



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-0184

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Carrier Corporation

Manufacturer's Technical Representative: Anthony Molavi

Mailing Address: 9701 Old Statesville Road, Charlotte, NC 28269

Telephone: (704) 921-3976

Email: Anthony.Molavi@carrier.utc.com

Product Information

Product Name: Carrier AquaSnap Chillers & Gemini Split Systems

Product Model Number(s): 30RAP (10-150 tons), 38AP (25-130 tons), 09DP (18-130 tons), 30MPA (15-80 tons), 30MPW(15-80 tons), 30XA and 30XV (80-500 tons)

Product Category: Chillers

Product Sub-Category: Chillers - Air Cooled

General Description:

Mounting Description: Neoprene or 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: Pre Compliance

Contact Person: Katie Braman

Mailing Address: 36 SW Wall St, Bend, OR 97702

Telephone: (541) 241-2310

Email: kbraman@go-pre.com

Title: Principal



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

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

Company Name: PRE COMPLIANCE

Name: Andrew Coughlin

California License Number: S6082

Mailing Address: 36 SW Wall Street, Bend, OR 97702

Telephone: (415) 635-8461

Email: Andy@go-pre.com

Certification Method

☐ GR-63-Core

☒ ICC-ES AC156

☐ IEEE 344

☐ IEEE 693

☐ NEBS 3

☐ Other (Please Specify):

Testing Laboratory

Company Name: U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER, CONSTRUCTION ENGINEERING RESEARCH LABORATORY (CERL)

Contact Person: James Wilcoski

Mailing Address: 2902 Newmark Dr., Champaign IL 61822-1076

Telephone: (217) 373-6763

Email: James.wilcoski@usace.army.mil

Company Name: UNIVERSITY OF BUFFALO (SEESL)

Contact Person: Yushan Yu

Mailing Address: 212 Ketter Hall, Buffalo NY 14260

Telephone: (716) 645-4377

Email: yushanfu@buffalo.edu



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

**Seismic Parameters**

|                                                                  |                                                                                                                                                                             |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Design Basis of Equipment or Components ( $F_p/W_p$ ) =          | Table 1, 5-10 (1.51), Table 2, 11-14 (1.30), Table 3, 15-20 (1.44 @ $z/h=1$ , 1.08 @ $z/h=0$ ), Table 4, 21-26 (1.44 @ $z/h=1$ , 0.60 @ $z/h=0$ )                           |
| SDs (Design spectral response acceleration at short period, g) = | Table 1, 5-10 (2.10g @ $z/h=1$ ), Table 2, 11-14 (1.81g @ $z/h=1$ ), Table 3, 15-20 (2.0g @ $z/h=1$ , 2.4g @ $z/h=0$ ).<br>Table 4, 21-26 (0.8g @ $z/h=1$ , 1.0 @ $z/h=0$ ) |
| $a_p$ (Amplification factor) =                                   | 1.0 (rigid, Tables 1-3, 5-20), 2.5 (neoprene isolated, Table 4, 21-26)                                                                                                      |
| $R_p$ (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 04/08/2031**

|                                                                |                    |                                      |
|----------------------------------------------------------------|--------------------|--------------------------------------|
| Date: 4/8/2025                                                 | BY: Mohammad Karim | Title: Supervisor, Health Facilities |
| Name: Mohammad Karim                                           |                    |                                      |
| Special Seismic Certification Valid Up to: SDs (g) = See above | 04/08/2025         | $z/h$ = See Above                    |
| Condition of Approval (if applicable):                         |                    |                                      |

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

## Seismic Parameters

 $S_{DS} = 2.10g$  for  $z/h = 1.0$   $I_p = 1.5$ 

## Building Codes

**CBC 2022**

## TABLE 1

## Base Mounted - Rigid

### Construction Summary

Carbon Steel

### Options Summary

30RAP10, 060, 070, tested models include hydronic packages

| Model Line                                                            | Model     | Nominal Capacity (tons) | Max. Dimensions (in) |      |      | Operating Wt. (lb.) | Notes | UUT     |
|-----------------------------------------------------------------------|-----------|-------------------------|----------------------|------|------|---------------------|-------|---------|
|                                                                       |           |                         | D                    | W    | H    |                     |       |         |
| 09DP<br>Gemini Split System<br>Air-Cooled<br>Condensers               | 09DPS018  | 20.7                    | 88.5                 | 40.5 | 66.5 | 656                 |       | Extrap. |
|                                                                       | 09DPS020  | 33.1                    | 88.5                 | 40.5 | 66.5 | 755                 |       | Extrap. |
|                                                                       | 09DPS030  | 37.7                    | 88.5                 | 40.5 | 78.5 | 905                 |       | Extrap. |
|                                                                       | 09DPM035  | 43.3                    | 88.5                 | 92.5 | 66.5 | 1162                |       | Extrap. |
|                                                                       | 09DPM040  | 54.9                    | 88.5                 | 92.5 | 67.5 | 1258                |       | Extrap. |
|                                                                       | 09DPM050  | 66.4                    | 88.5                 | 92.5 | 68.5 | 1354                |       | Extrap. |
|                                                                       | 09DPM060  | 75.3                    | 88.5                 | 92.5 | 78.5 | 1596                |       | Extrap. |
|                                                                       | 09DPM065  | 85.8                    | 110.8                | 88.5 | 78.5 | 1694                |       | Extrap. |
|                                                                       | 09DPM075  | 107.6                   | 151.1                | 88.5 | 78.5 | 1936                |       | Extrap. |
|                                                                       | 09DPM085  | 115.6                   | 151.1                | 88.5 | 78.5 | 2041                |       | Extrap. |
|                                                                       | 09DPM095  | 129.4                   | 151.1                | 88.5 | 78.5 | 2041                |       | Extrap. |
|                                                                       | 09DPM0115 | 149.4                   | 191.3                | 88.5 | 78.5 | 2573                |       | Extrap. |
|                                                                       | 09DPM0130 | 172.0                   | 191.3                | 88.5 | 78.5 | 2677                |       | Extrap. |
| 38AP<br>Gemini Split System<br>Commercial<br>Air-Cooled<br>Condensers | 38AP025   | 25.0                    | 88.5                 | 40.5 | 66.5 | 1131                |       | Extrap. |
|                                                                       | 38AP027   | 7.0                     | 88.5                 | 40.5 | 78.5 | 1294                |       | Extrap. |
|                                                                       | 38AP030   | 30.0                    | 88.5                 | 40.5 | 75.5 | 1300                |       | Extrap. |
|                                                                       | 38AP040   | 40.0                    | 88.5                 | 92.5 | 78.5 | 1596                |       | Extrap. |
|                                                                       | 38AP050   | 50.0                    | 88.5                 | 92.5 | 78.5 | 2148                |       | Extrap. |
|                                                                       | 38AP060   | 60.0                    | 88.5                 | 92.5 | 78.5 | 2299                |       | Extrap. |
|                                                                       | 38AP065   | 59.6                    | 110.8                | 88.5 | 78.5 | 2633                |       | Extrap. |
|                                                                       | 38AP070   | 67.3                    | 110.8                | 88.5 | 78.5 | 2522                |       | Extrap. |
|                                                                       | 38AP080   | 78.0                    | 151.1                | 88.5 | 78.5 | 2700                |       | Extrap. |
|                                                                       | 38AP090   | 87.4                    | 151.1                | 88.5 | 78.5 | 2943                |       | Extrap. |
|                                                                       | 38AP100   | 96.0                    | 151.1                | 88.5 | 78.5 | 2952                |       | Extrap. |
|                                                                       | 38AP115   | 110.4                   | 191.3                | 88.5 | 78.5 | 2677                |       | Extrap. |
|                                                                       | 38AP130   | 125.1                   | 191.3                | 88.5 | 78.5 | 3461                |       | Extrap. |

Notes: 30RAP: AquaSnap Air-Cooled Chillers w/ Refrigerant, 38AP: Gemini Split System Commercial Air-Cooled Condensers w/ Refrigerant, 09DP: Gemini Split System Air-Cooled Condensers w/Refrigerant.  
The 38AP (condensing unit) and 09DP (condenser) are derivatives of 30RAP chillers. 30RAP10, 060, 070, tested models include hydronic packages.

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

## Seismic Parameters

 $S_{DS} = 2.10g$  for  $z/h = 1.0$   $I_p = 1.5$ 

## Building Codes

**CBC 2022**

# TABLE 1

## Base Mounted - Rigid

### Construction Summary

Carbon Steel

### Options Summary

30RAP10, 060, 070, tested models include hydronic packages

| Model Line                         | Model              | Nominal Capacity (tons) | Max. Dimensions (in) |      |      | Operating Wt. (lb.) | Notes | UUT     |
|------------------------------------|--------------------|-------------------------|----------------------|------|------|---------------------|-------|---------|
|                                    |                    |                         | D                    | W    | H    |                     |       |         |
| 30RAP AquaSnap Air-Cooled Chillers | 30RAP01065-20001   | 10.5                    | 66.5                 | 40.5 | 66.5 | 1029                |       | 2       |
|                                    | 30RAP011           | 10.5                    | 66.5                 | 40.5 | 66.5 | 1087                |       | Interp. |
|                                    | 30RAP015           | 10.5                    | 66.5                 | 40.5 | 66.5 | 1043                |       | Interp. |
|                                    | 30RAP016           | 14.0                    | 66.5                 | 40.5 | 66.5 | 1125                |       | Interp. |
|                                    | 30RAP0186DC0D100-1 | 16.1                    | 88.5                 | 40.5 | 66.5 | 1410                |       | 1       |
|                                    | 30RAP020           | 18.8                    | 88.5                 | 40.5 | 66.5 | 1458                |       | Interp. |
|                                    | 30RAP025           | 23.4                    | 88.5                 | 40.5 | 78.5 | 1567                |       | Interp. |
|                                    | 30RAP030           | 27.6                    | 88.5                 | 40.5 | 78.5 | 1608                |       | Interp. |
|                                    | 30RAP035           | 34.4                    | 88.5                 | 92.5 | 66.5 | 2850                |       | Interp. |
|                                    | 30RAP040           | 38.9                    | 88.5                 | 92.5 | 66.5 | 2872                |       | Interp. |
|                                    | 30RAP045           | 43.1                    | 88.5                 | 92.5 | 78.5 | 2925                |       | Interp. |
|                                    | 30RAP050           | 47.3                    | 88.5                 | 92.5 | 78.5 | 2950                |       | Interp. |
|                                    | 30RAP055           | 51.8                    | 88.5                 | 92.5 | 78.5 | 3056                |       | Interp. |
|                                    | 30RAP0606J-H0CFC   | 56.0                    | 88.5                 | 92.5 | 78.5 | 3062                |       | 3       |
|                                    | 30RAP07055-CL300   | 68.9                    | 151.1                | 88.5 | 78.5 | 4100                |       | 4       |
|                                    | 30RAP080           | 77.4                    | 151.1                | 88.5 | 78.5 | 4390                |       | Interp. |
|                                    | 30RAP090           | 84.0                    | 151.1                | 88.5 | 78.5 | 4411                |       | Interp. |
|                                    | 30RAP100           | 98.7                    | 191.3                | 88.5 | 78.5 | 5374                |       | Interp. |
|                                    | 30RAP115           | 111.8                   | 191.3                | 88.5 | 78.5 | 5692                |       | Interp. |
|                                    | 30RAP130           | 127.5                   | 231.6                | 88.5 | 78.5 | 7135                |       | Interp. |
|                                    | 30RAP1506J-NM5C0   | 139.7                   | 231.6                | 88.5 | 78.5 | 7500                |       | 5       |
|                                    |                    |                         |                      |      |      |                     |       |         |
|                                    |                    |                         |                      |      |      |                     |       |         |
|                                    |                    |                         |                      |      |      |                     |       |         |
|                                    |                    |                         |                      |      |      |                     |       |         |
|                                    |                    |                         |                      |      |      |                     |       |         |
|                                    |                    |                         |                      |      |      |                     |       |         |

Notes: 30RAP: AquaSnap Air-Cooled Chillers w/ Refrigerant, 38AP: Gemini Split System Commercial Air-Cooled Condensers w/ Refrigerant, 09DP: Gemini Split System Air-Cooled Condensers w/Refrigerant. The 38AP (condensing unit) and 09DP (condenser) are derivatives of 30RAP chillers. 30RAP10, 060, 070, tested models include hydronic packages.



# SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap

## Seismic Parameters

 $S_{DS} = 1.81g$  for  $z/h = 1.0$   $I_p = 1.5$ 

## Building Codes

CBC 2022

## TABLE 2

## Base Mounted - Rigid

### Construction Summary

Carbon Steel

### Options Summary

30MP can be applied as "Modular" combinations  
(may be installed separately).

| Model Line                                          | Model            | Nominal Capacity (tons) | Max. Dimensions (in) |      |      | Operating Wt. (lb.) | Notes | UUT     |
|-----------------------------------------------------|------------------|-------------------------|----------------------|------|------|---------------------|-------|---------|
|                                                     |                  |                         | D                    | W    | H    |                     |       |         |
| 30MPA and 30MPW AquaSnap Air Cooled Liquid Chillers | 30MPA01560-00005 | 13.9                    | 57.0                 | 32.1 | 65.1 | 626                 |       | 7       |
|                                                     | 30MPA016         | 14.8                    | 57.0                 | 32.1 | 65.1 | 591                 |       | Interp. |
|                                                     | 30MPW016         | 14.8                    | 57.0                 | 32.1 | 65.1 | 680                 |       | Interp. |
|                                                     | 30MPW01761A05115 | 16.0                    | 60.0                 | 33.0 | 66   | 740                 |       | 17      |
|                                                     | 30MPA020         | 18.2                    | 57.0                 | 32.1 | 65.1 | 740                 |       | Interp. |
|                                                     | 30MPW020         | 20.7                    | 57.0                 | 32.1 | 65.1 | 790                 |       | Interp. |
|                                                     | 30MPA021         | 20.0                    | 59.8                 | 31.2 | 65.8 | 723                 |       | Interp. |
|                                                     | 30MPW021         | 21.0                    | 59.8                 | 31.2 | 65.8 | 793                 |       | Interp. |
|                                                     | 30MPQ021         | 20.7                    | 57.0                 | 32.1 | 65.1 | 790                 |       | Interp. |
|                                                     | 30MPA030         | 27.7                    | 57.0                 | 32.1 | 65.1 | 755                 |       | Interp. |
|                                                     | 30MPW030         | 31.0                    | 57.0                 | 32.1 | 65.1 | 992                 |       | Interp. |
|                                                     | 30MPA031         | 30.0                    | 59.8                 | 31.2 | 65.8 | 782                 |       | Interp. |
|                                                     | 30MPW031         | 33.0                    | 59.8                 | 31.2 | 65.8 | 1020                |       | Interp. |
|                                                     | 30MPQ031         | 31.0                    | 57.0                 | 32.1 | 65.1 | 992                 |       | Interp. |
|                                                     | 30MPA032         | 30.0                    | 57.0                 | 32.1 | 65.1 | 731                 |       | Interp. |
|                                                     | 30MPW03260-0005  | 30.0                    | 57.0                 | 32.1 | 65.1 | 1055                |       | 6       |
|                                                     | 30MPW033         | 33.0                    | 59.8                 | 31.2 | 65.8 | 1078                |       | Interp. |
|                                                     | 30MPA040         | 35.3                    | 57.0                 | 32.1 | 65.1 | 913                 |       | Interp. |
|                                                     | 30MPW040         | 39.9                    | 57.0                 | 32.1 | 65.1 | 1099                |       | Interp. |
|                                                     | 30MPA041         | 40.0                    | 59.8                 | 32.1 | 65.8 | 1083                |       | Interp. |
|                                                     | 30MPW041         | 41.0                    | 59.8                 | 32.1 | 65.8 | 1358                |       | Interp. |
|                                                     | 30MPQ041         | 39.9                    | 57.0                 | 32.1 | 65.1 | 1099                |       | Interp. |
|                                                     | 30MPA045         | 41.2                    | 57.0                 | 32.1 | 65.1 | 934                 |       | Interp. |
|                                                     | 30MPW04560-01155 | 45.0                    | 57.0                 | 32.1 | 65.1 | 1190                |       | 8       |
|                                                     | 30MPA046         | 46.6                    | 59.8                 | 32.1 | 65.8 | 1147                |       | Interp. |
|                                                     | 30MPW046         | 49.0                    | 59.8                 | 32.1 | 65.8 | 1454                |       | Interp. |
|                                                     | 30MPQ046         | 46.6                    | 57.0                 | 32.1 | 65.1 | 1190                |       | Interp. |

Notes: 30MPA: AquaSnap Air-Cooled Liquid Chiller without Condensers, 30MPW: AquaSnap Water-Cooled Liquid Chillers with Condensers. 30MPW identical to 30MPQ except for software.

# SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap

## Seismic Parameters

 $S_{DS} = 1.81g$  for  $z/h = 1.0$   $I_p = 1.5$ 

## Building Codes

CBC 2022

## TABLE 2

## Base Mounted - Rigid

### Construction Summary

Carbon Steel

### Options Summary

30MP can be applied as "Modular" combinations  
(may be installed separately).

| Model Line      | Model            | Nominal Capacity (tons) | Max. Dimensions (in) |      |      | Operating Wt. (lb.) | Notes | UUT     |
|-----------------|------------------|-------------------------|----------------------|------|------|---------------------|-------|---------|
|                 |                  |                         | D                    | W    | H    |                     |       |         |
| 30MPA and 30MPW | 30MPA050         | 51.1                    | 57.0                 | 32.1 | 68.8 | 1529                |       | Interp. |
|                 | 30MPW05061A0000B | 51.4                    | 57.0                 | 32.1 | 68.8 | 1625                |       | 9       |
|                 | 30MPA051         | 50.0                    | 59.8                 | 32.1 | 65.8 | 1514                |       | Interp. |
|                 | 30MPW051         | 53.0                    | 59.8                 | 32.1 | 65.8 | 1786                |       | Interp. |
|                 | 30MPQ051         | 51.4                    | 57.0                 | 32.1 | 68.8 | 1625                |       | Interp. |
|                 | 30MPA055         | 58.4                    | 57.0                 | 32.1 | 68.8 | 1544                |       | Interp. |
|                 | 30MPW055         | 58.6                    | 57.0                 | 32.1 | 68.8 | 1617                |       | Interp. |
|                 | 30MPA056         | 56.0                    | 59.8                 | 32.1 | 65.8 | 1533                |       | Interp. |
|                 | 30MPW056         | 58.0                    | 59.8                 | 32.1 | 65.8 | 1805                |       | Interp. |
|                 | 30MPQ056         | 58.6                    | 57.0                 | 32.1 | 68.8 | 1617                |       | Interp. |
|                 | 30MPA060         | 61.2                    | 57.0                 | 32.1 | 68.8 | 1568                |       | Interp. |
|                 | 30MPW060         | 62.1                    | 57.0                 | 32.1 | 68.8 | 1681                |       | Interp. |
|                 | 30MPA065         | 64.8                    | 57.0                 | 32.1 | 68.8 | 1599                |       | Interp. |
|                 | 30MPW065         | 65.6                    | 57.0                 | 32.1 | 68.8 | 1712                |       | Interp. |
|                 | 30MPA066         | 67.0                    | 59.8                 | 32.1 | 65.8 | 1614                |       | Interp. |
|                 | 30MPW066         | 70.0                    | 59.8                 | 32.1 | 65.8 | 1918                |       | Interp. |
|                 | 30MPQ066         | 65.6                    | 57.0                 | 32.1 | 68.8 | 1712                |       | Interp. |
|                 | 30MPA070         | 67.6                    | 57.0                 | 32.1 | 68.8 | 1606                |       | Interp. |
|                 | 30MPW070         | 68.5                    | 57.0                 | 32.1 | 68.8 | 1719                |       | Interp. |
|                 | 30MPA074         | 73.0                    | 57.0                 | 32.1 | 68.8 | 1637                |       | Interp. |
|                 | 30MPW07451A00167 | 74.1                    | 57.0                 | 32.1 | 68.8 | 1790                |       | 10      |
|                 | 30MPA080         | 80.0                    | 59.8                 | 32.1 | 65.8 | 1659                |       | Interp. |
|                 | 30MPQ080         | 80.0                    | 59.8                 | 32.1 | 65.8 | 2135                |       | Interp. |
|                 | 30MPW08061A10111 | 80.0                    | 59.8                 | 32.1 | 65.8 | 2135                |       | 16      |
|                 |                  |                         |                      |      |      |                     |       |         |
|                 |                  |                         |                      |      |      |                     |       |         |
|                 |                  |                         |                      |      |      |                     |       |         |

Notes: 30MPA: AquaSnap Air-Cooled Liquid Chiller without Condensers, 30MPW: AquaSnap Water-Cooled Liquid Chillers with Condensers. 30MPW identical to 30MPQ except for software.

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** AquaForce

**Seismic Parameters**  
 $S_{DS} = 2.0g$  for  $z/h = 1.0$   
 $S_{DS} = 2.4g$  for  $z/h = 1.0$   $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 3

### Base Mounted - Rigid

#### Construction Summary

Carbon Steel

#### Options Summary

| Model Line                                | Model              | Nom. Capacity (tons) | Max. Dimensions (in) |    |      | Operating Wt. (lb.) | Notes | UUT     |
|-------------------------------------------|--------------------|----------------------|----------------------|----|------|---------------------|-------|---------|
|                                           |                    |                      | D                    | W  | H    |                     |       |         |
| 30XA AquaForce Air-Cooled Liquid Chillers | 30XA080-Fixed      | 75.6                 | 141                  | 88 | 90.5 | 7234                |       | 13      |
|                                           | 30XA082-Fixed      | 72.2                 | 141                  | 88 | 90.5 | 7391                |       | Interp. |
|                                           | 30XA090-Fixed      | 84.8                 | 188                  | 88 | 90.5 | 10924               |       | Interp. |
|                                           | 30XA092-Fixed      | 81.4                 | 188                  | 88 | 90.5 | 11048               |       | Interp. |
|                                           | 30XA100-Fixed      | 93.9                 | 188                  | 88 | 90.5 | 11151               |       | Interp. |
|                                           | 30XA102-Fixed      | 89.3                 | 188                  | 88 | 90.5 | 11275               |       | Interp. |
|                                           | 30XA110-Fixed      | 102.4                | 188                  | 88 | 90.5 | 11291               |       | Interp. |
|                                           | 30XA112-Fixed      | 98.5                 | 188                  | 88 | 90.5 | 11528               |       | Interp. |
|                                           | 30XA120-Fixed      | 110.7                | 188                  | 88 | 90.5 | 11436               |       | Interp. |
|                                           | 30XA122-Fixed      | 105.6                | 188                  | 88 | 90.5 | 11646               |       | Interp. |
|                                           | 30XA140-Fixed      | 132.8                | 235                  | 88 | 90.5 | 13966               |       | Interp. |
|                                           | 30XA140-Variable   | 131.7                | 235                  | 88 | 90.5 | 13596               |       | Interp. |
|                                           | 30XA140-Variable-S | 142.0                | 264                  | 88 | 90.5 | 10500               |       | Interp. |
|                                           | 30XA140-Variable-M | 143.8                | 208                  | 88 | 99   | 10567               |       | Interp. |
|                                           | 30XA140-Variable-H | 145.4                | 255                  | 88 | 99   | 11448               |       | Interp. |
|                                           | 30XA142-Fixed      | 126.5                | 235                  | 88 | 90.5 | 14423               |       | Interp. |
|                                           | 30XA160-Fixed      | 152.3                | 235                  | 88 | 90.5 | 14209               |       | Interp. |
|                                           | 30XA160-Variable   | 149.5                | 264                  | 88 | 90.5 | 11280               |       | 15      |
|                                           | 30XA160-Variable-S | 158.7                | 208                  | 88 | 99   | 10567               |       | Interp. |
|                                           | 30XA160-Variable-M | 162.6                | 255                  | 88 | 99   | 11636               |       | Interp. |
|                                           | 30XA160-Variable-H | 163.5                | 302                  | 88 | 99   | 12374               |       | Interp. |
|                                           | 30XA162-Fixed      | 143.6                | 235                  | 88 | 90.5 | 14635               |       | Interp. |
|                                           | 30XA180-Fixed      | 171.3                | 282                  | 88 | 90.5 | 15037               |       | Interp. |
|                                           | 30XA180-Variable   | 169.2                | 311                  | 88 | 90.5 | 15923               |       | Interp. |
|                                           | 30XA180-Variable-S | 176.3                | 208                  | 88 | 99   | 10754               |       | Interp. |
|                                           | 30XA180-Variable-M | 180.7                | 255                  | 88 | 99   | 11707               |       | Interp. |
|                                           | 30XA180-Variable-H | 182.0                | 208                  | 88 | 99   | 12219               |       | Interp. |
|                                           | 30XA182-Fixed      | 165.6                | 282                  | 88 | 90.5 | 15382               |       | Interp. |

Notes: 30XA: AquaForce Air-Cooled Liquid Chillers 30XA variable also known as 30XV: AquaForce Variable Speed Air-Cooled Liquid Chillers



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** AquaForce

**Seismic Parameters**  
 $S_{DS} = 2.0g$  for  $z/h = 1.0$   
 $S_{DS} = 2.4g$  for  $z/h = 1.0$   $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 3

### Base Mounted - Rigid

#### Construction Summary

Carbon Steel

#### Options Summary

| Model Line                                | Model              | Nom. Capacity (tons) | Max. Dimensions (in) |    |      | Operating Wt. (lb.) | Notes | UUT     |
|-------------------------------------------|--------------------|----------------------|----------------------|----|------|---------------------|-------|---------|
|                                           |                    |                      | D                    | W  | H    |                     |       |         |
| 30XA AquaForce Air-Cooled Liquid Chillers | 30XA200-Fixed      | 194.0                | 282                  | 88 | 90.5 | 15159               |       | Interp. |
|                                           | 30XA200-Variable   | 190.2                | 311                  | 88 | 90.5 | 16045               |       | Interp. |
|                                           | 30XA200-Variable-S | 195.1                | 255                  | 88 | 99   | 11707               |       | Interp. |
|                                           | 30XA200-Variable-M | 198.8                | 302                  | 88 | 99   | 12675               |       | Interp. |
|                                           | 30XA200-Variable-H | 200.4                | 349                  | 88 | 99   | 13591               |       | Interp. |
|                                           | 30XA202-Fixed      | 185.3                | 282                  | 88 | 90.5 | 15641               |       | Interp. |
|                                           | 30XA220-Fixed      | 211.7                | 329                  | 88 | 90.5 | 16295               |       | Interp. |
|                                           | 30XA220-Variable   | 211.9                | 358                  | 88 | 90.5 | 17181               |       | Interp. |
|                                           | 30XA222-Fixed      | 203.3                | 329                  | 88 | 90.5 | 16639               |       | Interp. |
|                                           | 30XA225-Variable-S | 216.1                | 252                  | 88 | 99   | 13283               |       | Interp. |
|                                           | 30XA225-Variable-M | 219.4                | 299                  | 88 | 99   | 14204               |       | Interp. |
|                                           | 30XA225-Variable-H | 221.5                | 346                  | 88 | 99   | 14943               |       | Interp. |
|                                           | 30XA240-Fixed      | 228.1                | 329                  | 88 | 90.5 | 16455               |       | Interp. |
|                                           | 30XA240-Variable   | 225.4                | 358                  | 88 | 90.5 | 17341               |       | Interp. |
|                                           | 30XA242-Fixed      | 220.5                | 329                  | 88 | 90.5 | 16799               |       | Interp. |
|                                           | 30XA250-Variable-S | 252.3                | 299                  | 88 | 99   | 14981               |       | Interp. |
|                                           | 30XA250-Variable-M | 260.5                | 346                  | 88 | 99   | 16311               |       | Interp. |
|                                           | 30XA250-Variable-H | 261.6                | 393                  | 88 | 99   | 17050               |       | Interp. |
|                                           | 30XA260-Fixed      | 250.9                | 376                  | 88 | 90.5 | 18662               |       | Interp. |
|                                           | 30XA260-Variable   | 251.4                | 405                  | 88 | 90.5 | 19739               |       | Interp. |
|                                           | 30XA262-Fixed      | 242.5                | 376                  | 88 | 90.5 | 18846               |       | Interp. |
|                                           | 30XA275-Variable-S | 267.9                | 299                  | 88 | 99   | 15429               |       | Interp. |
|                                           | 30XA275-Variable-M | 275.9                | 346                  | 88 | 99   | 16364               |       | Interp. |
|                                           | 30XA275-Variable-H | 277.8                | 393                  | 88 | 99   | 17103               |       | Interp. |
|                                           | 30XA280-Fixed      | 268.5                | 376                  | 88 | 90.5 | 18831               |       | Interp. |
|                                           | 30XA280-Variable   | 266.0                | 405                  | 88 | 90.5 | 19908               |       | Interp. |
|                                           | 30XA282-Fixed      | 258.5                | 376                  | 88 | 90.5 | 19033               |       | Interp. |
|                                           | 30XA300 - Fixed    | 287.5                | 376                  | 88 | 90.5 | 19292               |       | Interp. |

Notes: 30XA: AquaForce Air-Cooled Liquid Chillers 30XA variable also known as 30XV: AquaForce Variable Speed Air-Cooled Liquid Chillers

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** AquaForce

**Seismic Parameters**  
 $S_{DS} = 2.0g$  for  $z/h = 1.0$   
 $S_{DS} = 2.4g$  for  $z/h = 1.0$   $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 3

### Base Mounted - Rigid

#### Construction Summary

Carbon Steel

#### Options Summary

| Model Line                                | Model                | Nom. Capacity (tons) | Max. Dimensions (in) |    |      | Operating Wt. (lb.) | Notes | UUT     |
|-------------------------------------------|----------------------|----------------------|----------------------|----|------|---------------------|-------|---------|
|                                           |                      |                      | D                    | W  | H    |                     |       |         |
| 30XA AquaForce Air-Cooled Liquid Chillers | 30XA300 - Variable   | 281.3                | 405                  | 88 | 90.5 | 20369               |       | Interp. |
|                                           | 30XA300 - Variable S | 288.3                | 346                  | 88 | 99   | 16364               |       | Interp. |
|                                           | 30XA300 - Variable M | 294.1                | 393                  | 88 | 99   | 17166               |       | Interp. |
|                                           | 30XA300 - Variable H | 296.6                | 440                  | 88 | 99   | 18003               |       | Interp. |
|                                           | 30XA302 - Fixed      | 274.4                | 376                  | 88 | 90.5 | 19764               |       | Interp. |
|                                           | 30XA325 - Fixed      | 306.6                | 423                  | 88 | 90.5 | 21005               |       | Interp. |
|                                           | 30XA325 - Variable   | 304.2                | 452                  | 88 | 90.5 | 22273               |       | Interp. |
|                                           | 30XA325 - Variable S | 312.3                | 393                  | 88 | 99   | 17166               |       | Interp. |
|                                           | 30XA325 - Variable M | 320.4                | 440                  | 88 | 99   | 18075               |       | Interp. |
|                                           | 30XA325 - Variable H | 322.4                | 487                  | 88 | 99   | 18952               |       | Interp. |
|                                           | 30XA327 - Fixed      | 295.8                | 423                  | 88 | 90.5 | 21477               |       | Interp. |
|                                           | 30XA350 - Fixed      | 324.1                | 423                  | 88 | 90.5 | 21211               |       | 14      |
|                                           | 30XA350 - Variable   | 320.7                | 452                  | 88 | 90.5 | 22479               |       | Interp. |
|                                           | 30XA350 - Variable S | 346.8                | 406                  | 88 | 99   | 20672               |       | Interp. |
|                                           | 30XA350 - Variable M | 350.6                | 453                  | 88 | 99   | 22326               |       | Interp. |
|                                           | 30XA350 - Variable H | 351.9                | 500                  | 88 | 99   | 23104               |       | Interp. |
|                                           | 30XA352 - Fixed      | 310.5                | 423                  | 88 | 90.5 | 21683               |       | Interp. |
|                                           | 30XA400 - Fixed      | 383.6                | 470                  | 88 | 90.5 | 26990               |       | Interp. |
|                                           | 30XA400 - Variable S | 400.0                | 453                  | 88 | 99   | 23760               |       | Interp. |
|                                           | 30XA400 - Variable M | 403.9                | 500                  | 88 | 99   | 24729               |       | Interp. |
|                                           | 30XA400 - Variable H | 407.5                | 547                  | 88 | 99   | 25507               |       | Interp. |
|                                           | 30XA401 - Fixed      | 396.3                | 470                  | 88 | 90.5 | 25102               |       | Interp. |
|                                           | 30XA450 - Fixed      | 426.7                | 517                  | 88 | 90.5 | 29254               |       | Interp. |
|                                           | 30XA450 - Variable S | 453.4                | 500                  | 88 | 99   | 24729               |       | Interp. |
|                                           | 30XA450 - Variable M | 454.6                | 547                  | 88 | 99   | 26356               |       | Interp. |
|                                           | 30XA450 - Variable H | 457.9                | 594                  | 88 | 99   | 27221               |       | Interp. |
|                                           | 30XA451 - Fixed      | 435.6                | 517                  | 88 | 90.5 | 26075               |       | Interp. |
|                                           | 30XA476 - Fixed      | 459.2                | 517                  | 88 | 90.5 | 28209               |       | Interp. |

Notes: 30XA: AquaForce Air-Cooled Liquid Chillers 30XA variable also known as 30XV: AquaForce Variable Speed Air-Cooled Liquid Chillers



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** AquaForce

$S_{DS} = 2.0g$  for  $z/h = 1.0$   
 $S_{DS} = 2.4g$  for  $z/h = 1.0$   $I_p = 1.5$

**CBC 2022**

## Base Mounted - Rigid

## Options Summary

## Carbon Steel

[illegible]

Notes: 30XA: AquaForce Air-Cooled Liquid Chillers 30XA variable also known as 30XV: AquaForce Variable Speed Air-Cooled Liquid Chillers

# SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** AquaForce

**Seismic Parameters**  
 $S_{DS} = 0.8g$  for  $z/h=1$   
 $S_{DS} = 1.0g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 4

### Base Mounted - Neoprene Isolated

#### Construction Summary

Carbon Steel

#### Options Summary

| Model Line                                | Model              | Nom. Capacity (tons) | Max. Dimensions (in) |    |      | Wt. (lb.) | Notes | UUT     |
|-------------------------------------------|--------------------|----------------------|----------------------|----|------|-----------|-------|---------|
|                                           |                    |                      | D                    | W  | H    |           |       |         |
| 30XA AquaForce Air-Cooled Liquid Chillers | 30XA080-Fixed      | 75.6                 | 141                  | 88 | 90.5 | 7,234     |       | Extrap. |
|                                           | 30XA082-Fixed      | 72.2                 | 141                  | 88 | 90.5 | 7,391     |       | Extrap. |
|                                           | 30XA090-Fixed      | 84.8                 | 188                  | 88 | 90.5 | 10,924    |       | Extrap. |
|                                           | 30XA092-Fixed      | 81.4                 | 188                  | 88 | 90.5 | 11,048    |       | Extrap. |
|                                           | 30XA100-Fixed      | 93.9                 | 188                  | 88 | 90.5 | 11,151    |       | Extrap. |
|                                           | 30XA102-Fixed      | 89.3                 | 188                  | 88 | 90.5 | 11,275    |       | Extrap. |
|                                           | 30XA110-Fixed      | 102.4                | 188                  | 88 | 90.5 | 11,291    |       | Extrap. |
|                                           | 30XA112-Fixed      | 98.5                 | 188                  | 88 | 90.5 | 11,528    |       | Extrap. |
|                                           | 30XA120-Fixed      | 110.7                | 188                  | 88 | 90.5 | 11,436    |       | Extrap. |
|                                           | 30XA122-Fixed      | 105.6                | 188                  | 88 | 90.5 | 11,646    |       | Extrap. |
|                                           | 30XA140-Fixed      | 132.8                | 235                  | 88 | 90.5 | 13,966    |       | Extrap. |
|                                           | 30XA140-Variable   | 131.7                | 264                  | 88 | 90.5 | 13,596    |       | Extrap. |
|                                           | 30XA140-Variable-S | 142                  | 208                  | 88 | 90.5 | 11,175    |       | Extrap. |
|                                           | 30XA140-Variable-M | 143.8                | 208                  | 88 | 99   | 12,058    |       | Extrap. |
|                                           | 30XA140-Variable-M | 143.8                | 208                  | 88 | 99   | 13,596    |       | 11      |
|                                           | 30XA140-Variable-H | 145.4                | 255                  | 88 | 99   | 11,448    |       | Interp. |
|                                           | 30XA142-Fixed      | 126.5                | 235                  | 88 | 90.5 | 14,423    |       | Interp. |
|                                           | 30XA160-Fixed      | 152.3                | 235                  | 88 | 90.5 | 14,209    |       | Interp. |
|                                           | 30XA160-Variable   | 149.5                | 264                  | 88 | 90.5 | 11,280    |       | Interp. |
|                                           | 30XA160-Variable-S | 158.7                | 208                  | 88 | 99   | 10,567    |       | Interp. |
|                                           | 30XA160-Variable-M | 162.6                | 255                  | 88 | 99   | 11,636    |       | Interp. |
|                                           | 30XA160-Variable-H | 163.5                | 302                  | 88 | 99   | 12,374    |       | Interp. |
|                                           | 30XA162-Fixed      | 143.6                | 235                  | 88 | 90.5 | 14,635    |       | Interp. |
|                                           | 30XA180-Fixed      | 171.3                | 282                  | 88 | 90.5 | 15,037    |       | Interp. |
|                                           | 30XA180-Variable   | 169.2                | 311                  | 88 | 90.5 | 15,923    |       | Interp. |
|                                           | 30XA180-Variable-S | 176.3                | 208                  | 88 | 99   | 10,754    |       | Interp. |
|                                           | 30XA180-Variable-M | 180.7                | 255                  | 88 | 99   | 11,707    |       | Interp. |
|                                           | 30XA180-Variable-H | 182                  | 208                  | 88 | 99   | 12,219    |       | Interp. |

