



# **GSA CATALOG**

## **MISSION CITY ELECTRIC**

**Contract: GS-07F-0277W**

**Schedule: 56 FSC Group 61**

### **FSC CLASSES**

- 6120**      **Transformers, Distribution and Power Station**
- 6130**      **Converters, Electrical, Nonrotating**
- 6145**      **Wire and Cable, Electrical**
- 6150**      **Miscellaneous Electric Power and Distribution Equipment**

- SIN 412 14      Uninterruptible Power Supplies
- SIN 412 15      Power Distribution Units (PDU's)
- SIN 412 19      Transformers
- SIN 412 51      Installation and Site Preparation Services for Power Distribution Equipment

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Mission City has teamed with the industry's leading manufacturers of electrical power quality equipment and products to provide the best Data Center and IT solutions possible. Our team has over forty years experience with government installation and design of Critical Power systems. We believe in personal integrity, quality products and absolute customer satisfaction.

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**Ordering Information**

- |                          |   |  |
|--------------------------|---|--|
| 1. Special Item Number:  | SIN 412 14  | Uninterruptible Power Supplies   |
|                          | SIN 412 15  | Power Distribution Units   |
|                          | SIN 412 19  | Transformers   |
|                          | SIN 412 51  | Installation and Site Preparation  |
| 2. Maximum Order:        | SIN 412 14  | \$500,000.00   |
|                          | SIN 412 15  | \$150,000  |
|                          | SIN 412 19  | \$200,000  |
|                          | SIN 412 51  | \$200,000  |
| 3. Minimum Order:        | All SIN's   | \$100.00   |
| 4. Geographic Coverage:  | (48) Contiguous United States and District of Columbia                  |  |
| 5. Points of Production: | SIN 412 14  | Mexico; Mexicali, Delaware, Ohio,<br>Pompano Beach, FL.                          |
|                          | SIN 412 15  | Mexico; Mexicali, Delaware, Ohio,<br>Lexington, KY, El Paso, TX, Columbia,<br>MO |
|                          | SIN 412 19  | Monterrey Mexico; Huntington, IN   |
| 6. Discounts:            | Included in prices  |  |
| 7. Quantity Discounts:   | None  |  |
| 8. Payment Terms:        | Net 30 Days   |  |
| 9. Gov. Purchase Card:   | Yes   |  |
| 10. Foreign Items:       | N/A   |  |
| 11. Delivery:            | SIN 412 14  | 120 Days ARO   |
|                          | SIN 412 15  | 14 to 120 Days ARO   |
|                          | SIN 412 19  | 21 Days ARO  |
|                          | SIN 412 51  | 45 Days ARO  |
| 12. FOB:                 | Destination - (48) Contiguous United States and District of<br>Columbia |  |

13. Ordering Address: Mission City Electric  
Attn: Tim Kerley  
4403 Dividend, Suite 107  
San Antonio, TX. 78219  
(210) 333-2284 Office  
(210) 333- Fax  
[tim@missioncityelectric.com](mailto:tim@missioncityelectric.com)
14. Payment Address: Mission City Electric  
Attn: Accounting  
4403 Dividend, Suite 107  
San Antonio, TX. 78219  
(210) 333-2284 Office  
(210) 333- Fax
15. Warranty:
- |              |                      |
|--------------|----------------------|
| UPS CONUS    | 1 Year Parts & Labor |
| UPS OCONUS   | 1 Year Parts         |
| PDU's        | 1 Year Parts         |
| Transformers | 1 Year Parts         |
16. Export Packing: N/A
17. Data Universal Number System: DUNS Number 835387325
18. Central Contractor Registration: CCR #

## UNINTERRUPTIBLE POWER SYSTEMS

### Liebert Nfinity™, 4 - 20 kVA On-Line UPS

Liebert Nfinity on-line UPS is a scalable system, designed with N + x parallel redundancy to provide a fault-tolerant network of power protection. Its modular design was devised to provide easy, user-installed upgrades as power demands grow. Configurations can be cost-effectively upgraded without re-investing in a new system or installation.

Liebert Nfinity UPS is available in scalable 4-16kVA and 12-20kVA models, 60 Hz. Modules are scalable in 4kVA increments. 208/120 volt 2 phase input/output.



