APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0016

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Schneider Electric

Manufacturer's Technical Representative: Scott Littler

Mailing Address: 6700 Tower Circle, Suite 700, Franklin, TN 37067

Telephone: (615) 267-9407 Email: scott.littler@se.com

Product Information

Product Name: Panelboards

Product Type: Panelboards

Product Model Number: Square D NEMA Power Panelboards Type HC*, CP and QMB and Lighting Panelboards Type NF / NQ (see Certified Product Listing tables)

General Description: Panelboards are integrated, low voltage, power and control systems and may include Powerlink, PowerLogic, and other interior components (see Certified Major Sub-Component tables). Sheet metal framed enclosures come in NEMA Type 1, 1A, 2, 3R, 4, 4X, 5 and Type 12 ratings.

Mounting Description: Rigid, Wall Mounted

Tested Seismic Enhancements: Seismic enhancements made to the test units and/or modifications required to address anomalies during the tests shall be incorporated into the production units.

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HCAi
OSP-0016
BY: Mohammad Karim
DATE: 03/28/2023
CALIFORNIA BUILDING CODES

Applicant Information

Applicant Company Name: TRU Compliance

Contact Person: Daniel Zentner

Mailing Address: 233 SW Wilson Ave, Suite 101, Bend, OR 97702

Telephone: (541) 292-5839 Email: dzentner@structint.com

Title: Program Manager

California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: STRUCTURAL INTEGRITY ASSOCIATES

Name: Mehrshad Ketabdar California License Number: S6105

Mailing Address: 316 E Dexter St, Covina, CA 91723

Telephone: (669) 946-2838 Email: mketabdar@structint.com

Certification Method

- [ ] GR-63-Core
- [x] ICC-ES AC156
- [ ] IEEE 344
- [ ] IEEE 693
- [ ] NEBS 3
- [ ] Other (Please Specify):

Testing Laboratory

Company Name: APPLIED TECHNICAL SERVICES, INC. (ATS)

Contact Person: David Common

Mailing Address: 1049 Triad Court, Marietta GA 30062

Telephone: (678) 444-2908 Email: DavidC@atslab.com

Company Name: ENVIRONMENTAL TESTING LABORATORIES, INC. (ETL)

Contact Person: Jeremy Lange

Mailing Address: 11034 Indian Trail, Dallas TX 7522-93513

Telephone: (972) 247-9657 Email: Jeremy@etldallas.com

Company Name: NATIONAL TECHNICAL SYSTEMS (NTS)

Contact Person: Greg Mason

Mailing Address: 7800 Highway 20 West, Huntsville AL 35806

Telephone: (256) 837-4411 Email: Greg.Mason@nts.com

Company Name: QUALTECH/CURTISS WRIGHT/TRENTEC

Contact Person: Jerry Newberry

Mailing Address: 4600 East Tech Drive, Cincinnati OH 45245

Telephone: (513) 528-7900 Email: jnewberry@curtisswright.com

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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.43 (z/h = 1), 0.88 (z/h = 0)

S_{DS} (Design spectral response acceleration at short period, g) = 1.91 (z/h = 1), 1.96 (z/h = 0)

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1 and 0

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

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HCAI Approval (For Office Use Only) - **Approval Expires on 03/28/2029**

Date: 3/28/2023

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: S_{DS} (g) = See Above z/h = See Above

Condition of Approval (if applicable):

SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2001379-CR-001-R1

TRU COMPLIANCE

Manufacturer:	Schneider Electric	**TABLE 1**
Model Line:	NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)	

Certified Product Construction Summary:

Panelboards are integrated, low voltage, power and control systems. CP, QMB and HC power panelboards use the same family of enclosures. Enclosures are constructed of either carbon steel (CS) sheet with UL-CSA listed acrylic/alkyd baked enamel finish or TGIC powder coat or stainless steel (SS) sheet.

Certified Options Summary:

NEMA Type 1, 1A, 2, 3R, 4, 4X, 5 or 12. Optional side extensions and top extensions listed in Table 3. Height and width does not include optional extensions.

Mounting Configuration:

Wall mounted - rigid

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2022 ***Seismic Certification Limits:*** S_{DS}= ***1.91 g z/h=1.0*** S_{DS}= ***1.96 g z/h=0.0*** I_P= ***1.5***

Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width[1]	Max. Height[2]			
Power Panelboards	CP	9.5	26.0	86.0	388	*15-1200A, 48V DC / 600V AC*	10
		9.5	26.0	86.0	625	*15-1200A, 48V DC / 600V AC*	Interp.
		10.0	26.0	92.0	645	*15-1200A, 48V DC / 600V AC*	Interp.
		12.0	26.0	86.0	625	*15-1200A, 48V DC / 600V AC*	Interp.
		13.5	28.0	86.0	725	*15-1200A, 48V DC / 600V AC*	Interp.
		13.5	28.0	86.0	725	*15-1200A, 48V DC / 600V AC*	Interp.
		8.0	32.0	86.0	650	*15-1200A, 48V DC / 600V AC*	Interp.
		9.5	32.0	86.0	690	*15-1200A, 48V DC / 600V AC*	Interp.
		11.0	32.0	86.0	710	*15-1200A, 48V DC / 600V AC*	Interp.
		11.0	32.0	86.0	710	*15-1200A, 48V DC / 600V AC*	Interp.
		12.0	32.0	86.0	690	*15-1200A, 48V DC / 600V AC*	Interp.
		12.0	32.0	91.0	710	*15-1200A, 48V DC / 600V AC*	Interp.
		9.5	44.0	86.0	614	*15-1200A, 48V DC / 600V AC*	9
		9.5	44.0	86.0	848	*15-1200A, 48V DC / 600V AC*	Interp.
		12.0	44.0	86.0	848	*15-1200A, 48V DC / 600V AC*	Interp.
		14.6	44.0	86.0	816	*15-1200A, 48V DC / 600V AC*	2
		14.6	44.0	86.0	848	*15-1200A, 48V DC / 600V AC*	Interp.
		14.6	44.0	86.0	848	*15-1200A, 48V DC / 600V AC*	Interp.
	QMB	11.5	38.0	96.0	656	*15-1200A, 250V DC / 600V AC*	8
		11.5	38.0	96.0	762	*15-1200A, 250V DC / 600V AC*	Interp.
		15.0	38.0	96.0	782	*15-1200A, 250V DC / 600V AC*	Interp.
		15.0	38.0	96.0	782	*15-1200A, 250V DC / 600V AC*	1

Notes:

1. *Width does not include optional 14" enclosure side extensions.*
2. *Maximum height does not include optional 12" enclosure box extensions.*

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OSP-0016
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SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2001379-CR-001-R1

TRU COMPLIANCE

Manufacturer:	Schneider Electric	**TABLE 1**
Model Line:	NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)	

Certified Product Construction Summary:

Panelboards are integrated, low voltage, power and control systems. CP, QMB and HC power panelboards use the same family of enclosures. Enclosures are constructed of either carbon steel (CS) sheet with UL-CSA listed acrylic/alkyd baked enamel finish or TGIC powder coat or stainless steel (SS) sheet.

Certified Options Summary:

NEMA Type 1, 1A, 2, 3R, 4, 4X, 5 or 12. Optional side extensions and top extensions listed in Table 3. Height and width does not include optional extensions.

Mounting Configuration:

Wall mounted - rigid

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2022 ***Seismic Certification Limits:*** S_{DS}= ***1.91 g z/h=1.0*** S_{DS}= ***1.96 g z/h=0.0*** I_P= ***1.5***

Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width[1]	Max. Height[2]			
Power Panelboards	HCJ, HCM, HCP, HCR [3]	9.5	26.0	86.0	625	*15-1200A, 250V DC / 600V AC*	Interp.
		10.0	26.0	92.0	645	*15-1200A, 250V DC / 600V AC*	Interp.
		12.0	26.0	86.0	625	*15-1200A, 250V DC / 600V AC*	Interp.
		13.5	28.0	86.0	725	*15-1200A, 250V DC / 600V AC*	Interp.
		13.5	28.0	86.0	725	*15-1200A, 250V DC / 600V AC*	Interp.
		8.0	32.0	86.0	650	*15-1200A, 250V DC / 600V AC*	Interp.
		9.5	32.0	86.0	690	*15-1200A, 250V DC / 600V AC*	Interp.
		11.0	32.0	86.0	710	*15-1200A, 250V DC / 600V AC*	Interp.
		11.0	32.0	86.0	710	*15-1200A, 250V DC / 600V AC*	Interp.
		12.0	32.0	86.0	690	*15-1200A, 250V DC / 600V AC*	Interp.
		12.0	32.0	91.0	710	*15-1200A, 250V DC / 600V AC*	Interp.
		9.5	42.0	98.0	528	*15-1200A, 250V DC / 600V AC*	5
		9.5	42.0	86.0	848	*15-1200A, 250V DC / 600V AC*	Interp.
		12.0	42.0	86.0	848	*15-1200A, 250V DC / 600V AC*	Interp.
		12.0	42.0	86.0	848	*15-1200A, 250V DC / 600V AC*	Interp.
		12.0	42.0	86.0	848	*15-1200A, 250V DC / 600V AC*	Interp.
		13.0	42.0	86.0	848	*15-1200A, 250V DC / 600V AC*	Interp.
		9.5	44.0	86.0	848	*15-1200A, 250V DC / 600V AC*	Interp.
		12.0	44.0	86.0	848	*15-1200A, 250V DC / 600V AC*	Interp.
		14.6	44.0	86.0	848	*15-1200A, 250V DC / 600V AC*	Interp.
		14.6	44.0	86.0	848	*15-1200A, 250V DC / 600V AC*	Interp.
		14.6	44.0	86.0	816	*15-1200A, 250V DC / 600V AC*	2
		9.5	44.0	86.0	848	*15-1200A, 250V DC / 600V AC*	6

Notes:

1. *Width does not include optional 14" enclosure side extensions.*
2. *Maximum height does not include optional 12" enclosure box extensions.*
3. *J, M, P, or R corresponds to the molded case circuit breaker frame size used in panelboard.*

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SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

2001379-CR-001-R1

TRU COMPLIANCE

Manufacturer:	Schneider Electric	***Table Description:*** Enclosure Extensions	**TABLE 3**
Model Line:	NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)		