Notes: 30XA: AquaForce Air-Cooled Liquid Chillers 30XA variable also known as 30XV: AquaForce Variable Speed Air-Cooled Liquid Chillers

# SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** AquaForce

**Seismic Parameters**  
 $S_{DS} = 0.8g$  for  $z/h=1$   
 $S_{DS} = 1.0g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 4

### Base Mounted - Neoprene Isolated

#### Construction Summary

Carbon Steel

#### Options Summary

| Model Line                                      | Model              | Nom.<br>Capacity<br>(tons) | Max. Dimensions (in) |    |      | Wt.<br>(lb.) | Notes | UUT     |
|-------------------------------------------------|--------------------|----------------------------|----------------------|----|------|--------------|-------|---------|
|                                                 |                    |                            | D                    | W  | H    |              |       |         |
| 30XA AquaForce<br>Air-Cooled Liquid<br>Chillers | 30XA182-Fixed      | 165.6                      | 282                  | 88 | 90.5 | 15,382       |       | Interp. |
|                                                 | 30XA200-Fixed      | 194                        | 282                  | 88 | 90.5 | 15,159       |       | Interp. |
|                                                 | 30XA200-Variable   | 190.2                      | 311                  | 88 | 90.5 | 16,045       |       | Interp. |
|                                                 | 30XA200-Variable-S | 195.1                      | 255                  | 88 | 99   | 11,707       |       | Interp. |
|                                                 | 30XA200-Variable-M | 198.8                      | 302                  | 88 | 99   | 12,675       |       | Interp. |
|                                                 | 30XA200-Variable-H | 200.4                      | 349                  | 88 | 99   | 13,591       |       | Interp. |
|                                                 | 30XA202-Fixed      | 185.3                      | 282                  | 88 | 90.5 | 15,641       |       | Interp. |
|                                                 | 30XA220-Fixed      | 211.7                      | 329                  | 88 | 90.5 | 16,295       |       | Interp. |
|                                                 | 30XA220-Variable   | 211.9                      | 358                  | 88 | 90.5 | 17,181       |       | Interp. |
|                                                 | 30XA222-Fixed      | 203.3                      | 329                  | 88 | 90.5 | 16,639       |       | Interp. |
|                                                 | 30XA225-Variable-S | 216.1                      | 252                  | 88 | 99   | 13,283       |       | Interp. |
|                                                 | 30XA225-Variable-M | 219.4                      | 299                  | 88 | 99   | 14,204       |       | Interp. |
|                                                 | 30XA225-Variable-H | 221.5                      | 346                  | 88 | 99   | 14,943       |       | Interp. |
|                                                 | 30XA240-Fixed      | 228.1                      | 329                  | 88 | 90.5 | 16,455       |       | Interp. |
|                                                 | 30XA240-Variable   | 225.4                      | 358                  | 88 | 90.5 | 17,341       |       | Interp. |
|                                                 | 30XA242-Fixed      | 220.5                      | 329                  | 88 | 90.5 | 16,799       |       | Interp. |
|                                                 | 30XA250-Variable-S | 252.3                      | 299                  | 88 | 99   | 14,981       |       | Interp. |
|                                                 | 30XA250-Variable-M | 260.5                      | 346                  | 88 | 99   | 16,311       |       | Interp. |
|                                                 | 30XA250-Variable-H | 261.6                      | 393                  | 88 | 99   | 17,050       |       | Interp. |
|                                                 | 30XA260-Fixed      | 250.9                      | 376                  | 88 | 90.5 | 18,662       |       | Interp. |
|                                                 | 30XA260-Variable   | 251.4                      | 405                  | 88 | 90.5 | 19,739       |       | Interp. |
|                                                 | 30XA262-Fixed      | 242.5                      | 376                  | 88 | 90.5 | 18,846       |       | Interp. |
|                                                 | 30XA275-Variable-S | 267.9                      | 299                  | 88 | 99   | 15,429       |       | Interp. |
|                                                 | 30XA275-Variable-M | 275.9                      | 346                  | 88 | 99   | 16,364       |       | Interp. |
|                                                 | 30XA275-Variable-H | 277.8                      | 393                  | 88 | 99   | 17,103       |       | Interp. |
|                                                 | 30XA280-Fixed      | 268.5                      | 376                  | 88 | 90.5 | 18,831       |       | Interp. |
|                                                 | 30XA280-Variable   | 266                        | 405                  | 88 | 90.5 | 19,908       |       | Interp. |
|                                                 | 30XA282-Fixed      | 258.5                      | 376                  | 88 | 90.5 | 19,033       |       | Interp. |

Notes: 30XA: AquaForce Air-Cooled Liquid Chillers 30XA variable also known as 30XV: AquaForce Variable Speed Air-Cooled Liquid Chillers



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** AquaForce

**Seismic Parameters**  
 $S_{DS} = 0.8g$  for  $z/h=1$   
 $S_{DS} = 1.0g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 4

### Base Mounted - Neoprene Isolated

#### Construction Summary

Carbon Steel

#### Options Summary

| Model Line                                | Model                | Nom. Capacity (tons) | Max. Dimensions (in) |    |      | Wt. (lb.) | Notes | UUT     |
|-------------------------------------------|----------------------|----------------------|----------------------|----|------|-----------|-------|---------|
|                                           |                      |                      | D                    | W  | H    |           |       |         |
| 30XA AquaForce Air-Cooled Liquid Chillers | 30XA300 - Fixed      | 287.5                | 376                  | 88 | 90.5 | 19,292    |       | Interp. |
|                                           | 30XA300 - Variable   | 281.3                | 405                  | 88 | 90.5 | 20,369    |       | Interp. |
|                                           | 30XA300 - Variable S | 288.3                | 346                  | 88 | 99   | 16,364    |       | Interp. |
|                                           | 30XA300 - Variable M | 294.1                | 393                  | 88 | 99   | 17,166    |       | Interp. |
|                                           | 30XA300 - Variable H | 296.6                | 440                  | 88 | 99   | 18,003    |       | Interp. |
|                                           | 30XA302 - Fixed      | 274.4                | 376                  | 88 | 90.5 | 19,764    |       | Interp. |
|                                           | 30XA325 - Fixed      | 306.6                | 423                  | 88 | 90.5 | 21,005    |       | Interp. |
|                                           | 30XA325 - Variable   | 304.2                | 452                  | 88 | 90.5 | 22,273    |       | Interp. |
|                                           | 30XA325 - Variable S | 312.3                | 393                  | 88 | 99   | 17,166    |       | Interp. |
|                                           | 30XA325 - Variable M | 320.4                | 440                  | 88 | 99   | 18,075    |       | Interp. |
|                                           | 30XA325 - Variable H | 322.4                | 487                  | 88 | 99   | 18,952    |       | Interp. |
|                                           | 30XA327 - Fixed      | 295.8                | 423                  | 88 | 90.5 | 21,477    |       | Interp. |
|                                           | 30XA350 - Fixed      | 324.1                | 423                  | 88 | 90.5 | 21,211    |       | Interp. |
|                                           | 30XA350 - Variable   | 320.7                | 452                  | 88 | 90.5 | 22,479    |       | Interp. |
|                                           | 30XA350 - Variable S | 346.8                | 406                  | 88 | 99   | 20,672    |       | Interp. |
|                                           | 30XA350 - Variable M | 350.6                | 453                  | 88 | 99   | 22,326    |       | Interp. |
|                                           | 30XA350 - Variable H | 351.9                | 500                  | 88 | 99   | 23,104    |       | Interp. |
|                                           | 30XA352 - Fixed      | 310.5                | 423                  | 88 | 90.5 | 21,683    |       | Interp. |
|                                           | 30XA400 - Fixed      | 383.6                | 470                  | 88 | 90.5 | 26,990    |       | Interp. |
|                                           | 30XA400 - Variable S | 400                  | 453                  | 88 | 99   | 23,760    |       | Interp. |
|                                           | 30XA400 - Variable M | 403.9                | 500                  | 88 | 99   | 24,729    |       | Interp. |
|                                           | 30XA400 - Variable H | 407.5                | 547                  | 88 | 99   | 25,507    |       | Interp. |
|                                           | 30XA401 - Fixed      | 396.3                | 470                  | 88 | 90.5 | 25,102    |       | Interp. |
|                                           | 30XA450 - Fixed      | 426.7                | 517                  | 88 | 90.5 | 29,254    |       | Interp. |
|                                           | 30XA450 - Variable S | 453.4                | 500                  | 88 | 99   | 24,729    |       | Interp. |
|                                           | 30XA450 - Variable M | 454.6                | 547                  | 88 | 99   | 26,356    |       | Interp. |
|                                           | 30XA450 - Variable H | 457.9                | 594                  | 88 | 99   | 27,221    |       | Interp. |
|                                           | 30XA451 - Fixed      | 435.6                | 517                  | 88 | 90.5 | 26,075    |       | Interp. |

Notes: 30XA: AquaForce Air-Cooled Liquid Chillers 30XA variable also known as 30XV: AquaForce Variable Speed Air-Cooled Liquid Chillers



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** AquaForce

**CBC 2022**

## Base Mounted - Neoprene Isolated

## Options Summary

[illegible]

## Pre Compliance

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

## Seismic Parameters

$S_{DS} = 2.1g$  for  $z/h=1$   $I_p = 1.5$

## Building Codes

CBC 2022

### TABLE 5

### Compressor - 30RAP, 38AP, and 09DP

| Component (Manufacturer) | Model            | Description                    | Nominal Capacity (tons) | Weight (lb.) | UUT     |
|--------------------------|------------------|--------------------------------|-------------------------|--------------|---------|
| Compressor (Copeland)    | ZP51K5E-TF5-498  | Carbon steel housing, 208/230V | 4.0                     | 73           | Extrap. |
|                          | ZP51K5E-TF7-498  | Carbon steel housing, 380V     | 4.0                     | 73           | Extrap. |
|                          | ZP51K5E-TFD-498  | Carbon steel housing, 460V     | 4.0                     | 73           | Extrap. |
|                          | ZP51K5E-TFE-498  | Carbon steel housing, 575V     | 4.0                     | 73           | Extrap. |
|                          | ZP72KCE-TF5-498  | Carbon steel housing, 208/230V | 6.0                     | 88           | Extrap. |
|                          | ZP72KCE-TF7-498  | Carbon steel housing, 380V     | 6.0                     | 88           | Extrap. |
|                          | ZP72KCE-TFD-498  | Carbon steel housing, 460V     | 6.0                     | 88           | Extrap. |
|                          | ZP72KCE-TFE-498  | Carbon steel housing, 575V     | 6.0                     | 88           | Extrap. |
|                          | ZP104KCE-TF5-155 | Carbon steel housing, 208/230V | 9.0                     | 108          | Extrap. |
|                          | ZP104KCE-TF7-155 | Carbon steel housing, 380V     | 9.0                     | 108          | Extrap. |
|                          | ZP104KCE-TFD-155 | Carbon steel housing, 460V     | 9.0                     | 108          | Extrap. |
|                          | ZP104KCE-TFE-155 | Carbon steel housing, 575V     | 9.0                     | 108          | Extrap. |
|                          | ZP103KCE-TF5-155 | Carbon steel housing, 208/230V | 9.0                     | 132          | Extrap. |
|                          | ZP103KCE-TF7-155 | Carbon steel housing, 380V     | 9.0                     | 132          | Extrap. |
|                          | ZP103KCE-TFD-155 | Carbon steel housing, 460V     | 9.0                     | 132          | Extrap. |
|                          | ZP103KCE-TFE-155 | Carbon steel housing, 575V     | 9.0                     | 132          | Extrap. |
|                          | ZP120KCE-TF5-155 | Carbon steel housing, 208/230V | 10.0                    | 135          | Extrap. |
|                          | ZP120KCE-TF7-155 | Carbon steel housing, 380V     | 10.0                    | 135          | Extrap. |
|                          | ZP120KCE-TFD-155 | Carbon steel housing, 460V     | 10.0                    | 135          | 2       |
|                          | ZP120KCE-TFE-155 | Carbon steel housing, 575V     | 10.0                    | 135          | Interp. |
|                          | ZP137KCE-TF5-155 | Carbon steel housing, 208/230V | 11.0                    | 135          | Interp. |
|                          | ZP137KCE-TF7-155 | Carbon steel housing, 380V     | 11.0                    | 135          | Interp. |
|                          | ZP137KCE-TFD-155 | Carbon steel housing, 460V     | 11.0                    | 135          | Interp. |
|                          | ZP137KCE-TFE-155 | Carbon steel housing, 575V     | 11.0                    | 135          | Interp. |
|                          | ZP154KCE-TW5-455 | Carbon steel housing, 208/230V | 13.0                    | 146          | Interp. |
|                          | ZP154KCE-TW7-455 | Carbon steel housing, 380V     | 13.0                    | 146          | Interp. |
|                          | ZP154KCE-TFD-155 | Carbon steel housing, 460V     | 13.0                    | 146          | Interp. |
|                          | ZP154KCE-TWE-455 | Carbon steel housing, 575V     | 13.0                    | 146          | Interp. |
|                          | ZP182KCE-TW5-455 | Carbon steel housing, 208/230V | 15.0                    | 146          | Interp. |
|                          | ZP182KCE-TW7-455 | Carbon steel housing, 380V     | 15.0                    | 146          | Interp. |
|                          | ZP182KCE-TFD-155 | Carbon steel housing, 460V     | 15.0                    | 146          | 3       |
|                          | ZP182KCE-TWE-455 | Carbon steel housing, 575V     | 15.0                    | 146          | Interp. |
|                          | ZP235KCE-TWC-250 | Carbon steel housing, 208/230V | 20.0                    | 324          | Interp. |
|                          | ZP235KCE-TW7-250 | Carbon steel housing, 380V     | 20.0                    | 324          | Interp. |



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

**S<sub>DS</sub> = 2.1g for z/h=1      I<sub>p</sub> = 1.5**

**CBC 2022**

## Compressor - 30RAP, 38AP, and 09DP

## Pre Compliance

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

## Seismic Parameters

 $S_{DS} = 2.1g$  for  $z/h=1$        $I_p = 1.5$ 

## Building Codes

**CBC 2022**

### TABLE 6

### Variable Speed Pumps - 30RAP, 38AP, and 09DP

| Component (Manufacturer)                                                           | Model                   | Description                         | Nominal Capacity (Hp) | Weight (lb.) | UUT     |
|------------------------------------------------------------------------------------|-------------------------|-------------------------------------|-----------------------|--------------|---------|
| 30RAP010-30RAP60<br>Single/Dual Fixed and Variable Speed Pump Options (Armstrong)  | 38AP502549              | Carbon Steel Housing, 208/230 460V  | 1.5                   | 47           | 2       |
|                                                                                    | 38AP502553              | Carbon Steel Housing, 380V          | 1.5                   | 47           | Interp. |
|                                                                                    | 38AP502554              | Carbon Steel Housing, 575V          | 1.5                   | 47           | Interp. |
|                                                                                    | 38AP502555              | Carbon Steel Housing, 208/230 460V  | 3.0                   | 72           | Interp. |
|                                                                                    | 38AP502556              | Carbon Steel Housing, 380V          | 3.0                   | 72           | Interp. |
|                                                                                    | 38AP502557              | Carbon Steel Housing, 575V          | 3.0                   | 72           | Interp. |
|                                                                                    | 38AP502558              | Carbon Steel Housing, 208/230 460V  | 3.0                   | 72           | Interp. |
|                                                                                    | 38AP502559              | Carbon Steel Housing, 380V          | 3.0                   | 72           | Interp. |
|                                                                                    | 38AP502560              | Carbon Steel Housing, 575V          | 3.0                   | 72           | Interp. |
|                                                                                    | 38AP502561              | Carbon Steel Housing, 208/230 460V  | 3.0                   | 72           | Interp. |
|                                                                                    | 38AP502562              | Carbon Steel Housing, 380V          | 3.0                   | 72           | Interp. |
|                                                                                    | 38AP502563              | Carbon Steel Housing, 575V          | 3.0                   | 72           | Interp. |
|                                                                                    | 38AP502564              | Carbon Steel Housing, 208/230 460V  | 5.0                   | 181          | Interp. |
|                                                                                    | 38AP502565              | Carbon Steel Housing, 380V          | 5.0                   | 181          | Interp. |
|                                                                                    | 38AP502566              | Carbon Steel Housing, 575V          | 5.0                   | 181          | Interp. |
|                                                                                    | 38AP502573              | Carbon Steel Housing, 208/230 460V  | 5.0                   | 181          | Interp. |
|                                                                                    | 38AP502574              | Carbon Steel Housing, 380V          | 5.0                   | 211          | Interp. |
|                                                                                    | 38AP502575              | Carbon Steel Housing, 575V          | 5.0                   | 211          | Interp. |
|                                                                                    | 38AP502576              | Carbon Steel Housing, 208/230 460V  | 5.0                   | 211          | Interp. |
|                                                                                    | 38AP502577              | Carbon Steel Housing, 380V          | 5.0                   | 211          | Interp. |
|                                                                                    | 38AP502578              | Carbon Steel Housing, 575V          | 5.0                   | 211          | Interp. |
|                                                                                    | 38AP502567              | Carbon Steel Housing, 208/230 460V  | 7.5                   | 211          | Interp. |
|                                                                                    | 38AP502568              | Carbon Steel Housing, 380V          | 7.5                   | 219          | Interp. |
|                                                                                    | 38AP502569              | Carbon Steel Housing, 575V          | 7.5                   | 219          | Interp. |
|                                                                                    | 38AP502570              | Carbon Steel Housing, 208/230 460V  | 10.0                  | 240          | 3       |
|                                                                                    | 38AP502571              | Carbon Steel Housing, 380V          | 10.0                  | 240          | Interp. |
|                                                                                    | 38AP502572              | Carbon Steel Housing, 575V          | 10.0                  | 240          | Interp. |
| 30RAP070-30RAP150<br>Single/Dual Fixed and Variable Speed Pump Options (Armstrong) | 38AP502756              | Carbon Steel Housing, 208/230, 460V | 3.0                   | 172          | Interp. |
|                                                                                    | 38AP502752              | Carbon Steel Housing, 380V          | 3.0                   | 172          | Interp. |
|                                                                                    | 38AP502750              | Carbon Steel Housing, 575V          | 3.0                   | 172          | Interp. |
|                                                                                    | 38AP503619 <sup>1</sup> | Carbon Steel Housing, 575V          | 3.0                   | 203          | Interp. |
|                                                                                    | 38AP503620 <sup>1</sup> | Carbon Steel Housing, 380V          | 3.0                   | 203          | Interp. |

