BE RUN TO AND BONDED TO EACH SERVICE DISCONNECTING MEANS ENCLOSURE IN ACCORDANCE WITH NEC 250.24c.
3. BONDING OF OTHER ENCLOSURES SHALL BE IN ACCORDANCE WITH NEC 250-96.
SERVICE DISCONNECT GROUNDING & BONDING SHALL BE IN ACCORDANCE WITH: *NEC 250-24 *NEC 250-28 *NEC 250-50 *NEC 250-65 *NEC 250-90 *NEC 250-92 *NEC 250-130



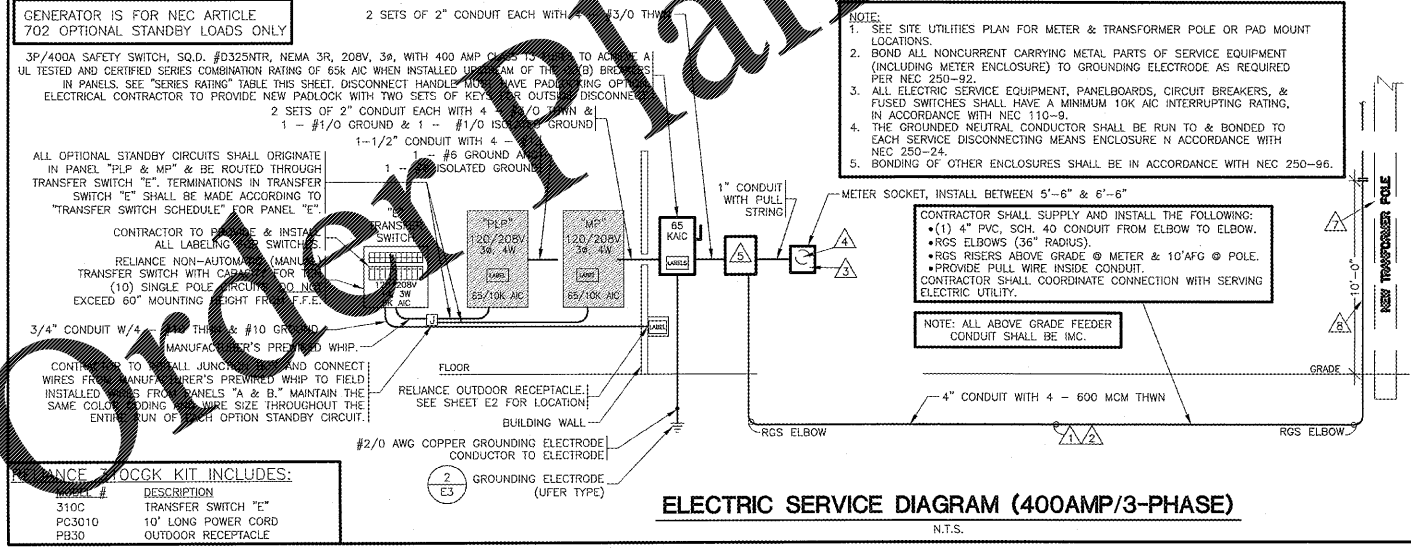
GROUNDING ELECTRODE (UFER TYPE) & BONDING JUMPER(S) DETAIL
N.T.S.
E3

NOTE: GROUNDING ELECTRODE TEST MEASURE AND RECORD GROUND RESISTANCE FROM SYSTEM NEUTRAL CONNECTION AT SERVICE ENTRANCE TO CONVENIENT GROUND REFERENCE POINT USING SUITABLE GROUND TESTING EQUIPMENT. MAXIMUM ACCEPTABLE RESISTANCE: 10 OHMS. WHEN RESISTANCE EXCEEDS 10 OHMS, DRIVE AND BOND (#6 COPPER MINIMUM) ANOTHER GROUND ROD. ONE GROUND ROD LENGTH AWAY (MINIMUM 6'-0") AND REPEAT TEST. CONTINUE THIS PROCESS UNTIL RESISTANCE IS BELOW 10 OHMS.

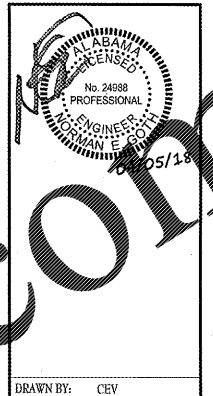


TYPICAL ISOLATED GROUND RECEPTACLE
N.T.S.
E3

ELECTRIC SERVICE RESPONSIBILITIES				
SEE SITE PLAN FOR UTILITY COMPANY CONTACT.				
ITEM NO.	DESCRIPTION (IF APPLICABLE)	FURNISHED BY	INSTALLED BY	
		UTILITY CO. CONTRACTOR	UTILITY CO.	CONTRACTOR
1	SERVICE LATERAL	X		X
2	SERVICE LATERAL RACEWAY		X	X
3	METER BASE	X		X
4	METER	X	X	
5	CT CABINET		X	X
6	OH SERVICE RISER @ BUILDING			
7	TRANSFORMER POLE	X	X	
8	SERVICE RISER @ POLE		X	X
9	TRANSFORMER PAD			
10	PAD MOUNT TRANSFORMER			



- TRANSFER SWITCH KIT INCLUDES:
- 3100 TRANSFER SWITCH "E"
 - PC3010 10' LONG POWER CORD
 - PB30 OUTDOOR RECEPTACLE



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PRICEVILLE, AL
HWY 67
O'Reilly AUTO PARTS
ELECTRICAL SCHEDULES

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DATE: 04-06-18
REVISION
DATE:

