



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP-0808

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Real Power Industries LLC

Manufacturer's Technical Representative: Randy Minnier

Mailing Address: 13250 Kirkham Way, Poway, CA 92064

Telephone: (858) 486-1585

Email: randy.minnier@icklerelectric.com

Product Information

Product Name: Switchgear/Switchboards

Product Type: Switchboards

Product Model Number: Real Power Industries Switchboards

General Description: NEMA 3R carbon steel switchboards up to 4,000A with Siemens 3VA and WL (fixed) circuit breakers.

Mounting Description: Rigid, Floor 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.

Applicant Information

Applicant Company Name: Manwill Engineering LLC

Contact Person: Derek Manwill

Mailing Address: PO Box 1194, Bend, OR 97709

Telephone: (541) 241-2102

Email: derek@manwillse.com

Title: President





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

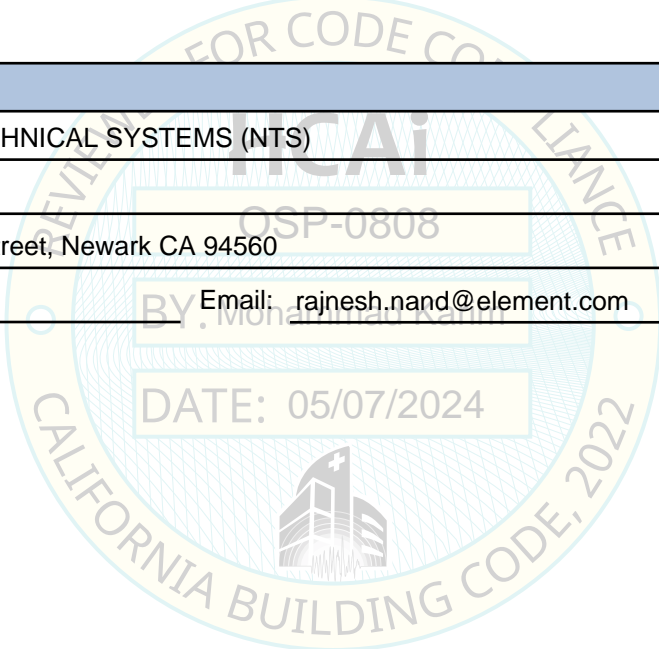
Company Name: MANWILL ENGINEERING LLC
Name: Derek Manwill California License Number: S6266
Mailing Address: PO Box 1194, Bend, OR 97709
Telephone: (541) 241-2102 Email: derek@manwillse.com

Certification Method

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

Testing Laboratory

Company Name: NATIONAL TECHNICAL SYSTEMS (NTS)
Contact Person: Rajnish Nand
Mailing Address: 38995 Cherry Street, Newark CA 94560
Telephone: (510) 578-3500 Email: rajnish.nand@element.com





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 0.94 (SDS=1.25, z/h=1), 0.90 (SDS=2.00, z/h=0)

SDS (Design spectral response acceleration at short period, g) = 1.25 (z/h=1), 2.00 (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

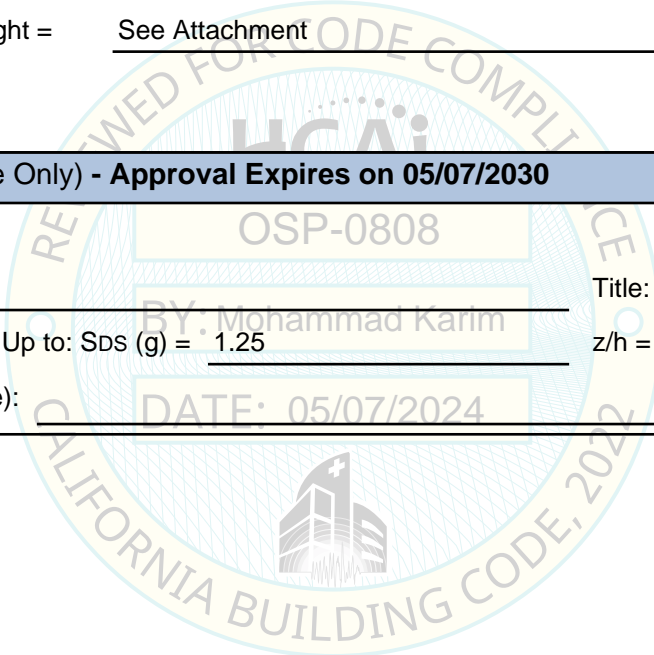
HCAI Approval (For Office Use Only) - Approval Expires on 05/07/2030