Notes: <sup>1</sup>Pump with VFD, <sup>2</sup>Dual Pump, <sup>3</sup>Dual Pump with VFD



# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

## Seismic Parameters

$S_{DS} = 2.1g$  for  $z/h=1$   $I_p = 1.5$

## Building Codes

CBC 2022

### TABLE 6

### Variable Speed Pumps - 30RAP, 38AP, and 09DP

| Component (Manufacturer)                                                       | Model                   | Description                         | Nominal Capacity (Hp) | Weight (lb.) | UUT     |
|--------------------------------------------------------------------------------|-------------------------|-------------------------------------|-----------------------|--------------|---------|
| 30RAP070-30RAP150Single/Dual Fixed and Variable Speed Pump Options (Armstrong) | 38AP503621 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 3.0                   | 203          | 4       |
|                                                                                | 38AP503646 <sup>1</sup> | Carbon Steel Housing, 460V          | 3.0                   | 203          | Interp. |
|                                                                                | 38AP502618 <sup>1</sup> | Carbon Steel Housing, 208/230, 460V | 3.0                   | 596          | Interp. |
|                                                                                | 38AP502617 <sup>2</sup> | Carbon Steel Housing, 380V          | 3.0                   | 596          | Interp. |
|                                                                                | 38AP502616 <sup>2</sup> | Carbon Steel Housing, 575V          | 3.0                   | 596          | Interp. |
|                                                                                | 38AP503637 <sup>3</sup> | Carbon Steel Housing, 575V          | 3.0                   | 627          | Interp. |
|                                                                                | 38AP503638 <sup>3</sup> | Carbon Steel Housing, 380V          | 3.0                   | 627          | Interp. |
|                                                                                | 38AP503633 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 3.0                   | 627          | Interp. |
|                                                                                | 38AP503651 <sup>3</sup> | Carbon Steel Housing, 460V          | 3.0                   | 627          | Interp. |
|                                                                                | 38AP502762              | Carbon Steel Housing, 208/230, 460V | 5.0                   | 181          | Interp. |
|                                                                                | 38AP502760              | Carbon Steel Housing, 380V          | 5.0                   | 181          | Interp. |
|                                                                                | 38AP502759              | Carbon Steel Housing, 575V          | 5.0                   | 181          | Interp. |
|                                                                                | 38AP503301 <sup>1</sup> | Carbon Steel Housing, 575V          | 5.0                   | 212          | Interp. |
|                                                                                | 38AP503408 <sup>1</sup> | Carbon Steel Housing, 380V          | 5.0                   | 212          | Interp. |
|                                                                                | 38AP503409 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 5.0                   | 212          | Interp. |
|                                                                                | 38AP503416 <sup>1</sup> | Carbon Steel Housing, 460V          | 5.0                   | 212          | Interp. |
|                                                                                | 38AP503622 <sup>1</sup> | Carbon Steel Housing, 575V          | 5.0                   | 212          | Interp. |
|                                                                                | 38AP503623 <sup>1</sup> | Carbon Steel Housing, 380V          | 5.0                   | 212          | Interp. |
|                                                                                | 38AP503624 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 5.0                   | 212          | Interp. |
|                                                                                | 38AP503647 <sup>1</sup> | Carbon Steel Housing, 460V          | 5.0                   | 212          | Interp. |
|                                                                                | 38AP503702              | Carbon Steel Housing, 208/230, 460V | 5.0                   | 227          | Interp. |
|                                                                                | 38AP503701              | Carbon Steel Housing, 380V          | 5.0                   | 227          | Interp. |
|                                                                                | 38AP503700              | Carbon Steel Housing, 575V          | 5.0                   | 227          | Interp. |
|                                                                                | 38AP503712 <sup>1</sup> | Carbon Steel Housing, 575V          | 5.0                   | 467          | Interp. |
|                                                                                | 38AP503712 <sup>1</sup> | Carbon Steel Housing, 380V          | 5.0                   | 467          | Interp. |
|                                                                                | 38AP503714 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 5.0                   | 467          | Interp. |
|                                                                                | 38AP503715 <sup>1</sup> | Carbon Steel Housing, 460V          | 5.0                   | 467          | Interp. |
|                                                                                | 38AP503730              | Carbon Steel Housing, 208/230, 460V | 5.0                   | 334          | Interp. |
|                                                                                | 38AP503729              | Carbon Steel Housing, 380V          | 5.0                   | 334          | Interp. |
|                                                                                | 38AP503728              | Carbon Steel Housing, 575V          | 5.0                   | 334          | Interp. |
|                                                                                | 38AP503740 <sup>1</sup> | Carbon Steel Housing, 575V          | 5.0                   | 365          | Interp. |
|                                                                                | 38AP503741 <sup>1</sup> | Carbon Steel Housing, 380V          | 5.0                   | 365          | Interp. |
|                                                                                | 38AP503742 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 5.0                   | 365          | Interp. |

Notes: <sup>1</sup>Pump with VFD, <sup>2</sup>Dual Pump, <sup>3</sup>Dual Pump with VFD

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

## Seismic Parameters

$S_{DS} = 2.1g$  for  $z/h=1$        $I_p = 1.5$

## Building Codes

CBC 2022

### TABLE 6

### Variable Speed Pumps - 30RAP, 38AP, and 09DP

| Component (Manufacturer)                                                          | Model                   | Description                         | Nominal Capacity (Hp) | Weight (lb.) | UUT     |
|-----------------------------------------------------------------------------------|-------------------------|-------------------------------------|-----------------------|--------------|---------|
| 30RAP070-30RAP10<br>Single/Dual Fixed and Variable Speed Pump Options (Armstrong) | 38AP503743 <sup>1</sup> | Carbon Steel Housing, 460V          | 5.0                   | 365          | Interp. |
|                                                                                   | 38AP502615 <sup>2</sup> | Carbon Steel Housing, 208/230, 460V | 5.0                   | 496          | Interp. |
|                                                                                   | 38AP502614 <sup>2</sup> | Carbon Steel Housing, 380V          | 5.0                   | 496          | Interp. |
|                                                                                   | 38AP502613 <sup>2</sup> | Carbon Steel Housing, 575V          | 5.0                   | 496          | Interp. |
|                                                                                   | 38AP503438 <sup>3</sup> | Carbon Steel Housing, 575V          | 5.0                   | 527          | Interp. |
|                                                                                   | 38AP503439 <sup>3</sup> | Carbon Steel Housing, 380V          | 5.0                   | 527          | Interp. |
|                                                                                   | 38AP503440 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 5.0                   | 527          | Interp. |
|                                                                                   | 38AP503441 <sup>3</sup> | Carbon Steel Housing, 460V          | 5.0                   | 527          | Interp. |
|                                                                                   | 38AP503434 <sup>3</sup> | Carbon Steel Housing, 575V          | 5.0                   | 527          | Interp. |
|                                                                                   | 38AP503435 <sup>3</sup> | Carbon Steel Housing, 380V          | 5.0                   | 527          | Interp. |
|                                                                                   | 38AP503436 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 5.0                   | 527          | Interp. |
|                                                                                   | 38AP503452 <sup>3</sup> | Carbon Steel Housing, 460V          | 5.0                   | 527          | Interp. |
|                                                                                   | 38AP503442 <sup>3</sup> | Carbon Steel Housing, 575V          | 5.0                   | 527          | Interp. |
|                                                                                   | 38AP503443 <sup>3</sup> | Carbon Steel Housing, 380V          | 5.0                   | 527          | Interp. |
|                                                                                   | 38AP503444 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 5.0                   | 527          | Interp. |
|                                                                                   | 38AP503445 <sup>3</sup> | Carbon Steel Housing, 460V          | 7.5                   | 527          | Interp. |
|                                                                                   | 38AP502706              | Carbon Steel Housing, 208/203, 460V | 7.5                   | 229          | Interp. |
|                                                                                   | 38AP502704              | Carbon Steel Housing, 380V          | 7.5                   | 229          | Interp. |
|                                                                                   | 38AP502703              | Carbon Steel Housing, 575V          | 7.5                   | 229          | Interp. |
|                                                                                   | 38AP503417 <sup>1</sup> | Carbon Steel Housing, 575V          | 7.5                   | 260          | Interp. |
|                                                                                   | 38AP503418 <sup>1</sup> | Carbon Steel Housing, 380V          | 7.5                   | 260          | Interp. |
|                                                                                   | 38AP503419 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 7.5                   | 260          | Interp. |
|                                                                                   | 38AP503420 <sup>1</sup> | Carbon Steel Housing, 460V          | 7.5                   | 260          | Interp. |
|                                                                                   | 38AP503613 <sup>1</sup> | Carbon Steel Housing, 575V          | 7.5                   | 260          | Interp. |
|                                                                                   | 38AP503614 <sup>1</sup> | Carbon Steel Housing, 380V          | 7.5                   | 260          | Interp. |
|                                                                                   | 38AP503615 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 7.5                   | 260          | Interp. |
|                                                                                   | 38AP503648 <sup>1</sup> | Carbon Steel Housing, 460V          | 7.5                   | 260          | Interp. |
|                                                                                   | 38AP503705              | Carbon Steel Housing, 208/230, 460V | 7.5                   | 270          | Interp. |
|                                                                                   | 38AP503704              | Carbon Steel Housing, 380V          | 7.5                   | 270          | Interp. |
|                                                                                   | 38AP503703              | Carbon Steel Housing, 575V          | 7.5                   | 270          | Interp. |
|                                                                                   | 38AP503716 <sup>1</sup> | Carbon Steel Housing, 575V          | 7.5                   | 301          | Interp. |
|                                                                                   | 38AP503717 <sup>1</sup> | Carbon Steel Housing, 380V          | 7.5                   | 301          | Interp. |
|                                                                                   | 38AP503718 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 7.5                   | 301          | Interp. |

Notes: <sup>1</sup>Pump with VFD, <sup>2</sup>Dual Pump, <sup>3</sup>Dual Pump with VFD

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

## Seismic Parameters

$S_{DS} = 2.1g$  for  $z/h=1$        $I_p = 1.5$

## Building Codes

CBC 2022

### TABLE 6

### Variable Speed Pumps - 30RAP, 38AP, and 09DP

| Component (Manufacturer)                                                          | Model                   | Description                         | Nominal Capacity (Hp) | Weight (lb.) | UUT     |
|-----------------------------------------------------------------------------------|-------------------------|-------------------------------------|-----------------------|--------------|---------|
| 30RAP070-30RAP10<br>Single/Dual Fixed and Variable Speed Pump Options (Armstrong) | 38AP503719 <sup>1</sup> | Carbon Steel Housing, 460V          | 7.5                   | 301          | Interp. |
|                                                                                   | 38AP503733              | Carbon Steel Housing, 208/230, 460V | 7.5                   | 363          | Interp. |
|                                                                                   | 38AP503732              | Carbon Steel Housing, 380V          | 7.5                   | 363          | Interp. |
|                                                                                   | 38AP503731              | Carbon Steel Housing, 575V          | 7.5                   | 363          | Interp. |
|                                                                                   | 38AP503744 <sup>1</sup> | Carbon Steel Housing, 575V          | 7.5                   | 394          | Interp. |
|                                                                                   | 38AP503745 <sup>1</sup> | Carbon Steel Housing, 380V          | 7.5                   | 394          | Interp. |
|                                                                                   | 38AP503746 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 7.5                   | 394          | Interp. |
|                                                                                   | 38AP503747 <sup>1</sup> | Carbon Steel Housing, 460V          | 7.5                   | 394          | Interp. |
|                                                                                   | 38AP502611 <sup>2</sup> | Carbon Steel Housing, 208/230, 460V | 7.5                   | 496          | Interp. |
|                                                                                   | 38AP502610 <sup>2</sup> | Carbon Steel Housing, 380V          | 7.5                   | 496          | Interp. |
|                                                                                   | 38AP502607 <sup>2</sup> | Carbon Steel Housing, 575V          | 7.5                   | 496          | Interp. |
|                                                                                   | 38AP503631 <sup>3</sup> | Carbon Steel Housing, 575V          | 7.5                   | 558          | Interp. |
|                                                                                   | 38AP503632 <sup>3</sup> | Carbon Steel Housing, 380V          | 7.5                   | 558          | Interp. |
|                                                                                   | 38AP503633 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 7.5                   | 558          | Interp. |
|                                                                                   | 38AP503655 <sup>3</sup> | Carbon Steel Housing, 460V          | 7.5                   | 558          | Interp. |
|                                                                                   | 38AP503470 <sup>3</sup> | Carbon Steel Housing, 575V          | 7.5                   | 680          | Interp. |
|                                                                                   | 38AP503471 <sup>3</sup> | Carbon Steel Housing, 380V          | 7.5                   | 680          | Interp. |
|                                                                                   | 38AP503472 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 7.5                   | 680          | Interp. |
|                                                                                   | 38AP503473 <sup>3</sup> | Carbon Steel Housing, 460V          | 7.5                   | 680          | Interp. |
|                                                                                   | 38AP503474 <sup>3</sup> | Carbon Steel Housing, 575V          | 7.5                   | 680          | Interp. |
|                                                                                   | 38AP503475 <sup>3</sup> | Carbon Steel Housing, 380V          | 7.5                   | 680          | Interp. |
|                                                                                   | 38AP503476 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 7.5                   | 680          | Interp. |
|                                                                                   | 38AP503494 <sup>3</sup> | Carbon Steel Housing, 460V          | 7.5                   | 680          | Interp. |
|                                                                                   | 38AP502621 <sup>2</sup> | Carbon Steel Housing, 208/230, 460V | 7.5                   | 536          | Interp. |
|                                                                                   | 38AP502620 <sup>2</sup> | Carbon Steel Housing, 380V          | 7.5                   | 536          | Interp. |
|                                                                                   | 38AP502619 <sup>2</sup> | Carbon Steel Housing, 575V          | 7.5                   | 536          | Interp. |
|                                                                                   | 38AP503640 <sup>3</sup> | Carbon Steel Housing, 575V          | 7.5                   | 598          | Interp. |
|                                                                                   | 38AP503641 <sup>3</sup> | Carbon Steel Housing, 380V          | 7.5                   | 598          | Interp. |
|                                                                                   | 38AP503642 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 7.5                   | 598          | Interp. |
|                                                                                   | 38AP503654 <sup>3</sup> | Carbon Steel Housing, 460V          | 7.5                   | 598          | Interp. |
|                                                                                   | 38AP502700              | Carbon Steel Housing, 208/230, 460V | 10.0                  | 250          | Interp. |
|                                                                                   | 38AP502702              | Carbon Steel Housing, 380V          | 10.0                  | 250          | Interp. |
|                                                                                   | 38AP502701              | Carbon Steel Housing, 575V          | 10.0                  | 250          | Interp. |

Notes: <sup>1</sup>Pump with VFD, <sup>2</sup>Dual Pump, <sup>3</sup>Dual Pump with VFD

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

## Seismic Parameters

$S_{DS} = 2.1g$  for  $z/h=1$        $I_p = 1.5$

## Building Codes

CBC 2022

### TABLE 6

### Variable Speed Pumps - 30RAP, 38AP, and 09DP

| Component (Manufacturer)                                                          | Model                   | Description                         | Nominal Capacity (Hp) | Weight (lb.) | UUT     |
|-----------------------------------------------------------------------------------|-------------------------|-------------------------------------|-----------------------|--------------|---------|
| 30RAP070-30RAP10<br>Single/Dual Fixed and Variable Speed Pump Options (Armstrong) | 38AP503421 <sup>1</sup> | Carbon Steel Housing, 575V          | 10.0                  | 280.8        | Interp. |
|                                                                                   | 38AP503422 <sup>1</sup> | Carbon Steel Housing, 380V          | 10.0                  | 280.8        | Interp. |
|                                                                                   | 28AP503423 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 10.0                  | 280.8        | Interp. |
|                                                                                   | 38AP503424 <sup>1</sup> | Carbon Steel Housing, 460V          | 10.0                  | 280.8        | Interp. |
|                                                                                   | 38AP503611 <sup>1</sup> | Carbon Steel Housing, 575V          | 10.0                  | 280.8        | Interp. |
|                                                                                   | 38AP503612 <sup>1</sup> | Carbon Steel Housing, 380V          | 10.0                  | 280.8        | Interp. |
|                                                                                   | 38AP503610 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 10.0                  | 280.8        | Interp. |
|                                                                                   | 38AP503649 <sup>1</sup> | Carbon Steel Housing, 460V          | 10.0                  | 280.8        | Interp. |
|                                                                                   | 38AP503736              | Carbon Steel Housing, 208/230, 460V | 10.0                  | 297          | Interp. |
|                                                                                   | 38AP503707              | Carbon Steel Housing, 380V          | 10.0                  | 297          | Interp. |
|                                                                                   | 38AP503706              | Carbon Steel Housing, 575V          | 10.0                  | 297          | Interp. |
|                                                                                   | 38AP503720 <sup>1</sup> | Carbon Steel Housing, 575V          | 10.0                  | 327.8        | Interp. |
|                                                                                   | 38AP503721 <sup>1</sup> | Carbon Steel Housing, 380V          | 10.0                  | 327.8        | Interp. |
|                                                                                   | 38AP503722 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 10.0                  | 327.8        | Interp. |
|                                                                                   | 38AP503723 <sup>1</sup> | Carbon Steel Housing, 460V          | 10.0                  | 327.8        | Interp. |
|                                                                                   | 38AP503736              | Carbon Steel Housing, 208/230, 460V | 10.0                  | 334.0        | Interp. |
|                                                                                   | 38AP503735              | Carbon Steel Housing, 380V          | 10.0                  | 334.0        | Interp. |
|                                                                                   | 38AP503734              | Carbon Steel Housing, 575V          | 10.0                  | 334.0        | Interp. |
|                                                                                   | 38AP503748 <sup>1</sup> | Carbon Steel Housing, 575V          | 10.0                  | 364.8        | Interp. |
|                                                                                   | 38AP503749 <sup>1</sup> | Carbon Steel Housing, 380V          | 10.0                  | 364.8        | Interp. |
|                                                                                   | 38AP503750 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 10.0                  | 364.8        | Interp. |
|                                                                                   | 38AP503751 <sup>1</sup> | Carbon Steel Housing, 460V          | 10.0                  | 364.8        | Interp. |
|                                                                                   | 38AP502606 <sup>2</sup> | Carbon Steel Housing, 208/230, 460V | 10.0                  | 718.0        | Interp. |
|                                                                                   | 38AP502603 <sup>2</sup> | Carbon Steel Housing, 380V          | 10.0                  | 718.0        | Interp. |
|                                                                                   | 38AP502602 <sup>2</sup> | Carbon Steel Housing, 575V          | 10.0                  | 718.0        | Interp. |
|                                                                                   | 38AP503628 <sup>3</sup> | Carbon Steel Housing, 575V          | 10.0                  | 779.6        | Interp. |
|                                                                                   | 38AP503629 <sup>3</sup> | Carbon Steel Housing, 380V          | 10.0                  | 779.6        | Interp. |
|                                                                                   | 38AP503630 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 10.0                  | 779.6        | Interp. |
|                                                                                   | 38AP503657 <sup>3</sup> | Carbon Steel Housing, 460V          | 10.0                  | 779.6        | Interp. |
|                                                                                   | 38AP503495 <sup>3</sup> | Carbon Steel Housing, 575V          | 10.0                  | 779.6        | Interp. |
|                                                                                   | 38AP503497 <sup>3</sup> | Carbon Steel Housing, 380V          | 10.0                  | 779.6        | Interp. |
|                                                                                   | 38AP503498 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 10.0                  | 779.6        | Interp. |
|                                                                                   | 38AP503499 <sup>3</sup> | Carbon Steel Housing, 460V          | 10.0                  | 779.6        | Interp. |

