



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION**

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

OFFICE USE ONLY

**APPLICATION #: OSP-0260**

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

Type:  New  Renewal

**Manufacturer Information**

Manufacturer: Drake Refrigeration

Manufacturer's Technical Representative: Martin Squicciarini

Mailing Address: 2900 Samuel Drive, Bensalem, PA 19020

Telephone: (267) 525-3523

Email: MSquicciarini@drakechillers.com

**Product Information**

Product Name: Chillers

Product Type: Chillers - Air Cooled

Product Model Number: See Attached Certified Components Table

General Description: The rigid base mounted PACT line are process chillers. These chillers are packaged, air cooled condensers, stainless steel tank model chillers with one or two loops. This line is a scroll compressor chiller series used for residential, commercial air conditioning, and process cooling applications.

Mounting Description: 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: Dynamic Certification Laboratories

Contact Person: Kelly Laplace

Mailing Address: 1315 Greg Street, Suite 109, Sparks, NV 89431

Telephone: (775) 358-5085

Email: Kelly@shaketest.com

Title: Business Manager





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
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**California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)**

Company Name: THE VMC GROUP

Name: Kenneth Tarlow California License Number: S2851

Mailing Address: 980 9th Street, 16th Floor, Sacramento, CA 95814

Telephone: (832) 627-2214 Email: ken.tarlow@thevmcgroup.com

**Certification Method**

GR-63-Core       ICC-ES AC156       IEEE 344       IEEE 693       NEBS 3

Other (Please Specify): \_\_\_\_\_

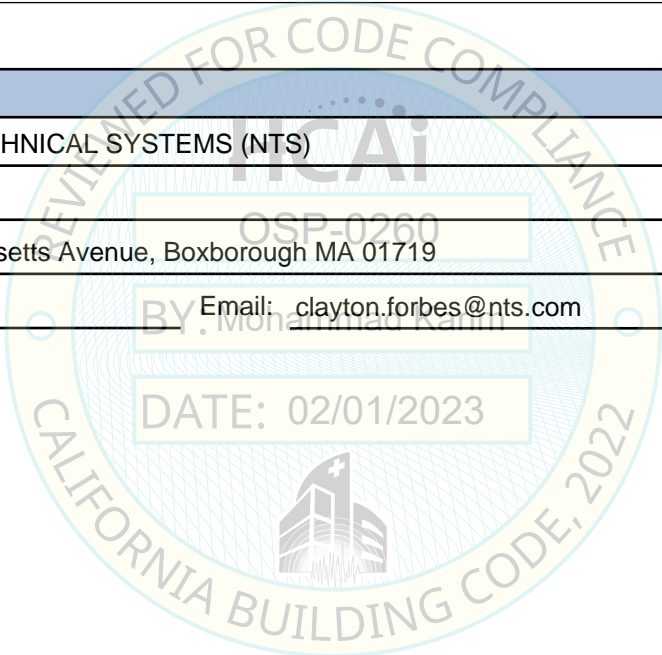
**Testing Laboratory**

Company Name: NATIONAL TECHNICAL SYSTEMS (NTS)

Contact Person: Clayton Forbes

Mailing Address: 1146 Massachusetts Avenue, Boxborough MA 01719

Telephone: (978) 266-1001 Email: clayton.forbes@nts.com





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**Seismic Parameters**

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.88

SDS (Design spectral response acceleration at short period, g) = 2.50

$a_p$  (Amplification factor) = 1.0

$R_p$  (Response modification factor) = 2.5

$\Omega_0$  (System overstrength factor) = 2.0

$I_p$  (Importance factor) = 1.5

$z/h$  (Height ratio factor) = 1

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

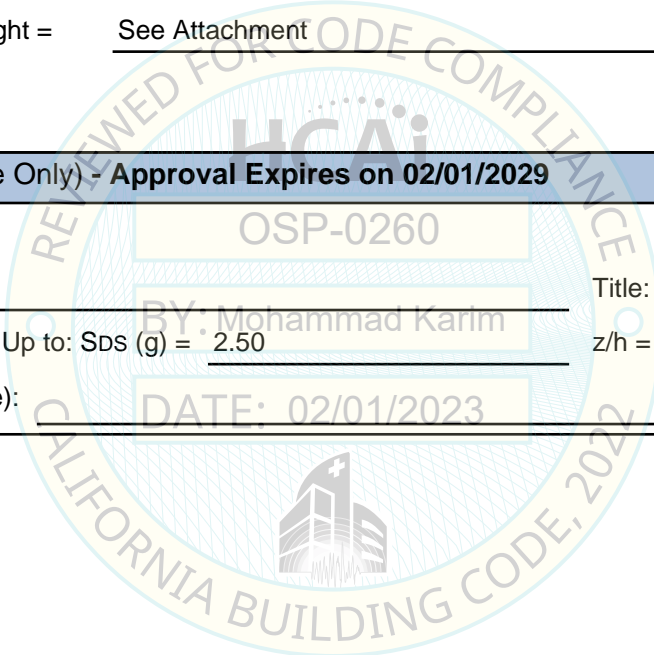
**HCAI Approval (For Office Use Only) - Approval Expires on 02/01/2029**

Date: 02/01/2023

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 2.50 z/h = 1

Condition of Approval (if applicable): DATE: 02/01/2023



# Special Seismic Certification

## Table 1 - Certified Components



DCL Project Number: 99810-2201  
 Manufacturer: Drake Refrigeration  
 Product Line: PACT Chillers  
 Mounting Configuration: Rigid base mount  
 Test Levels:  $S_{DS} = 2.50g$ ,  $z/h=1.0$