Date: 5/7/2024

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 1.25 z/h = 1

Condition of Approval (if applicable): DATE: 05/07/2024



REAL POWER INDUSTRIES LLC
Real Power Industries Switchboards

TABLE 1

Model Number	Dimensions (in)			Max. Wt. (lb)	Description / Notes	Basis
	Depth	Width	Height			
Real Power Industries Switchboards						
RPI-SB2020	20.0	20.0	90.0	325		EXTRAP
RPI-SB2220	20.0	22.0	90.0	357		EXTRAP
RPI-SB3220	20.0	32.0	90.0	520		EXTRAP
RPI-SB3820	20.0	38.0	90.0	617		EXTRAP
RPI-SB2528	28.0	25.0	90.0	568		EXTRAP
RPI-SB3228	28.0	32.0	90.0	728		EXTRAP
RPI-SB3828	28.0	38.0	90.0	864		EXTRAP
RPI-SB4028	28.0	40.0	90.0	910		EXTRAP
RPI-SB2538	38.0	25.0	90.0	772		EXTRAP
RPI-SB3238	38.0	32.0	90.0	988		EXTRAP
RPI-SB3838	38.0	38.0	90.0	991		UUT 2
RPI-SB4838	38.0	48.0	90.0	1,482		INTERP
RPI-SB5238	38.0	52.0	90.0	1,606		UUT 1

Mounting: Rigid Floor Mounted

Seismic Levels:

S_{DS} = 1.25g for z/h = 1
S_{DS} = 2.00g for z/h = 0

I_p = 1.5

Product Construction: NEMA 3R carbon steel enclosure.

Options/Subcomponents: Switchboard may contain any combination of subcomponents listed in Table 2 with appropriate busbar. Total weight must be less than the values listed above.

DATE: 05/07/2024

REAL POWER INDUSTRIES LLC
Real Power Industries Switchboards

TABLE 2. SUBCOMPONENTS

Model Number	Dimensions (in)			Max. Wt. (lb)	Description / Notes	Basis
	Depth	Width	Height			
Type: 3VA Molded Case Circuit Breaker - Mfr: Siemens						
3VA51	3.0	3.0	5.5	1.7	Frame size 1, 15-125A, 3-Pole	UUT 2
3VA52	3.3	4.1	7.3	4.5	Frame size 2, 100-250A, 3-Pole	UUT 2
3VA53	5.4	5.4	9.8	12	Frame size 3, 200-400A, 3-Pole	UUT 2
3VA54	5.4	5.4	9.8	12	Frame size 4, 450-600A, 3-Pole	UUT 2
3VA55	5.8	8.3	12.5	29	Frame size 5, 500-800A, 3-Pole	UUT 2
Type: Fixed WL Power Circuit Breakers - Mfr: Siemens						
S1F308	15.9	18.1	14.6	86	Frame size 1, 800A, 3-Pole	EXTRAP
L1F308	15.9	18.1	14.6	86	Frame size 1, 800A, 3-Pole	EXTRAP
S1F312	15.9	18.1	14.6	86	Frame size 1, 1200A, 3-Pole	UUT 2
L1F312	15.9	18.1	14.6	86	Frame size 1, 1200A, 3-Pole	INTERP
S1F316	15.9	18.1	14.6	86	Frame size 1, 1600A, 3-Pole	INTERP
L1F316	15.9	18.1	14.6	86	Frame size 1, 1600A, 3-Pole	INTERP
S1F320	15.9	18.1	14.6	86	Frame size 1, 2000A, 3-Pole	INTERP
L1F320	15.9	18.1	14.6	86	Frame size 1, 2000A, 3-Pole	INTERP
S2F308	15.9	18.1	18.7	124	Frame size 2, 800A, 3-Pole	INTERP
L2F308	15.9	18.1	18.7	124	Frame size 2, 800A, 3-Pole	INTERP
S2F312	15.9	18.1	18.7	124	Frame size 2, 1200A, 3-Pole	INTERP
L2F312	15.9	18.1	18.7	124	Frame size 2, 1200A, 3-Pole	INTERP
S2F316	15.9	18.1	18.7	124	Frame size 2, 1600A, 3-Pole	INTERP
L2F316	15.9	18.1	18.7	124	Frame size 2, 1600A, 3-Pole	INTERP
S2F320	15.9	18.1	18.7	130	Frame size 2, 2000A, 3-Pole	INTERP
L2F320	15.9	18.1	18.7	130	Frame size 2, 2000A, 3-Pole	INTERP
S2F325	15.9	18.1	18.7	130	Frame size 2, 2500A, 3-Pole	INTERP
L2F325	15.9	18.1	18.7	130	Frame size 2, 2500A, 3-Pole	INTERP
S2F330	15.9	18.1	18.7	130	Frame size 2, 3000A, 3-Pole	INTERP
L2F330	15.9	18.1	18.7	130	Frame size 2, 3000A, 3-Pole	INTERP
L3F340	18.0	27.7	20.7	181	Frame size 3, 4000A, 3-Pole	UUT 1
Mounting: Mounted within unit.				Seismic Levels:	$S_{DS} = 1.25g$ for $z/h = 1$ $S_{DS} = 2.00g$ for $z/h = 0$	$I_p = 1.5$

