

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT is made and entered into this 22ND day of FEBRUARY, 2022, by and between the City of Merced, a California Charter Municipal Corporation, whose address of record is 678 West 18th Street, Merced, California 95340, (hereinafter referred to as "City") and Total Online Protection, LLC, a California Limited Liability Company, whose address of record is 42914 Cinnamon Lane, Temecula, California 92592, (hereinafter referred to as "Consultant").

WHEREAS, City is undertaking a project to replace the City Data Center Uninterruptible Power Supply and the HVAC System; and,

WHEREAS, Consultant represents that it possesses the professional skills to provide the services in connection with said project.

NOW, THEREFORE, the parties hereto, in consideration of the mutual covenants hereinafter recited, hereby agree as follows:

1. **SCOPE OF SERVICES.** The Consultant shall furnish the following services: Consultant shall provide the services described in Exhibit "A" attached hereto.

No additional services shall be performed by Consultant unless approved in advance in writing by the City, stating the dollar value of the services, the method of payment, and any adjustment in contract time. All such services are to be coordinated with City and the results of the work shall be monitored by the City Engineer or designee. However, the means by which the work is accomplished shall be the sole responsibility of the Consultant.

2. **TIME OF PERFORMANCE.** All of the work outlined in the Scope of Services shall be completed in accordance with the Schedule outlined in Exhibit "A" attached hereto and incorporated herein by reference. By mutual agreement and written addendum to this Agreement, the City and the Consultant may change the requirements in said Schedule.

3. **TERM OF AGREEMENT.** The term of this Agreement shall commence upon the day first above written and end on July 1, 2022.

4. **COMPENSATION.** Payment by the City to the Consultant for actual services rendered under this Agreement shall be made upon presentation of an invoice detailing services performed under the Scope of Services, in accordance with the fee schedule set forth in Exhibit "A" attached hereto and incorporated herein by reference. The Consultant agrees to provide all services required under the Scope of Services in Exhibit "A" within the compensation amount set forth in Exhibit "A". For Consultant's services rendered under this Agreement, City shall pay Consultant the not to exceed sum of Three Hundred Thirty-Three Thousand Three Hundred Seventy Dollars (\$333,370.00).

5. **METHOD OF PAYMENT.** Compensation to Consultant shall be paid by the City after submission by Consultant of an invoice delineating the services performed.

6. **RECORDS.** It is understood and agreed that all plans, studies, specifications, data magnetically or otherwise recorded on computer or computer diskettes, records, files, reports, etc., in possession of the Consultant relating to the matters covered by this Agreement shall be the property of the City, and Consultant hereby agrees to deliver the same to the City upon termination of the Agreement. It is understood and agreed that the documents and other materials including but not limited to those set forth hereinabove, prepared pursuant to this Agreement are prepared specifically for the City and are not necessarily suitable for any future or other use.

7. **CONSULTANT'S BOOKS AND RECORDS.** Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to the City for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement. Any records or documents required to be maintained shall be made available for inspection, audit and/or copying at any time during regular business hours, upon oral or written request of the City.

8. **INDEPENDENT CONTRACTOR.** It is expressly understood that Consultant is an independent contractor and that its employees shall not be employees of or have any contractual relationship with the City. Consultant shall be responsible for the payment of all taxes, workers' compensation insurance and unemployment insurance. Should Consultant desire any insurance protection, the Consultant is to acquire same at its expense.

In the event Consultant or any employee, agent, or subcontractor of Consultant providing services under this Agreement is determined by a court of competent jurisdiction or the California Public Employees Retirement System (PERS) to be eligible for enrollment in PERS as an employee of the City, Consultant shall indemnify, protect, defend, and hold harmless the City for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

9. INDEMNITY. Consultant shall indemnify, protect, defend (with legal counsel selected by the City), save and hold City, its officers, employees, and agents, harmless from any and all claims or causes of action for death or injury to persons, or damage to property resulting from intentional or negligent acts, errors, or omissions of Consultant or Consultant's officers, employees, volunteers, and agents during performance of this Agreement; Consultant shall indemnify, protect, defend (with counsel selected by the City) save and hold City, its officers, employees and agents harmless from any and claims or causes of action for any violation of any federal, state, or municipal law or ordinance, to the extent caused, in whole or in part, by the willful misconduct, negligent acts, or omissions of Consultant or its employees, subcontractors, or agents, or by the quality or character of Consultant's work, or resulting from the negligence of the City, its officers, employees, volunteers and agents, except for loss caused by the sole negligence or willful misconduct of the City or its officers, employees, volunteers or agents. It is understood that the duty of Consultant to indemnify and hold harmless includes the duty to defend as set forth in Section 2778 of the California Civil Code. Acceptance by City of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall survive the termination of this Agreement and shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.