Model Number	Max. Dimensions (in.)			Max. Weight (lb.)		Unit
	Width	Length	Height	Empty	Operating	
<b>Single Circuit Refrigeration</b>						
PACT12S3-S2-ZS	34	36	60	550	800	UUT-01
PACT12S6-S2-ZS	34	36	60	550	800	INTERPOLATED
PACT12S8-S2-ZS	34	36	60	550	800	INTERPOLATED
PACT12S7-S2-ZS	34	36	60	550	800	INTERPOLATED
PACT18S3-S2-ZS	34	36	60	600	850	INTERPOLATED
PACT18S3-T3-ZS	34	36	60	600	850	INTERPOLATED
PACT18S3-T4-ZS	34	36	60	600	850	INTERPOLATED
PACT18S6-S2-ZS	34	36	60	600	850	INTERPOLATED
PACT18S6-T3-ZS	34	36	60	600	850	INTERPOLATED
PACT18S6-T4-ZS	34	36	60	600	850	INTERPOLATED
PACT18S8-S2-ZS	34	36	60	600	850	INTERPOLATED
PACT18S8-T3-ZS	34	36	60	600	850	INTERPOLATED
PACT18S8-T4-ZS	34	36	60	600	850	INTERPOLATED
PACT18S7-S2-ZS	34	36	60	600	850	INTERPOLATED
PACT18S7-T3-ZS	34	36	60	600	850	INTERPOLATED
PACT18S7-T4-ZS	34	36	60	600	850	INTERPOLATED
PACT24S3-S2-ZS	34	36	60	650	900	INTERPOLATED
PACT24S3-T3-ZS	34	36	60	650	900	INTERPOLATED
PACT24S3-T4-ZS	34	36	60	650	900	INTERPOLATED
PACT24S6-S2-ZS	34	36	60	650	900	INTERPOLATED
PACT24S6-T3-ZS	34	36	60	650	900	INTERPOLATED
PACT24S6-T4-ZS	34	36	60	650	900	INTERPOLATED
PACT24S8-S2-ZS	34	36	60	650	900	INTERPOLATED
PACT24S8-T3-ZS	34	36	60	650	900	INTERPOLATED
PACT24S8-T4-ZS	34	36	60	650	900	INTERPOLATED
PACT24S7-S2-ZS	34	36	60	650	900	INTERPOLATED
PACT24S7-T3-ZS	34	36	60	650	900	INTERPOLATED
PACT24S7-T4-ZS	34	36	60	650	900	INTERPOLATED
PACT30S6-S2-ZS	34	36	60	700	950	INTERPOLATED
PACT30S6-T3-ZS	34	36	60	700	950	INTERPOLATED
PACT30S6-T4-ZS	34	36	60	700	950	INTERPOLATED
PACT30S8-S2-ZS	34	36	60	700	950	INTERPOLATED
PACT30S8-T3-ZS	34	36	60	700	950	INTERPOLATED
PACT30S8-T4-ZS	34	36	60	700	950	INTERPOLATED
PACT36S3-T4-ZS	34	56	66	800	1050	INTERPOLATED
PACT36S6-S2-ZS	34	56	66	800	1050	INTERPOLATED
PACT36S6-T3-ZS	34	56	66	800	1050	INTERPOLATED
PACT36S6-T4-ZS	34	56	66	800	1050	INTERPOLATED
PACT36S8-T4-ZS	34	56	66	800	1050	INTERPOLATED
PACT36S7-S2-ZS	34	56	66	800	1050	INTERPOLATED
PACT36S7-T3-ZS	34	56	66	800	1050	INTERPOLATED
PACT36S7-T4-ZS	34	56	66	800	1050	INTERPOLATED
PACT48S3-S2-ZS	34	56	66	850	1350	INTERPOLATED
PACT48S3-T3-ZS	34	56	66	850	1350	INTERPOLATED
PACT48S3-T4-ZS	34	56	66	850	1350	INTERPOLATED
PACT48S3-T3-ZTS	34	56	66	850	1350	INTERPOLATED
PACT48S3-T3-ZTS	34	56	66	850	1350	INTERPOLATED
PACT48S3-T4-ZTS	34	56	66	850	1350	INTERPOLATED

Note: All units are constructed out of 16 gauge galvanized carbon steel with a 11 gauge galvanized carbon steel chassis.

# Special Seismic Certification

## Table 1 - Certified Components Cont.



DCL Project Number: 99810-2201  
 Manufacturer: Drake Refrigeration  
 Product Line: PACT Chillers  
 Mounting Configuration: Rigid base mount  
 Test Levels: S<sub>D5</sub> = 2.50g, z/h=1.0

Model Number	Max. Dimensions (in.)			Max. Weight (lb.)		Unit
	Width	Length	Height	Empty	Operating	
<b>Single Circuit Refrigeration</b>						
PACT48S8-S2-ZS	34	56	66	850	1350	INTERPOLATED
PACT48S8-T3-ZS	34	56	66	850	1350	INTERPOLATED
PACT48S8-T4-ZS	34	56	66	850	1350	INTERPOLATED
PACT48S6-S2-ZS	34	56	66	850	1350	INTERPOLATED
PACT48S6-T3-ZS	34	56	66	850	1350	INTERPOLATED
PACT48S6-T4-ZS	34	56	66	850	1350	INTERPOLATED
PACT48S7-S2-ZS	34	56	66	850	1350	INTERPOLATED
PACT48S7-T3-ZS	34	56	66	850	1350	INTERPOLATED
PACT48S6-T4-ZS	34	56	66	850	1350	INTERPOLATED
PACT50S3-S2-ZS	34	56	66	875	1375	INTERPOLATED
PACT50S6-S2-ZS	34	56	66	875	1375	INTERPOLATED
PACT50S8-S2-ZS	34	56	66	875	1375	INTERPOLATED
PACT50S7-S2-ZS	34	56	66	875	1375	INTERPOLATED
PACT60S3-T3-ZS	34	56	66	900	1400	INTERPOLATED
PACT60S3-T4-ZS	34	56	66	900	1400	INTERPOLATED
PACT60S3-T5-ZS	34	56	66	900	1400	INTERPOLATED
PACT60S6-T3-ZS	34	56	66	900	1400	INTERPOLATED
PACT60S6-T4-ZS	34	56	66	900	1400	INTERPOLATED
PACT60S6-T5-ZS	34	56	66	900	1400	INTERPOLATED
PACT60S8-T3-ZS	34	56	66	900	1400	INTERPOLATED
PACT60S8-T4-ZS	34	56	66	900	1400	INTERPOLATED
PACT60S8-T5-ZS	34	56	66	900	1400	INTERPOLATED
PACT60S7-T3-ZS	34	56	66	900	1400	INTERPOLATED
PACT60S7-T4-ZS	34	56	66	900	1400	INTERPOLATED
PACT60S7-T5-ZS	34	56	66	900	1400	INTERPOLATED
PACT70S3-T3-ZS	34	85	66	1100	1600	INTERPOLATED
PACT70S3-T4-ZS	34	85	66	1100	1600	INTERPOLATED
PACT70S3-T5-ZS	34	85	66	1100	1600	INTERPOLATED
PACT70S6-T3-ZS	34	85	66	1100	1600	INTERPOLATED
PACT70S6-T4-ZS	34	85	66	1100	1600	INTERPOLATED
PACT70S6-T5-ZS	34	85	66	1100	1600	INTERPOLATED
PACT70S8-T3-ZS	34	85	66	1100	1600	INTERPOLATED
PACT70S8-T4-ZS	34	85	66	1100	1600	INTERPOLATED
PACT70S8-T5-ZS	34	85	66	1100	1600	INTERPOLATED
PACT70S7-T3-ZS	34	85	66	1100	1600	INTERPOLATED
PACT70S7-T4-ZS	34	85	66	1100	1600	INTERPOLATED
PACT70S7-T5-ZS	34	85	66	1100	1600	INTERPOLATED
PACT78S3-T3-ZTS	34	85	66	1300	1800	INTERPOLATED
PACT78S3-T4-ZTS	34	85	66	1300	1800	INTERPOLATED
PACT78S8-T3-ZTS	34	85	66	1300	1800	INTERPOLATED
PACT78S8-T4-ZTS	34	85	66	1300	1800	INTERPOLATED
PACT79S3-T3-ZTS	34	85	66	1300	1800	INTERPOLATED
PACT79S3-T4-ZTS	34	85	66	1300	1800	INTERPOLATED
PACT79S8-T3-ZTS	34	85	66	1300	1800	INTERPOLATED
PACT79S8-T4-ZTS	34	85	66	1300	1800	INTERPOLATED
PACT80S3-T3-ZS	34	85	66	1150	1900	INTERPOLATED
PACT80S3-T4-ZS	34	85	66	1150	1900	INTERPOLATED
PACT80S6-T3-ZS	34	85	66	1150	1900	INTERPOLATED

Note: All units are constructed out of 16 gauge galvanized carbon steel with a 11 gauge galvanized carbon steel chassis.