Building Code: CBC 2022 ***Seismic Certification Limits:*** S_{DS} = *1.91 g* *z/h = 1.0* S_{DS} = *1.96 g* *z/h = 0.0* I_P = *1.5*

Component Type	Manufacturer	Model	Description	Notes	UUT
Enclosure Extension	Schneider Electric	Top/Bottom Extension	Power / Lighting panelboard extension	*6" height max.*	Extrap.
			Power panelboard extension	*9" height max.*	Extrap.
			Power / Lighting panelboard extension	*12" height max.* *UUT: 12" power panelboard extension*	5
		Side Extension	Lighting panelboard extension	*12" width max.*	Extrap.
			Power panelboard extension	*14" width max.* *UUT: 14" width*	6

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SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

2001379-CR-001-R1

TRU COMPLIANCE

Manufacturer:	Schneider Electric	***Table Description:*** Panelboard Interiors	**TABLE 4**
Model Line:	NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)		

Building Code: CBC 2022 ***Seismic Certification Limits:*** S_{DS} = *1.91 g* *z/h = 1.0* S_{DS} = *1.96 g* *z/h = 0.0* I_P = *1.5*

Component Type	Manufacturer	Model	Description	Notes	UUT
Panelboard Interior	Schneider Electric	NQ Interior	NQ8442B2C	225A, 42 circuit	3
			NQ [1]		Interp.
			NQ442L4C	400A, 42 circuit	13
		NF Interior	NF466L2	250 A, 66 circuit	4
			NF [1]		Interp.
			NF454L2CCL	400A, 54 circuit	12
			NF [1]		Interp.
			NF442L8C	800A, 42 circuit	7
		CP Interior	CP1886N4F2	400A	10
			CP [1]		Interp.
			CP32868N44F6C	1200A	9
		QMB Interior	012788399-005-01	800A	8
			... [1]		Interp.
			379257990010001	800A	1
		HC Interior	HCP20566	600A	5
			HC [1]		Interp.
			HCR548612U	1200A	2
			HCRU548612U	1200A	6

Notes:

1. *Panelboard interior ID numbers are custom generated at the time of customer ordering. They do not correspond to a unique configuration. Tested sub-components and interpolated items have the same manufacturer and materials and have similar configuration and construction as the tested units.*

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BY: Mohammad Kamil
DATE: 03/28/2023
CALIFORNIA BUILDING CODE 2022

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

2001379-CR-001-R1

TRU COMPLIANCE

Manufacturer: Schneider Electric ***Table Description:*** Electrical Components

Model Line: NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)

TABLE 5

Building Code: CBC 2022 ***Seismic Certification Limits:*** S_{DS} = *1.91 g* *z/h = 1.0* S_{DS} = *1.96 g* *z/h = 0.0* I_P = *1.5*

Component Type	Manufacturer	Model	Description	Weight (lbs.)	Notes	UUT
Molded Case Circuit Breaker / Switch	Schneider Electric	QOB320	15-100A, 120-240V	1		3
		QO*	10-150A, 120-240V	1		Interp.
		E*	15-125A, 120-600V	4		Interp.
		FA*, FH*	15-100A, 208-600V	5		Interp.
		B*	15–125A, 208-600V	4		Interp.
		H*	15–150A, 208-600V	5		Interp.
		J*	70–250A, 208-600V	5		Interp.
		Q*	70–250A, 70–250V	16		Interp.
		LA*, LH*	200–400A, 208-600V	16		Interp.
		L*	70–600A, 208-600V	16		Interp.
		M*	300–800A, 208-600V	29		Interp.
		P*	100–1200A, 208-600V	32		Interp.
		R*	240–1200A, 208-600V	52		Interp.
		RJA36120	240–1200A, 208-600V	52		2, 6
Plug on Lug Kits	Schneider Electric	SL400	10-1200A, 208-600V	10		10
		SL*, S33*	10-1200A, 208-600V	10-42		Interp.
		S33930	10-1200A, 208-600V	42		2
Surge Protector (SPD) Lighting [1]	Schneider Electric	SSP*	120-240V	8		Interp.
		SSP02BIA24PBQ1	120-240V	8		11
Surge Protector (SPD) Lighting or Power [2]	Schneider Electric	*IMA*	120-600V	3		Interp.
		HL4IMA12C1	480V	22		2

Notes:

1. *All Lighting Surge Protection Devices are structurally identical, the only difference is rating and software.*

2. *All Lighting and Power Surge Protection Devices are structurally identical, the only difference is rating and software.*

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SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

2001379-CR-001-R1

TRU COMPLIANCE

Manufacturer: Schneider Electric ***Table Description:*** Electrical Components

Model Line: NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)

TABLE 5

Building Code: CBC 2022 ***Seismic Certification Limits:*** S_{DS} = *1.91 g* *z/h = 1.0* S_{DS} = *1.96 g* *z/h = 0.0* I_P = *1.5*

Component Type	Manufacturer	Model	Description	Weight (lbs.)	Notes	UUT
Fusible Branch Switch	Schneider Electric	QMB361HW	30A, 600V	15		1, 8
		QM*	30-800A, 240-600V	15-100		Interp.
		QMB367W	800A, 600V	100		1, 8
Lighting Contactor/Controls	Schneider Electric	PBW11BV28	225A, 120-480V	5		4
		PB*	30-225A, 120-480V	5		Interp.
		NF*	10-600A, 120-480V	3		Interp.
		NF3000G3	600A, 120-480V	3		12

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SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

2001379-CR-001-R1

TRU COMPLIANCE

Manufacturer:	Schneider Electric	**TABLE 2**
Model Line:	NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)	

Certified Product Construction Summary:

Panelboards are integrated, low voltage, power and control systems. NQ and NF lighting panelboards use the same family of enclosures. Enclosures are constructed of either carbon steel (CS) sheet with UL-CSA listed acrylic/alkyd baked enamel finish or TGIC powder coat or stainless steel (SS) sheet.

