



**APPLICATION FOR PREAPPROVAL  
SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS**

For Office Use Only

<p><b>APPLICATION NO.</b></p> <p><b>OSP – 0210-10</b></p>
---

Check whether application is: NEW  RENEWAL

1.0 PG LifeLink Keith Van Kerckhove  
*Manufacturer* *Manufacturer's Technical Representative*

167 Gap Way, Erlanger, KY 41018  
*Mailing Address*

(859) 283-5900 keithv@pglifelink.com  
*Telephone* *E-mail Address*

2.0 Isolated Power Isolated Power Distribution Panels  
*Product Name* *Product Type*

IDP / IDC / DIDP / XTLD / XTL (See Table 5 and 6)  
*Product model No (List all unique product identification numbers and/or serial numbers)*

*General Description: Rigid wall mounted Isolated Power Distribution Panel units with UL50/NEMA 1 enclosures constructed of mill galvanized carbon steel. Anchorage is site specific by SEOR.*

3.0 ZFA Structural Engineers, Inc. Chris S. Warner, SE  
*Applicant Company Name* *Contact Person*

1212 Fourth Street, Suite Z; Santa Rosa, CA 95404  
*Mailing Address*

(707) 526-0992 ChrisW@zfa.com  
*Telephone* *E-mail Address*

I hereby agree to reimburse the Office of Statewide Health Planning and Development for the actual costs incurred by the department for review.

*Chris Warner*

*Signature of Applicant*

09/13/11

*Date*

Principal & CTO  
*Title*

ZFA Structural Engineers, Inc.  
*Company Name*

**Registered Design Professional Preparing the Report**



4.0 **ZFA Structural Engineers, Inc.**

Company Name

Todd G. Kemen, SE

S 5409

Contact Name

California License Number

2277 Fair Oaks Blvd. Suite 320; Sacramento, CA 95825

Mailing Address

(916) 924-7024

[ToddK@zfa.com](mailto:ToddK@zfa.com)

Telephone

E-mail Address

**California Licensed Structural Engineer Review and Acceptance of the Report**

5.0 **ZFA Structural Engineers, Inc.**

Company Name

Chris S. Warner, SE

S 4613

Contact Name

California License Number

1212 Fourth Street, Suite Z; Santa Rosa, CA 95404

Mailing Address

(707) 526-0992

[ChrisW@zfa.com](mailto:ChrisW@zfa.com)

Telephone

E-mail Address

**Anchorage Pre-Approval**

6.0

- Anchorage is pre-approved under OPA-  
(Separate application for anchorage pre-approval is required)
- Anchorage is not Pre-approved

**Certification Method**

7.0

- Testing in accordance with:
  - ICC-ES AC-156
  - Other (Please Specify):

- Analysis
- Experience data
- Combination of Testing, Analysis, and/or Experience Data (Please Specify):

**Testing Laboratory (if applicable)**

8.0

Trentec Inc.

Marie Nemier

Company Name

Contact Name

4600 East Tech Drive; Cincinnati, OH 45245

Mailing Address

(513) 528-7900

[mnemier@curtisswright.com](mailto:mnemier@curtisswright.com)

Telephone

E-mail:



**Approval Parameters**

9.0

Design in accordance with ASCE 7-05 Chapter 13:  Yes  No

Design Basis of Equipment or Components ( $F_p/W_p$ ) = **1.44g**

$S_{DS}$  (Spectral response acceleration at short period) = **2.00g**

$a_p$  (In-structure equipment or component amplification factor) = **1.0**

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

$I_p$  (Importance factor) = **1.5**

$z/h$  (Height factor ratio) = **1.0**

Equipment or Component fundamental period(s) = **N/A**

Building period limits (if any) = **None**

Overall dimensions and weight (or range thereof) = **See Table 5 and 6 Attached**

Equipment or Components @ grade designed in accordance with ASCE 7-05 Chapter 15:  Yes  No

Design Basis of Equipment or Components ( $V/W$ ) =

$S_{DS}$  (Spectral response acceleration at short period) =

$S_1$  (Spectral response acceleration at 1 second period) =

$R$  (Response modification coefficient) =

$\Omega_0$  (System overstrength factor) =

$C_d$  (Deflection amplification factor) =

$I_p$  (Importance factor) =

Height to Center of Gravity above base =

Equipment or Component fundamental period(s) =       Sec

Overall dimensions and weight (or range thereof) =

Tank(s) designed in accordance with ASME BPVC, 2007:  Yes  No

**11.0 List of attachments supporting the special seismic certification of equipment or components:**

- Test Report                       Drawings (in report)     Manufacturer's Catalog  
 Calculations                         Others (Please Specify):