# Special Seismic Certification

## Table 1 - Certified Components Cont.



DCL Project Number: 99810-2201  
 Manufacturer: Drake Refrigeration  
 Product Line: PACT Chillers  
 Mounting Configuration: Rigid base mount  
 Test Levels: S<sub>D5</sub> = 2.50g, z/h=1.0

Model Number	Max. Dimensions (in.)			Max. Weight (lb.)		Unit
	Width	Length	Height	Empty	Operating	
<b>Single Circuit Refrigeration</b>						
PACT80S6-T4-ZS	34	85	66	1150	1900	INTERPOLATED
PACT80S7-T3-ZS	34	85	66	1150	1900	INTERPOLATED
PACT80S7-T4-ZS	34	85	66	1150	1900	INTERPOLATED
PACT80S8-T3-ZS	34	85	66	1150	1900	INTERPOLATED
PACT80S8-T4-ZS	34	85	66	1150	1900	INTERPOLATED
PACT90S3-T3-ZS	34	85	66	1250	2000	INTERPOLATED
PACT90S3-T4-ZS	34	85	66	1250	2000	INTERPOLATED
PACT90S3-T5-ZS	34	85	66	1250	2000	INTERPOLATED
PACT90S6-T3-ZS	34	85	66	1250	2000	INTERPOLATED
PACT90S6-T4-ZS	34	85	66	1250	2001	INTERPOLATED
PACT90S6-T5-ZS	34	85	66	1250	2000	INTERPOLATED
PACT90S7-T3-ZS	34	85	66	1250	2000	INTERPOLATED
PACT90S7-T4-ZS	34	85	66	1250	2000	INTERPOLATED
PACT90S7-T5-ZS	34	85	66	1250	2000	INTERPOLATED
PACT90S8-T3-ZS	34	85	66	1250	2000	INTERPOLATED
PACT90S8-T4-ZS	34	85	66	1250	2000	INTERPOLATED
PACT90S8-T5-ZS	34	85	66	1250	2000	INTERPOLATED
PACT120S3-T3-ZS	34	85	66	1300	2050	INTERPOLATED
PACT120S3-T4-ZS	34	85	66	1300	2050	INTERPOLATED
PACT120S3-T5-ZS	34	85	66	1300	2050	INTERPOLATED
PACT120S7-T3-ZS	34	85	66	1300	2050	INTERPOLATED
PACT120S7-T4-ZS	34	85	66	1300	2050	INTERPOLATED
PACT120S7-T5-ZS	34	85	66	1300	2050	INTERPOLATED
PACT120S6-T3-ZS	34	85	66	1300	2050	INTERPOLATED
PACT120S6-T4-ZS	34	85	66	1300	2050	INTERPOLATED
PACT120S6-T5-ZS	34	85	66	1300	2050	INTERPOLATED
<b>Dual Circuit Refrigeration</b>						
PACT72D3-S2-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D3-T3-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D3-T4-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D3-T5-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D6-S2-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D6-T3-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D6-T4-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D7-S2-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D7-T3-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D7-T4-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D7-T5-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D8-S2-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D8-T3-ZS	34	75	73	1100	1600	INTERPOLATED
PACT72D8-T4-ZS	34	75	73	1100	1600	INTERPOLATED
PACT96D3-S2-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D3-T3-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D3-T4-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D3-T5-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D6-S2-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D6-T3-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D6-T4-ZS	34	75	73	1200	1950	INTERPOLATED

Note: All units are constructed out of 16 gauge galvanized carbon steel with a 11 gauge galvanized carbon steel chassis.

# Special Seismic Certification

## Table 1 - Certified Components Cont.



DCL Project Number: 99810-2201  
 Manufacturer: Drake Refrigeration  
 Product Line: PACT Chillers  
 Mounting Configuration: Rigid base mount  
 Test Levels: S<sub>D5</sub> = 2.50g, z/h=1.0

Model Number	Max. Dimensions (in.)			Max. Weight (lb.)		Unit
	Width	Length	Height	Empty	Operating	
<b>Dual Circuit Refrigeration</b>						
PACT96D7-S2-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D7-T3-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D7-T4-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D7-T5-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D8-S2-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D8-T3-ZS	34	75	73	1200	1950	INTERPOLATED
PACT96D8-T4-ZS	34	75	73	1200	1950	INTERPOLATED
PACT100D3-S2-ZS	34	75	73	1250	2000	INTERPOLATED
PACT100D6-S2-ZS	34	75	73	1250	2000	INTERPOLATED
PACT100D7-S2-ZS	34	75	73	1250	2000	INTERPOLATED
PACT100D8-S2-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D3-T3-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D3-T4-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D3-T5-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D6-T3-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D6-T4-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D6-T5-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D7-T3-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D7-T4-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D7-T5-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D8-T3-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D8-T4-ZS	34	75	73	1250	2000	INTERPOLATED
PACT120D8-T5-ZS	34	75	73	1250	2000	INTERPOLATED
PACT140D3-T3-ZS	40	85	73	1300	2050	INTERPOLATED
PACT140D3-T4-ZS	40	85	73	1300	2050	INTERPOLATED
PACT140D3-T5-ZS	40	85	73	1300	2050	INTERPOLATED
PACT140D7-T3-ZS	40	85	73	1300	2050	INTERPOLATED
PACT140D7-T4-ZS	40	85	73	1300	2050	INTERPOLATED
PACT140D7-T5-ZS	40	85	73	1300	2050	INTERPOLATED
PACT140D6-T3-ZS	40	85	73	1300	2050	INTERPOLATED
PACT140D6-T4-ZS	40	85	73	1300	2050	INTERPOLATED
PACT140D6-T5-ZS	40	85	73	1300	2050	INTERPOLATED
PACT140D8-T3-ZS	40	85	73	1300	2050	INTERPOLATED
PACT140D8-T4-ZS	40	85	73	1300	2050	INTERPOLATED
PACT140D8-T5-ZS	40	85	73	1300	2050	INTERPOLATED
PACT160D3-T3-ZS	40	85	73	1400	2525	INTERPOLATED
PACT160D3-T4-ZS	40	85	73	1400	2525	INTERPOLATED
PACT160D3-T5-ZS	40	85	73	1400	2525	INTERPOLATED
PACT160D6-T3-ZS	40	85	73	1400	2525	INTERPOLATED
PACT160D6-T4-ZS	40	85	73	1400	2525	INTERPOLATED
PACT160D6-T5-ZS	40	85	73	1400	2525	INTERPOLATED
PACT160D7-T3-ZS	40	85	73	1400	2525	INTERPOLATED
PACT160D7-T4-ZS	40	85	73	1400	2525	INTERPOLATED
PACT160D7-T5-ZS	40	85	73	1400	2525	INTERPOLATED
PACT160D8-T3-ZS	40	85	73	1400	2525	INTERPOLATED
PACT160D8-T4-ZS	40	85	73	1400	2525	INTERPOLATED
PACT160D8-T5-ZS	40	85	73	1400	2525	INTERPOLATED
PACT180D3-T3-ZS	40	85	73	1450	2575	INTERPOLATED

Note: All units are constructed out of 16 gauge galvanized carbon steel with a 11 gauge galvanized carbon steel chassis.