10. INSURANCE. During the term of this Agreement, Consultant shall maintain in full force and effect at its own cost and expense, the following insurance coverage:

a. Workers' Compensation Insurance. Full workers' compensation insurance shall be provided with a limit of at least One Hundred Thousand Dollars (\$100,000) for any one person and as required by law, including Employer's Liability limits of \$1,000,000.00 per accident. The policy shall be endorsed to waive the insurer's subrogation rights against the City.

b. General Liability.

- (i) Consultant shall obtain and keep in full force and effect general liability coverage at least as broad as ISO commercial general liability coverage occurrence Form CG 0001.
- (ii) Consultant shall maintain limits of no less than One Million Dollars (\$1,000,000) per occurrence for bodily injury, personal injury and property damage.
- (iii) The City, its officers, employees, volunteers and agents are to be named as additional insureds under the policy, as respects liability arising out of work or operations performed by or on behalf of the Consultant.
- (iv) The policy shall stipulate that this insurance will operate as primary insurance for work performed by Consultant and its sub-contractors, and that any other insurance or self insurance maintained by City or other named insureds shall be excess and non-contributory.
- (v) Consultant shall maintain its commercial general liability coverage for three (3) years after completion of the work and shall add an additional insured endorsement form acceptable to the City naming the City of Merced, its officers, employees, agents and volunteers for each year thereafter for at least three (3) years after completion of the work. Copies of the annual renewal and additional insured endorsement form shall be sent to the City within thirty (30) days of the annual renewal.

c. Automobile Insurance.

- (i) Consultant shall obtain and keep in full force and effect an automobile policy of at least One Million Dollars (\$1,000,000) per accident for bodily injury and property damage.

- (ii) The City, its officers, employees, volunteers and agents are to be named as additional insureds under the policy, as respects automobiles owned, leased, hired or borrowed by the Consultant.
- (iii) The policy shall stipulate that this insurance will operate as primary insurance for work performed by Consultant and its sub-contractors, and that any other insurance or self insurance maintained by City or other named insureds shall be excess and non-contributory.

d. Professional Liability Insurance. Consultant shall carry professional liability insurance appropriate to Consultant's profession in the minimum amount of One Million Dollars (\$1,000,000). Architects and engineers' coverage is to be endorsed to include contractual liability.

e. Qualifications of Insurer. The insurance shall be provided by an acceptable insurance provider, as determined by City, which satisfies all of the following minimum requirements:

- (i) An insurance carrier admitted to do business in California and maintaining an agent for service of process within this State; and,
- (ii) An insurance carrier with a current A.M. Best Rating of A:VII or better (except for workers' compensation provided through the California State Compensation Fund).

f. Certificate of Insurance. Consultant shall complete and file with the City prior to engaging in any operation or activity set forth in this Agreement, certificates of insurance evidencing coverage as set forth above and which shall provide that no cancellation or expiration by the insurance company will be made during the term of this Agreement, without thirty (30) days written notice to City prior to the effective date of such cancellation—including cancellation for nonpayment of premium. In addition to any other remedies City may have, City reserves the right to withhold payment if Consultant's insurance policies are not current.

11. PREVAILING WAGES.

A. Labor Code Compliance. If the work performed under this Agreement falls within Labor Code Section 1720(a)(1) definition of a “public works” the Vendor agrees to comply with all of the applicable provisions of the Labor Code including, those provisions requiring the payment of not less than the general prevailing rate of wages. The Consultant further agrees to the penalties and forfeitures provided in said Code in the event a violation of any of the provisions occurs in the execution of this Agreement.

B. These wage rate determinations are made a specific part of this Agreement by reference pursuant to Labor Code Section 1773.2. General Prevailing Wage Rate Determinations may be obtained from the Department of Industrial Relations Internet site at <http://www.dir.ca.gov/>.

C. After award of the Agreement, and prior to commencing work, all applicable General Prevailing Wage Rate Determinations, if applicable, are to be obtained by the Vendor from the Department of Industrial Relations. These wage rate determinations are to be posted by the Consultant at the job site in accordance with Section 1773.2 of the California Labor Code.