Manufacturer PN	Description (4-16kVA)	Price
N104S0112600	Nfinity 4kVA, Scaleable 16kVA, (1 power module, 1 battery module, 1 control module)	\$6,454
N104S0212600	Nfinity 4kVA, Scaleable 16 kVA (1 power module, 2 battery modules, 1 control module)	\$6,919
N104S0312600	Nfinity 4kVA, Scaleable 16 kVA (1 power module, 3 battery modules, 1 control module)	\$7,383
N104S0412600	Nfinity 4kVA, Scaleable 16 kVA (1 power module, 4 battery modules, 1 control module)	\$7,848
N104S0512600	Nfinity 4kVA, Scaleable 16 kVA (1 power module, 5 battery modules, 1 control module)	\$8,312
N104S0612600	Nfinity 4kVA, Scaleable 16 kVA (1 power module, 6 battery modules, 1 control module)	\$8,777
N108S0212600	Nfinity 8kVA, Scaleable 16 kVA (2 power modules, 2 battery modules, 1 control module)	\$8,059
N108S0312600	Nfinity 8kVA, Scaleable 16 kVA (2 power modules, 3 battery modules, 1 control module)	\$8,523
N108S0412600	Nfinity 8kVA, Scaleable 16 kVA (2 power modules, 4 battery modules, 1 control module)	\$8,987
N108S0512600	Nfinity 8kVA, Scaleable 16 kVA (2 power modules, 5 battery modules, 1 control module)	\$9,453
N108S0612600	Nfinity 8kVA, Scaleable 16 kVA (2 power modules, 6 battery modules, 1 control module)	\$9,917
N112S0312600	Nfinity 12kVA, Scaleable 16 kVA (3 power modules, 3 battery modules, 1 control module)	\$10,014
N112S0412600	Nfinity 12kVA, Scaleable 16 kVA (3 power modules, 4 battery modules, 1 control module)	\$10,483
N112S0512600	Nfinity 12kVA, Scaleable 16 kVA (3 power modules, 5 battery modules, 1 control module)	\$10,951
N116S0412600	Nfinity 16kVA, Scaleable 16 kVA (4 power modules, 4 battery modules, 1 control module)	\$11,589

Liebert Nfinity UPS is available in scalable 4-16kVA and 12-20kVA models, 60 Hz. Modules are scalable in 4kVA increments. 208/120 volt 2 phase input/output.

<b>Manufacturer PN</b>	<b>Description (12-20kVA)</b>	<b>Price</b>
NB12S0312600	Nfinity 12kVA, Scaleable 20kVA (3 power modules, 3 battery modules, 1 control module)	\$12,344
NB12S0412600	Nfinity 12kVA, Scaleable 20kVA (3 power modules, 4 battery modules, 1 control module)	\$12,876
NB12S0512600	Nfinity 12kVA, Scaleable 20kVA (3 power modules, 5 battery modules, 1 control module)	\$13,409
NB12S0612600	Nfinity 12kVA, Scaleable 20kVA (3 power modules, 6 battery modules, 1 control module)	\$13,941
NB12S0712600	Nfinity 12kVA, Scaleable 20kVA (3 power modules, 7 battery modules, 1 control module)	\$14,473
NB12S0812600	Nfinity 12kVA, Scaleable 20kVA (3 power modules, 8 battery modules, 1 control module)	\$15,006
NB16S0412600	Nfinity 16kVA, Scaleable 20kVA (4 power modules, 4 battery modules, 1 control module)	\$14,194
NB16S0512600	Nfinity 16kVA, Scaleable 20kVA (4 power modules, 5 battery modules, 1 control module)	\$14,726
NB16S0612600	Nfinity 16kVA, Scaleable 20kVA (4 power modules, 6 battery modules, 1 control module)	\$15,260
NB16S0712600	Nfinity 16kVA, Scaleable 20kVA (4 power modules, 7 battery modules, 1 control module)	\$15,793
NB20S0512600	Nfinity 20kVA, Scaleable 20 kVA (5 power modules, 5 battery modules, 1 control module)	\$16,620
NB20S0612600	Nfinity 20kVA, Scaleable 20 kVA (5 power modules, 6 battery modules, 1 control module)	\$17,156

Additional models and options also available through this GSA Contract. Please contact Mission City Electric to discuss your requirements.