# Special Seismic Certification

## Table 1 - Certified Components Cont.



**DCL Project Number:** 99810-2201  
**Manufacturer:** Drake Refrigeration  
**Product Line:** PACT Chillers  
**Mounting Configuration:** Rigid base mount  
**Test Levels:**  $S_{DS} = 2.50g, z/h=1.0$

Model Number	Max. Dimensions (in.)			Max. Weight (lb.)		Unit
	Width	Length	Height	Empty	Operating	
<b>Dual Circuit Refrigeration</b>						
PACT180D3-T4-ZS	40	85	73	1450	2575	INTERPOLATED
PACT180D3-T5-ZS	40	85	73	1450	2575	INTERPOLATED
PACT180D6-T3-ZS	40	85	73	1450	2575	INTERPOLATED
PACT180D6-T4-ZS	40	85	73	1450	2575	INTERPOLATED
PACT180D6-T5-ZS	40	85	73	1450	2575	INTERPOLATED
PACT180D7-T3-ZS	40	85	73	1450	2575	INTERPOLATED
PACT180D7-T4-ZS	40	85	73	1450	2575	INTERPOLATED
PACT180D7-T5-ZS	40	85	73	1450	2575	INTERPOLATED
PACT180D8-T3-ZS	40	85	73	1450	2575	INTERPOLATED
PACT180D8-T4-ZS	40	85	73	1450	2575	INTERPOLATED
PACT180D8-T5-ZS	40	85	73	1450	2575	INTERPOLATED
PACT170D3-T3-ZTS	40	85	73	1500	2700	INTERPOLATED
PACT170D3-T4-ZTS	40	85	73	1500	2700	INTERPOLATED
PACT170D7-T3-ZTS	40	85	73	1500	2700	INTERPOLATED
PACT170D7-T4-ZTS	40	85	73	1500	2700	INTERPOLATED
PACT172D3-T3-ZTS	40	85	73	1500	2700	INTERPOLATED
PACT172D3-T4-ZTS	40	85	73	1500	2700	INTERPOLATED
PACT172D7-T3-ZTS	40	85	73	1500	2700	INTERPOLATED
PACT172D7-T4-ZTS	40	85	73	1500	2700	INTERPOLATED
PACT171D3-T3-ZTS	40	85	73	1500	2700	INTERPOLATED
PACT171D7-T3-ZTS	40	85	73	1500	2700	INTERPOLATED
PACT171D7-T4-ZTS	40	85	73	1500	2700	INTERPOLATED
PACT171D3-T4-ZTS	40	85	73	1500	2700	UUT-03

Note: All units are constructed out of 16 gauge galvanized carbon steel with a 11 gauge galvanized carbon steel chassis.



**Special Seismic Certification**  
**Table 2 - Certified Subcomponents - Compressors**



DCL Project Number: 99810-2201

Model Number	Manufacturer	Description	Drake Part Number	Material	Weight (lb.)	Unit
<b>Compressors</b>						
ZR16K4E-PFV	Copeland	208-230V/60Hz/1Ø	D10-541	Carbon Steel and Copper	44	UUT-01
ZB11KCE-PFV		208-230V/60Hz/1Ø	D10-476		49	INTERPOLATED
ZB15KCE-TFD		460V/60Hz/3Ø	D10-467		56	INTERPOLATED
ZB15KCE-TF5		208-230V/60Hz/3Ø	D10-466		56	INTERPOLATED
ZB19KCE-TFD		460V/60Hz/3Ø	D10-486		60	INTERPOLATED
ZB19KCE-TF5		208-230V/60Hz/3Ø	D10-485		60	INTERPOLATED
ZB19KCE-PFV		208-230V/60Hz/1Ø	D10-484		62	INTERPOLATED
ZB15KCE-PFV		208-230V/60Hz/1Ø	D10-465		62	INTERPOLATED
ZB26KCE-TFE		575V/60Hz/3Ø	N/A		63	INTERPOLATED
ZB26KCE-TFD		460V/60Hz/3Ø	D10-489		63	INTERPOLATED
ZB26KCE-TF5		208-230V/60Hz/3Ø	D10-488		63	INTERPOLATED
ZB26KCE-PFV		208-230V/60Hz/1Ø	D10-487		64	INTERPOLATED
ZB30KCE-TFE		575V/60Hz/3Ø	N/A		78	INTERPOLATED
ZB30KCE-TFD		460V/60Hz/3Ø	D10-438		78	INTERPOLATED
ZB30KCE-TF5		208-230V/60Hz/3Ø	D10-437		78	INTERPOLATED
ZBD30KCE-TFE		575V/60Hz/3Ø	N/A		81	INTERPOLATED
ZBD30KCE-TFD		460V/60Hz/3Ø	N/A		81	INTERPOLATED
ZBD30KCE-TF5		208-230V/60Hz/3Ø	N/A		81	INTERPOLATED
ZBD38KCE-TF5		208-230V/60Hz/3Ø	N/A		83	INTERPOLATED
ZB38KCE-TFE		575V/60Hz/3Ø	D10-619		83	INTERPOLATED
ZB38KCE-TFD		460V/60Hz/3Ø	D10-453		83	INTERPOLATED
ZB38KCE-TF5		208-230V/60Hz/3Ø	D10-452		83	INTERPOLATED
ZBD38KCE-TFE		575V/60Hz/3Ø	N/A		84	INTERPOLATED
ZBD38KCE-TFD		460V/60Hz/3Ø	N/A		84	INTERPOLATED
ZBD38KCE-TF7		380V/60Hz/3Ø	N/A		84	INTERPOLATED
ZBD45KCE-TF7		380V/60Hz/3Ø	N/A		87	INTERPOLATED
ZB45KCE-TFE		575V/60Hz/3Ø	D10-509		87	INTERPOLATED
ZB45KCE-TFD		460V/60Hz/3Ø	D10-450		87	INTERPOLATED
ZB45KCE-TF5		208-230V/60Hz/3Ø	D10-449		87	INTERPOLATED
ZBD45KCE-TFE		575V/60Hz/3Ø	N/A		88	INTERPOLATED
ZBD45KCE-TFD		460V/60Hz/3Ø	N/A		88	INTERPOLATED
ZBD45KCE-TF5		208-230V/60Hz/3Ø	N/A		88	INTERPOLATED
ZB30KCE-PFV		208-230V/60Hz/1Ø	D10-436		88	INTERPOLATED
ZB42KCE-PFV		208-230V/60Hz/1Ø	D10-448		91	INTERPOLATED
ZB38KCE-PFV		208-230V/60Hz/1Ø	D10-451		92	INTERPOLATED
ZBD58KCE-TF7		380V/60Hz/3Ø	N/A		125	INTERPOLATED
ZBD58KCE-TFD		460V/60Hz/3Ø	N/A		126	INTERPOLATED
ZBD58KCE-TF5		208-230V/60Hz/3Ø	N/A		126	INTERPOLATED
ZB58KCE-TFE		575V/60Hz/3Ø	D10-554		126	INTERPOLATED
ZB58KCE-TFD		460V/60Hz/3Ø	D10-480		126	INTERPOLATED
ZB58KCE-TF5		208-230V/60Hz/3Ø	D10-479		126	INTERPOLATED
ZB66KCE-TFE		575V/60Hz/3Ø	D10-473		131	INTERPOLATED
ZB66KCE-TFD		460V/60Hz/3Ø	D10-472		132	INTERPOLATED
ZB66KCE-TF5		208-230V/60Hz/3Ø	D10-471		132	INTERPOLATED
ZR125KCE-TFE		575V/60Hz/3Ø	D10-583		133	INTERPOLATED
ZBD76KCE-TF7	380V/60Hz/3Ø	N/A	134	INTERPOLATED		
ZB76KCE-TFE	575V/60Hz/3Ø	D10-494	134	INTERPOLATED		
ZRD125KCE-TFE	575V/60Hz/3Ø	D10-586	135	INTERPOLATED		
ZRD125KCE-TFD	460V/60Hz/3Ø	D10-585	135	UUT-03		
ZRD125KCE-TF5	208-230V/60Hz/3Ø	D10-584	135	INTERPOLATED		
ZR125KCE-TF5	208-230V/60Hz/3Ø	D10-581	135	INTERPOLATED		
ZBD76KCE-TFD	460V/60Hz/3Ø	N/A	135	INTERPOLATED		

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## Table 2 - Certified Subcomponents - Compressors Cont.