Notes: <sup>1</sup>Pump with VFD, <sup>2</sup>Dual Pump, <sup>3</sup>Dual Pump with VFD



# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

## Seismic Parameters

$S_{DS} = 2.1g$  for  $z/h=1$   $I_p = 1.5$

## Building Codes

CBC 2022

### TABLE 6

### Variable Speed Pumps - 30RAP, 38AP, and 09DP

| Component (Manufacturer)                                                          | Model                   | Description                         | Nominal Capacity (Hp) | Weight (lb.) | UUT     |
|-----------------------------------------------------------------------------------|-------------------------|-------------------------------------|-----------------------|--------------|---------|
| 30RAP070-30RAP10<br>Single/Dual Fixed and Variable Speed Pump Options (Armstrong) | 38AP503500 <sup>3</sup> | Carbon Steel Housing, 575V          | 10.0                  | 779.6        | Interp. |
|                                                                                   | 38AP503507 <sup>3</sup> | Carbon Steel Housing, 380V          | 10.0                  | 779.6        | Interp. |
|                                                                                   | 38AP503508 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 10.0                  | 779.6        | Interp. |
|                                                                                   | 38AP503509 <sup>3</sup> | Carbon Steel Housing, 460V          | 10.0                  | 779.6        | Interp. |
|                                                                                   | 38AP502624 <sup>2</sup> | Carbon Steel Housing, 208/230, 460V | 10.0                  | 576.0        | Interp. |
|                                                                                   | 38AP502623 <sup>2</sup> | Carbon Steel Housing, 380V          | 10.0                  | 576.0        | Interp. |
|                                                                                   | 38AP502622 <sup>2</sup> | Carbon Steel Housing, 575V          | 10.0                  | 576.0        | Interp. |
|                                                                                   | 38AP503643 <sup>3</sup> | Carbon Steel Housing, 575V          | 10.0                  | 637.6        | Interp. |
|                                                                                   | 38AP503644 <sup>3</sup> | Carbon Steel Housing, 380V          | 10.0                  | 637.6        | Interp. |
|                                                                                   | 38AP503645 <sup>3</sup> | Carbon Steel Housing, 208/230V      | 10.0                  | 637.6        | Interp. |
|                                                                                   | 38AP503656 <sup>3</sup> | Carbon Steel Housing, 460V          | 10.0                  | 637.6        | Interp. |
|                                                                                   | 38AP502716              | Carbon Steel Housing, 208/230, 460V | 15.0                  | 343.0        | Interp. |
|                                                                                   | 38AP502715              | Carbon Steel Housing, 380V          | 15.0                  | 343.0        | Interp. |
|                                                                                   | 38AP502714              | Carbon Steel Housing, 575V          | 15.0                  | 343.0        | Interp. |
|                                                                                   | 38AP503616 <sup>1</sup> | Carbon Steel Housing, 575V          | 15.0                  | 373.8        | Interp. |
|                                                                                   | 38AP503617 <sup>1</sup> | Carbon Steel Housing, 380V          | 15.0                  | 373.8        | Interp. |
|                                                                                   | 38AP503618 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 15.0                  | 373.8        | Interp. |
|                                                                                   | 38AP503650 <sup>1</sup> | Carbon Steel Housing, 460V          | 15.0                  | 373.8        | Interp. |
|                                                                                   | 38AP503711              | Carbon Steel Housing, 208/230, 460V | 15.0                  | 426.0        | Interp. |
|                                                                                   | 38AP503710              | Carbon Steel Housing, 380V          | 15.0                  | 426.0        | Interp. |
|                                                                                   | 38AP503709              | Carbon Steel Housing, 575V          | 15.0                  | 426.0        | Interp. |
|                                                                                   | 38AP503724 <sup>1</sup> | Carbon Steel Housing, 575V          | 15.0                  | 456.8        | Interp. |
|                                                                                   | 38AP503725 <sup>1</sup> | Carbon Steel Housing, 380V          | 15.0                  | 456.8        | Interp. |
|                                                                                   | 38AP503726 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 15.0                  | 456.8        | Interp. |
|                                                                                   | 38AP503727 <sup>1</sup> | Carbon Steel Housing, 460V          | 15.0                  | 456.8        | Interp. |
|                                                                                   | 38AP503739              | Carbon Steel Housing, 208/230, 460V | 15.0                  | 422          | Interp. |
|                                                                                   | 38AP503738              | Carbon Steel Housing, 380V          | 15.0                  | 422          | Interp. |
|                                                                                   | 38AP503737              | Carbon Steel Housing, 575V          | 15.0                  | 422          | Interp. |
|                                                                                   | 38AP503752 <sup>1</sup> | Carbon Steel Housing, 575V          | 15.0                  | 452.8        | Interp. |
|                                                                                   | 38AP503753 <sup>1</sup> | Carbon Steel Housing, 380V          | 15.0                  | 452.8        | Interp. |
|                                                                                   | 38AP503754 <sup>1</sup> | Carbon Steel Housing, 208/230V      | 15.0                  | 452.8        | Interp. |
|                                                                                   | 38AP503755 <sup>1</sup> | Carbon Steel Housing, 460V          | 15.0                  | 452.8        | Interp. |
|                                                                                   | 38AP502605 <sup>2</sup> | Carbon Steel Housing, 208/230, 460V | 15.0                  | 718          | Interp. |

Notes: <sup>1</sup>Pump with VFD, <sup>2</sup>Dual Pump, <sup>3</sup>Dual Pump with VFD





**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

**S<sub>DS</sub> = 2.1g for z/h=1      I<sub>p</sub> = 1.5**

**CBC 2022**

## Variable Speed Pumps - 30RAP, 38AP, and 09DP

Notes: <sup>1</sup>Pump with VFD, <sup>2</sup>Dual Pump, <sup>3</sup>Dual Pump with VFD



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

**S<sub>DS</sub> = 2.1g for z/h=1      I<sub>p</sub> = 1.5**

**CBC 2022**

## Condenser Coils (Microchannel) - 30RAP, 38AP, and 09DP

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**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

**S<sub>DS</sub> = 2.1g for z/h=1      I<sub>p</sub> = 1.5**

CBC 2022

## Evaporator (Braze Plate Heat Exchanger) - 30RAP

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**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

**S<sub>DS</sub> = 2.1g for z/h=1      I<sub>p</sub> = 1.5**

CBC 2022

## Fan Motors - 30RAP, 38AP, and 09DP

Notes: Part 5K49ZN6473X and 5K49ZN6472S also installed on UUT 4  
Part 5K49QN3204S also installed and tested in UUT 5.



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

**S<sub>DS</sub> = 2.1g for z/h=1      I<sub>p</sub> = 1.5**

**CBC 2022**

## Control Panel - 30RAP, 38AP, and 09DP

Notes: <sup>1</sup>Control panel numbers dynamically driven and are supplier decoded to provide required base panel and options, difference is software.





**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

**S<sub>DS</sub> = 1.81g for z/h=1      I<sub>p</sub> = 1.5**

**CBC 2022**

## Compressor - 30MP

Notes: Condenser BPHE 30MPW only  
CBC 2022 §1705A.14.3.1 exception No. 5 can be applied for compressors. Per the code, "Exempt subcomponents shall be permitted to be substituted without testing, provided that the substituted subcomponent relative to the certified subcomponent had: 1. Similar configuration with equivalent function. 2. Supports and attachments of similar configuration with equivalent strength and stiffness. 3. Same attachment location. 4. Changes in dimensions, center of gravity and mass, of not more than 10 percent of the certified subcomponent and still meets Exceptions 5, 6, or 7. 5. Manufacturing process with ISO 9001 certification.



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

**S<sub>DS</sub> = 1.81g for z/h=1      I<sub>p</sub> = 1.5**

**CBC 2022**

## Condenser (Braze Plate Heat Exchanger) - 30MP

Notes: Condenser BPHE 30MPW only

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

## Seismic Parameters

$S_{DS} = 1.81g$  for  $z/h=1$       $I_p = 1.5$

## Building Codes

**CBC 2022**

### TABLE 13

### Evaporator (Brazen Plate Heat Exchanger) - 30MP

| Component (Manufacturer)     | Model            | Material        | No. of Plates | Weight (lb.) | UUT     |
|------------------------------|------------------|-----------------|---------------|--------------|---------|
| Evaporator BPHE (Swept)      | P80              | Stainless Steel | 72            | 36           | 7       |
|                              | P80              |                 | 82            | 40           | Interp. |
|                              | P80              |                 | 100           | 47           | Interp. |
|                              | F85              |                 | 88            | 34           | Interp. |
|                              | P120T            |                 | 74            | 81           | Interp. |
|                              | P120T            |                 | 100           | 118          | Interp. |
|                              | P120T            |                 | 120           | 138          | 8       |
|                              | F200T            |                 | 148           | 158          | Interp. |
| Evaporator BPHE (Alfa Laval) | ACH240EQ-78      | Stainless Steel | 78            | 148          | 6       |
|                              | ACH22EQ-170M     |                 | 170           | 143          | 9       |
|                              | ACH22EQ-230M     |                 | 230           | 190          | 10      |
|                              | ACK74EQ-82       |                 | 82            | 72           | 17      |
|                              | ACK74EQ-100      |                 | 100           | 85           | Interp. |
|                              | ACK74EQ-144      |                 | 144           | 120          | Interp. |
|                              | ACK74EQ-180      |                 | 180           | 148          | Interp. |
|                              | ACK240EQ-082     |                 | 82            | 126          | Interp. |
|                              | ACK240EQ-118     |                 | 118           | 191          | Interp. |
|                              | ACK240EQ-130     |                 | 130           | 209          | Interp. |
|                              | ACK240EQ-144     |                 | 144           | 230          | Interp. |
|                              | ACK240EQ-158     |                 | 158           | 251          | Interp. |
|                              | ACK240EQ-182AH-F |                 | 182           | 287          | 16      |
|                              |                  |                 |               |              |         |
|                              |                  |                 |               |              |         |
|                              |                  |                 |               |              |         |
|                              |                  |                 |               |              |         |
|                              |                  |                 |               |              |         |
|                              |                  |                 |               |              |         |
|                              |                  |                 |               |              |         |
|                              |                  |                 |               |              |         |
|                              |                  |                 |               |              |         |
|                              |                  |                 |               |              |         |



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems

**S<sub>DS</sub> = 1.81g for z/h=1      I<sub>p</sub> = 1.5**

**CBC 2022**

## Control Panel - 30MP

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**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base -Rigid

**$S_{DS} = 2.0g$  for  $z/h=1$**

**$I_p = 1.5$**

**CBC 2022**

## Compressor - 30XA/30XV

Notes: <sup>1</sup>UUT 13 and 14 are 30XA units. UUT 12a and 15 are 30XV units.





## SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**CBC 2022**

## Condenser Coils - 30XA/30XV

Notes: <sup>1</sup>UUT 13 and 14 are 30XA units. UUT 12a and 15 are 30XV units.

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base -Rigid

**Seismic Parameters**  
 $S_{DS} = 2.0g$  for  $z/h=1$   
 $S_{DS} = 2.4g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

**TABLE 17**
**Cooler - 30XA/30XV**

| Component (Manufacturer) | Option                | Material                | Type                                                       | Weight (lb.) | UUT     |
|--------------------------|-----------------------|-------------------------|------------------------------------------------------------|--------------|---------|
| 30XA Cooler (Carrier)    | 30XA-7                | Carbon Steel and Copper | Integral Cooler w/o Heater, Std Pass                       | 1277         | Extrap. |
|                          | 30XA-0                |                         | Integral Cooler w/ Heater, Std Pass                        | 1665         | Extrap. |
|                          | 30XA-3                |                         | Integral Cooler w/ Heater, Minus One Pass                  | 1277         | 13      |
|                          | 30XA-5                |                         | Integral Cooler w/ Heater, Plus One Pass                   | 1396         | Interp. |
|                          | 30XA-7                |                         | Integral Cooler w/ Heater, Standard Pass, Full End Screen  | 1860         | Interp. |
|                          | 30XA-G                |                         | Integral Cooler w/o Heater, Standard Pass, Full End Screen | 2321         | Interp. |
|                          | 30XA-K                |                         | Integral Cooler w/ Heater, Minus One Pass, Full End Screen | 2523         | Interp. |
|                          | 30XA-M                |                         | Integral Cooler w/ Heater, Plus One Pass, Full End Screen  | 2523         | 14      |
|                          | 30XV-4, 6             |                         | Integral Cooler w/o Heater, Std Pass                       | 3525         | Interp. |
| 30XV Cooler (Carrier)    | 30XV-0, 5, 7          | Carbon Steel and Copper | Integral Cooler w/ Heater, Std Pass                        | 3525         | 12a,15  |
|                          | 30XV-1                |                         | Integral Cooler w/ Heater, Minus One Pass                  | 3525         | Interp. |
|                          | 30XV-B, C, D, F, G, H |                         | Integral Cooler w/ Heater, Plus One Pass                   | 3525         | Interp. |
|                          | 30XV-2, 8, 9          |                         | Integral Cooler w/ Heater, Std Pass, Comfort Brine         | 3525         | Interp. |

Notes: Coolers of 30XA and 30XV units are substantially similar.



## SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**CBC 2022**

## Cooler - 30XA/30XV

|      |                         |                                   |
|------|-------------------------|-----------------------------------|
| XV-3 | Carbon Steel and Copper | Integral Cooling<br>Std Pass, Pro |
|------|-------------------------|-----------------------------------|

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# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base -Rigid

**Seismic Parameters**  
 $S_{DS} = 2.0g$  for  $z/h=1$   
 $S_{DS} = 2.4g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

**TABLE 18**
**Control Panel - 30XA/30XV**

| Component<br>(Manufacturer)       | Model No. | Material             | Model                                                 | Weight<br>(lb.) | UUT     |
|-----------------------------------|-----------|----------------------|-------------------------------------------------------|-----------------|---------|
| Control Panel<br>30XA (Schneider) | 30XA-     | Painted Carbon Steel | NavigatorTM Disp                                      | 300             | 13      |
|                                   | 30XA-0    |                      | Navigator Disp, EMM                                   | 300             | Interp. |
|                                   | 30XA-1    |                      | Navigator Disp, Service Opt                           | 300             | Interp. |
|                                   | 30XA-2    |                      | Navigator Disp, EMM, Service Opt                      | 300             | Interp. |
|                                   | 30XA-3    |                      | Touch PilotTM Disp                                    | 325             | 15      |
|                                   | 30XA-4    |                      | Touch Pilot Disp, EMM                                 | 300             | Interp. |
|                                   | 30XA-5    |                      | Touch Pilot Disp, Service Opt                         | 300             | Interp. |
|                                   | 30XA-6    |                      | Touch Pilot Disp, EMM, Service Opt                    | 300             | Interp. |
|                                   | 30XA-7    |                      | Navigator Disp, BACnet Trans                          | 325             | Interp. |
|                                   | 30XA-8    |                      | Navigator Disp, BACnet Trans, EMM                     | 325             | Interp. |
|                                   | 30XA-9    |                      | Navigator Disp, BACnet Trans, Service Opt             | 325             | Interp. |
|                                   | 30XA-B    |                      | Navigator Disp, BACnet, Translator, EMM, Service Opt  | 300             | Interp. |
|                                   | 30XA-C    |                      | Touch Pilot Disp, BACnet Trans                        | 300             | Interp. |
|                                   | 30XA-D    |                      | Touch Pilot Disp, BACnet Translator, EMM              | 300             | Interp. |
|                                   | 30XA-F    |                      | Touch Pilot Disp, BACnet Translator, Service Opt      | 325             | Interp. |
|                                   | 30XA-J    |                      | Touch Pilot Disp, BACnet Translator, EMM, Service Opt | 325             | Interp. |
|                                   | 30XA-H    |                      | Navigator Disp, LON Trans                             | 325             | Interp. |
|                                   | 30XA-G    |                      | Navigator Disp, LON Trans, EMM                        | 325             | Interp. |

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base -Rigid

**Seismic Parameters**  
 $S_{DS} = 2.0g$  for  $z/h=1$   
 $S_{DS} = 2.4g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

**TABLE 18**
**Control Panel - 30XA/30XV**

| Component (Manufacturer)       | Model No.         | Material             | Model                                                             | Weight (lb.) | UUT     |
|--------------------------------|-------------------|----------------------|-------------------------------------------------------------------|--------------|---------|
| Control Panel 30XA (Schneider) | 30XA-K            | Painted Carbon Steel | Navigator Disp, LON Trans Service Opt                             | 325          | Interp. |
|                                | 30XA-L            |                      | Navigator Disp, LON Translator, EMM, Service Opt                  | 325          | Interp. |
|                                | 30XA-M            |                      | Touch Pilot Disp., LON Trans                                      | 325          | Interp. |
|                                | 30XA-N            |                      | Touch Pilot Disp, LON Trans Touch Pilot Disp, LON Translator, EMM | 325          | Interp. |
|                                | 30XA-P            |                      | Touch Pilot Disp, LON Translator, Service Opt                     | 325          | Interp. |
|                                | 30XA-Q            |                      | Touch Pilot Disp, LON Translator, EMM, Service Opt                | 350          | 14      |
|                                | 30XA-R            |                      | Navigator Disp, UPC/Ivue                                          | 325          | Interp. |
|                                | 30XA-S            |                      | Navigator Disp, UPC/Ivue, EMM                                     | 325          | Interp. |
|                                | 30XA-T            |                      | Navigator Disp, UPC/Ivue, Service Opt                             | 325          | Interp. |
|                                | 30XA-V            |                      | Navigator Disp, UPC/Ivue, EMM, Service Opt                        | 325          | Interp. |
|                                | 30XA-W            |                      | Touch Pilot Disp, UPC/Ivue                                        | 325          | Interp. |
|                                | 30XA-X            |                      | Touch Pilot Disp, UPC/Ivue, EMM                                   | 350          | Interp. |
|                                | 30XA-Y            |                      | Touch Pilot Disp, UPC/Ivue, Service                               | 350          | Interp. |
|                                | 30XA-Z            |                      | Touch Pilot Disp, UPC/Ivue, EMM, Service Opt                      | 350          | Interp. |
| Control Panel 30XV (UTEC)      | 30XV-, 1, 2, 3, 4 | Painted Carbon Steel | End Mount Panel with Compressor                                   | 2600         | 12a     |



# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base -Rigid

**Seismic Parameters**  
 $S_{DS} = 2.0g$  for  $z/h=1$   
 $S_{DS} = 2.4g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

**TABLE 19**

## Variable Frequency Drive - 30XV

| Component (Manufacturer) | Model     | Material | Nominal Capacity (kW) | Voltage (V) | Weight (lb.) | UUT     |
|--------------------------|-----------|----------|-----------------------|-------------|--------------|---------|
| VFD (Danfoss)            | HR46ZQ003 | Aluminum | 7.5                   | 208-230     | 51           | Extrap. |
|                          | HR46ZS003 |          | 11                    | 208-230     | 51           | Extrap. |
|                          | HR46ZS004 |          | 11                    | 575         | 51           | Extrap. |
|                          | HR46ZT002 |          | 15                    | 380/460     | 51           | 15      |
|                          | HR46ZT003 |          | 15                    | 575         | 51           | Interp. |
|                          | HR46ZT004 |          | 15                    | 208-230     | 60           | Interp. |
|                          | HR46ZT005 |          | 15                    | 380/460     | 51           | Interp. |
|                          | HR46ZT006 |          | 15                    | 575         | 51           | Interp. |
|                          | HR46ZU002 |          | 18                    | 380/460     | 51           | Interp. |
|                          | HR46ZU003 |          | 18                    | 575         | 51           | Interp. |
|                          | HR46ZU005 |          | 18                    | 380/460     | 51           | Interp. |
|                          | HR46ZU006 |          | u                     | 575         | 51           | Interp. |
|                          | HR46ZV001 |          | 22                    | 380/460     | 60           | Interp. |
|                          | HR46ZV002 |          | 22                    | 575         | 60           | Interp. |
|                          | HR46ZV003 |          | 22                    | 380/460     | 60           | 12a     |
|                          | HR46ZV004 |          | 22                    | 575         | 60           | Interp. |
|                          | HR46ZW001 |          | 30                    | 380/460     | 60           | 15      |
|                          | HR46ZW002 |          | 30                    | 575         | 60           | Interp. |
|                          | HR46ZY001 |          | 55                    | 380/460     | 99           | Interp. |
|                          | HR46ZY002 |          | 55                    | 575         | 99           | 15      |
|                          | HR46ZY003 |          | 75                    | 380/460     | 143          | Interp. |
|                          | HR46ZY004 |          | 75                    | 575         | 143          | Interp. |
|                          | HR46ZY005 |          | 110                   | 380/460     | 135          | Interp. |
|                          | HR46ZY006 |          | 132                   | 380/460     | 135          | Interp. |
|                          | HR46ZY007 |          | 132                   | 575         | 135          | Interp. |
|                          | HR46ZY008 |          | 160                   | 380/460     | 135          | Interp. |
|                          | HR46ZY009 |          | 160                   | 575         | 135          | Interp. |
|                          | HR46ZY014 |          | 160                   | 208-230     | 275          | Interp. |
|                          | HR46ZY010 |          | 200                   | 380/460     | 275          | Interp. |
|                          | HR46ZY015 |          | 200                   | 575         | 275          | Interp. |
|                          | HR46ZY011 |          | 250                   | 380/460     | 275          | Interp. |
|                          | HR46ZY012 |          | 250                   | 575         | 275          | Interp. |



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base -Rigid

$I_p = 1.5$

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## Variable Frequency Drive - 30XV

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**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base-Rigid

**$S_{DS} = 2.0g$  for  $z/h=1$**

**S<sub>DS</sub> = 2.4g for z/h=0**

$$I_p = 1.5$$

**CBC 2022**

## Accessories- 30XA/30XV

Note: Security Grill and Hail Guard are substantially similar in 30XA and 30XV units.



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base-Neoprene Isolated

$$\begin{aligned} S_{DS} &= 0.8g \text{ for } z/h=1 \\ S_{DS} &= 1.0g \text{ for } z/h=0 \end{aligned} \quad I_p = 1.5$$

**CBC 2022**

## Compressor - 30XV

STS  
STT  
ZCE1  
STU  
ZFC2  
ZJG3

REVIEWED FOR CODE COMPLIANCE

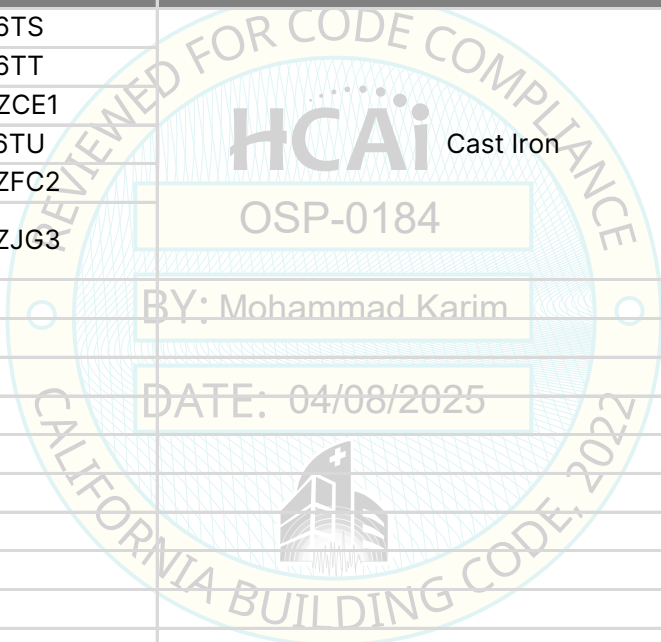
HCAi Cast Iron

OSP-0184

BY: Mohammad Karim

DATE: 04/08/2025

CALIFORNIA BUILDING CODE, 2022





**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base-Neoprene Isolated

$$\begin{aligned} S_{DS} &= 0.8g \text{ for } z/h=1 \\ S_{DS} &= 1.0g \text{ for } z/h=0 \end{aligned} \quad I_p = 1.5$$

**CBC 2022**

## Condenser Coils - 30XA/30XV

|                                                                                     |                                             |                     |
|-------------------------------------------------------------------------------------|---------------------------------------------|---------------------|
| 2, 6, 8, 9, F,<br>N, Q, R                                                           | Galv. Steel Housing,<br>Aluminum and Copper | Aluminum<br>T       |
| V-, 1, 2                                                                            |                                             |                     |
| V-, 4, 5                                                                            | Aluminum                                    | MCHX (Mi<br>heat ex |
|    |                                             |                     |
| OSP-0184                                                                            |                                             |                     |
| BY: Mohammad Karim                                                                  |                                             |                     |
| DATE: 04/08/2025                                                                    |                                             |                     |
|  |                                             |                     |



# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base-Neoprene Isolated

**Seismic Parameters**  
 $S_{DS} = 0.8g$  for  $z/h=1$   
 $S_{DS} = 1.0g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 23

### Cooler - 30XA/30XV

| Component (Manufacturer) | Option                | Material                | Type                                                       | Weight (lb.) | UUT     |
|--------------------------|-----------------------|-------------------------|------------------------------------------------------------|--------------|---------|
| 30XA Cooler (Carrier)    | 30XA-7                | Carbon Steel and Copper | Integral Cooler w/o Heater, Std Pass                       | 1277         | Interp. |
|                          | 30XA-0                |                         | Integral Cooler w/ Heater, Std Pass                        | 1665         | Interp. |
|                          | 30XA-3                |                         | Integral Cooler w/ Heater, Minus One Pass                  | 1277         | Interp. |
|                          | 30XA-5                |                         | Integral Cooler w/ Heater, Plus One Pass                   | 1396         | Interp. |
|                          | 30XA-7                |                         | Integral Cooler w/ Heater, Standard Pass, Full End Screen  | 1860         | Interp. |
|                          | 30XA-G                |                         | Integral Cooler w/o Heater, Standard Pass, Full End Screen | 2321         | Interp. |
|                          | 30XA-K                |                         | Integral Cooler w/ Heater, Minus One Pass, Full End Screen | 2523         | Interp. |
|                          | 30XA-M                |                         | Integral Cooler w/Heater, Plus One Pass, Full End Screen   | 2523         | Interp. |
| 30XV Cooler (Carrier)    | 30XV-4, 6             | Carbon Steel and Copper | Integral Cooler w/o Heater, Std Pass                       | 3525         | Interp. |
|                          | 30XV-0, 5, 7          |                         | Integral Cooler w/ Heater, Std Pass                        | 3525         | 11      |
|                          | 30XV-1                |                         | Integral Cooler w/ Heater, Minus One Pass                  | 3525         | 12b     |
|                          | 30XV-B, C, D, F, G, H |                         | Integral Cooler w/ Heater, Plus One Pass                   | 3525         | Interp. |
|                          | 30XV-2, 8, 9          |                         | Integral Cooler w/ Heater, Std Pass, Comfort Brine         | 3525         | Interp. |
|                          | 30XV-3                |                         | Integral Cooler w/o Heater, Std Pass, Process Brine        | 3525         | Interp. |

Notes: Coolers are substantially similar in 30XA and 30XV units.

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base-Neoprene Isolated

**Seismic Parameters**  
 $S_{DS} = 0.8g$  for  $z/h=1$   
 $S_{DS} = 1.0g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 24

### Control Panel - 30XA/30XV

| Component (Manufacturer)  | Model  | Material             | Type                                                  | Weight (lb.) | UUT     |
|---------------------------|--------|----------------------|-------------------------------------------------------|--------------|---------|
| Control Panel 30XA (UTEC) | 30XA-  | Painted Carbon Steel | NavigatorTM Disp                                      | 300          | Extrap. |
|                           | 30XA-0 |                      | Navigator Disp, EMM                                   | 300          | Extrap. |
|                           | 30XA-1 |                      | Navigator Disp, Service Opt                           | 300          | Extrap. |
|                           | 30XA-2 |                      | Navigator Disp, EMM, Service Opt                      | 300          | Extrap. |
|                           | 30XA-3 |                      | Touch PilotTM Disp                                    | 325          | Extrap. |
|                           | 30XA-4 |                      | Touch Pilot Disp, EMM                                 | 300          | Extrap. |
|                           | 30XA-5 |                      | Touch Pilot Disp, Service Opt                         | 300          | Extrap. |
|                           | 30XA-6 |                      | Touch Pilot Disp, EMM, Service Opt                    | 300          | Extrap. |
|                           | 30XA-7 |                      | Navigator Disp, BACnet Trans                          | 325          | Extrap. |
|                           | 30XA-8 |                      | Navigator Disp, BACnet Trans, EMM                     | 325          | Extrap. |
|                           | 30XA-9 |                      | Navigator Disp, BACnet Trans, Service Opt             | 325          | Extrap. |
|                           | 30XA-B |                      | Navigator Disp, BACnet Trans, EMM                     | 300          | Extrap. |
|                           | 30XA-C |                      | Touch Pilot Disp, BACnet Trans                        | 300          | Extrap. |
|                           | 30XA-D |                      | Touch Pilot Disp, BACnet Translator, EMM              | 300          | Extrap. |
|                           | 30XA-F |                      | Touch Pilot Disp, BACnet Translator, Service Opt      | 325          | Extrap. |
|                           | 30XA-J |                      | Touch Pilot Disp, BACnet Translator, EMM, Service Opt | 325          | Extrap. |
|                           | 30XA-H |                      | Navigator Disp, LON Trans                             | 325          | Extrap. |

Note: Control Panels are substantially similiary in 30XA abd 30XV units.

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base-Neoprene Isolated

**Seismic Parameters**  
 $S_{DS} = 0.8g$  for  $z/h=1$   
 $S_{DS} = 1.0g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 24

### Control Panel - 30XA/30XV

| Component (Manufacturer)  | Model  | Material             | Type                                                              | Weight (lb.) | UUT     |
|---------------------------|--------|----------------------|-------------------------------------------------------------------|--------------|---------|
| Control Panel 30XA (UTEC) | 30XA-G | Painted Carbon Steel | Navigator Disp, LON Trans, EMM                                    | 325          | Extrap. |
|                           | 30XA-K |                      | Navigator Disp, LON Trans Service Opt                             | 325          | Extrap. |
|                           | 30XA-L |                      | Navigator Disp, LON Translator, EMM, Service Opt                  | 325          | Extrap. |
|                           | 30XA-M |                      | Touch Pilot Disp., LON Trans                                      | 325          | Extrap. |
|                           | 30XA-N |                      | Touch Pilot Disp, LON Trans Touch Pilot Disp, LON Translator, EMM | 325          | Extrap. |
|                           | 30XA-P |                      | Touch Pilot Disp, LON Translator, Service Opt                     | 325          | Extrap. |
|                           | 30XA-Q |                      | Touch Pilot Disp, LON Translator, EMM, Service Opt                | 350          | Extrap. |
|                           | 30XA-R |                      | Navigator Disp, UPC/Ivue                                          | 325          | Extrap. |
|                           | 30XA-S |                      | Navigator Disp, UPC/Ivue, EMM                                     | 325          | Extrap. |
|                           | 30XA-T |                      | Navigator Disp, UPC/Ivue, Service Opt                             | 325          | Extrap. |
|                           | 30XA-V |                      | Navigator Disp, UPC/Ivue, EMM, Service Opt                        | 325          | Extrap. |
|                           | 30XA-W |                      | Touch Pilot Disp, UPC/Ivue                                        | 325          | Extrap. |
|                           | 30XA-X |                      | Touch Pilot Disp, UPC/Ivue, EMM                                   | 350          | Extrap. |
|                           | 30XA-Y |                      | Touch Pilot Disp, UPC/Ivue, Service                               | 350          | Extrap. |

Note: Control Panels are substantially similar in 30XA abd 30XV units.



|                      |                                                  |
|----------------------|--------------------------------------------------|
| <b>Manufacturer:</b> | Carrier Corporation                              |
| <b>Product Type:</b> | Chillers – Air Cooled                            |
| <b>Model Line:</b>   | Carrier AquaSnap Chillers & Gemini Split Systems |
| <b>Mounting:</b>     | Base-Neoprene Isolated                           |

$S_{DS} = 0.8g$  for  $z/h=1$   
 $S_{DS} = 1.0g$  for  $z/h=0$

$I_p = 1.5$

**CBC 2022**

## Control Panel - 30XA/30XV

Note: Control Panels are substantially similar in 30XA abd 30XV units.

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base-Neoprene Isolated

**Seismic Parameters**  
 $S_{DS} = 0.8g$  for  $z/h=1$   
 $S_{DS} = 1.0g$  for  $z/h=0$   
 $I_p = 1.5$

**Building Codes**  
**CBC 2022**

## TABLE 25

### Variable Frequency Drive - 30XV

| Component (Manufacturer) | Model     | Material | Nominal Capacity (kW) | Voltage (V) | Weight (lb.) | UUT     |
|--------------------------|-----------|----------|-----------------------|-------------|--------------|---------|
| VFD (Danfoss)            | HR46ZQ003 | Aluminum | 7.5                   | 208-230     | 51           | Extrap. |
|                          | HR46ZS003 |          | 11                    | 208-230     | 51           | Extrap. |
|                          | HR46ZS004 |          | 11                    | 575         | 51           | Extrap. |
|                          | HR46ZT002 |          | 15                    | 380/460     | 51           | Extrap. |
|                          | HR46ZT003 |          | 15                    | 575         | 51           | Extrap. |
|                          | HR46ZT004 |          | 15                    | 208-230     | 60           | 11      |
|                          | HR46ZT005 |          | 15                    | 380/460     | 51           | Interp. |
|                          | HR46ZT006 |          | 15                    | 575         | 51           | Interp. |
|                          | HR46ZU002 |          | 18                    | 380/460     | 51           | Interp. |
|                          | HR46ZU003 |          | 18                    | 575         | 51           | Interp. |
|                          | HR46ZU005 |          | 18                    | 380/460     | 51           | Interp. |
|                          | HR46ZU006 |          | 18                    | 575         | 51           | Interp. |
|                          | HR46ZV001 |          | 22                    | 380/460     | 60           | Interp. |
|                          | HR46ZV002 |          | 22                    | 575         | 60           | Interp. |
|                          | HR46ZV003 |          | 22                    | 380/460     | 60           | 12b     |
|                          | HR46ZV004 |          | 22                    | 575         | 60           | Interp. |
|                          | HR46ZW001 |          | 30                    | 380/460     | 60           | Interp. |
|                          | HR46ZW002 |          | 30                    | 575         | 60           | Interp. |
|                          | HR46ZY001 |          | 55                    | 380/460     | 99           | Interp. |
|                          | HR46ZY002 |          | 55                    | 575         | 99           | Interp. |
|                          | HR46ZY003 |          | 75                    | 380/460     | 143          | Interp. |
|                          | HR46ZY004 |          | 75                    | 575         | 143          | Interp. |
|                          | HR46ZY005 |          | 110                   | 380/460     | 135          | Interp. |
|                          | HR46ZY006 |          | 132                   | 380/460     | 135          | Interp. |
|                          | HR46ZY007 |          | 132                   | 575         | 135          | Interp. |
|                          | HR46ZY008 |          | 160                   | 380/460     | 135          | Interp. |
|                          | HR46ZY009 |          | 160                   | 575         | 135          | Interp. |
|                          | HR46ZY014 |          | 160                   | 208-230     | 275          | 11      |
|                          | HR46ZY010 |          | 200                   | 380/460     | 275          | Interp. |
|                          | HR46ZY015 |          | 200                   | 575         | 275          | Interp. |
|                          | HR46ZY011 |          | 250                   | 380/460     | 275          | Interp. |
|                          | HR46ZY012 |          | 250                   | 575         | 275          | Interp. |





**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base-Neoprene Isolated

**$S_{DS} = 0.8g$  for  $z/h=1$**

**S<sub>DS</sub> = 1.0g for z/h=0**

$$I_p = 1.5$$

**CBC 2022**

## Variable Frequency Drive - 30XV

## Pre Compliance



**Manufacturer:** Carrier Corporation  
**Product Type:** Chillers – Air Cooled  
**Model Line:** Carrier AquaSnap Chillers & Gemini Split Systems  
**Mounting:** Base-Neoprene Isolated

$$\begin{aligned} S_{DS} &= 0.8g \text{ for } z/h=1 \\ S_{DS} &= 1.0g \text{ for } z/h=0 \end{aligned} \quad I_p = 1.5$$

**CBC 2022**

## Accessories- 30XA/30XV

Note: Security Grill and Hail Guard are substantially similar in 30XA and 30XV units.