Certified Options Summary:

NEMA Type 1, 1A, 2, 3R, 4, 4X, 5 or 12. Optional side extensions and top extensions listed in Table 3. Height and width does not include optional extensions.

Mounting Configuration:

Wall mounted - rigid

Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2022 ***Seismic Certification Limits:*** S_{DS}= ***1.91 g z/h=1.0*** S_{DS}= ***1.96 g z/h=0.0*** I_P= ***1.5***

Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width[1]	Max. Height[2]			
Lighting Panelboards	NQ	5.0	8.5	62.0	90	*10-225A, 48V DC / 240V AC*	3
		5.8	14.0	38.0	95	*10-225A, 48V DC / 240V AC*	Interp.
		6.0	20.0	44.0	97	*10-600A, 48V DC / 240V AC*	11
		5.8	20.0	86.0	297	*10-600A, 48V DC / 240V AC*	Interp.
		6.5	20.0	86.0	258	*10-600A, 48V DC / 240V AC*	Interp.
		6.0	20.0	86.0	297	*10-600A, 48V DC / 240V AC*	Interp.
		6.0	20.0	86.0	297	*10-600A, 48V DC / 240V AC*	Interp.
		8.8	20.0	86.0	297	*10-600A, 48V DC / 240V AC*	Interp.
		5.8	20.0	92.0	300	*10-600A, 48V DC / 240V AC*	Interp.
		8.8	20.0	92.0	300	*10-600A, 48V DC / 240V AC*	Interp.
		5.8	26.0	86.0	290	*10-600A, 48V DC / 240V AC*	Interp.
		8.8	26.0	92.0	300	*10-600A, 48V DC / 240V AC*	Interp.
		8.8	26.0	92.0	300	*10-600A, 48V DC / 240V AC*	7
	NF	5.6	8.6	85.0	160	*10-250A, 600V AC*	Extrap.
		5.8	20.0	86.0	297	*10-800A, 600V AC*	Extrap.
		6.5	20.0	86.0	258	*10-800A, 600V AC*	4
		6.0	20.0	86.0	297	*10-800A, 600V AC*	Interp.
		6.0	20.0	86.0	297	*10-800A, 600V AC*	Interp.
		8.8	20.0	86.0	297	*10-800A, 600V AC*	Interp.
		5.8	20.0	92.0	300	*10-800A, 600V AC*	Interp.
		8.8	20.0	92.0	300	*10-800A, 600V AC*	Interp.
		5.8	26.0	86.0	290	*10-800A, 600V AC*	Interp.
		8.8	26.0	92.0	300	*10-800A, 600V AC*	Interp.
		8.8	26.0	92.0	300	*10-800A, 600V AC*	7

Notes:

1. *Width does not include optional 14" enclosure side extensions.*
2. *Maximum height does not include optional 12" enclosure box extensions.*

REVIEWED FOR CODE COMPLIANCE HCAI OSP-0016 BY: Mohammad Karim DATE: 03/28/2023 CALIFORNIA BUILDING CODE 2022

UNIT UNDER TEST (UUT) SUMMARY SHEET

2001379-CR-001-R1

Manufacturer: Schneider Electric

Model Line: NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)

UUT	Unit Description (mounting)	Report Number (UUT #)	Testing Lab	Year Tested	ISO 17025 Accredited?	S_{DS} (g)	z/h	I_P
1	Power Panelboard – QMB Series	PR047058-TR-16A (UUT1)	NTS - Huntsville	2016	Yes	2.78 3.64	1.0 0.0	1.5
2	Power Panelboard – I-Line Series	PR047058-TR-16A (UUT2)	NTS - Huntsville	2016	Yes	2.78 3.64	1.0 0.0	1.5
3	Lighting Panelboard – NQ Series	PR047058-TR-16A (UUT3)	NTS - Huntsville	2016	Yes	2.79 3.61	1.0 0.0	1.5
4	Lighting Panelboard – NF Series	PR047058-TR-16A (UUT4)	NTS - Huntsville	2016	Yes	2.79 3.61	1.0 0.0	1.5
5	Power Panelboard – I-Line Series	PR047058-TR-16A (UUT5)	NTS - Huntsville	2016	Yes	2.79 3.61	1.0 0.0	1.5
6	Power Panelboard – I-Line Series	58514R11-1 (UUT1)	NTS - Huntsville	2011	Yes	2.20 3.26	1.0 0.0	1.5
7	Lighting Panelboard – NF Series	2Q007.0 (2Q007-02-01-01)	Qual Tech NP by Curtiss-Wright	2002	No [1]	2.33 3.43	1.0 0.0	1.5
8	Power Panelboard – QMB Series	0Q016.0 (0Q016-06-01-01)	Qual Tech NP by Curtiss-Wright	2000	No [1]	2.00 2.70	1.0 0.0	1.5
9	Power Panelboard – I-Line CP Series	70891R13 (UUT 2)	NTS - Huntsville	2013	Yes	3.30 3.30	1.0 0.0	1.5
10	Power Panelboard – I-Line CP Series	70891R13 (UUT 3)	NTS - Huntsville	2013	Yes	2.04 2.04	1.0 0.0	1.5
11	Lighting Panelboard – NQ Series	D202932R2 (UUT 1)	Applied Technical Services, Inc. (ATS)	2013	Yes	1.91 1.96	1.0 0.0	1.5