<p><b>11.0 OSHPD Approval (For Office Use Only)</b></p> <p style="text-align: center; font-size: small;">Signature &amp; Date</p> <p style="text-align: center;"><b>M. R. Karim, SHFR</b></p> <p style="text-align: center; font-size: small;">Name &amp; Title</p> <p>Condition of Approval (if any):</p>	<p><b>9/13/2011</b></p>	<p><b>December 31, 2016</b></p> <p style="font-size: small;">Approval Expiration Date</p> <p><math>S_{DS}</math> (g) = <b>2.0</b>                      <math>z/h</math> = <b>1.0</b></p> <p style="font-size: small;">Special Seismic Certification Valid Up to</p>
--	-------------------------	---



ZFA Project No.: 11274

<b>Manufacturer:</b>	PG LifeLink	<b>UUT: 1</b>
<b>Model Series:</b>	IDC/IDP	
<b>Model No.:</b>	IDC15GB160GFNF13D44	
<b>Lab Test Item No.:</b>	Q8012-01-01-01	

**Product Construction Summary:**

Galvanized 14ga A653 steel enclosure containing shielded isolation transformer, line isolation monitor, circuit breaker panel and ground bus.

**Mounting Description:**

(6) 5/16-18 hex head commercial grade bolts. (3) Each side at center of box to rigid frame. Internal components are secured 5/16-18 welded threaded studs.

**Comments:**

**UUT Properties**

Tested Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Height	Width	Depth	X-Direction (Side-Side)	Y-Direction (Front-Back)	Z-Direction (Vertical)
358	12	25	60	N/A	N/A	N/A

**UUT Highest Passed Seismic Run Information**

Building Code	Test Criteria	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>
CBC 2010	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	2.13g	1.60g

**Test Mounting Pictures:**





ZFA Project No.: 11274

<b>Manufacturer:</b>	PG LifeLink	<b>UUT: 2</b>
<b>Model Series:</b>	DIDP	
<b>Model No.:</b>	DIDPL10GB160R10GB160FNF21-H	
<b>Lab Test Item No.:</b>	Q8012-02-01-01	
<b>Product Construction Summary:</b> Galvanized 12ga A653 steel enclosure containing shielded isolation transformer, line isolation monitor, circuit breaker panel and ground bus.		
<b>Mounting Description:</b> (6) 5/16-18 hex head commercial grade bolts. (3) Each side at center of box to rigid frame. Internal components are secured 5/16-18 welded threaded studs.		
<b>Comments:</b>		

### UUT Properties

Tested Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Height	Width	Depth	X-Direction (Side-Side)	Y-Direction (Front-Back)	Z-Direction (Vertical)
630	14	30	70	N/A	N/A	N/A

### UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	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>
CBC 2010	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	2.13g	1.60g

### Test Mounting Pictures:





ZFA Project No.: 11274

<b>Manufacturer:</b>	PG LifeLink	<b>UUT: 3</b>
<b>Model Series:</b>	XTL/XTL D	
<b>Model No.:</b>	XTL256C120FNA21150LR	
<b>Lab Test Item No.:</b>	Q8012-03-01-01	
<b>Product Construction Summary:</b>		
Galvanized 12ga A653 steel enclosure containing shielded isolation transformer, line isolation monitor, circuit breaker panel and ground bus.		
<b>Mounting Description:</b>		
(6) 5/16-18 hex head commercial grade bolts. (3) Each side at center of box to rigid frame. Internal components are secured 5/16-18 welded threaded studs.		
<b>Comments:</b>		

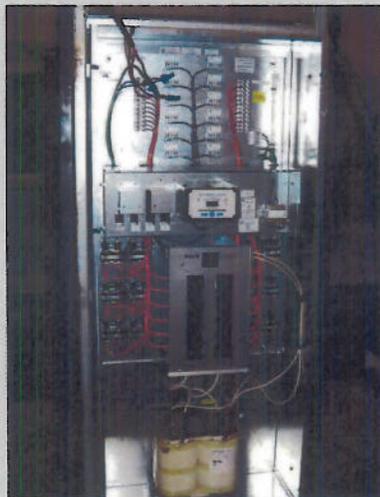
#### UUT Properties

Tested Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Height	Width	Depth	X-Direction (Side-Side)	Y-Direction (Front-Back)	Z-Direction (Vertical)
570	14	30	70	N/A	N/A	N/A

#### UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	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>
CBC 2010	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	2.13g	1.60g

#### Test Mounting Pictures:





ZFA Project No.: 11274

**Sample Equipment Label / Certificate of Compliance per 2010 CBC:**

**Certificate of Compliance  
Seismic Certification Label  
California Building Code**

OSHPD Special Seismic Certification  
Preapproval: OSP-0210-10  
Product Name: Isolated Power Distribution Panel  
Model: IDP / IDC / DIDP / XTLD / XTL  
Anchorage: Rigid Wall Mounted  
Seismic Performance Characteristics:  $S_{DS} (g) = 2.00, z/h = 1.0, I_p = 1.5$   
Manufacturer's Identification Number: XXXXXXXXXX

**(LOGO)**



ZFA Project No.: 11274

kVA Size	Front**	Max Dimensions (in)			Testing Scope	Mounting	Certified Construction	Certified Accessories/Subcomponent Summary			
		Height	Width	Depth							
<b>IDP / IDC Panels</b>											
3	Vented	54	22	6	↖	Rigid Wall Mounted	See Table 7	See Table 7			
	NonVented	54	22	6							
5	Vented	54	22	6	↖						
	NonVented	54	22	6							
7.5	Vented	54	22	6	↖						
	NonVented	60	25	10							
10	Vented	60	25	10	↖						
	NonVented	60	25	12							
15	Vented	60	25	10	↖						
	NonVented	60	25	12							
<b>DIDP / XID / XTL / XTLD Panels</b>											
10	Vented	70	30	12	↖						
	NonVented	70	30	12							
15	Vented	70	30	12	↖						
	NonVented	70	30	14							
20	Vented	70	30	12	↖						
	NonVented	70	30	14							
25	Vented	70	30	12	↖						
	NonVented	70	30	14							

\* Max weight includes largest enclosures and accessories  
 \*\* Vented panels include openings for ventilation of panel interior



ZFA Project No.: 11274

kVA Size	Front	Max Dimensions (in)			Testing Scope	Mounting	Certified Construction	Certified Accessories/Subcomponent Summary
		Height	Width	Depth				
<b>IDP / IDC Panels</b>								
3	Vented	54	22	6	↖	Rigid Wall Mounted	See Table 7	See Table 7
	NonVented	54	22	6				
5	Vented	54	22	6	↖			
	NonVented	54	22	6				
7.5	Vented	54	22	6	Interpolated			
	NonVented	60	25	10				
10	Vented	60	25	10	↗			
	NonVented	60	25	12				
15	Vented	60	25	10	UUT 1			
	NonVented	60	25	12				
<b>DIDP / XID / XTL / XTLD Panels</b>								
10	Vented	70	30	12	↖			
	NonVented	70	30	12				
15	Vented	70	30	12	Interpolated			
	NonVented	70	30	14				
20	Vented	70	30	12	↗			
	NonVented	70	30	14				
25	Vented	70	30	12	UUT 2			
	NonVented	70	30	14				
25	Vented	70	30	12	UUT 3			
	NonVented	70	30	14				



ZFA Project No.: 11274

Enclosures

Component No.	Component Mfg.	Description	Model Line	Construction Material	Approx. Weight (lbs)	Unit
BB542206	PG LifeLink	54" H x 22" W x 6" D	IDP, IDC	14ga A653 Galvanized Steel	45	Interpolated
BB602508	PG LifeLink	60" H x 25" W x 8" D	IDP, IDC	14ga A653 Galvanized Steel	54	Interpolated
BB602510	PG LifeLink	60" H x 25" W x 10" D	IDP, IDC	14ga A653 Galvanized Steel	63	Interpolated
BB602512	PG LifeLink	60" H x 25" W x 12" D	IDP, IDC	14ga A653 Galvanized Steel	73	UUT1
BB703006	PG LifeLink	70" H x 30" W x 6" D	DIDP, XTLD, XTL	12ga A653 Galvanized Steel	105	Interpolated
BB703008	PG LifeLink	70" H x 30" W x 8" D	DIDP, XTLD, XTL	12ga A653 Galvanized Steel	117	Interpolated
BB703010	PG LifeLink	70" H x 30" W x 10" D	DIDP, XTLD, XTL	12ga A653 Galvanized Steel	129	Interpolated
BB703012	PG LifeLink	70" H x 30" W x 12" D	DIDP, XTLD, XTL	12ga A653 Galvanized Steel	141	Interpolated
BB703014	PG LifeLink	70" H x 30" W x 14" D	DIDP, XTLD, XTL	12ga A653 Galvanized Steel	154	UUT2 & UUT3