INSTALLATION DESCRIPTION  
 Detailed Installation Descriptions Located in Pages 11-16

## UNINTERRUPTIBLE POWER SYSTEMS

### Liebert Npower™, 30 - 130 kVA On-Line UPS

The Liebert Npower features one of the industry's smallest footprints in a full-featured, high power UPS system. All-digital controls allow for ultra-fast adjustments to changing loads. The Liebert Npower is rugged enough to handle load branch faults, input faults, 100% step loads, PDU startup inrush and motor-load startup

Liebert Npower is available in seven models ranging from 30 kVA to 130 kVA; 208, 220, 240, 480 or 600VAC; 60 Hz. Multiple configuration options, including single module, 1+1 redundant for single bus systems, and single and dual input.



Manufacturer PN	Description	Price
NP30I0001	Npower Single Module UPS - Single-Input 30 kVA Isolated Neutral, No Input Filter 208/208 volt	\$14,853
NP30I0002	Npower Single Module UPS - Single-Input 30 kVA Isolated Neutral, No Input Filter 480/208 volt	\$14,151
NP30I0003	Npower Single Module UPS - Single-Input 30 kVA Isolated Neutral, No Input Filter 480/480 volt	\$14,151
NP30I0004	Npower Single Module UPS - Single-Input 30 kVA Isolated Neutral, With Input Filter 208/208 volt	\$15,796
NP30I0005	Npower Single Module UPS - Single-Input 30 kVA Isolated Neutral, With Input Filter 480/208 volt	\$15,093
NP30I0006	Npower Single Module UPS - Single-Input 30 kVA Isolated Neutral, With Input Filter 480/480 volt	\$15,093
NP40I0001	Npower Single Module UPS - Single-Input 40 kVA Isolated Neutral, No Input Filter 208/208 volt	\$17,801
NP40I0002	Npower Single Module UPS - Single-Input 40 kVA Isolated Neutral, No Input Filter 480/208 volt	\$17,036
NP40I0003	Npower Single Module UPS - Single-Input 40 kVA Isolated Neutral, No Input Filter 480/480 volt	\$17,036
NP40I0004	Npower Single Module UPS - Single-Input 40 kVA Isolated Neutral, With Input Filter 208/208 volt	\$18,684
NP40I0005	Npower Single Module UPS - Single-Input 40 kVA Isolated Neutral, With Input Filter 480/208 volt	\$18,098
NP40I0006	Npower Single Module UPS - Single-Input 40 kVA Isolated Neutral, With Input Filter 480/480 volt	\$18,098

**UNINTERRUPTIBLE POWER SYSTEMS**

**Liebert Npower™, 30 - 130 kVA  
 On-Line UPS**

<b>Manufacturer PN</b>	<b>Description</b>	<b>Price</b>
NP50I0001	Npower Single Module UPS - Single-Input 50 kVA Isolated Neutral, No Input Filter 208/208 volt	\$19,395
NP50I0002	Npower Single Module UPS - Single-Input 50 kVA Isolated Neutral, No Input Filter 480/208 volt	\$18,510
NP50I0003	Npower Single Module UPS - Single-Input 50 kVA Isolated Neutral, No Input Filter 480/480 volt	\$18,510
NP50I0004	Npower Single Module UPS - Single-Input 50 kVA Isolated Neutral, With Input Filter 208/208 volt	\$20,635
NP50I0005	Npower Single Module UPS - Single-Input 50 kVA Isolated Neutral, With Input Filter 480/208 volt	\$19,749
NP50I0006	Npower Single Module UPS - Single-Input 50 kVA Isolated Neutral, With Input Filter 480/480 volt	\$19,749
NP65I0001	Npower Single Module UPS - Single-Input 65 kVA Isolated Neutral, No Input Filter 208/208 volt	\$21,577
NP65I0002	Npower Single Module UPS - Single-Input 65 kVA Isolated Neutral, No Input Filter 480/208 volt	\$20,572
NP65I0003	Npower Single Module UPS - Single-Input 65 kVA Isolated Neutral, No Input Filter 480/480 volt	\$20,572
NP65I0004	Npower Single Module UPS - Single-Input 65 kVA Isolated Neutral, With Input Filter 208/208 volt	\$22,988
NP65I0005	Npower Single Module UPS - Single-Input 65 kVA Isolated Neutral, With Input Filter 480/208 volt	\$21,989
NP65I0006	Npower Single Module UPS - Single-Input 65 kVA Isolated Neutral, With Input Filter 480/480 volt	\$21,989
NP80I0001	Npower Single Module UPS - Single-Input 80 kVA Isolated Neutral, No Input Filter 208/208 volt	\$22,636
NP80I0002	Npower Single Module UPS - Single-Input 80 kVA Isolated Neutral, No Input Filter 480/208 volt	\$21,635
NP80I0003	Npower Single Module UPS - Single-Input 80 kVA Isolated Neutral, No Input Filter 480/480 volt	\$21,635
NP80I0004	Npower Single Module UPS - Single-Input 80 kVA Isolated Neutral, With Input Filter 208/208 volt	\$24,051
NP80I0005	Npower Single Module UPS - Single-Input 80 kVA Isolated Neutral, With Input Filter 480/208 volt	\$23,046
NP80I0006	Npower Single Module UPS - Single-Input 80 kVA Isolated Neutral, With Input Filter 480/480 volt	\$23,046
NP100I0001	Npower Single Module UPS - Single-Input 100 kVA Isolated Neutral, No Input Filter 208/208 volt	\$
NP100I0002	Npower Single Module UPS - Single-Input 100 kVA Isolated Neutral, No Input Filter 480/208 volt	\$
NP100I0003	Npower Single Module UPS - Single-Input 100 kVA Isolated Neutral, No Input Filter 480/480 volt	\$
NP100I0004	Npower Single Module UPS - Single-Input 100 kVA Isolated Neutral, With Input Filter 208/208 volt	\$
NP100I0005	Npower Single Module UPS - Single-Input 100 kVA Isolated Neutral, With Input Filter 480/208 volt	\$
NP100I0006	Npower Single Module UPS - Single-Input 100 kVA Isolated Neutral, With Input Filter 480/480 volt	\$