Notes:

1. *Curtiss Wright was not ISO 17025 accredited at the time of testing but has been reviewed by TRU Compliance and found to meet the requirments for ICC-ES AC156 testing. Review form is on file with TRU Compliance.*

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UNIT UNDER TEST (UUT) SUMMARY SHEET

2001379-CR-001-R1

Manufacturer: Schneider Electric

Model Line: NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)

UUT	Unit Description (mounting)	Report Number (UUT #)	Testing Lab	Year Tested	ISO 17025 Accredited?	S_{DS} (g)	z/h	I_P
12	Lighting Panelboard – NF Series	56963R09 (UUT 1)	NTS - Huntsville	2009	Yes	2.12 3.43	1.0 0.0	1.5
13	NQ Fingersafe IP2X Panelboard, 400A MB	2000718-TR-001-R0 (UUT4)	Environmental Testing Laboratory (ETL)	2020	Yes	2.17 2.20	1.0 0.0	1.5

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TRU COMPLIANCE

UUT 1

Manufacturer:	*Schneider Electric*
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*
Model Number:	*Power Panelboard – QMB Series*
Serial Number:	*379257990010001*
Test Report:	*PR047058-TR-16A (UUT1)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
782	15.0	38.0	96.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.78	1.0	1.5	4.45	3.34	2.43	0.97
		3.64	0.0					

Product Construction Summary:

Low voltage 3-phase 480Y/277 VAC 3P 4W 60 Hz 800A QMB panelboard with a bottom fed main fusible switch and distribution feeder switches. NEMA Type 4/4x stainless steel enclosure (QM3896WPSSUL).

Options/Subcomponent Summary:

Description	***Part Number***	***Weight (lbs.)***
800A/3-phase QMB panelboard interior with Copper bus	*379257990010001*	-
800A/600V/3P Fusible Switch	*QMB367W*	*100*
400A/600V/3P Fusible Switch	*QMB365W*	*87*
100-60A/600V/3P/twin Fusible Switch	*QMB363T32W*	*30*
200A/600V/3P Fusible Switch	*QMB364W*	*35*
30A/600V/3P Fusible Switch	*QMB361HW*	*15*

Test Mounting Details:

UUT1 was wall mounted - rigid using four (4) 3/8"-16 Grade 5 bolts and flat washers secured at 25 lbf-ft torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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TRU COMPLIANCE

UUT 2

Manufacturer:	*Schneider Electric*
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*
Model Number:	*Power Panelboard – I-Line Series*
Serial Number:	*HCR548612U*
Test Report:	*PR047058-TR-16A (UUT2)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
816	14.6	44.0	86.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.78	1.0	1.5	4.45	3.34	2.43	0.97
		3.64	0.0					

Product Construction Summary:

Low voltage three phase I-Line panelboard with a 1200A main breaker and with branch breakers. NEMA Type 4/4x stainless steel enclosure (HC4486WPSSUL).

Options/Subcomponent Summary:

Description	*Part Number*	*Weight (lbs.)*
1200A/3-phase I-Line Panelboard Interior with Copper Bus	*HCR548612U*	*275*
R - Frame Breaker	*RJA36120*	*52*
IMA Surge Protection Device	*HL4IMA12C1*	*22*
F - Frame Breaker	*FA36015*	*5*
Plug on Lug Kit	*S33930*	*42*

Test Mounting Details:

UUT2 was wall mounted - rigid using four (4) 3/8"-16 Grade 5 bolts and flat washers secured at 25 lbf-ft torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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TRU COMPLIANCE

UUT 3

Manufacturer:	*Schneider Electric*
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*
Model Number:	*Lighting Panelboard – NQ Series*
Serial Number:	*NQ8442B2C*
Test Report:	*PR047058-TR-16A (UUT3)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
90	5.0	8.6	62.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.79	1.0	1.5	4.46	3.35	2.41	0.96
		3.61	0.0					

Product Construction Summary:

Low voltage three phase NQ column width panelboard with a 225A main breaker and with branch breakers. NEMA Type 1 carbon steel enclosure.