# SPECIAL SEISMIC CERTIFICATION TESTING SUMMARY

| UUT | Model              | Test Report                                  | Test Laboratory <sup>1</sup>                    | S <sub>DS</sub> (g) | z/h          | I <sub>p</sub> |
|-----|--------------------|----------------------------------------------|-------------------------------------------------|---------------------|--------------|----------------|
| 1   | 30RAP0186DC0D100-1 | UB CSEE/SEESL-2017-06<br>UUT-1               | SEESL                                           | 2.50                | 1.00         | 1.5            |
| 2   | 30RAP01065-20001   | UB-SEESL-2011-07 (08/15/2011)<br>UUT-1(RAP)  | SEESL                                           | 2.50                | 1.00         | 1.5            |
| 3   | 30RAP0606J-H0CFC   | UB-SEESL-2011-07 (08/15/2011)<br>UUT-3 (RAP) | SEESL                                           | 2.50                | 1.00         | 1.5            |
| 4   | 30RAP07055-CL300   | B&B 2012-0273.00 (09/30/2013)<br>UUT-4 (RAP) | Construction Engineering<br>Research Laboratory | 2.10                | 1.00         | 1.5            |
| 5   | 30RAP1506J-NM5C0   | B&B 2012-0273.00 (09/30/2013)<br>UUT-5 (RAP) | Construction Engineering<br>Research Laboratory | 2.10                | 1.00         | 1.5            |
| 6   | 30MPW03260-00005   | UB CSEE/SEESL-2017-06<br>UUT-5 (2017)        | SEESL                                           | 2.50                | 1.00         | 1.5            |
| 7   | 30MPA01560-00005   | UB-SEESL-2011-07 (08/15/2011)<br>UUT-1(MP)   | SEESL                                           | 1.81                | 1.00         | 1.5            |
| 8   | 30MPW04560-01155   | UB-SEESL-2011-07 (08/15/2011)<br>UUT-2(MP)   | SEESL                                           | 1.81                | 1.00         | 1.5            |
| 9   | 30MPW05061A0000B   | UB-SEESL-2015-42 (07/20/2015)<br>UUT-3(MP)   | SEESL                                           | 1.81                | 1.00         | 1.5            |
| 10  | 30MPW07451A00167   | UB-SEESL-2015-42 (07/20/2015)<br>UUT-4(MP)   | SEESL                                           | 1.81                | 1.00         | 1.5            |
| 11  | 30XV140            | 2016-0315.00<br>UUT-2B(XV)                   | Construction Engineering<br>Research Laboratory | 2.00<br>2.50        | 1.00<br>0.00 | 1.5            |
| 12a | 30XV500            | 2016-0315.00<br>UUT-1B(XV)                   | Construction Engineering<br>Research Laboratory | 2.00<br>2.50        | 1.00<br>0.00 | 1.5            |
| 12b | 30XV500            | 2016-0315.00<br>UUT-1C(XV)                   | Construction Engineering<br>Research Laboratory | 0.80<br>1.00        | 1.00<br>0.00 | 1.5            |
| 13  | 30XA080            | UB-SEESL-2011-06 (05/11/2011)<br>UUT-3 (XA)  | SEESL                                           | 2.50                | 1.00         | 1.5            |
| 14  | 30XA350            | UB-SEESL-2011-06 (5/11/2011)<br>UUT-4(XA)    | SEESL                                           | 2.40                | 1.00         | 1.5            |
| 15  | 30XV160            | UB-SEESL-2014-15 (11/07/2014)<br>UUT-5 (XV)  | SEESL                                           | 2.50                | 1.00         | 1.5            |
| 16  | 30MPW08061A10111   | TR231342-01-R1<br>(UUT 4)                    | SEESL                                           | 1.85<br>1.85        | 1.00<br>0.00 | 1.5            |
| 17  | 30MPW01761A05115   | TR241489-01-R0<br>(UUT 3)                    | University Reno Nevada                          | 2.0<br>2.23         | 1.00<br>0.00 | 1.5            |
|     |                    |                                              |                                                 |                     |              |                |

Notes: <sup>1</sup>Structural Engineering and Earthquake Simulation Laboratory

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 1

Test Report# UB CSEE/SEESL-2017-06

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30RAP0186DC0D100-1  
**Serial Number:** N/A

### Highest Passed Test Level

| $S_{DS}$ | $z/h$ | $I_p$ | $A_{flx-h}$ | $A_{rig-h}$ | $A_{flx-v}$ | $A_{rig-v}$ |
|----------|-------|-------|-------------|-------------|-------------|-------------|
| 2.5 g    | 1.0   | 1.5   | 4.0 g       | 3.0 g       | 1.67 g      | 0.67 g      |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 88.5       | 40.5       | 66.5        | 1,410         |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 9.5        | 13.0      | 10.8     |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon steel, 16.1 ton capacity

### UUT Mounting Details:



UUT rigidly mounted to 1/2" steel interface plate with 5/8"-13 UNC Grade 5 bolts, nuts, and washers at each corner (4 total). Steel plate to shake table with eight (8) 1 1/8" -7 UNC Grade 8 bolts and nuts.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer)              | Material                         | Model Number      |
|-----------------------------------------|----------------------------------|-------------------|
| Condenser Coils - Microchannel (Delphi) | Aluminum Tubing Fins and Headers | 38AP44986         |
| Evaporator BPHE (Sweep)                 | Stainless Steel                  | P120T             |
| Control Panel (Whitepath)               | Galvanized Steel Housing         | C30RAP07055-CL300 |
|                                         |                                  |                   |
|                                         |                                  |                   |
|                                         |                                  |                   |
|                                         |                                  |                   |
|                                         |                                  |                   |
|                                         |                                  |                   |

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 2

Test Report# UB CSEE/SEESL-2011-07

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30RAP01065-20001  
**Serial Number:** N/A

### Highest Passed Test Level

| $S_{DS}$ | $z/h$ | $I_p$ | $A_{flx-h}$ | $A_{rig-h}$ | $A_{flx-v}$ | $A_{rig-v}$ |
|----------|-------|-------|-------------|-------------|-------------|-------------|
| 2.5 g    | 1.0   | 1.5   | 4.0 g       | 3.0 g       | 1.67 g      | 0.67 g      |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 66.5       | 40.5       | 66.5        | 1,029         |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 12.4       | 7.4       | 15.5     |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 10.5 ton capacity

### UUT Mounting Details:



Unit was rigidly mounted using 3-3/4" A307 bolts at each corner for the unit.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer)              | Material                     | Model Number      |
|-----------------------------------------|------------------------------|-------------------|
| Compressor (Copeland)                   | Carbon Steel Housing         | ZP137KCE-TFD-155  |
| Pump (Armstrong)                        | Carbon Steel Housing         | 38AP502549        |
| Condenser Coils - Microchannel (Delphi) | Aluminum Tubing, Fin Headers | 38AP400945        |
| Evaporator BPHE(SWEP)                   | Stainless Steel              | P80 - 40          |
| Fan Motor (Regal Beloit)                | Carbon Steel                 | 5K49AN6473X       |
| Control Panel (Whitepath)               | Galvanized Steel Housing     | C30RAP01065-20001 |
|                                         |                              |                   |
|                                         |                              |                   |



# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 3

Test Report# UB-SEESL-2011-07(08/15/2011)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30RAP0606J-H0CFC  
**Serial Number:** N/A

### Highest Passed Test Level

| S <sub>DS</sub> | z/h | I <sub>p</sub> | A <sub>flx-h</sub> | A <sub>rig-h</sub> | A <sub>flx-v</sub> | A <sub>rig-v</sub> |
|-----------------|-----|----------------|--------------------|--------------------|--------------------|--------------------|
| 2.5 g           | 1.0 | 1.5            | 4.0 g              | 3.0 g              | 1.67 g             | 0.67 g             |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 88.5       | 92.5       | 78.5        | 3,062         |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 9.9        | 5.8       | 9.8      |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 56.0 ton capacity

### UUT Mounting Details:



UUT attached to shake table with 3-3/4" A307 bolts at each corner of the unit.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

**Seismic Enhancement: Internal seismic bracking on condenser coils.**

### List of Included Subcomponents

| Description (Manufacturer)              | Material                           | Model Number      |
|-----------------------------------------|------------------------------------|-------------------|
| Compressor (Copeland)                   | Carbon Steel Housing               | AP182KCE-TFD-155  |
| Pump (Armstrong)                        | Carbon Steel Housing               | 38AP502570        |
| Condenser Coils - Microchannel (Delphi) | Aluminum Tubing, Fins, and Headers | 38AP400946        |
| Evaporator BPHE (SWEP)                  | Stainless Steel                    | DP400 - 90        |
| Fan Motor (Regal Beloit)                | Carbon Steel                       | 5K49AN3204S       |
| Control Panel (Whitepath)               | Galvanized Steel Housing           | C30RAP0606J-H0CFC |
|                                         |                                    |                   |
|                                         |                                    |                   |
|                                         |                                    |                   |

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 4

Test Report# B&amp;B 2012-0273.00(09/30/2013)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30RAP07055-CL300  
**Serial Number:** N/A

### Highest Passed Test Level

| S <sub>DS</sub> | z/h | I <sub>p</sub> | A <sub>flx-h</sub> | A <sub>rig-h</sub> | A <sub>flx-v</sub> | A <sub>rig-v</sub> |
|-----------------|-----|----------------|--------------------|--------------------|--------------------|--------------------|
| 2.10 g          | 1.0 | 1.5            | 3.36 g             | 2.52 g             | 1.40 g             | 0.56 g             |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 151.1      | 88.5       | 78.5        | 4,100         |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 7.5        | 13.0      | 18.0     |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 68.9 ton capacity

### UUT Mounting Details:



Unit is bolted to adapter plate with four 4-3/4" dia Grade 5 bolts.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer)              | Material                           | Model Number              |
|-----------------------------------------|------------------------------------|---------------------------|
| Compressor (Copeland)                   | Carbon Steel Housing               | ZP182KCE-TW5-455          |
| Compressor (Danfoss)                    | Carbon Steel Housing               | SH240A3ACC                |
| Pump (Armstrong)                        | Carbon Steel Housing               | 38AP503621 (with VFD)     |
| Condenser Coils - Microchannel (Delphi) | Aluminum Tubing, Fins, and Headers | 38AP400944                |
| Evaporator BPHE (Alfa Laval)            | Stainless Steel                    | ACH230                    |
| Fan Motor (Regal Beloit)                | Carbon Steel                       | 5K49ZN6473X / 5K49ZN6472S |
| Control Panel (Whitepath)               | Galvanized Steel Housing           | C30RAP07055-CL300         |
|                                         |                                    |                           |
|                                         |                                    |                           |

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 5

Test Report# B&B 2012-0273.00(09/30/2013)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30RAP1506J-NM5C0  
**Serial Number:** N/A

### Highest Passed Test Level

| S <sub>DS</sub> | z/h | I <sub>p</sub> | A <sub>flx-h</sub> | A <sub>rig-h</sub> | A <sub>flx-v</sub> | A <sub>rig-v</sub> |
|-----------------|-----|----------------|--------------------|--------------------|--------------------|--------------------|
| 2.10 g          | 1.0 | 1.5            | 3.36 g             | 2.52 g             | 1.40 g             | 0.56 g             |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 231.6      | 88.5       | 78.5        | 7,500         |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 6.2        | 8.0       | 15.0     |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 139.7 ton capacity

### UUT Mounting Details:



Unit is bolted to adapter fixture with six 6-3/4" dia Grade 5 bolts.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer)              | Material                           | Model Number                |
|-----------------------------------------|------------------------------------|-----------------------------|
| Compressor (Copeland)                   | Carbon Steel Housing               | ZP295KCE-TFD-250            |
| Compressor (Danfoss)                    | Carbon Steel Housing               | SH300A4ACC                  |
| Pump (Armstrong)                        | Carbon Steel Housing               | 38AP503521 (dual, with VFD) |
| Condenser Coils - Microchannel (Delphi) | Aluminum Tubing, Fins, and Headers | 38AP400944                  |
| Evaporator BPHE (Alfa Laval)            | Stainless Steel                    | ACH500                      |
| Fan Motor (Regal Beloit)                | Carbon Steel                       | 5K49AN3204S                 |
| Control Panel (Whitepath)               | Galvanized Steel Housing           | C30RAP1506J-NMDCO           |
|                                         |                                    |                             |
|                                         |                                    |                             |



# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 6

Test Report# UB CSEE/SEESL-2017-06  
(UUT2)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30MPW03260-00005  
**Serial Number:** N/A

### Highest Passed Test Level

| $S_{DS}$ | $z/h$ | $I_p$ | $A_{flx-h}$ | $A_{rig-h}$ | $A_{flx-v}$ | $A_{rig-v}$ |
|----------|-------|-------|-------------|-------------|-------------|-------------|
| 2.5 g    | 1.0   | 1.5   | 4.0 g       | 3.0 g       | 1.67 g      | 0.67 g      |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 57         | 32         | 65          | 1,055         |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 9.6        | 8.8       | 22.6     |

### Building Codes

CBC 2022

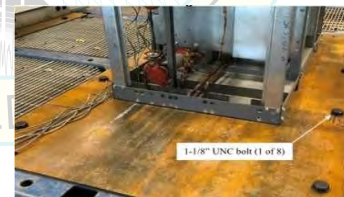
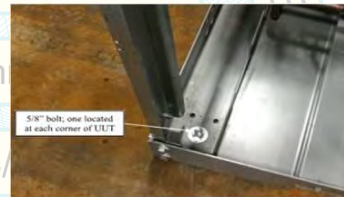
### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 30.0 ton capacity

### UUT Mounting Details:



UUT attached to 1/2" steel interface plate with 5/8" -13 UNC Grade 5 bolts, nuts, and washers each corner (4 total). Steel plate to shake table with eight (8) 1 1/8"-7 UNC Grade 8 bolts and nuts.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer)   | Material                 | Model Number      |
|------------------------------|--------------------------|-------------------|
| Compressor (Copeland)        | Carbon Steel Housing     | ZPT364            |
| Condenser BPHE (Alfa Laval)  | Stainless Steel          | ACH240-158        |
| Evaporator BPHE (Alfa Laval) | Stainless Steel          | ACH240-78         |
| Control Panel (Gaston)       | Galvanized Steel Housing | C30MPW03260-00005 |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 7

Test Report# UB CSEE/SEESL-2011-07  
(UUT 1)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30MPA01560-00005  
**Serial Number:** N/A

### Highest Passed Test Level

| $S_{DS}$ | $z/h$ | $I_p$ | $A_{flx-h}$ | $A_{rig-h}$ | $A_{flx-v}$ | $A_{rig-v}$ |
|----------|-------|-------|-------------|-------------|-------------|-------------|
| 1.81     | 1.0   | 1.5   | 2.90        | 2.17        | 1.21        | 0.48        |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 57         | 32         | 65          | 626           |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 8.4        | 9.5       | 23.9     |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 13.9 ton capacity

### UUT Mounting Details:



Unit attached to shake table with 1/2" diameter A307 bolts (4 total) at each corner.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer) | Material                 | Model Number      |
|----------------------------|--------------------------|-------------------|
| Compressor (Copeland)      | Carbon Steel Housing     | ZPT180            |
| Condenser BPHE (SWEP)      | Stainless Steel          | B80-82            |
| Evaporator BPHE (SWEP)     | Stainless Steel          | P80-72            |
| Control Panel (Gaston)     | Galvanized Steel Housing | C30MPA01560-00005 |
|                            |                          |                   |
|                            |                          |                   |
|                            |                          |                   |
|                            |                          |                   |
|                            |                          |                   |



# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 8

Test Report# UB CSEE/SEESL-2011-07  
(UUT 2)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30MPW04560-01155  
**Serial Number:** N/A

### Highest Passed Test Level

| $S_{DS}$ | $z/h$ | $I_p$ | $A_{flx-h}$ | $A_{rig-h}$ | $A_{flx-v}$ | $A_{rig-v}$ |
|----------|-------|-------|-------------|-------------|-------------|-------------|
| 1.81 g   | 1.0   | 1.5   | 2.90 g      | 2.17 g      | 1.21 g      | 0.48 g      |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 57         | 32         | 65          | 1,190         |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 6.2        | 6.0       | 16.8     |

### Building Codes

CBC 2022

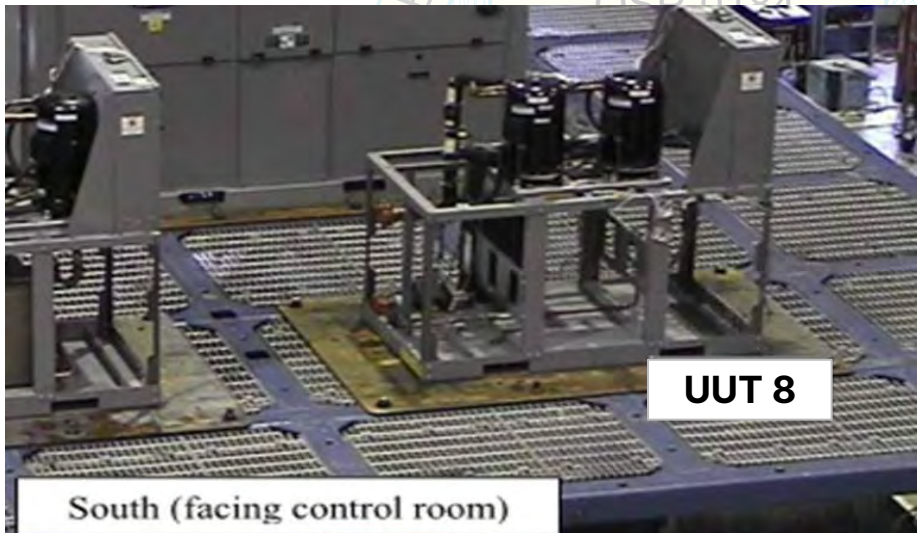
### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 45 ton capacity

### UUT Mounting Details:



Unit attached to shake table with 1/2" diameter A307 bolts (4 total) at each corner.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer) | Material                 | Model Number      |
|----------------------------|--------------------------|-------------------|
| Compressor (Copeland)      | Carbon Steel Housing     | ZPY546            |
| Condenser BPHE (SWEP)      | Stainless Steel          | B120T-86          |
| Evaporator BPHE (SWEP)     | Stainless Steel          | P120T-120         |
| Control Panel (Gaston)     | Galvanized Steel Housing | C30MPW04560-01155 |
|                            |                          |                   |
|                            |                          |                   |
|                            |                          |                   |
|                            |                          |                   |
|                            |                          |                   |
|                            |                          |                   |

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 9

Test Report# UB CSEE/SEESL-2015-42  
(UUT 3)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30MPW05061A0000B  
**Serial Number:** N/A

### Highest Passed Test Level

| $S_{DS}$ | $z/h$ | $I_p$ | $A_{flx-h}$ | $A_{rig-h}$ | $A_{flx-v}$ | $A_{rig-v}$ |
|----------|-------|-------|-------------|-------------|-------------|-------------|
| 1.81 g   | 1.0   | 1.5   | 2.90 g      | 2.17 g      | 1.21 g      | 0.48 g      |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 57         | 32         | 68.8        | 1,625         |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 7.7        | 6.3       | 20.8     |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 50 ton capacity

### UUT Mounting Details:



UUT mounted to shake table with 1/2" diameter A307 bolts at each corner (4 total).