## UNINTERRUPTIBLE POWER SYSTEMS

### Liebert Npower™, 30 - 130 kVA On-Line UPS

Manufacturer PN	Description	Price
NP130I0001	Npower Single Module UPS - Single-Input 130 kVA Isolated Neutral, No Input Filter 208/208 volt	\$24,939
NP130I0002	Npower Single Module UPS - Single-Input 130 kVA Isolated Neutral, No Input Filter 480/208 volt	\$23,806
NP130I0003	Npower Single Module UPS - Single-Input 130 kVA Isolated Neutral, No Input Filter 480/480 volt	\$23,806
NP130I0004	Npower Single Module UPS - Single-Input 130 kVA Isolated Neutral, With Input Filter 208/208 volt	\$26,526
NP130I0005	Npower Single Module UPS - Single-Input 130 kVA Isolated Neutral, With Input Filter 480/208 volt	\$25,393
NP130I0006	Npower Single Module UPS - Single-Input 130 kVA Isolated Neutral, With Input Filter 480/480 volt	\$25,393

Additional models and options also available through this GSA Contract. Please contact Mission City Electric to discuss your requirements.

#### INSTALLATION DESCRIPTION

Detailed Installation Descriptions Located in Pages 11-16

### Liebert Series 610™, 100 - 1000 kVA On-Line UPS

Liebert Series 610 UPS is designed to protect large-scale, mission-critical applications from the full range of power quality problems and outages. The space effective system is also extremely energy efficient, with an operating efficiency of up to 94%. Field-proven reliability and multiple configuration options make Liebert Series 610 an industry leader in power protection.



Manufacturer PN	Description	Price
G610150S001	610 Single Module System - Single-Input 150 KW, No Input Filter 208/208 volt	\$49,638
G610150S002	610 Single Module System - Single-Input 150 KW, No Input Filter 480/208 volt	\$46,535
G610150S003	610 Single Module System - Single-Input 150 KW, No Input Filter 480/480 volt	\$43,280
G610225S001	610 Single Module System - Single-Input 225 KW, No Input Filter 208/208 volt	\$59,593
G610225S002	610 Single Module System - Single-Input 225 KW, No Input Filter 480/208 volt	\$55,256
G610225S003	610 Single Module System - Single-Input 225 KW, No Input Filter 480/480 volt	\$49,590

## UNINTERRUPTIBLE POWER SYSTEMS

### Liebert Series 610™, 100 - 1000 kVA On-Line UPS

Manufacturer PN	Description	Price
G610500S001	610 Single Module System - Single-Input 500/450 kVA/KW, No Input Filter 480/480 volt	\$81,703
G6106250S001	610 Single Module System - Single-Input 625/500 kVA/KW, No Input Filter 480/480 volt	\$97,461
G610750S001	610 Single Module System - Single-Input 750/675 kVA/KW, No Input Filter 480/480 volt	\$121,605
G6101000S001	610 Single Module System - Single-Input 1000 kVA, No Input Filter 480/480 volt	\$152,231

Additional models and options also available through this GSA Contract. Please contact Mission City Electric to discuss your requirements.