DCL Project Number: 99810-2201

Model Number	Manufacturer	Description	Drake Part Number	Material	Weight (lb.)	Unit
<b>Compressors</b>						
ZBD76KCE-TF5	Copeland	208-230V/60Hz/3Ø	N/A	Carbon Steel and Copper	135	INTERPOLATED
ZB76KCE-TFD		460V/60Hz/3Ø	D10-440		135	INTERPOLATED
ZB76KCE-TF5		208-230V/60Hz/3Ø	D10-439		135	INTERPOLATED
ZR125KCE-TFD		460V/60Hz/3Ø	D10-582		135	UUT-03

## Table 3 - Certified Subcomponents - Transformers

Model Number	Manufacturer	Power (kva.)	Drake Part Number	Material	Weight (lb.)	Unit
<b>Transformers</b>						
9070t50d13	Square D	0.05	D59-334	Carbon Steel	3	EXTRAPOLATED
9070t50d12		0.05	D59-339		3	EXTRAPOLATED
9070t50d37		0.05	D59-275		3	EXTRAPOLATED
9070t100d12		0.10	D59-286		4	EXTRAPOLATED
9070t100d36		0.10	D59-360		4	EXTRAPOLATED
9070t100d13		0.10	D59-457		4	EXTRAPOLATED
9070t50d19		0.05	D59-333		4	EXTRAPOLATED
100sv51a		0.10	D59-435		5	EXTRAPOLATED
9070t150d37		0.15	D59-340		6	EXTRAPOLATED
9070t150d31		0.15	D59-450		6	EXTRAPOLATED
9070t100d19		0.10	D59-198		6	UUT-01
9070t250d15		0.25	D59-359		7	INTERPOLATED
150sv51a		0.15	D59-393		7	INTERPOLATED
9070t250d12		0.25	D59-271		7	INTERPOLATED
9070t250d36		0.25	D59-274		7	INTERPOLATED
9070t250d31		0.25	D59-284		7	INTERPOLATED
9070t250d37		0.25	D59-383		7	INTERPOLATED
150sv1a		0.15	D59-416		8	INTERPOLATED
250sv1b		0.25	D59-433		10	UUT-03
9070t350d37		0.35	D59-395		10	INTERPOLATED
9070t350d12		0.35	D59-404		10	INTERPOLATED
9070t350d36		0.25	D59-428		10	INTERPOLATED
250sv51b		0.25	D59-434		11	INTERPOLATED
9070t500d37		0.50	D59-427		11	INTERPOLATED
9070t250d19		0.25	D59-166		11	UUT-03

## Table 4 - Certified Subcomponents - Fan Blades

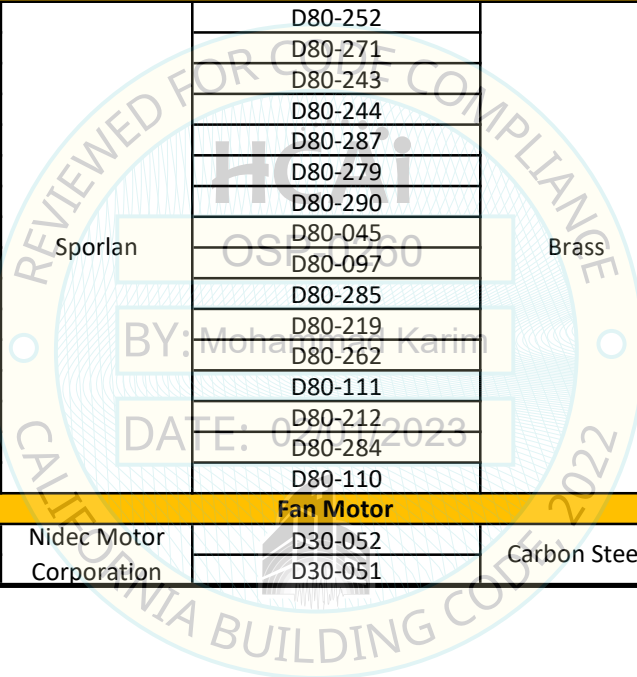
Model Number	Manufacturer	Description	Drake Part Number	Material	Weight (lb.)	Unit
<b>Fan Blades</b>						
ZS2003-30	Revcor	20" 3 BLADE 30°	D40-033	Aluminum	3	UUT-01
ZS2403-34		24" 3 BLADE 34°	D40-034		3	UUT-03

**Special Seismic Certification**  
**Table 5 - Certified Subcomponents - Miscellaneous**



DCL Project Number: 99810-2201

Model Number	Manufacturer	Drake Part Number	Material	Weight (lb.)	Unit
<b>Condensers</b>					
28FL x 16FH X 2 ROW	Keeprite	D20-030	Copper and Galvanized Carbon Steel	11	UUT-01
28FL X 16FH X 3 ROW		D20-031		22	INTERPOLATED
30FL x 24FH x 3 ROW		D20-032		26	INTERPOLATED
32FL x 32FH X 2 ROW		D20-036		31	INTERPOLATED
40FL x 24FH x 3ROW		D20-033		42	INTERPOLATED
50FL x 24FH x 3 ROW		D20-034		45	INTERPOLATED
50FL x 24FH x 4 ROW		D20-035		58	INTERPOLATED
31FL x 36FH X 4 ROW		D20-037		57	UUT-03
<b>Thermal Expansion Valve</b>					
Efve1-1/2-cp100	Sporlan	D80-252	Brass	1	UUT-01
Efse1-1/2-cp115		D80-271		1	INTERPOLATED
Efve2-cp100		D80-243		1	INTERPOLATED
Efve3-cp100		D80-244		1	INTERPOLATED
Ebve-bcp100		D80-287		1	INTERPOLATED
Ebfse-ccp115		D80-279		1	INTERPOLATED
Ebfse-bcp115		D80-290		1	INTERPOLATED
Y735sve4cp100		D80-045		2	INTERPOLATED
Y735sve5cp100		D80-097		2	INTERPOLATED
Ebsse6cp115		D80-285		2	INTERPOLATED
Ebsse7-1/2cp115		D80-219		2	INTERPOLATED
Ose9cp115		D80-262		2	INTERPOLATED
Y735sve10cp100		D80-111		2	INTERPOLATED
Y735ebsve11cp100		D80-212		2	INTERPOLATED
Ose12cp115		D80-284		2	INTERPOLATED
Y735sve8cp100		D80-110		2	UUT-03
<b>Fan Motor</b>					
1/2 HP 1075 RPM S4	Nidec Motor Corporation	D30-052	Carbon Steel	18	UUT-03
1/2 HP 1075 RPM S2		D30-051		25	UUT-01



