



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT  
FACILITIES DEVELOPMENT DIVISION**

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

OFFICE USE ONLY

APPLICATION #: **OSP – 0523 – 10**

**OSHPD Special Seismic Certification Preapproval (OSP)**

Type:  New  Renewal

**Manufacturer Information**

Manufacturer: **CETC ECRIEEPOWER (ANHUI) CO., LTD**

Manufacturer's Technical Representative: Dora Xia

Mailing Address: No. 41 Tianzhi Road High & New Technology Development Zone, Hefei, China

Telephone: ON FILE Email: ON FILE

**Product Information**

Product Name: **CT-PDU-115KVA-3 & CT-PDU-115KVA-PLUS**

Product Type: Power Distribution Unit

Product Model Number: 459800313191 (CT-PDU-115KVA-3) / 459801204831 (CT-PDU-115KVA-PLUS)  
(List all unique product identification numbers and/or part numbers)

General Description: Power Distribution Units (PDU) supporting Philips Healthcare CT medical imaging systems.  
Seismic Certification is limited to units used with Philips Healthcare CT medical imaging systems.

Mounting Description: Rigid base mounted.

**Applicant Information**

Applicant Company Name: **EASE LLC**

Contact Person: JONATHAN ROBERSON, S.E.

Mailing Address: 5877 Pine Ave. Suite 210, Chino Hills, CA 91709

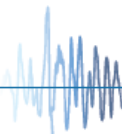
Telephone: (406) 541-EASE (3273) Email: [j.roberson@easeco.com](mailto:j.roberson@easeco.com)

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: May 27, 2017

Title: Principal Engineer Company Name: EASE LLC

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





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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: [j.roberson@easeco.com](mailto:j.roberson@easeco.com)

**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:  ICC-ES AC156
- Other (Please Specify): \_\_\_\_\_

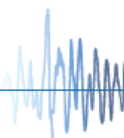
**Testing Laboratory**

Company Name: Environmental Testing Laboratory, Inc.

Contact Name: Brady Richard

Mailing Address: 11034 Indian Trail, Dallas, TX 75229-3513

Telephone: (972) 247-9657 Email: [brady@etldallas.com](mailto:brady@etldallas.com)





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**Seismic Parameters**

Design in accordance with ASCE 7-10 Chapter 13:  Yes  No

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.44 ( $S_{DS}=2.0$ ;  $z/h=1$ ) / 1.13 ( $S_{DS}=2.5$ ;  $z/h=0$ )

$S_{DS}$  (Design spectral response acceleration at short period, g) = 2.0 ( $z/h=1$ ) / 2.5 ( $z/h=0$ )

$a_p$  (In-structure equipment or component amplification factor) = 1

$R_p$  (Equipment or component response modification factor) = 2.5

$\Omega_0$  (System overstrength factor) = 2

$I_p$  (Importance factor) = 1.5

$z/h$  (Height factor ratio) = 1 ( $S_{DS}=2.0$ ) / 0 ( $S_{DS}=2.5$ )

Equipment or Component Natural Frequencies (Hz) = See Attachment 1

Overall dimensions and weight (or range thereof) = See Attachment 1

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) = \_\_\_\_\_

$\Omega_0$  (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): Attachment 1

**OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022**

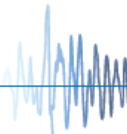
Signature:  Date: July 10, 2017

Print Name: Timothy J. Piland Title: SSE

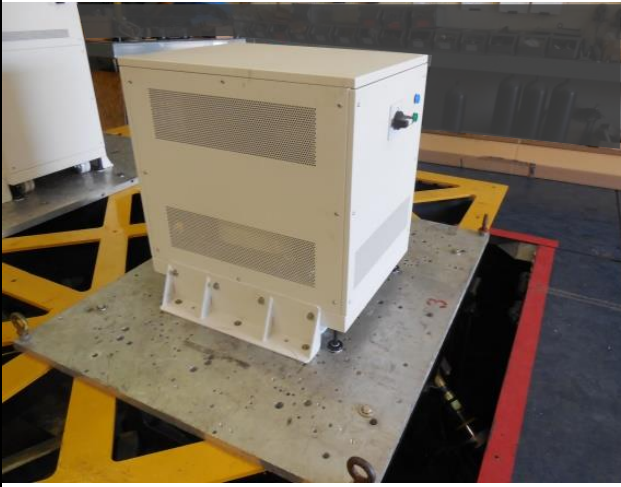
Special Seismic Certification Valid Up to :  $S_{DS}$  (g) = See Above  $z/h$  = See Above


Condition of Approval (if applicable): \_\_\_\_\_

\_\_\_\_\_



**ATTACHMENT 1: TEST SPECIMEN SUMMARY**

<b>UUT1708-1 CT-PDU-115KVA-3</b>						
<b>MANUFACTURER:</b> CETC ECRIEEPOWER (ANHUI) CO., LTD						
<b>IDENTIFICATION:</b> 459800313191						
<b>DESCRIPTION:</b> Component of the Philips imaging medical imaging system. External mounting brackets & fasteners provided by manufacturer.						
<b>MOUNTING:</b> <u>Floor Mounted:</u> (6) – 3/8" dia GR 8 SAE J429 Grade 8 bolts w/ washers. Leveling feet and asters fully bearing all four corners.						
<b>DIMENSIONS (in.)</b>			<b>Weight (lb.)</b>	<b>LOWEST RESONANT FREQUENCY (Hz.)</b>		
<b>Width</b>	<b>Depth</b>	<b>Height</b>		<b>Side-Axis</b>	<b>Front-Axis</b>	<b>Vert-Axis</b>
23.3	30.3	32.5		805	22.1	25.6
<b>ICC-ES AC156 SHAKE TABLE TEST PARAMETERS</b>						<b>CODE: 2016 CBC</b>
<b>S<sub>DS</sub> (G)</b>	<b>z/h</b>	<b>I<sub>p</sub></b>	<b>A<sub>FLX-H</sub> (G)</b>	<b>A<sub>RIG-H</sub> (G)</b>	<b>A<sub>FLX-V</sub> (G)</b>	<b>A<sub>RIG-V</sub> (G)</b>
2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68
Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.						

<b>UUT1708- 2 CT-PDU-115KVA-PLUS</b>						
<b>MANUFACTURER:</b> CETC ECRIEEPOWER (ANHUI) CO., LTD						
<b>IDENTIFICATION:</b> 459801204831						
<b>DESCRIPTION:</b> Component of the Philips imaging medical imaging system. External mounting brackets & fasteners provided by manufacturer.						
<b>MOUNTING:</b> <u>Floor Mounted:</u> (6) – 3/8" dia GR 8 SAE J429 Grade 8 bolts w/ washers. Leveling feet and asters fully bearing all four corners						
<b>DIMENSIONS (in.)</b>			<b>Weight (lb.)</b>	<b>LOWEST RESONANT FREQUENCY (Hz.)</b>		
<b>Width</b>	<b>Depth</b>	<b>Height</b>		<b>Longit -Axis</b>	<b>Transv-Axis</b>	<b>Vert-Axis</b>
23.3	27.6	44.5		926	21.4	28.7
<b>ICC-ES AC156 SHAKE TABLE TEST PARAMETERS</b>						<b>CODE: 2016 CBC</b>
<b>S<sub>DS</sub> (G)</b>	<b>z/h</b>	<b>I<sub>p</sub></b>	<b>A<sub>FLX-H</sub> (G)</b>	<b>A<sub>RIG-H</sub> (G)</b>	<b>A<sub>FLX-V</sub> (G)</b>	<b>A<sub>RIG-V</sub> (G)</b>
2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68
Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.						