Options/Subcomponent Summary:

Description	*Part Number*	*Weight (lbs.)*
225A/3-phase/42 circuit/column width NQ Panelboard Interior with Copper Bus	*NQ8442B2C*	*7*
Q - Frame Main Breaker	*QBM32225TN*	*5*
QO - Frame Branch Breakers	*QOB320*	*1*

Test Mounting Details:

UUT3 was wall mounted - rigid using four (4) 3/8"-16 Grade 5 bolts and flat washers secured at 25 lbf-ft torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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TRU COMPLIANCE

Manufacturer:	*Schneider Electric*	**UUT 4**
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*	
Model Number:	*Lighting Panelboard – NF Series*	
Serial Number:	*1237925823002000*	***Test Report:*** *PR047058-TR-16A (UUT4)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
258	6.5	20.0	86.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.79	1.0	1.5	4.46	3.35	2.41	0.96
		3.61	0.0					

Product Construction Summary:

Low voltage three phase NF panelboard with a lighting contactor and branch breakers. NEMA Type 4/4X stainless steel enclosure (MH86WPSSUL).

Options/Subcomponent Summary:

Description	***Part Number***	***Weight (lbs.)***
250A/3-phase/66 circuit NF Panelboard Interior with Al bus and 6" rail extensions	*NF466L2*	*34*
PB Lighting Contactor	*PBW11BV28*	*5*
E - Frame Breaker	*EDB34020*	*4*

Test Mounting Details:

UUT4 was wall mounted - rigid using four (4) 3/8"-16 Grade 5 bolts and flat washers secured at 25 lbf-ft torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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TRU COMPLIANCE

Manufacturer:	*Schneider Electric*	**UUT 5**
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*	
Model Number:	*Power Panelboard – I-Line Series*	
Serial Number:	*HCP50864*	***Test Report:*** *PR047058-TR-16A (UUT5)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
528	9.5	42.0	98.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.79	1.0	1.5	4.46	3.35	2.41	0.96
		3.61	0.0					

Product Construction Summary:

Low voltage three phase I-Line panelboard interior with P-frame and FA-frame molded case circuit breakers. NEMA Type 1 carbon steel enclosure (42W x 9.5D x 86H) with 12" top extension (42W x 9.5D x 12H).

Options/Subcomponent Summary:

Description	***Part Number***	***Weight (lbs.)***
600A/3-phase I-Line Panelboard Interior with Aluminum Bus	*HCP20566*	*158*
800A/600V P-Frame Molded Case Circuit Breaker	*PJA36080*	*32*
15A/240V FA-Frame Molded Case Circuit Breaker	*FA36015*	*5*

Test Mounting Details:

UUT5 was wall mounted - rigid using eight (8) 3/8"-16 Grade 5 bolts and flat washers secured at 25 lbf-ft torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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TRU COMPLIANCE

UUT 6

Manufacturer:	*Schneider Electric*		
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*		
Model Number:	*Power Panelboard – I-Line Series*		
Serial Number:	*HCR548612U*	***Test Report:***	*58514R11-1 (UUT1)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
848	9.5	58.0	86.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.20	1.0	1.5	3.52	2.64	2.17	0.87
		3.26	0.0					

Product Construction Summary:

Low voltage three phase I-Line panelboard with a 1200A main breaker and with branch breakers. NEMA Type 1 carbon steel enclosure (44W x 9.5D x 86H) with 14" side extension (14W x 9.5D x 86H).

Options/Subcomponent Summary:

Description	***Part Number***	***Weight (lbs.)***
1200A/3-phase I-Line Panelboard Interior	*HCRU548612U*	*275*
1200A/600V R-Frame Molded Case Circuit Breaker	*RJA36120*	*52*
250A/600V J-Frame Molded Case Circuit Breaker	*JLA36250U54X*	*5*
150A/600V H-Frame Molded Case Circuit Breaker	*HJA26150*	*5*
150A/600V L-Frame Molded Case Circuit Breaker	*LLA36600U54X*	*14*
800A/600V P-Frame Molded Case Circuit Breaker	*PJA36800*	*29*
150A/600V H-Frame Molded Case Circuit Breaker	*HLA36150U54X*	*5*

Test Mounting Details:

UUT6 was wall mounted - rigid using sixteen (16) 3/8"-16 Grade 5 bolts and flat washers (8 in panel and 8 in side extension) secured at 30 lbf-ft torque.

Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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TRU COMPLIANCE

Manufacturer:	*Schneider Electric*	**UUT 7**
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*	
Model Number:	*Lighting Panelboard – NF Series*	
Serial Number:	*P000697-002-M2*	***Test Report:*** *2Q007.0 (2Q007-02-01-01)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
300	8.8	26.0	92.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.33	1.0	1.5	3.73	2.80	2.29	0.92
		3.43	0.0					

Product Construction Summary:

Low voltage three phase 800A MLO panelboard with dual sub-feed breakers. NEMA Type 1 carbon steel enclosure.