**Special Seismic Certification**  
**Table 6 - Certified Subcomponents - Pumps and Motors**



DCL Project Number: 99810-2201

Model Number	Manufacturer	Power (hp.)	Drake Part Number	Material	Weight (lb.)	Unit
<b>Pump and Motor</b>						
1ms1c5e4	Goulds	1/2	D35-194	Stainless Steel	19	EXTRAPOLATED
1ms1d5d4		3/4	D35-138		21	EXTRAPOLATED
2ms1d5f4		3/4	D35-139		21	EXTRAPOLATED
1ms1e5c4		1	D35-195		23	EXTRAPOLATED
1st1c5e4		1/2	D35-196		23	EXTRAPOLATED
2ms1e5e4		1	D35-202		23	EXTRAPOLATED
1st1c2e4		1/2	D35-017		24	EXTRAPOLATED
1ms1c1f4		1/2	D35-019		24	UUT-01
1ms1c2f4		1/2	D35-023		24	INTERPOLATED
1ms1c2e4		1/2	D35-024		24	INTERPOLATED
1svb1e4d0		1	D35-053		24	INTERPOLATED
1st1d3d4		3/4	D35-065		24	INTERPOLATED
1st1c3e4		1/2	D35-069		24	INTERPOLATED
1st1d4e4		3/4	D35-099		24	INTERPOLATED
2st1d3f4		3/4	D35-158		24	INTERPOLATED
2st1d2f2		3/4	D35-160		24	INTERPOLATED
1st1c2e2		1/2	D35-161		24	INTERPOLATED
1st1c2e6		1/2	D35-167		24	INTERPOLATED
1ms1d2d4		3/4	D35-025		25	INTERPOLATED
2ms1d2f4		3/4	D35-036		25	INTERPOLATED
1svd1c1b0		1/2	D35-050		25	INTERPOLATED
1svd1d2c0		3/4	D35-056		25	INTERPOLATED
T31h		3/4	D35-091		25	INTERPOLATED
5sh1j2g2		5	D35-107		25	INTERPOLATED
5sh1j3g2		5	D35-115		25	INTERPOLATED
1ms1d2e4		3/4	D35-118		25	INTERPOLATED
1st1e3d4		1	D35-120		25	INTERPOLATED
2st1e3e4		1	D35-157		25	INTERPOLATED
5sh2j52f0		5	D35-193		25	INTERPOLATED
1ms1d1d4		3/4	D35-021		26	INTERPOLATED
1ms1e2c4		1	D35-030		26	INTERPOLATED
1svd1d1c0		3/4	D35-051		26	INTERPOLATED
2ms1e2e4		1	D35-057		26	INTERPOLATED
C25024b2d3l		2	D35-076		26	INTERPOLATED
4sh2e2c0		1	D35-087		26	INTERPOLATED
T31h		3/4	D35-093		26	INTERPOLATED
3ms1e2e4		1	D35-103		26	INTERPOLATED
2st1d5f4		3/4	D35-144		26	INTERPOLATED
2ms1e1e4		1	D35-073		27	INTERPOLATED
1ms1e1c4		1	D35-098		27	INTERPOLATED
3ms1e1e4		1	D35-125		27	INTERPOLATED
1ms1f1b4		1-1/2	D35-022		28	INTERPOLATED
1ms1f2b4		1-1/2	D35-026		28	INTERPOLATED
3ms1f2d4		1-1/2	D35-043		28	INTERPOLATED
2ms1f1d4		1-1/2	D35-070		28	INTERPOLATED
1ms1f2c4		1-1/2	D35-190		28	INTERPOLATED
C25624b3d3l		3	D35-079		28	INTERPOLATED
T41g Bf		3/4	D35-097		29	INTERPOLATED
1st1f2b4	1-1/2	D35-032	29	INTERPOLATED		
2st1f3d4	1-1/2	D35-094	29	INTERPOLATED		
3st1f3d4	1-1/2	D35-101	29	INTERPOLATED		
1st1f3b4	1-1/2	D35-128	29	INTERPOLATED		

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## Table 6 - Certified Subcomponents - Pumps and Motors Cont.



DCL Project Number: 99810-2201

Model Number	Manufacturer	Power (hp.)	Drake Part Number	Material	Weight (lb.)	Unit
<b>Pump and Motor</b>						
1st1d1d4	Goulds	3/4	D35-175	Stainless Steel	30	INTERPOLATED
Acdu70/17d3c		3/4	D35-189		30	INTERPOLATED
2st1e7f4		1	D35-184		30	INTERPOLATED
2ms1g1c4		2	D35-082		30	INTERPOLATED
1ms1g1a4		2	D35-110		30	INTERPOLATED
2ms1g2c4		2	D35-034		31	INTERPOLATED
1ms1g2a4		2	D35-068		31	INTERPOLATED
3ms1g2c4		2	D35-100		31	INTERPOLATED
3svc1j2e0h		5	D35-126		31	INTERPOLATED
1st1f5b4		1-1/2	D35-145		34	INTERPOLATED
1st1f6b4		1-1/2	D35-154		34	INTERPOLATED
1st1g1a4		2	D35-174		34	INTERPOLATED
1ms1h2a4		3	D35-033		34	INTERPOLATED
2ms1h2a4		3	D35-049		34	INTERPOLATED
3ms1h2a4		3	D35-066		34	INTERPOLATED
2ms1h2b4		3	D35-151		34	INTERPOLATED
2st1g2c4		2	D35-035		35	INTERPOLATED
2st1g3c4		2	D35-095		35	INTERPOLATED
1st1g3a4		2	D35-096		35	INTERPOLATED
1st1g3b4		2	D35-121		35	INTERPOLATED
3st1g3c4		2	D35-123		35	INTERPOLATED
1st1g2a6		2	D35-168		35	INTERPOLATED
2st1h9a4pe		3	D35-131		35	INTERPOLATED
2ms1h1a4		3	D35-111		36	INTERPOLATED
1st1h2a2		3	D35-114		39	INTERPOLATED
2st1h2a4		3	D35-141		39	INTERPOLATED
3st1h3a4		3	D35-171		39	INTERPOLATED
2st1h3a4		3	D35-173		39	INTERPOLATED
3st1h2a4		3	D35-177		39	INTERPOLATED
3ms1h5a4		3	D35-112		40	INTERPOLATED
2ms1h5a4		3	D35-203		40	INTERPOLATED
5gbs0312g4		1/2	D35-089		41	INTERPOLATED
5gbs0511j4		1/2	D35-108		41	INTERPOLATED
5gbs0512j4		1/2	D35-109		41	INTERPOLATED
2st1j3g4		5	D35-132		45	INTERPOLATED
3st1j2g6		5	D35-172		45	INTERPOLATED
5gbs0713p4		3/4	D35-166		46	INTERPOLATED
5gbs0712p4		3/4	D35-200		46	INTERPOLATED
3ms1j2g4		5	D35-054		46	INTERPOLATED
2ms1j2g4		5	D35-067		46	INTERPOLATED
2ms1j2k4	5	D35-130	46	INTERPOLATED		
Acdu120/530d3c	3	D35-188	50	INTERPOLATED		
Acdu200/330d3c	3	D35-187	51	UUT-03		

