Overview

Seismic installations of the InfraStruXure InRow SC Air Cooled Self Contained unit (ACSC100 and ACSC101) require additional information not covered in the standard installation manual. This document provides flow charts for anchorage selection and installation drawings for use when considering the InRow SC for use in facilities with seismic anchorage concerns.

Please refer to the InfraStruXure InRow SC Installation Manual (990-2796) for all other guidance regarding the proper installation of these units.
ACSC100
ACSC101

Structural Calculations
For Seismic Anchorage

Prepared for:
APC Corp.

August 28, 2006
RMJ Job No. 06297

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ACSC100 & ACSC101

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Summary: ACSC100 - Zone 4 (CALIFORNIA)

Single ACSC100 Series Unit

Ground Floor
- Concrete Slab (4" min)
  - no computer floor
  - 24" raised computer floor

>0%, <50% of building height
- Concrete Fill over metal deck (2.5" min. conc. cover)
  - no computer floor
  - 24" raised computer floor
  - USE (4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 2.5"

<90% of building height
- Concrete Fill over metal deck (2.5" min. conc. cover)
  - no computer floor
  - 24" raised computer floor
  - USE (4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 1-5/8"
Summary: ACSC100 - Zone 4 (CALIFORNIA)

Ganged ACSC 100 Series Units (2 UNITS GANGED)

Ground Floor

Concrete Slab (4" min)

- no computer floor
- 24" raised computer floor

USE
(4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 2.5"

>0%, <50% of building height

Concrete Fill over metal deck (2.5"min. conc. cover)

- no computer floor
- 24" raised computer floor

USE
(4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 1-5/8"

<90% of building height

Concrete Fill over metal deck (2.5"min. conc. cover)

- no computer floor
- 24" raised computer floor

USE
(4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 1-5/8"
Summary: ACSC100 - Zone 4, Essential Facilities (CALIFORNIA)

Single ACSC100 Series Unit

Ground Floor

Concrete Slab (4" min)

- no computer floor
- USE (4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 2.5"

- 24" raised computer floor

Concrete Fill over metal deck (2.5" min. conc. cover)

- no computer floor
- USE (4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 1-5/8"

- 24" raised computer floor (SITE SPECIFIC ENGINEERING REQUIRED)

>0%, <50% of building height

<90% of building height

(SITE SPECIFIC ENGINEERING REQUIRED)
Summary: ACSC100 - Zone 4, Essential Facilities (CALIFORNIA)

Ganged ACSC 100
Series Units
(2 UNITS GANGED)

Ground Floor

Concrete Slab
(4" min)

no computer floor

24" raised computer floor

USE
(4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 2.5"

>0%, <50% of building height

Concrete Fill over metal deck
(2.5" min. conc. cover)

no computer floor

24" raised computer floor

USE
(4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 1-5/8"

<90% of building height

Concrete Fill over metal deck
(2.5" min. conc. cover)

no computer floor

24" raised computer floor

USE
(4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 1-5/8"

24" raised computer floor

no computer floor

24" raised computer floor

USE
(4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 1-5/8"

SITE SPECIFIC ENGINEERING REQUIRED
Single ACSC100 Series Unit

Ground Floor

Concrete Slab (4" min)

- no computer floor
- 24" raised computer floor

USE (4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 2.5"

>0%, <50% of building height

Concrete Fill over metal deck (2.5" min. conc. cover)

- no computer floor
- 24" raised computer floor

USE (4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 1-5/8"

<90% of building height

Concrete Fill over metal deck (2.5" min. conc. cover)

- no computer floor
- 24" raised computer floor

USE (4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 1-5/8"
Summary: ACSC100 - Zone 0-3

Ganged ACSC 100 Series Units
(2 UNITS GANGED)

Ground Floor

Concrete Slab
(4" min)

no computer floor

24" raised computer floor

USE
(4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 2.5"

>0%, <50% of building height

Concrete Fill over metal deck
(2.5" min. conc. cover)

no computer floor

24" raised computer floor

USE
(4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 1-5/8"

<90% of building height

Concrete Fill over metal deck
(2.5" min. conc. cover)

no computer floor

24" raised computer floor

USE
(4) AR7701 Brackets w/ 3/8" diameter Hilti Kwik Bolt 3, Embed. 1-5/8"
NOTES:
*SEE SUMMARY SHEET AND CONDITION SCHEDULE FOR BOLTING AND BRACKET REQUIREMENTS.
*POSITION BOLTS IN OUTER OR UPPER HALF OF SLOTTED BOLT HOLES WHERE APPLICABLE