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer)   | Material                 | Model Number      |
|------------------------------|--------------------------|-------------------|
| Compressor (Bitzer)          | Carbon Steel Housing     | GSD80590          |
| Condenser BPHE (Alfa Laval)  | Stainless Steel          | B120T-86          |
| Evaporator BPHE (Alfa Laval) | Stainless Steel          | P120T-120         |
| Control Panel (Gaston)       | Galvanized Steel Housing | C30MPW05061-0000B |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 10

Test Report# UB CSEE/SEESL-2015-42  
(UUT 4)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30MPW07451A00167  
**Serial Number:** N/A

### Highest Passed Test Level

| $S_{DS}$ | $z/h$ | $I_p$ | $A_{flx-h}$ | $A_{rig-h}$ | $A_{flx-v}$ | $A_{rig-v}$ |
|----------|-------|-------|-------------|-------------|-------------|-------------|
| 1.81 g   | 1.0   | 1.5   | 2.90 g      | 2.17 g      | 1.21 g      | 0.48 g      |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 57         | 32         | 68.8        | 1,790         |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 6.2        | 6.1       | 17.8     |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 74.0 ton capacity

### UUT Mounting Details:



UUT mounted to shake table with 1/2" diameter A307 bolts at each corner (4 total).

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer)   | Material                 | Model Number      |
|------------------------------|--------------------------|-------------------|
| Compressor (Bitzer)          | Carbon Steel Housing     | GSD80870          |
| Condenser BPHE (Alfa Laval)  | Stainless Steel          | CBH112-300-AH     |
| Evaporator BPHE (Alfa Laval) | Stainless Steel          | ACH220EQ-230M     |
| Control Panel (Gaston)       | Galvanized Steel Housing | C30MPW07451A00167 |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 11

Test Report# 2016-0315.00 (UUT-2b)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30XV140  
**Serial Number:** N/A

### Highest Passed Test Level

| $S_{DS}$ | $z/h$ | $I_p$ | $A_{flx-h}$ | $A_{rig-h}$ | $A_{flx-v}$ | $A_{rig-v}$ |
|----------|-------|-------|-------------|-------------|-------------|-------------|
| 2.0 g    | 1     | 1.5   | 3.20 g      | 2.40 g      | 1.68 g      | 0.68 g      |
| 2.5 g    | 0     |       |             |             |             |             |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 208        | 88         | 99          | 13,596        |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 10.5       | 8.2       | 7.1      |

### Building Codes

CBC 2022

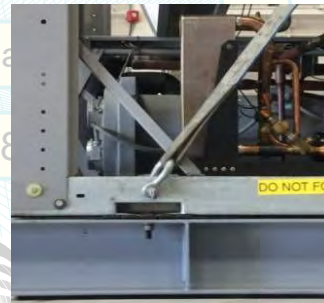
### Test Criteria

ICC-ES AC156

### Construction/Option Summary

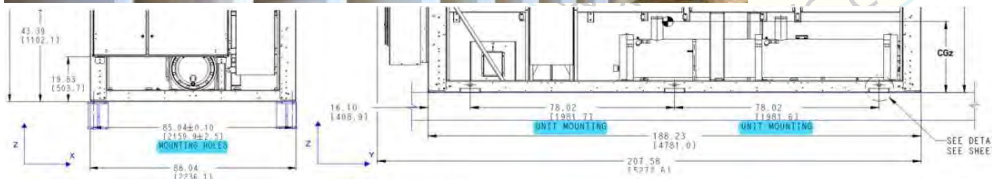
Carbon Steel, 143.8 ton capacity

### UUT Mounting Details:



Unit was attached with 3/4" diameter grade 5 bolts and mason Industries, Inc. Model #: 6x10 SWN neoprene pads (6 total).

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.



### List of Included Subcomponents

| Description (Manufacturer) | Material                         | Model Number                |
|----------------------------|----------------------------------|-----------------------------|
| Compressor (Carrier)       | Cast Iron                        | 06ZCE1 & 06ZCE1             |
| Condenser (Carrier)        | Galvanized Steel Frame, Al. & Cu | 30XV80000501 & 30XV80000601 |
| Cooler (Carrier)           | Carbon Steel and Copper          | 30XV80002401                |
| Fan Motor (Wolong)         | Carbon Steel and Copper          | HD52AZ466                   |
| Control Box (UTEC)         | Carbon Steel                     | C30XV-1405M-0--3-L          |
| VFD (Danfoss)              | Aluminum                         | HR46ZT004 & HR46ZY014       |
|                            |                                  |                             |
|                            |                                  |                             |
|                            |                                  |                             |



# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 12A

Test Report# 2016-0315.00 (UUT 1b)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30XV500  
**Serial Number:** N/A

### Highest Passed Test Level

| S <sub>DS</sub> | z/h | I <sub>p</sub> | A <sub>flx-h</sub> | A <sub>rig-h</sub> | A <sub>flx-v</sub> | A <sub>rig-v</sub> |
|-----------------|-----|----------------|--------------------|--------------------|--------------------|--------------------|
| 2.0 g           | 1   | 1.5            | 3.20 g             | 2.40 g             | 1.68 g             | 0.68 g             |
| 2.5 g           | 0   |                |                    |                    |                    |                    |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 594        | 88         | 99          | 30,574        |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 12.8       | 10.8      | 19.3     |

### Building Codes

CBC 2022

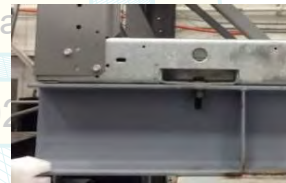
### Test Criteria

ICC-ES AC156

### Construction/Option Summary

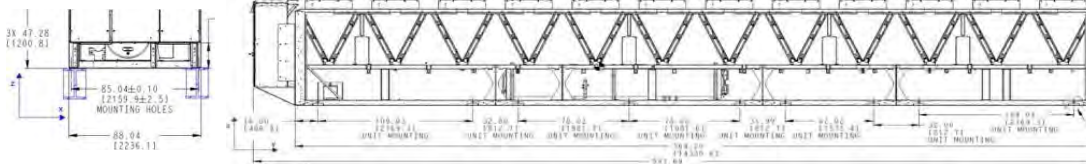
Carbon Steel, 501.9 ton capacity

### UUT Mounting Details:



UUT attached to shake table with 3/4" grade 5 bolts (total of 18).

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.



### List of Included Subcomponents

| Description (Manufacturer) | Material              | Model Number          |
|----------------------------|-----------------------|-----------------------|
| Compressor (Carrier)       | Cast Iron             | 06ZJG3 & 06ZJG3       |
| Condenser (Danfoss)        | Aluminum              | 30XV50048601          |
| Cooler (Carrier)           | Carbon Steel & Copper | 30XV80002805          |
| Fan Motor (Wolong)         | Carbon Steel & Copper | HD52AZ466             |
| Control Box (UTEC)         | Carbon Steel          | C30XVA5006M4026F-0    |
| VFD (Danfoss)              | Aluminum              | HR46ZV003 & HR46ZY019 |
| Security Grill (Carrier)   | Carbon Steel          | Multiple              |
| Hail Guard (Carrier)       | Carbon Steel          | Multiple              |
|                            |                       |                       |
|                            |                       |                       |



# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 12B

Test Report# 2016-0315.00 (UUT 1C)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30XV500  
**Serial Number:** N/A

### Highest Passed Test Level

| S <sub>DS</sub> | z/h | I <sub>p</sub> | A <sub>flx-h</sub> | A <sub>rig-h</sub> | A <sub>flx-v</sub> | A <sub>rig-v</sub> |
|-----------------|-----|----------------|--------------------|--------------------|--------------------|--------------------|
| 0.8 g           | 1   | 1.5            | 1.28 g             | 0.96 g             | 0.67 g             | 0.27 g             |
| 1.0 g           | 0   |                |                    |                    |                    |                    |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 594        | 88         | 99          | 30,574        |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 10.0       | 6.3       | 7.5      |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

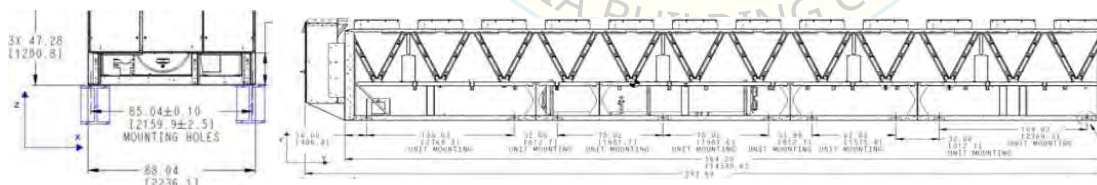
Carbon Steel, 501.9 ton capacity

### UUT Mounting Details:



UUT attached with 3/4" grade 5 bolts and Mason Industries, Inc. Model #: 6x10 SWN neoprene pads (total 18).

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.



### List of Included Subcomponents

| Description (Manufacturer) | Material              | Model Number          |
|----------------------------|-----------------------|-----------------------|
| Compressor (Carrier)       | Cast Iron             | 06ZJG3 & 06ZJG3       |
| Condenser (Danfoss)        | Aluminum              | 30XV50048601          |
| Cooler (Carrier)           | Carbon Steel & Copper | 30XV80002805          |
| Fan Motor (Wolong)         | Carbon Steel & Copper | HD52AZ466             |
| Control Box (UTEC)         | Carbon Steel          | C30XVA5006M4026F-0    |
| VFD (Danfoss)              | Aluminum              | HR46ZV003 & HR46ZY016 |
| Security Grill (Carrier)   | Carbon Steel          | Multiple              |
| Hail Guard (Carrier)       | Carbon Steel          | Multiple              |
|                            |                       |                       |
|                            |                       |                       |

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 13

Test Report# UB-SEESL-2011-06 (UUT 3)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30XA080  
**Serial Number:** N/A

### Highest Passed Test Level

| S <sub>DS</sub> | z/h    | I <sub>p</sub> | A <sub>flx-h</sub> | A <sub>rig-h</sub> | A <sub>flx-v</sub> | A <sub>rig-v</sub> |
|-----------------|--------|----------------|--------------------|--------------------|--------------------|--------------------|
| 2.50            | 1<br>0 | 1.5            | 4.00               | 3.00               | 1.67               | 0.67               |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 141        | 88         | 90.5        | 7,234         |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 7.2        | 7.4       | 9.6      |

### Building Codes

CBC 2022

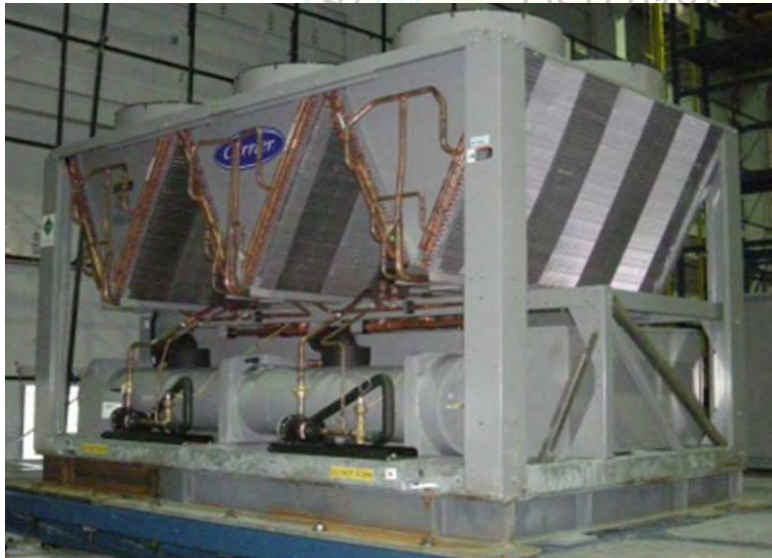
### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 75.6 ton capacity

### UUT Mounting Details:



UUT attached to table with (4) 1-1/4" diameter Grade 5 bolts.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer) | Material                                       | Model Number                      |
|----------------------------|------------------------------------------------|-----------------------------------|
| Compressor (Carrier)       | Cast Iron                                      | 06TSA137SG1C                      |
| Condenser (Carrier)        | Galvanized Steel Housing, Aluminum, and Copper | 00PSN000058601A & 00PSN000058701A |
| Cooler (Carrier)           | Carbon Steel & Copper                          | 00PSN800012526A                   |
| Fan Motor (Marathon)       | Carbon Steel & Copper                          | 00PPG000007202A                   |
| Control Box (Schneider)    | Carbon Steel                                   | C30XA080-350                      |
|                            |                                                |                                   |
|                            |                                                |                                   |
|                            |                                                |                                   |

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 14

Test Report# UB-SEESL-2011-06 (UUT 4)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30XA350  
**Serial Number:** N/A

### Highest Passed Test Level

| S <sub>DS</sub> | z/h    | I <sub>p</sub> | A <sub>flx-h</sub> | A <sub>rig-h</sub> | A <sub>flx-v</sub> | A <sub>rig-v</sub> |
|-----------------|--------|----------------|--------------------|--------------------|--------------------|--------------------|
| 2.4 g           | 1<br>0 | 1.5            | 3.84 g             | 2.88 g             | 1.60 g             | 0.66 g             |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 423        | 88         | 90.5        | 21,211        |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 5.5        | 6.2       | 10.1     |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 324.1 ton capacity

### UUT Mounting Details:



UUT attached to table with (14) 1-1/4" diameter Grade 5 bolts.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer) | Material                                       | Model Number                      |
|----------------------------|------------------------------------------------|-----------------------------------|
| Compressor (Carrier)       | Cast Iron                                      | 06TUA483SW1C & 06TUA554SW1C       |
| Condenser (Carrier)        | Galvanized Steel Housing, Aluminum, and Copper | 00PSN000058601A & 00PSN000058701A |
| Cooler (Carrier)           | Carbon Steel & Copper                          | 00PSN800012526A                   |
| Fan Motor (Marathon)       | Carbon Steel & Copper                          | 00PPG000007202A                   |
| Control Box (Schneider)    | Carbon Steel                                   | C30XA080-350                      |
|                            |                                                |                                   |
|                            |                                                |                                   |
|                            |                                                |                                   |



# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 15

Test Report# UB CSEE/SEESL-2015-15  
(UUT 5)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30XV160  
**Serial Number:** N/A

### Highest Passed Test Level

| $S_{DS}$ | $z/h$  | $I_p$ | $A_{flx-h}$ | $A_{rig-h}$ | $A_{flx-v}$ | $A_{rig-v}$ |
|----------|--------|-------|-------------|-------------|-------------|-------------|
| 2.5 g    | 1<br>0 | 1.5   | 4.0 g       | 3.0 g       | 1.67 g      | 0.67 g      |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 264        | 88         | 90.5        | 11,280        |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 8.5        | 6.0       | 9.3      |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon Steel, 149.5 ton capacity

### UUT Mounting Details:



UUT bolted to table with eight (8) 3/4" diameter Grade 8 bolts.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description (Manufacturer) | Material                                       | Model Number                               |
|----------------------------|------------------------------------------------|--------------------------------------------|
| Compressor (Carrier)       | Cast Iron                                      | 06TSA137SG1C                               |
| Condenser - MCHX (Delphi)  | Galvanized Steel Housing, Aluminum, and Copper | 00PSN000058601A & 00PSN000058701A          |
| Cooler (Carrier)           | Carbon Steel & Copper                          | 00PSN800012916A                            |
| Fan Motor (Marathon)       | Carbon Steel & Copper                          | 00PPG000007202A                            |
| Control Box (Schneider)    | Carbon Steel                                   | C30XA080-350                               |
| VFD (Danfoss)              | Aluminum                                       | HR46ZT002, HR46ZW001, HR46ZY002, HR46ZY013 |
|                            |                                                |                                            |
|                            |                                                |                                            |

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 16

Test Report#

TR231342-01-R1  
(UUT 4)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30MPW08061A10111  
**Serial Number:** n/a

### Highest Passed Test Level

| S <sub>DS</sub> | z/h    | I <sub>p</sub> | A <sub>flx-h</sub> | A <sub>rig-h</sub> | A <sub>flx-v</sub> | A <sub>rig-v</sub> |
|-----------------|--------|----------------|--------------------|--------------------|--------------------|--------------------|
| 1.85 g          | 1<br>0 | 1.5            | 2.96 g             | 2.22 g             | 1.24 g             | 0.50 g             |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 59.8       | 32.8       | 65.8        | 2,135         |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 19.7       | 12.9      | 12.3     |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon steel, 80 ton capacity, with sound enclosure.

### UUT Mounting Details:



UUT bolted to table with four (4) 3/4" diameter Grade 8 bolts.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description                  |                          | Model Number      |
|------------------------------|--------------------------|-------------------|
| Compressor (Danfoss)         | Carbon Steel Housing     | DSF485A4AKA       |
| Condenser BPHE (SWEP)        | Stainless Steel          | CBH112-300AH      |
| Evaporator BPHE (Alfa Laval) | Stainless Steel          | ACK240EQ-182AH-F  |
| Control Panel (Indicon)      | Galvanized Steel Housing | C30MPW08061A10111 |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |



# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY

## UUT 17

Test Report# TR241489-01-R0  
(UUT3)

**Manufacturer:** Carrier Corporation  
**Model Line:** Carrier AquaSnap  
**Model Number:** 30MPW01761A05115  
**Serial Number:** n/a

### Highest Passed Test Level

| S <sub>DS</sub> | z/h | I <sub>p</sub> | A <sub>flx-h</sub> | A <sub>rig-h</sub> | A <sub>flx-v</sub> | A <sub>rig-v</sub> |
|-----------------|-----|----------------|--------------------|--------------------|--------------------|--------------------|
| 2.00 g          | 1   | 1.5            | 3.20 g             | 2.40 g             | 1.49g              | 0.60 g             |
| 2.23 g          | 0   |                |                    |                    |                    |                    |

### Dimensions/Weights

| Depth (in) | Width (in) | Height (in) | Weight (lbs.) |
|------------|------------|-------------|---------------|
| 60         | 33         | 66          | 740           |

### Lowest Natural Frequency (Hz)

| Front-Back | Side-Side | Vertical |
|------------|-----------|----------|
| 4.9        | 5.8       | 18.2     |

### Building Codes

CBC 2022

### Test Criteria

ICC-ES AC156

### Construction/Option Summary

Carbon steel, 16 ton capacity

### UUT Mounting Details:



UUT bolted to table with four (4) 3/4" diameter Grade 8 bolts.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

### List of Included Subcomponents

| Description                  |                          | Model Number      |
|------------------------------|--------------------------|-------------------|
| Compressor (Copeland)        | Carbon Steel Housing     | YP72K1T-TFD-ASA   |
| Compressor (Copeland)        | Carbon Steel Housing     | YPD110K1T-TFD-CSL |
| Condenser BPHE (SWEP)        | Stainless Steel          | B85 (16 Plates)   |
| Evaporator BPHE (Alfa Laval) | Stainless Steel          | ACKEQ74 x 82      |
| Control Panel (Indicon)      | Galvanized Steel Housing | C30MPW01760A05115 |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |
|                              |                          |                   |