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**Table 7 - Certified Subcomponents - Evaporators**



DCL Project Number: 99810-2201

Model Number	Manufacturer	Drake Part Number	Material	Weight (lb.)	Unit
<b>Evaporators</b>					
AC30-10EQS	Alfa Laval	D60-633	Stainless Steel and Copper	4	UUT-01
AC70-14my S21		D60-605		10	INTERPOLATED
Ac70-18my S21		D60-606		12	INTERPOLATED
Ac70-22my S21		D60-607		13	INTERPOLATED
Ac70-26my S21		D60-608		15	INTERPOLATED
Ac70-32my S21		D60-609		17	INTERPOLATED
Ac70-42my S24		D60-610		21	INTERPOLATED
Ac70-50my S24		D60-611		24	INTERPOLATED
Ac70-58my S24		D60-612		28	INTERPOLATED
Ac70-62my S25		D60-613		29	INTERPOLATED
Ach230dq-22h		D60-659		31	INTERPOLATED
Ac70-68my R49		D60-614		36	INTERPOLATED
Ac70-78my R49		D60-615		36	INTERPOLATED
Ac70-90my R49		D60-632		40	INTERPOLATED
Ac70-118my R49		D60-653		52	INTERPOLATED
Ach230dq-50h		D60-662		58	UUT-03

**Table 8 - Certified Subcomponents - S/S Tanks**

DCL Project Number: 99810-2201

Model Number	Manufacturer	Drake Part Number	Material	Weight (lb.)	Unit
<b>S/S Tanks</b>					
30 Gal s/s 18d x 25 long	Schillinger	D60-111	Stainless Steel	69	UUT-01
60 Gal s/s 24d x 32 long		D60-112		102	INTERPOLATED
60 Gal s/s w/ liquid level sw conn		D60-426		103	INTERPOLATED
60 Gal s/s w/ 2 liquid level sw conn		D60-433		104	INTERPOLATED
90 Gal s/s 24d x 45 long		D60-113		137	UUT-03

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**Table 9 - Certified Subcomponents - Fuses**



DCL Project Number: 99810-2201

Model Number	Manufacturer	Power	Drake Part Number	Material	Weight (lb.)	Unit		
<b>Fuses</b>								
Flnr15 15a	Square D	250v	D53-008	Aluminum	<1	UUT-01		
Flnr6 Dual		250v	D53-109		<1	UUT-01		
Flnr25 Dual Elem		250v	D53-009		<1	INTERPOLATED		
Frrnr-10 10a		250v	D53-054		<1	INTERPOLATED		
Flnr50		250v	D53-078		<1	INTERPOLATED		
Ccmr45		N/A	D53-076		<1	INTERPOLATED		
Ccmr50		N/A	D53-077		<1	INTERPOLATED		
Flnr90id Dual Elem		N/A	D53-081		<1	INTERPOLATED		
Ccmr60		N/A	D53-084		<1	INTERPOLATED		
Lp-ccmr25 Dual Elem		N/A	D53-095		<1	INTERPOLATED		
Ccmr40		N/A	D53-108		<1	INTERPOLATED		
Flsr80id		N/A	D53-113		<1	INTERPOLATED		
Lp-cc-1-1/4		N/A	D53-114		<1	INTERPOLATED		
Flsr15 15a		600v	D53-101		<1	INTERPOLATED		
Lp-cc5 5a Time Delay		600v	D53-053		<1	INTERPOLATED		
Flsr20 20a		600v	D53-102		<1	INTERPOLATED		
Lc-cc-15		600v	D53-045		<1	INTERPOLATED		
Flsr25 25a Dual Elem		600v	D53-088		<1	INTERPOLATED		
Flsr30 30a		600v	D53-103		<1	INTERPOLATED		
Flsr35 35a		600v	D53-104		<1	INTERPOLATED		
Flsr40 40a		600v	D53-130		<1	INTERPOLATED		
Flsr45 45a Dual Elem		600v	D53-094		<1	INTERPOLATED		
Frrsr50 50a Dual Elem		600v	D53-029		<1	INTERPOLATED		
Flsr50 50a		600v	D53-124		<1	INTERPOLATED		
Frrsr60 60a Dual Elem		600v	D53-023		<1	INTERPOLATED		
Flsr60 60a		600v	D53-105		<1	INTERPOLATED		
Flsr70 70a Dual Elem		600v	D53-085		<1	INTERPOLATED		
Ccmr35		600v	D53-075		<1	UUT-03		
<b>Fuses (Alternating Current)</b>								
Frnr-r-6/10 ac		Square D	250vac		D53-058	Aluminum	<1	UUT-01
Frnr-r-20			250vac		D53-018		<1	UUT-01
Flnr12			250vac		D53-061		<1	INTERPOLATED
Flnr1-4/10			250vac		D53-059		<1	INTERPOLATED
Flnr-1a	250vac		D53-132	<1	INTERPOLATED			
Flnr2-1/2	250vac		D53-136	<1	INTERPOLATED			
Flnr2-1/4	250vac		D53-115	<1	INTERPOLATED			
Flnr3/10	250vac		D53-120	<1	INTERPOLATED			
Flnr60	250vac		D53-064	<1	INTERPOLATED			
Frnr-r-10	250vac		D53-060	<1	INTERPOLATED			
Frnr-r-3	250vac		D53-092	<1	INTERPOLATED			
Frnr-r-30	250vac		D53-026	<1	INTERPOLATED			
Frnr-r-35	250vac		D53-062	<1	INTERPOLATED			
Frnr-r-40	250vac		D53-035	<1	INTERPOLATED			
Frnr-r-45	250vac		D53-063	<1	INTERPOLATED			
Frnr-r-5	250vac		D53-006	<1	INTERPOLATED			
Frnr-r-7	250vac		D53-007	<1	INTERPOLATED			
Frnr-r-8	250vac		D53-117	<1	INTERPOLATED			
Frnr-r-9	250vac		D53-138	<1	INTERPOLATED			
Frnr-r-70	250vac		D53-065	<1	INTERPOLATED			
Frnr-r-80	250vac	D53-066	<1	INTERPOLATED				

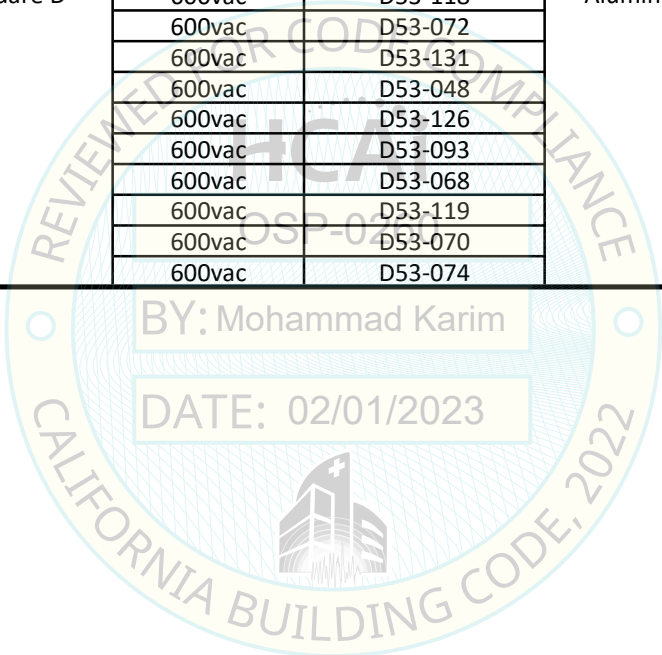
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**Table 9 - Certified Subcomponents - Fuses Cont.**



