



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

APPLICATION FOR HCAI SPECIAL SEISMIC  
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0821

HCAI Special Seismic Certification Preapproval (OSP)

Type:  New  Renewal

Manufacturer Information

Manufacturer: Philips Healthcare

Manufacturer's Technical Representative: Curtis Stemm

Mailing Address: Veenpluis 4-6,, Best, -- 5684PC

Telephone: (440) 869-4608

Email: curtis.stemm@philips.com

Product Information

Product Name: See Attachment 1

Product Model Number(s): See Attachment 1

Product Category: CT Systems

Product Sub-Category: NA

General Description: System components of Philips CT systems. Document is limited to the componet identification numbers listed in Attachment 1 for use with Philips CT imaging systems.

Mounting Description: Base Mounted Rigid

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: EASE LLC

Contact Person: Jonathan Roberson

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

Telephone: (909) 606-7622

Email: jon@easeco.com

Title: Principal Structural Engineer





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

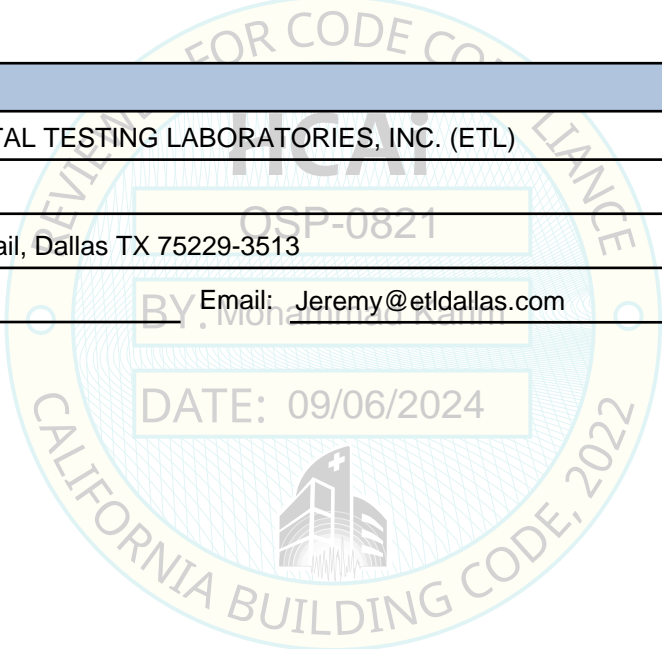
Company Name: EASE LLC  
Name: Jonathan Roberson California License Number: S4197  
Mailing Address: 5877 Pine Ave., Suite 210, Chino Hills, CA 91709  
Telephone: (951) 295-1892 Email: jon@EASECo.com

**Certification Method**

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

**Testing Laboratory**

Company Name: ENVIRONMENTAL TESTING LABORATORIES, INC. (ETL)  
Contact Person: Jeremy Lange  
Mailing Address: 11034 Indian Trail, Dallas TX 75229-3513  
Telephone: (972) 247-9657 Email: Jeremy@etldallas.com





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**Seismic Parameters**

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.44 (SDS=2.0 @ z/h=1) / 1.13 (SDS=2.5 @ z/h=0)

SDS (Design spectral response acceleration at short period, g) = 2.0 (z/h=1) / 2.5 (z/h=0)