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>SEE</th>
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<tbody>
<tr>
<td>CONCRETE SLAB</td>
<td>SK3</td>
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<td>CONCRETE FILL OVER METAL DECK</td>
<td>SK4</td>
</tr>
<tr>
<td>RAISED COMPUTER FLOOR</td>
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</tr>
</tbody>
</table>

SINGLE UNIT BOTTOM PLAN VIEW
(FOR EXACT UNIT DIMENSIONS SEE APC TECHNICAL INFORMATION)

SHOWN w/AR7701
BOLT-DOWN BRACKETS
(QTY (4) SOLD SEPARATELY)

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APC UNIT ANCHORAGE
ACSC100 Series

Job No. 06297
Sheet No. SK1

Signed by A.M. Date 8/2006
2-ACSC100 SERIES UNITS
GANGED UNIT BOTTOM PLAN VIEW
(2 UNITS MIN. GANGED TOGETHER)

CONDITION SCHEDULE

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>SEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONCRETE SLAB</td>
<td>SK3</td>
</tr>
<tr>
<td>CONCRETE FILL OVER METAL</td>
<td>SK4</td>
</tr>
<tr>
<td>COMP. FLOOR</td>
<td>SK3</td>
</tr>
</tbody>
</table>

SHOWN w/ AR7701
BOLT-DOWN BRACKETS
(4 BRACKETS INCL w/EA.
UNIT, 8 BRACKETS SHOWN)

APSC100 SERIES UNITS & NETSHELTER SX RACK
GANGED UNIT BOTTOM PLAN VIEW
(2 UNITS MIN. GANGED TOGETHER)

*FOR INFORMATION NOT SHOWN AND ADDITIONAL NOTES REGARDING UNIT INSTALLATION, SEE SK1

*PLEASE SEE APC FOR INSTALLATION REQUIREMENTS OF NETSHELTER SX RACK

---

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Structural Engineers

Robinson
Meier
Jully & Associates

APC UNIT ANCHORAGE

ACSC100 SERIES

Job No. 06297
Sheet No. SK2

Signed by A.M. Date 8/2006
CONCRETE SLAB INSTALLATION

DETAIL

3”=1’-0”

3/8" HILTI KWIK BOLT 3 WEDGE ANCHOR, POSITION BOLTS IN OUTER HALF OF SLOTTED HOLES

M8 BOLTS PROVIDED BY APC, POSITION BOLTS IN UPPER HALF OF SLOTTED HOLES

APC BRACKET, FOR TYPE and SEE FLOWCHARTS AND SK1

(E) CONC. SLAB

2 1/2” EMBED.

APC UNIT FRAME

EXTERNAL BRACKET
INSTALLATION
EXTERNAL BRACKET INSTALLATION

M8 BOLTS PROVIDED BY APC, POSITION BOLTS IN UPPER HALF OF SLOTTED HOLES

APC BRACKET, FOR TYPE and NO. OF REQ'D BRACKETS SEE SCHEDULE AND (SK)

2 1/2" MIN. CONC. COVER

3/8" KWIK BOLT 3, EMBED 1 5/8" INTO CONC. FILL OVER METAL DECK

CONCRETE FILL OVER METAL DECK INSTALLATION

DETAIL
3"=1'-0"

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APC UNIT ANCHORAGE

ACSC100 SERIES

Job No. 06297
Sheet No. SK4

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RAISED COMPUTER
FLOOR INSTALLATION

DETAIL
\(3'' = 1' - 0''\)

M8 BOLTS PROVIDED BY APC. POSITION BOLTS IN UPPER HALF OF SLOTTED HOLES
APC BRACKET, FOR TYPE AND NO. OF REQ'D BRACKETS SEE SCHEDULE AND SK1

3/8" Ø THREADED ROD
COUPLER, IF REQ'D,

3/8" KWIK BOLT 3,
EMBED 1 5/8" INTO CONC. FILL OVER METAL DECK

FOR USES OVER 18" SITE SPECIFIC ENGINEERING REQ'D

2 1/2" MIN. CONC. COVER

NOTE: FOR RAISED COMPUTER FLOORS OVER CONCRETE SLAB CONDITION, SEE SK2 SIM.
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