DCL Project Number: 99810-2201

Model Number	Manufacturer	Power	Drake Part Number	Material	Weight (lb.)	Unit
<b>Fuses (Alternating Current)</b>						
Ccmr1/2	Square D	600vac	D53-107	Aluminum	<1	INTERPOLATED
FIsr90 90a		600vac	D53-096		<1	INTERPOLATED
Ccmr-10		600vac	D53-073		<1	INTERPOLATED
Ccmr-1-1/2		600vac	D53-123		<1	INTERPOLATED
Ccmr2		600vac	D53-069		<1	INTERPOLATED
Ccmr2/10		600vac	D53-121		<1	INTERPOLATED
Ccmr20		600vac	D53-046		<1	INTERPOLATED
Ccmr3/10		600vac	D53-067		<1	INTERPOLATED
Ccmr-5		600vac	D53-071		<1	INTERPOLATED
Ccmr6		600vac	D53-118		<1	INTERPOLATED
Ccmr-7		600vac	D53-072		<1	INTERPOLATED
Lp-cc-1		600vac	D53-131		<1	INTERPOLATED
Lp-cc-30		600vac	D53-048		<1	INTERPOLATED
Lp-cc-4		600vac	D53-126		<1	INTERPOLATED
Lp-cc-8		600vac	D53-093		<1	INTERPOLATED
Lp-cc-8/10		600vac	D53-068		<1	INTERPOLATED
Lp-cc-9		600vac	D53-119		<1	INTERPOLATED
Ccrm3		600vac	D53-070		<1	UUT-03
Lpcc-12		600vac	D53-074		<1	UUT-03



BY: Mohammad Karim

DATE: 02/01/2023



**Special Seismic Certification**  
**Table 10 - Tested Units**



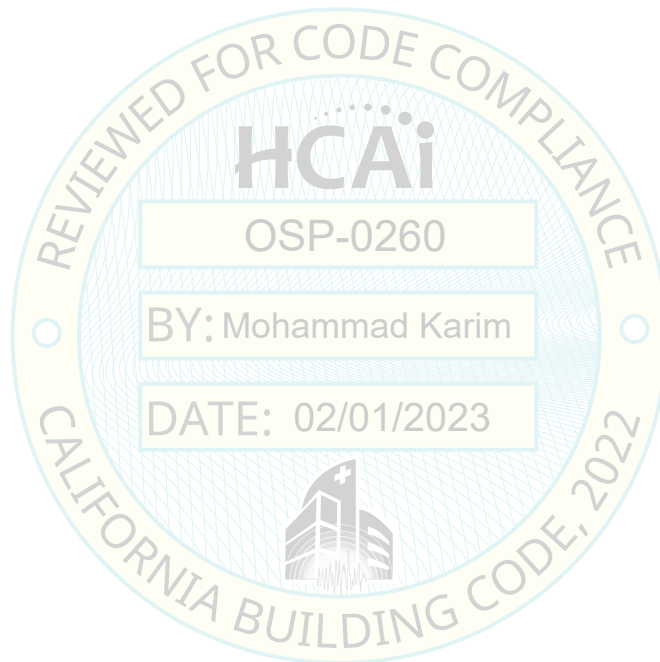
**DCL Project Number:** 99810-2201

**Test Laboratory:** NTS (Report Number TR63648-12I-SEI)

**Manufacturer:** Drake Refrigeration

**Product Line:** PACT Chillers

Model Number	Dimensions (in)			Max. Weight (lb.)		Mounting Configuration	Sds (g) z/h=1	Unit
	Width	Length	Height	Empty	Operating			
PACT12S3-S2-ZS	34	36	60	550	800	Base Mount	2.50	UUT-01
PACT171D3-T4-ZTS	40	85	73	1500	2700	Base Mount	2.50	UUT-03



# UUT-01 UNIT UNDER TEST (UUT) Summary Sheet



**DCL Project Number:** 99810-2201  
**Test Report:** TR63648-12I-SEI

**Manufacturer:** Drake Refrigeration

**Product Line:** PACT Chillers

**Model Number:** PACT12S3-S2-ZS

**Product Construction Summary:**

16 Gauge Galvanized Carbon Steel with a 11 Gauge Galvanized Carbon Steel Chassis

**Options / Component Summary:**

ZR16K4E-PFV Compressor, 9070t100d19 Transformer, ZS2003-30 Fan Blade, 28FL x 16FH X 2 ROW Condenser, EFVE1-1/2CP100 Thermal Expansion Valve, 1/2 HP 1075 RPM S2 Fan Motor, 1ms1c1f4 Pump and Motor, AC30-10EQS Evaporator, 30 Gallon s/s 18d x 25 long S/S Tank, Frn-r-6/10 ac Fuse, Flnr6Dual Fuse, Frn-r-20 Fuse, and Frn-r-20 Fuse

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

**UUT Properties**

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
800	36.0	34.0	60.0	7.6	8.0	>33.3

**Seismic Test Parameters**

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2022	ICC-ES AC-156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

Base mounted with (4) 1/2" - 13 Grade 2 bolts



Overall view of UUT-01

# UUT-03 UNIT UNDER TEST (UUT) Summary Sheet



**DCL Project Number:** 99810-2201  
**Test Report:** TR63648-12I-SEI

**Manufacturer:** Drake Refrigeration

**Product Line:** PACT Chillers

**Model Number:** PACT171D3-T4-ZTS

**Product Construction Summary:**

16 Gauge Galvanized Carbon Steel with a 11 Gauge Galvanized Carbon Steel Chassis

**Options / Component Summary:**

ZR125KCE-TFD Compressor, ZRD125KCE-TFD Compressor, 150sv1a Transformer, 9070t250d19 Transformer, ZS2403-34 Fan Blade, 31FL x 36FH X 4 ROW Condenser, Y735sve8cp100 Fan Motor, Acdu200/330d3c Pump and Motor, Ach230dq-50h Evaporators, 90 Gallon s/s 24d x 45 long S/S Tank, Ccrm3 Fuse, Lpcc-12 Fuse, and Ccmr35 Fuse

**Note:** The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

**UUT Properties**

Operating Weight (lb)	Dimensions (inches)			Lowest Natural Frequency (Hz)		
	Length	Width	Height	Front-Back	Side-Side	Vertical
2,700	85.0	40.0	73.0	6.8	12.5	>33.3

**Seismic Test Parameters**

Building Code	Test Criteria	Sds (g)	z/h	Ip	Aflx-H (g)	Arig-H (g)	Aflx-V (g)	Arig-V (g)
CBC 2022	ICC-ES AC-156	2.50	1.0	1.5	4.00	3.00	1.67	0.67

**Unit Mounting Description:**

Base mounted with (8) 1/2" - 13 Grade 2 bolts



Overall view of UUT-03