Front Panels

FRT446	PG LifeLink	56" H x 24" W, Vented	IDP, IDC	14ga 304 Stainless Steel	30	Interpolated
FRT475	PG LifeLink	56" H x 24" W, Non-Vented	IDP, IDC	14ga 304 Stainless Steel	32	Interpolated
FRT318	PG LifeLink	62" H x 27" W, Vented	IDP, IDC	14ga 304 Stainless Steel	46	Interpolated
FRT320	PG LifeLink	62" H x 27" W, Non-Vented	IDP, IDC	14ga 304 Stainless Steel	48	UUT1
FRT003	PG LifeLink	72" H x 32" W, Vented	DIDP, XTLD, XTL	12ga 304 Stainless Steel	66	Interpolated
FRT024	PG LifeLink	72" H x 32" W, Non-Vented	DIDP, XTLD, XTL	12ga 304 Stainless Steel	68	UUT2 & UUT3

Transformers

21-0300	Dongan	3kVA Hospital Isolation Trans. (480V-120V)	IDP, IDC, DIDP, XTLD, XTL	Copper, open coil	55	Interpolated
21-0500	Dongan	5kVA Hospital Isolation Trans. (480V-120V)	IDP, IDC, DIDP, XTLD, XTL	Copper, open coil	90	Interpolated
21-0700	Dongan	7.5kVA Hospital Isolation Trans. (480V-120V)	IDP, IDC, DIDP, XTLD, XTL	Copper, open coil	115	Interpolated
21-1000	Dongan	10kVA Hospital Isolation Trans. (480V-120V)	IDP, IDC, DIDP, XTLD, XTL	Copper, open coil	140	UUT2 (2ea.)
21-1500	Dongan	15kVA Hospital Isolation Trans. (480V-120V)	IDP, IDC, DIDP, XTLD, XTL	Copper, open coil	185	UUT1
21-2500	Dongan	25kVA Hospital Isolation Trans. (480V-120V)	IDP, IDC, DIDP, XTLD, XTL	Copper, open coil	240	UUT3



ZFA Project No.: 11274

Line Isolation Monitor						
Component No.	Component Mfg.	Description	Model Line	Mounting	Approx. Weight (lbs)	Unit
Mark IV	PG LifeLink	Line Isolation Monitor	IDP, IDC, DIDP, XTLD, XTL	BP	2	UUT2 & UUT3
Mark V	PG LifeLink	Line Isolation Monitor	IDP, IDC, DIDP, XTLD, XTL	BP	2	UUT1 & UUT2
<b>Circuit Breakers</b>						
THQB	GE	Molded Case Circuit Breaker, 100A Frame	IDP, IDC, DIDP, XTLD, XTL	BP	1	UUT1
BL	Siemens	Molded Case Circuit Breaker, 125A Frame	IDP, IDC, DIDP, XTLD, XTL	BP	1	UUT3
BAB	Eaton	Molded Case Circuit Breaker, 125A Frame	IDP, IDC, DIDP, XTLD, XTL	BP	1	UUT2
QOB	Square D	Molded Case Circuit Breaker, 125A Frame	IDP, IDC, DIDP, XTLD, XTL	BP	1	UUT2
<b>Receptacles</b>						
HBL8300H	Hubbell	Hospital Grade Receptacle, 20A, 125V	IDP, IDC, DIDP, XTLD, XTL	BP	1	UUT1
<b>Ground Jacks</b>						
SLR	Hampden	Twist Lock Ground Jack, 30A	IDP, IDC, DIDP, XTLD, XTL	BP	1	UUT1
<b>Control Relays</b>						
XTCE	Eaton	Relay, 65A, 600V	XTL	BP	4	UUT3