#### INSTALLATION DESCRIPTION

Detailed Installation Descriptions Located in Pages 11-16

### Liebert® NXL™, 250-750 kVA On-line UPS

Liebert NXL UPS provides reliable power protection and advanced technology for high power applications. It offers excellent dynamic performance, with the ability to handle virtually any input condition while still providing computer grade output to critical loads.



Manufacturer PN	Description	Price
GNXL250S001	NXL Single Module System - Single-Input 250 kVA, No Input Filter 480/480 volt Standard	\$61,108
GNXL300S001	NXL Single Module System - Single-Input 300 kVA, No Input Filter 480/480 volt Standard	\$69,322
GNXL400S001	NXL Single Module System - Single-Input 400 kVA, No Input Filter 480/480 volt Standard	\$77,270
GNXL750S001	NXL Single Module System - Single-Input 750 kVA, No Input Filter 480/480 volt Standard	\$139,172

Additional models and options also available through this GSA Contract. Please contact Mission City Electric to discuss your requirements.

#### INSTALLATION DESCRIPTION

Detailed Installation Descriptions Located in Pages 11-16

## POWER DISTRIBUTION SYSTEMS

### Liebert Precision Power Center™ (PPC) Power Conditioning and Distribution Cabinet

Liebert Precision Power Center power conditioning and distribution cabinet offers the benefits of a custom-tailored system, with the convenience and cost savings of a pre-packaged, factory-tested system. Housed in a single, self-contained cabinet, it combines distribution, computer-grade grounding, isolation, and power monitoring to provide the protection your vital computer or communications equipment demands.



Manufacturer PN	Description	Price
PPA125C225	Power Distribution Unit 50kVA output, 480/208 input voltage	\$7,831
PPA100C225	Power Distribution Unit 75kVA output, 480/208 input voltage	\$8,503
PPA100C225	Power Distribution Unit 100kVA output, 480/208 input voltage	\$9,270
PPA125C225	Power Distribution Unit 125kVA output, 480/208 input voltage	\$10,188
PPA150C315	Power Distribution Unit 150kVA output, 480/208 input voltage	\$12,360
PPA225C315	Power Distribution Unit 200kVA output, 480/208 input voltage	\$13,627
PPA225C315	Power Distribution Unit 225kVA output, 480/208 input voltage	\$14,402

Additional models and options also available through this GSA Contract. Please contact Mission City Electric to discuss your requirements.

#### INSTALLATION DESCRIPTION

Detailed Installation Descriptions Located in Pages 11-16

## Transformers

### Energy Efficient Transformers

**Provide low temperature rise for energy savings and longer life.**

As the world leader in automation and electricity management, Schneider Electric can help you optimize your energy costs while enhancing your facility's performance, reliability, safety and ease of use. Our package of solutions includes energy conservation, management and monitoring products, systems and services. All designed to help reduce your facility's energy consumption.



Manufacturer PN	Description	Price
EE15T3H	Energy Efficient Transformer , 3-Phase, 15kVA, 480VAC Delta, 208Y/120VAC	\$2,541
EE30T3H	Energy Efficient Transformer , 3-Phase, 30kVA, 480VAC Delta, 208Y/120VAC	\$3,341
EE45T3H	Energy Efficient Transformer , 3-Phase, 45kVA, 480VAC Delta, 208Y/120VAC	\$4,020
EE75T3H	Energy Efficient Transformer , 3-Phase, 75kVA, 480VAC Delta, 208Y/120VAC	\$6,057
EE112T3H	Energy Efficient Transformer , 3-Phase, 112.5kVA, 480VAC Delta, 208Y/120VAC	\$8,069
EE150T3H	Energy Efficient Transformer , 3-Phase, 150kVA, 480VAC Delta, 208Y/120VAC	\$10,533
EE225T3H	Energy Efficient Transformer , 3-Phase, 225kVA, 480VAC Delta, 208Y/120VAC	\$14,042

Additional models and options also available through this GSA Contract. Please contact Mission City Electric to discuss your requirements.