$a_p$  (Amplification factor) = 1

$R_p$  (Response modification factor) = 2.5

$\Omega_0$  (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

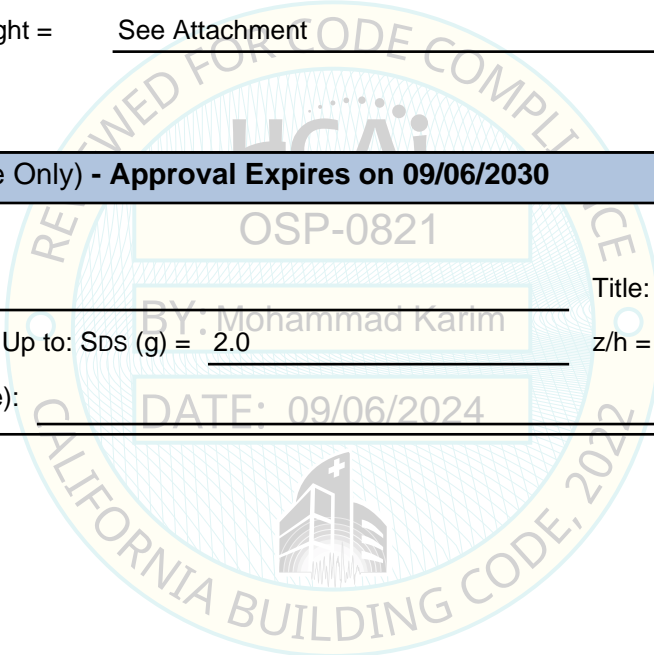
**HCAI Approval (For Office Use Only) - Approval Expires on 09/06/2030**

Date: 9/6/2024

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 2.0 z/h = 1

Condition of Approval (if applicable): DATE: 09/06/2024



**ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS**


ATTACHMENT PAGE | 1 OF 1


**TABLE 1:**

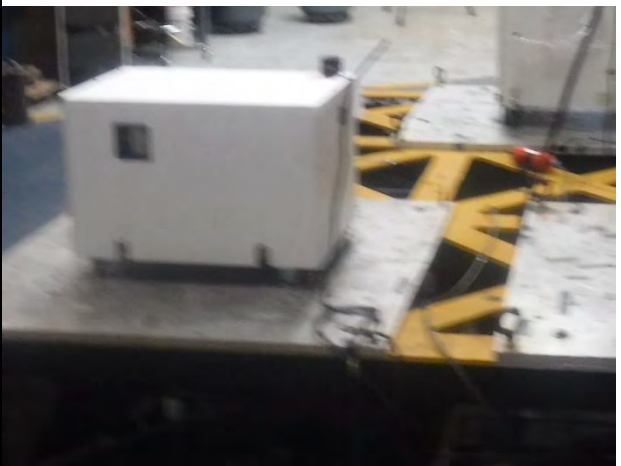
Distributor		Philips Healthcare								S <sub>DS</sub> = 2.0 at z/h = 1 S <sub>DS</sub> = 2.5 at z/h = 0	
Component	Identification Number	Approx. Dimensions [In.]			Weight [lb.]	Mount	Basis <sup>[1]</sup>	F <sub>P</sub> /W <sub>P</sub>	a <sub>P</sub>	R <sub>P</sub>	Ω <sub>0</sub>
		W	D	H							
Cabinet Compressor - 50/60 Hz (GAST/JUN AIR) <sup>[2]</sup>	459800882783	24.8	23.8	33.8	248	Floor	2303-1	1.44 1.13	1	2 ½	2
Atlas Copco SF1 FF 60 Hz. Compressor w/ Filter Kit <sup>[3]</sup>	300007683391	39.1	26.4	45.5	437	Floor	2303-2	1.44 1.13	1	2 ½	2
Atlas Copco SF1 FF 50 Hz. Compressor w/ Filter Kit <sup>[3]</sup>	300007539331	39.1	26.4	45.5	437	Floor	SAME (2303-2)	1.44 1.13	1	2 ½	2
Automation Yeruham Air Buffer Assembly <sup>[4]</sup>	459801790583	27.6	17.8	19.8	68	Floor	2303-3	1.44 1.13	1	2 ½	2
Mounting	Rigid Base: free-standing, base-mounted configuration with the component rigidly attached to a supporting structure and no lateral support above the base.										
Notes	<ol style="list-style-type: none"> <li>1. BASIS: <ul style="list-style-type: none"> <li>• UUT - ##### - #: Indicates that a unit matching these characteristics was tested as part of this testing program.</li> <li>• SAME indicates component is physically, mechanically, and electrically the same as another test specimen with differences limited to model number, color, and/or software.</li> </ul> </li> <li>2. Cabinet Compressor requires use of Philips Seismic Kit 459801067821</li> <li>3. Requires use of Atlas Copco seismic bracket (Part No. 300011910181).</li> <li>4. Requires use of Air buffer seismic kit seismic bracket (Part No. 300009849731).</li> </ol>										