Construction/Options: Model number uniquely identifies manufacturer, materials, and configuration of subcomponents.

ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 1

Manufacturer: REAL POWER INDUSTRIES LLC
 Model number: RPI-SB5238
 Unit function: SWITCHGEAR/SWITCHBOARDS
 Serial number: N/A

Dimensions (in)			Weight (lb)	Res. Freq. (Hz)		
Depth	Width	Height		F-B	S-S	V
38.0	52.0	90.0	1,606	7.4	9.6	20.0

Code & criteria: CBC 2022, ICC-ES AC156

Test laboratory: ELEMENT - NEWARK

Report: 24014TR1.0 (dated 3-20-24), tested on 3-12-24

S _{DS} (g)	z/h	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
1.25	1	2.00	1.50	1.34	0.54
2.00	0				

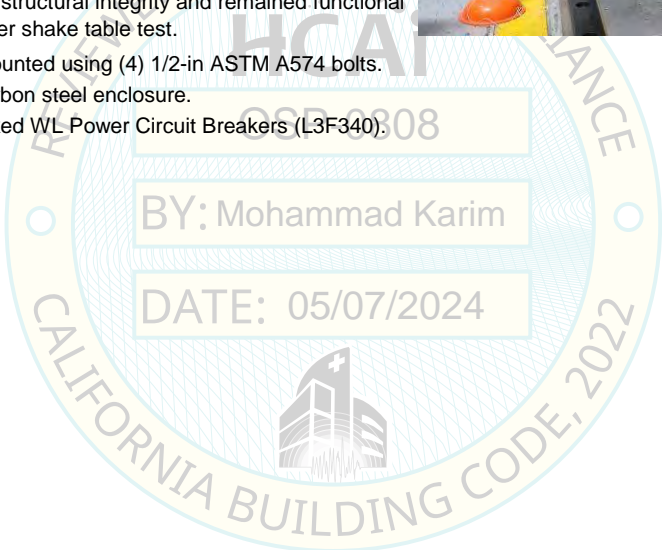
Importance Factor, I_p = 1.5: Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

Mounting: Rigid floor mounted using (4) 1/2-in ASTM A574 bolts.

Construction: NEMA 3R carbon steel enclosure.

Subcomponents: Siemens - Fixed WL Power Circuit Breakers (L3F340),

Testing notes: N/A



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 2

Manufacturer: REAL POWER INDUSTRIES LLC
 Model number: RPI-SB3838
 Unit function: SWITCHGEAR/SWITCHBOARDS
 Serial number: N/A

Dimensions (in)			Weight (lb)	Res. Freq. (Hz)		
Depth	Width	Height		F-B	S-S	V
38.0	38.0	90.0	991	9.4	8.9	25.3

Code & criteria: CBC 2022, ICC-ES AC156

Test laboratory: ELEMENT - NEWARK

Report: 24014TR1.0 (dated 3-20-24), tested on 3-11-24

S _{DS} (g)	z/h	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
1.25	1	2.00	1.50	1.34	0.54
2.00	0				

Importance Factor, I_p = 1.5: Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

Mounting: Rigid floor mounted using (4) 1/2-in ASTM A574 bolts.

Construction: NEMA 3R carbon steel enclosure.

Subcomponents: Siemens - 3VA Molded Case Circuit Breaker (3VA51, 3VA52, 3VA53, 3VA54, 3VA55), Siemens - Fixed WL Power Circuit Breakers (S1F312).

Testing notes: N/A