#### INSTALLATION DESCRIPTION

Detailed Installation Descriptions Located in Pages 11-16

## **Installation and Site Preparation Services**

### **1.0 UPS Installation**

1.1 UPS Installation – Includes labor, tools and material handling equipment necessary to assemble and install a single, fully functioning UPS and one (1) battery cabinet system. Includes all labor and material to install and terminate the following properly sized equipment feeds:

- A 30 foot UPS Input feed
- A 30 foot UPS Output feed
  - All feeds shall terminate at a single point and to an existing appropriately sized over-current device within 30 feet of desired UPS equipment location without multiple taps.
  - All feeder paths shall be unobstructed and include up to two (2) 90 degree turns.
  - All feeds shall be sized for the largest kVA rating of the UPS module.
- Rubbish and packing material removal to site provided container
- All work shall comply with the latest (or as locally adopted) National Electric Code and local, state and federal standards.

### **2.0 UPS Removal**

2.1 UPS Removal – Includes labor, tools and material handling equipment necessary to disconnect and remove one UPS system from the facility and move to facility loading dock.

### **3.0 UPS Disposal**

3.1 UPS Disposal - Includes labor, tools and material handling equipment necessary to take UPS and Battery equipment from the loading dock, remove from premises and disposal with local, state or nationally approved recycling facilities. Provide a battery certificate of disposal where necessary.

### **4.0 Inside Delivery**

4.1 Inside Delivery - Includes labor, tools and material handling equipment necessary to off-load a single UPS and Battery system from the delivery truck to inside the facility

- Facility shall be equipped with standard 48 inch high loading dock
- Uncrate and place within loading dock area (or inside the cover of the facility).

### **5.0 Remote Battery Cabinet – 10 Foot**

5.1 Remote Battery Cabinet 10 Foot - Includes labor, tools and installation material (power & control circuits) to remotely place a UPS Battery System. Pricing and services are based on UPS kVA range, 10 foot increments and as indicated below.

- 10 – 160kVA: Single feed to 1<sup>st</sup> Battery. Remainder connected via factory jumpers.
- 161 – 1000kVA: Individual feed from UPS module to each battery cabinet.

### **6.0 Additional Battery Cabinet**

6.1 Additional Battery Cabinet - Includes labor, tools and material handling equipment necessary to place and assemble additional battery cabinets greater than a standard 15 minute battery system.

## **Installation and Site Preparation Services**

### **7.0 2-Wire, 3-Wire & 4-Wire Installation - 50 Feet**

7.1 2-Wire, 3-Wire & 4-Wire Installation, 50 foot - Includes labor, tools and installation material to install a support feeder associated with a UPS system installation over the standard 30 foot increment allotment.

- Includes 50 feet of type EMT conduit, wire, fittings and matching support.
- Includes two (2) 90 degree bends.
- Terminations at both ends, where necessary.

7.2 2-Wire, 3-Wire & 4-Wire Installation - 10 Feet Straight - Includes labor, tools and installation material to extend a support feeder on a 10 foot incremental add.

7.3 2-Wire, 3-Wire & 4-Wire Installation - 10 Feet Elbow - Includes labor, tools and installation material to extend a support feeder on a 10 foot incremental add and includes one 90 degree elbow.

### **8.0 Electrical Panels – Input and Output**

8.1 Electrical Panels – Input and Output - Includes labor, tools and installation material necessary to furnish and install one feeder panel (excludes breakers) associated with a UPS system installation.

- Panelboards shall be configured as follows:
  - 3Ø, 3-Wire, 208V or 480V
    - Ampere Sizes: 150A, 225A, 400A, 600A, 800A, 1000A, 1200A & 1600A
  - NEMA 1 configured panelboard
  - Construction: Galvanized Back-box with Interior and Exterior trim
  - Surface mount type
  - Bracing: Maximum 35kAIC (higher bracing available upon request)
    - 65kAIC available upon request (typically 15% higher in cost)

### **9.0 Site Survey**

9.1 Site surveys are based on three levels of service to accommodate various levels of complexity and requirements that a user / facility may have.

9.2 Site Survey, Level I – Based on UPS (new and replacement) requirements with minimum facility electrical modifications. Includes CONUS travel and labor to perform a field investigative survey of existing electrical and environmental conditions for a UPS requirement (new application or replacement) with a follow-up recommendation survey report with integration drawings.

- Deliverables – Site survey report shall be delivered within 30 days after completion of site survey.