**ATTACHMENT 2: TEST SPECIMEN SUMMARY**

<b>UUT2303-1 JUN AIR Cabinet Compressor</b>						
<i>Manufacturer:</i> GAST / JUN AIR						
<i>Identification:</i> Jun Air Model No. 120R689-40MA (as labeled) Jun Air Model No. 120R-40MA (as configured) Philips Part No.: 459800882783 (No label)						
<i>Description:</i> Production-equivalent engineering prototype 200-240V 60Hz / 200-230V 50Hz.  Requires the use of Philips Seismic Kit: Kit-compressor seismic 459801067821						
<i>Mounting:</i> Rigid Base mounted using (4) – 3/8" dia. SAE J429 Grade 5 bolts to aluminum interface plate.						
Dimensions (in.)				Lowest Resonant Frequency (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vert-Axis
24.8	23.8	33.8	248	13.3	21.8	37.8
ICC-ES AC156 Shake Table Test Parameters						
S <sub>DS</sub> (G)	z/h	I <sub>p</sub>	AFLX-H (G)	ARIG-H (G)	AFLX-V (G)	ARIG-V (G)
2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68
Unit satisfied AC156 requirements for structural integrity and remained functional per manufacturer requirement after AC156 test.						

<b>UUT2303-2 Atlas Copco SF1 FF 60 Hz Compressor</b>						
<i>Manufacturer:</i> Atlas Copco						
<i>Identification:</i> Philips Part No. 300007683391 (assembly)						
<i>Description:</i> Atlas Copco Type SF1 FF 60 Hz Compressor (455300129861) with Filter Kit for compressor (300007590351)  Requires use of Atlas Copco Seismic Bracket (300011910181)						
<i>Mounting:</i> Rigid Base mounted using (4) – 3/8" dia. SAE J429 Grade 5 bolts to aluminum interface plate.						
Dimensions (in.)				Lowest Resonant Frequency (Hz.)		
Width	Depth	Height	Weight (lb.)	Side -Axis	Front -Axis	Vert-Axis
39.1	26.4	45.5	437	18.0	6.4	17.1
ICC-ES AC156 Shake Table Test Parameters						
S <sub>DS</sub> (G)	z/h	I <sub>p</sub>	AFLX-H (G)	ARIG-H (G)	AFLX-V (G)	ARIG-V (G)
2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68
Unit satisfied AC156 requirements for structural integrity and remained functional per manufacturer requirement after AC156 test.						

UUT2303-3 Automation Yeruham Air Buffer Assembly						
<i>Manufacturer:</i> Automation Yeruham						
<i>Identification:</i> Philips Part No. 459801790583						
<i>Description:</i> Air Buffer Assembly  Requires use of Air buffer seismic kit (300009849731)						
<i>Mounting:</i> <u>Rigid Base mounted</u> using (4) – 3/8” dia. SAE J429 Grade 5 bolts to aluminum interface plate.						
Dimensions (in.)				Lowest Resonant Frequency (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vert-Axis
27.6	17.8	19.8	68	13.1	11.9	12.4
ICC-ES AC156 SHAKE TABLE TEST PARAMETERS						
S <sub>ds</sub> (G)	z/h	I <sub>p</sub>	AFLX-H (G)	ARIG-H (G)	AFLX-V (G)	ARIG-V (G)
2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68
Unit satisfied AC156 requirements for structural integrity and remained functional per manufacturer requirement after AC156 test.						