Options/Subcomponent Summary:

Description	***Part Number***	***Weight (lbs.)***
800A/3-phase/42 circuit NF Panelboard Interior	*NF442L8C*	*26*
100A/480Y/277V E-Frame Miniature Circuit Breaker	*EDB34100*	*4*
20A/277V E-Frame Miniature Circuit Breaker	*EDB14020*	*2*
400A/600V L-Frame Molded Case Circuit Breaker	*LAL36400*	*16*

Test Mounting Details:

UUT7 was wall mounted - rigid using four (4) 3/8" Grade 2 bolts and flat washers secured at 9 lbf-ft torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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TRU COMPLIANCE

UUT 8

Manufacturer:	*Schneider Electric*
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*
Model Number:	*Power Panelboard – QMB Series*
Serial Number:	*012788399-005-01*
Test Report:	*0Q016.0 (0Q016-06-01-01)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
656	11.5	38.0	96.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.80	0.72
		2.70	0.0					

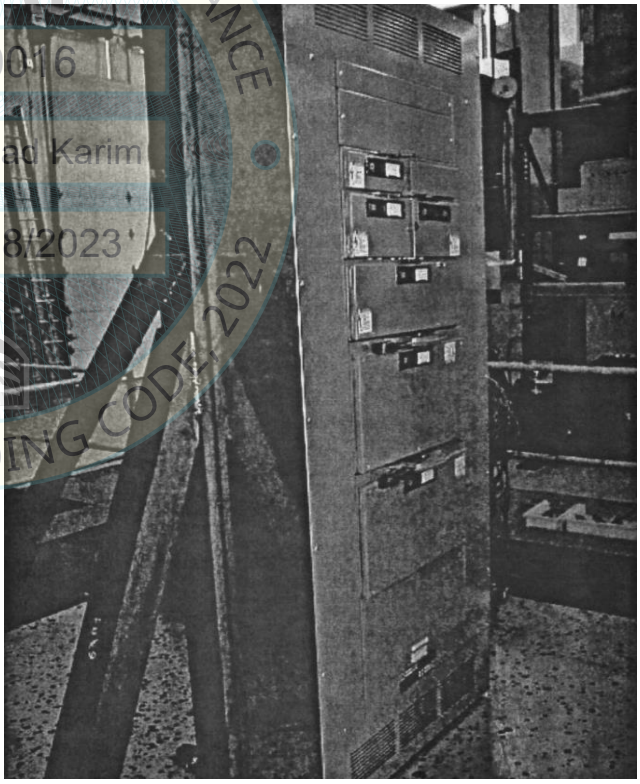
Product Construction Summary:

Low voltage three phase 480Y/277 VAC 3P 4W 60 Hz 800A QMB panelboard with a bottom fed main fusible switch and distribution feeder switches. NEMA Type 1 carbon steel enclosure.

Options/Subcomponent Summary:

Description	***Part Number***	***Weight (lbs.)***
800A/3-phase QMB Panelboard Interior with Copper Bus	*012788399-005-01*	-
800A/600V/3P Fusible Switch	*QMB367W*	*100*
400A/600V/3P Fusible Switch	*QMB365W*	*87*
100-60A/600V/3P/twin Fusible Switch	*QMB363T32W*	*30*
200A/600V/3P Fusible Switch	*QMB364W*	*35*
30A/600V/3P Fusible Switch	*QMB361HW*	*15*

Test Mounting Details:



UUT8 was wall mounted - rigid using six (6) 3/8"-16 Grade 2 bolts and flat washers secured at 260 lbf-in torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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TRU COMPLIANCE

Manufacturer:	*Schneider Electric*	**UUT 9**
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*	
Model Number:	*Power Panelboard – I-Line CP Series*	
Serial Number:	*CP32868N44F6C*	***Test Report:*** *70891R13 (UUT 2)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
614	9.5	44.0	86.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	3.30	1.0	1.5	5.28	3.96	2.20	0.88
		3.30	0.0					

Product Construction Summary:

Low voltage three phase I-Line CP panelboard with 1200A main breaker and with branch breakers. NEMA Type 1 carbon steel enclosure (HC4486DB).

Options/Subcomponent Summary:

Description	***Part Number***	***Weight (lbs.)***
1200A/3-phase I-Line CP Panelboard Interior with Copper Bus	*CP32868N44F6C*	-
20A/480V EDB-Frame Molded Case Circuit Breaker	*EDB34020*	*4*
20A/600V FA-Frame Molded Case Circuit Breaker	*FA34020*	*5*
1200A/480V P-Frame Molded Case Circuit Breaker	*PLA34120U31A*	*32*

Test Mounting Details:

UUT9 was wall mounted - rigid using eight (8) 3/8"-16 Grade 5 bolts and Belleville washers secured at 30 lbf-ft torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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TRU COMPLIANCE

UUT 10

Manufacturer:	*Schneider Electric*
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*
Model Number:	*Power Panelboard – I-Line CP Series*
Serial Number:	*CP18864N4F2*
Test Report:	*70891R13 (UUT 3)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
388	9.5	26.0	86.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.04	1.0	1.5	3.26	2.45	1.37	0.55
		2.04	0.0					

Product Construction Summary:

Low voltage three phase I-Line CP panelboard with 400A main breaker and with branch breakers. NEMA Type 1 carbon steel enclosure (HC2686DB).

Options/Subcomponent Summary:

Description	*Part Number*	*Weight (lbs.)*
400A/3-phase I-Line CP Panelboard Interior	*CP1886N4F2*	*25*
20A/480V EDB-Frame Molded Case Circuit Breaker	*EDB34020*	*4*
20A/600V FA-Frame Molded Case Circuit Breaker	*FA34020*	*5*
400A/600V I-Line Plug on Subfeed Lug Kit	*SL400*	*10*

Test Mounting Details:

UUT10 was wall mounted - rigid using eight (8) 3/8"-16 Grade 5 bolts and Belleville washers secured at 30 lbf-ft torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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TRU COMPLIANCE

UUT 11

Manufacturer:	*Schneider Electric*
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*
Model Number:	*Lighting Panelboard – NQ Series*
Serial Number:	*12335800420030000*
Test Report:	*D202932R2 (UUT 1)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
97	6.0	20.0	44.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	1.91	1.0	1.5	3.06	2.29	1.31	0.52
		1.96	0.0					

Product Construction Summary:

Low voltage three phase NQ panelboard with J-frame main breaker, QO branch breakers and a Surge Protection Device (SPD). NEMA Type 1 carbon steel enclosure.

