OFFICE USE ONLY APPLICATION FOR OSHPD SPECIAL SEISMIC **CERTIFICATION PREAPPROVAL (OSP) APPLICATION #:** OSP - 0466 - 10 **OSHPD Special Seismic Certification Preapproval (OSP) Manufacturer Information** On Power Inc Manufacturer: Manufacturer's Technical Representative: Ian Crane Mailing Address: 865 N.E. Tomahawk Island Drive #571, Portland, OR 97217 Telephone: ON FILE Email: ON FILE **Product Information** 25 kVA Universal Transfer Switch 2nd generation (UTS II) & FA63100 Power Filter Transfer Switch & Power Filter Product Type: Product Model Number: See Attachment 1 (List all unique product identification numbers and/or part numbers) General Description: The provision of transferring equipment from one power source to another during power outages. Seismic enhancements incorporated into the test units shall be incorporated into the certified units. Mounting Description: Rigid Wall Mount **Applicant Information** Applicant Company Name: EASE LLC Contact Person: JONATHAN ROBERSON, S.E. Mailing Address: 5877 Pine Ave. Suite 210, Chino Hills, CA 91709 Telephone: (406) 541-EASE (3273) Email: j.roberson@easeco.com I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016. Signature of Applicant: Date: August 12, 2017 Title: Principal Engineer Company Name: EASE LLC

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California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)
Company Name: EASE LLC
Name: Jonathan Roberson, S.E. California License Number: S4197
Mailing Address: 5877 Pine Ave. Suite 210, Chino Hills, CA 91709
Telephone: (909) 606-7622 Email: <u>j.roberson@easeco.com</u>
Supports and Attachments Preapproval
Supports and attachments are preapproved under OPM- (Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
Supports and attachments are not preapproved
Certification Method
 ☐ Testing in accordance with: ☐ Other (Please Specify):
Testing Laboratory
Company Name: _ Environmental Testing Laboratory, Inc.
Contact Name: Brady Richard
Mailing Address: 11034 Indian Trail, Dallas, TX 75229-3513
Telephone: _(972) 247-9657



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09/13/2017



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Seismic Parameters
Design in accordance with ASCE 7-10 Chapter 13: ⊠ Yes □ No
Design Basis of Equipment or Components (F _p /W _p) = SEE ATTACHMENT 1
S _{DS} (Design spectral response acceleration at short period, g) = SEE ATTACHMENT 1
a _p (In-structure equipment or component amplification factor) = 1
R _p (Equipment or component response modification factor) = 2.5
Ω_0 (System overstrength factor) = 2
I _p (Importance factor) = 1.5
z/h (Height factor ratio) = SEE ATTACHMENT 1
Equipment or Component Natural Frequencies (Hz) = N/A
Overall dimensions and weight (or range thereof) = SEE ATTACHMENT 2
Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: Yes No
Design Basis of Equipment or Components (V/W) =
S _{DS} (Design spectral response acceleration at short period, g) =
S _{D1} (Design spectral response acceleration at 1 second period, g) =
R (Response modification coefficient) =
Ω_0 (System overstrength factor) =
C _d (Deflection amplification factor) =
I _p (Importance factor) = 1.5
Height to Center of Gravity above base =
Equipment or Component Natural Frequencies (Hz) =
Overall dimensions and weight (or range thereof) =
Tank(s) designed in accordance with ASME BPVC, 2015: ☐ Yes ☒ No
List of Attachments Supporting Special Seismic Certification
☐ Test Report(s) ☐ Drawings ☐ Calculations ☐ Manufacturer's Catalog
Other(s) (Please Specify): Attachments 1 & 2
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022
1/1/00
Signature: Date: September 13, 2017
Print Name: Timothy J. Piland Title: SSE Special Science Contification Valid Up to : See Above 7/b - See Above
Special Seismic Certification Valid Up to : S _{DS} (g) = <u>See Above</u> z/h = <u>See Above</u> Condition of Approval (if applicable): Approval is limited to units identical to tested unit.
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ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