9.3 Site Survey, Level II – Based on UPS (new and replacement) requirements with additional electrical distribution, generator and ATS, minor HVAC applications of moderate facility modifications. Includes CONUS travel and labor to perform a field investigative survey of existing electrical and environmental conditions for a UPS requirement (new application or replacement) with a follow-up recommendation survey report with integration drawings.

- Deliverables – Site survey report shall be delivered within 45 days after completion of site survey.

## **Installation and Site Preparation Services**

9.4 Site Survey, Level III – Based on UPS (new and replacement) requirements with additional electrical distribution, generator and ATS, HVAC applications, fire suppression, civil and architectural facility modifications. Includes CONUS travel and labor to perform a field investigative survey of existing electrical and environmental conditions for a UPS requirement (new application or replacement) with a follow-up recommendation survey report with integration drawings.

- Deliverables – Site survey report shall be delivered within 60 days after completion of site survey.

### **10.0 Control Cable Installation – 50 & 10 foot Increments**

10.1 Control Cable Installation – 50 & 10 foot Increments: Includes labor, tools and installation material necessary to furnish and install a single control cable associated with a UPS system installation.

- 50 Foot installations are based as follows:
  - Maximum six (6) single conductors or three (3) twisted pairs
  - Type EMT conduit.
  - Terminations at both ends.
- 10 Foot installations are based as follows:
  - Extend 50 Foot Control Cable Installation by 10 additional feet.

### **11.0 Conduit Wall or Floor Penetration**

11.1 Conduit Wall or Floor Penetration - Includes labor, tools and material necessary to install (core or drill) a single wall or floor penetration associated with a UPS system installation. Patching and finishes are not included. The following types of penetrations are provided:

- Sheetrock or Drywall:
  - Maximum wall thickness - six (6) inches.
  - Fire stopping where required.
- CMU or Block Wall:
  - Maximum wall thickness - eight (8) inches.
  - Hollow or filled core.
  - Fire stopping where required.
  -
- Concrete Wall / Floor:
  - Maximum wall / floor thickness - six (6) inches.
  - Raceway support system for through floor applications.
  - Fire stopping where required.
- X-Ray Services:
  - Provide necessary X-Ray equipment to x-ray proposed, client approved penetration locations.
  - Maximum thickness - eight (8) inches.

### **12.0 Power Cable Installation**

12.1 Power Cable Installation – Includes labor, material, tools and material to furnish and install one power cable. These cables are typically associated with and sold concurrently with Power Distribution Units (PDU).

All power cables include the following:

- Sealtite flexible metal conduit (UL Listed), (2) connectors, (1) FX Aluminum receptacle box with cover, (1) appropriately sized receptacle, wire, (1) appropriately sized circuit breaker.

## **Installation and Site Preparation Services**

### **13.0 Cable and Conduit Removal**

13.1 Cable and Conduit Removal – Includes labor, tools and material necessary to disassemble and remove the following feeder sizes associated with the removal of a UPS system. Services are based on the following:

- Up to 350MCM Cable – 100 foot or 10 foot
  - Disconnect feeder at both termination ends
  - Remove wire from raceway.
  - Dismantle the raceway or conduit and support system.
  - Maximum working height: 12 feet
  - No lifting or telescopic lifting devices are included for extended height applications.
- Up to 750MCM Cable – 100 foot or 10 foot
  - Disconnect feeder at both termination ends
  - Remove wire from raceway.
  - Dismantle the raceway or conduit and support system.
  - Maximum working height: 12 feet
  - No lifting or telescopic lifting devices are included for extended height applications.

### **14.0 Electrical Panel Removal**

14.1 Electrical Panel Removal – Includes labor, tools and material necessary to disassemble, remove and dispose of one panelboard associated with the removal of a UPS system. Services are based on the following panelboard sizes:

- Up to 225 Amps, 42 Ckts.
- Up to 400 Amps
- Up to 800 Amps
- Up to 1200 Amps

### **15.0 Electrical Panel Install**

15.1 Electrical Panel Install - Includes labor, tools and material necessary to install one panelboard associated with the installation of a UPS system. The panelboard is not included. Services are based on the following panelboard sizes:

- Up to 225 Amps, 42 Ckts.
- 226 to 400 Amps
- 401 to 800 Amps
- 801 to 1200 Amps

### **16.0 Automatic Transfer Switch Install**

16.1 Automatic Transfer Switch Install - Includes labor, tools and material necessary to place, anchor and install one automatic transfer switch associated with the installation of a UPS system. The automatic transfer switch is not included. Services are based on the following panelboard sizes:

- 100 to 400 Amps
- 600 to 1600 Amps
- 2000 to 3000 Amps

## **Installation and Site Preparation Services**

### **17.0 Automatic Transfer Switch Removal**

17.1 Automatic Transfer Switch Install - Includes labor, tools and material necessary to disassemble, remove and dispose of one automatic transfer switch associated with the installation of a UPS system. Services are based on the following panelboard sizes:

- 100 to 400 Amps
- 600 to 1600 Amps
- 2000 to 3000 Amps

### **18.0 Up to 3-Breaker Maintenance Bypass Panel Install**

18.1 Up to 3-Breaker Maintenance Bypass Panel Install - Includes labor, tools and material necessary to place, anchor and install one 3-Breaker Maintenance Bypass panelboard associated with the installation of a UPS system. Services are based on the following panelboard sizes:

- 100, 225, 400, 600, 1000, or 1600 Amps

### **19.0 Isolation Transformer / PDU Install**

19.1 Isolation Transformer / PDU Install - Includes labor, tools and material necessary to place, anchor and install one Isolation or Power Distribution Unit associated with the installation of a UPS system. Associated line and load feeds are not included. Services are based on the following Isolation Transformer / PDU sizes:

- 15 to 150kVA or 225 to 500kVA

### **20.0 Surge Suppressor / TVSS Install**

20.1 Surge Suppressor / TVSS Install - Includes labor, tools and material necessary to place and install one Surge Suppressor / TVSS associated with the installation of a UPS system or panelboard. Includes associated line side feed and appropriately sized over-current device.

Does not include the Surge Suppressor / TVSS device. Services are based on the following sizes:

- 115 to 240 Volts
- 277 to 600 Volts

### **21.0 Load Bank Installation**

Load Bank Installation – Includes labor, tools and installation material necessary to install one load bank (furnished by others) and source feed associated with a UPS system installation. Services are based on the following load bank sizes:

- Load Bank Ampere Sizes
  - 200, 400, 600, 800, or 1000 Amps
- Concrete Pad, appropriately sized for the load bank unit
- Feeder Services / Descriptions
  - 100 Foot installations are based as follows:
    - Includes 100 feet of type EMT conduit, wire, fittings and matching support.
    - Feeder design: 3Ø, 3 Wire & Ground
    - Includes three (3) 90 degree bends.
    - Terminations at both ends.
  - 10 Foot installations are based as follows:
    - Includes extending above feed on a 10 foot incremental basis.
    - Type EMT conduit, wire, fittings and matching support.
    - Feeder design: 3Ø, 3 Wire & Ground
- Note: Roof-top applications are priced separately upon request.

## **Installation and Site Preparation Services**

### **22.0 Load Bank Removal**

22.1 Load Bank Removal – Includes labor, tools and material handling equipment necessary to take one load bank, associated with the installation of a UPS system, from a loading dock (or exterior location), remove from premises and disposal with local scrap or recycling facility. Crane services are not included for roof-top applications. Services are based on the following load bank feeder sizes:

- 200 to 600 Amps
- 800 to 1000 Amps

### **23.0 Existing Engine Generator Removal**

23.1 Existing Engine Generator Removal – Includes labor, tools and material handling equipment necessary to disassemble one exterior, pad-mounted standby engine generator with weather enclosure and sub-base fuel tank, remove from premises and dispose with a local scrap / recycling facility or client's on-site recycling facility. Services are based on the following engine generator sizes:

- 10 to 200kW
- 250 to 1000kW
- 1500 to 2000kW
- Excludes the following:
  - Interior or roof-top mounted generators, remote radiators, day tank or remote fuel cells (above or below ground).
  - Crane services for roof-top applications are not included.
  - Removal and disposal of diesel fuel.
- Note: Interior and roof-top applications are priced separately upon request.

### **24.0 Generator Day Tank Removal**

24.1 Generator Day Tank Removal – Includes labor, tools and material handling equipment necessary to disassemble one generator day tank, remove from premises and dispose with a local scrap / recycling facility or client's on-site recycling facility.

- Excludes the following:
  - Interior or roof-top mounted day tanks or remote fuel cells (above or below ground).
  - Crane services for roof-top applications are not included.
  - Removal and disposal of diesel fuel.
- Note: Interior and roof-top applications are priced separately upon request.

Contact Mission City Electric for GSA approved installation pricing.