Options/Subcomponent Summary:

Description	***Part Number***	***Weight (lbs.)***
225A/3-phase/30 circuit NQ Panelboard Interior	*NQ430L2*	*15*
250A/600V PowerPact J-Prame Molded Case Circuit Breaker	*JGP36250U31X*	*5*
30A/240V Q-Frame Miniature Circuit Breaker	*QOB330*	*1*
30A/120V Q-Frame Miniature Circuit Breaker	*QOB130*	*0.25*
SurgeLogic Surge Protection Device	*SSP02BIA24PBQ1*	*8*

Test Mounting Details:

UUT11 was wall mounted - rigid using four (4) 3/8"-16 Grade 5 bolts and flat washers secured at 30 lbf-ft torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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TRU COMPLIANCE

UUT 12

Manufacturer:	*Schneider Electric*
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*
Model Number:	*Lighting Panelboard – NF Series*
Serial Number:	*NF454L2CCL*
Test Report:	*56963R09 (UUT 1)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
140	6.0	20.0	50.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.12	1.0	1.5	3.43	2.54	2.29	0.92
		3.43	0.0					

Product Construction Summary:

Low voltage three phase 480Y/277 VAC 3P 4W 60 Hz 250A NF Main Lug, Cu, panelboard with bottom fed main lugs and distribution feeder breakers with powerlink lighting controls. NEMA Type 1 carbon steel enclosure (MH50).

Options/Subcomponent Summary:

Description	***Part Number***	***Weight (lbs.)***
400A/3-phase/54 circuit NF Panelboard Interior	*NF454L2CCL*	*34*
20A/480Y/277V E-Frame Miniature Circuit Breaker	*ECB14020G3*	*2*
Powerlink Controller	*NF3000G3*	*3*
Powerlink Control Bus - Left	*NF21SBLG3*	*3*
Powerlink Control Bus - Right	*NF21SBRG3*	*3*
Powerlink Power Supply	*NF120PSG3*	*3*

Test Mounting Details:

UUT12 was wall mounted - rigid using four (4) 1/4"-20 Grade 5 bolts and flat washers secured at 7 lbf-ft torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

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DATE: 03/28/2023
CALIFORNIA BUILDING CODE, 2022

UNIT UNDER TEST (UUT) SUMMARY SHEET

2001379-CR-001-R1

TRU COMPLIANCE

UUT 13

Manufacturer:	*Schneider Electric*
Model Line:	*NQ & NF (Lighting Panelboards); CP, QMB & HC (Power Panelboards)*
Model Number:	*NQ Panelboard - 400A MB*
Serial Number:	*42933624-002*
Test Report:	*2000718-TR-001-R0 (UUT4)*

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
176	5.8	20.0	50.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S_{DS}(g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.17	1.0	1.5	3.47	2.60	1.47	0.59
		2.20	0.0					

Product Construction Summary:

NEMA 1 carbon steel IP2X enclosure.

Options/Subcomponent Summary:

Description	*Part Number*	*Weight (lbs.)*
NQ/NF Panelboard Box	*MH62D9*	*57*
Panelboard Front, Surface-mount w/Door, Type 1	*NC62VS*	*43*
400A NQ Interior	*NQ442L4C*	*-*
Main Breaker, LA 400A	*LAP36400MB*	*16*
Breaker, QOB-VH, 90A/3-Pole	*QOB390VH*	*1*
Breaker, QOB-H, 60A/2-Pole (qty 2)	*QOB260H*	*1*
Breaker, QOB-HID, 20A/2-Pole	*QOB220HID*	*1*
Breaker, QOB, 60A/1-Pole (qty 2)	*QOB160*	*0.5*
Breaker, QOB, 20A/1-Pole (qty 9)	*QOB120*	*0.5*
Breaker, QOB-VH, 15A/1-Pole (qty 2)	*QOB115VH*	*0.5*
Breaker, QOB, 90A/2-Pole	*QOB290*	*1*
Breaker, QOB, 10A/3-Pole (qty 2)	*QOB310*	*1*
Breaker, QOB-H, 30A/2-Pole (qty 2)	*QOB230H*	*1*
Breaker, QOB, 10A/2-Pole (qty 2)	*QOB210*	*1*
Breaker, QOB-HM, 20A/1-Pole	*QOB120HM*	*0.5*
Breaker, QOB-VH, 100A/2-Pole	*QOB2100VH*	*1*

Test Mounting Details:

UUT13 was wall mounted - rigid using four (4) 3/8"-16 Grade 5 bolts and flat washers secured at 30 lbf-ft torque.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

REVIEWED FOR CODE COMPLIANCE
HCAI
OSP-0016
BY: Mohammad Karim
DATE: 03/28/2023
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