ATTACHMENT PAGE | 1 OF 1

TABLE 1: ASCE 7-10 DESIGN BASIS FOR EQUIPMENT

COMPONENT	Identifiction No.	F _P /W _P	S _{DS}	z/h	a _P	R_P	Ω_0
25 kVA Universal Transfer Switch	TP-UTS-8.2.1-R1	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
Powervar FA63100 Power filter	026-077-50	1.80	2.5	1	1	2 ½	2

On Power Systems, Inc.

ATTACHMENT 2: TEST SPECIMEN SUMMARY

ATTACHMENT PAGE | 1 OF 2

UUT1404- 1 25 kVA Universal Transfer Switch

MANUFACTURER: On Power Inc.

IDENTIFICATION: Model No.: TP-UTS-8.2.1-R1

Equipment tested in configuration that will be labeled as

TP-UTS-8.2.1-R1-OSP moving forward

Serial No.: A63937399

DESCRIPTION:

MOUNTING: Wall mounted using (4) -3/8" dia GR 8 bolts with (2) -

washers at top and (2) - 1.5° x 1.75° x 1/8° plate washer at

bottom



PROPERTIES:

DIMENSIONS (in.)				LOWEST	RESONANT FREQUE	ENCY (Hz.)
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vertical-Axis
24	13	36	144			

SHAKE TABLE TEST PARAMETERS

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 2016	ICC-ES AC156	2.0 2.5	1.0 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68

Unit maintained structural integrity and functionality after the ICC-ES AC 156 test

UUT1404- 2 25 kVA Universal Transfer Switch

MANUFACTURER: On Power Inc.

IDENTIFICATION: Model No.: TP-UTS-8.2.1RR1

Equipment tested in configuration that will be labeled as

TP-UTS-8.2.1-R1-OSP moving forward

Serial No.: 63937400

DESCRIPTION:

MOUNTING: Wall mounted using (4) -3/8" dia GR 8 bolts with (2) –washers

at top and (2) -1.5" \times 1.75" \times 1/8" plate washer at bottom.



PROPERTIES:

DIMENSIONS (in.)				LOWEST	RESONANT FREQUE	ENCY (Hz.)
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vertical-Axis
24	13	36	144			

SHAKE TABLE TEST PARAMETERS

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 2016	ICC-ES AC156	2.0 2.5	1.0 0	1.5	3.20 2.50	2.40 1.00	1.34 1.68	0.54 0.68

Unit maintained structural integrity and functionality after the ICC-ES AC 156 test



On Power Systems, Inc.

ATTACHMENT 2: TEST SPECIMEN SUMMARY

ATTACHMENT PAGE | 2 OF 2

UUT1703-1	FA63100							
MANUFACTURER:	POWERVAR	/						
IDENTIFICATION:	Part No.: 026-077-5 Serial No.: 1352-032							
DESCRIPTION:	FA63100 Power filte Current load rating: Frequency: 50/60 H Enclosure: NEMA 1	100 Amp z				Short.		
MOUNTING:	washers at top (2) – 3/8" dia. SAE of TEK Screws at botto 16ga steel backing p	1429 Grade 8 bolts + om & 1.5" x 2" x 1/8" olate. ugh 5/8" gypsum wa	plate washers to		ONERC			
	DIMENSIONS (in.)			LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vert-Axis		
24	12	30	198					
ICC-ES AC156 TE	ST PARAMETERS				•	CODE: 2016 CBC		
S _{DS} (G)	z/h	I _P	A _{FLX-H} (G)	A _{RIG-H} (G)	A _{FLX-V} (G)	A _{RIG-V} (G)		
2.5	1	1.5	4.00	3.00	1.68	0.68		
Unit maintained str	uctural integrity and re	emained functional p	er manufacturer require	ment after AC156 te	st.	•		