D. Consultant agrees to include prevailing wage requirements, if applicable, in all subcontracts when the work to be performed by the subcontractor under this Agreement is a “public works” as defined in Labor Code Section 1720(a)(1) and Labor Code Section 1771.

12. ASSIGNABILITY OF AGREEMENT. It is understood and agreed that this Agreement contemplates personal performance by the Consultant and is based upon a determination of its unique personal competence and experience and upon its specialized personal knowledge. Assignments of any or all rights, duties or obligations of the Consultant under this Agreement will be permitted only with the express written consent of the City.

13. TERMINATION FOR CONVENIENCE OF CITY. The City may terminate this Agreement any time by mailing a notice in writing to Consultant that the Agreement is terminated. Said Agreement shall then be deemed terminated, and no further work shall be performed by Consultant. If the Agreement is so terminated, the Consultant shall be paid for that percentage of the phase of work actually completed, based on a pro rata portion of the compensation for said phase satisfactorily completed at the time the notice of termination is received.

14. CONFORMANCE TO APPLICABLE LAWS. Consultant shall comply with its standard of care regarding all applicable Federal, State, and municipal laws, rules and ordinances. No discrimination shall be made by Consultant in the employment of persons to work under this contract because of race, color, national origin, ancestry, disability, sex or religion of such person.

Consultant hereby promises and agrees to comply with all of the provisions of the Federal Immigration and Nationality Act (8 U.S.C.A. 1101 *et seq.*), as amended; and in connection therewith, shall not employ unauthorized aliens as defined therein. Should Consultant so employ such unauthorized aliens for the performance of work and/or services covered by this Agreement, and should any agency or instrumentality of the federal or state government, including the courts, impose sanctions against the City for such use of unauthorized aliens, Consultant hereby agrees to, and shall, reimburse City for the cost of all such sanctions imposed, together with any and all costs, including attorneys' fees, incurred by the City in connection therewith.

15. WAIVER. In the event that either City or Consultant shall at any time or times waive any breach of this Agreement by the other, such waiver shall not constitute a waiver of any other or succeeding breach of this Agreement, whether of the same or any other covenant, condition or obligation. Waiver shall not be deemed effective until and unless signed by the waiving party.

16. INCONSISTENT OR CONFLICTING TERMS IN AGREEMENT AND EXHIBITS. In the event of any contradiction or inconsistency between any attached document(s) or exhibit(s) incorporated by reference herein and the provisions of the Agreement itself, the terms of the Agreement shall control.

Any exhibit that is attached and incorporated by reference shall be limited to the purposes for which it is attached, as specified in this Agreement. Any contractual terms or conditions contained in such exhibit imposing additional obligations on the City are not binding upon the City unless specifically agreed to in writing, and initialed by the authorized City representative, as to each additional contractual term or condition.

17. AMBIGUITIES. This Agreement has been negotiated at arms' length between persons knowledgeable in the matters dealt with herein. Accordingly, any rule of law, including, but not limited to, Section 1654 of the Civil Code of California, or any other statutes, legal decisions, or common-law principles of similar effect, that would require interpretation of any ambiguities in this

Agreement against the party that drafted this Agreement is of no application and is hereby expressly waived.

18. VENUE. This Agreement and all matters relating to it shall be governed by the laws of the State of California and any action brought relating to this agreement shall be held exclusively in a state court in the County of Merced.

19. AMENDMENT. This Agreement shall not be amended, modified, or otherwise changed unless in writing and signed by both parties hereto.

20. INTEGRATION. This Agreement constitutes the entire understanding and agreement of the parties and supersedes all previous and/or contemporaneous understanding or agreement between the parties with respect to all or any part of the subject matter hereof.

21. AUTHORITY TO EXECUTE. The person or persons executing this Agreement on behalf of the parties hereto warrants and represents that he/she/they has/have the authority to execute this Agreement on behalf of their entity and has/have the authority to bind their party to the performance of its obligations hereunder.

22. COUNTERPARTS. This Agreement may be executed in one or more counterparts with each counterpart being deemed an original. No counterpart shall be deemed to be an original or presumed delivered unless and until the counterparts executed by the other parties hereto are in the physical possession of the party or parties seeking enforcement thereof.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the date first above written.

CITY OF MERCED
A California Charter Municipal
Corporation

BY: Stephanie Slutz
City Manager

ATTEST:
STEPHANIE R. DIETZ, CITY CLERK

BY: [Signature]
Assistant/Deputy City Clerk



APPROVED AS TO FORM:

BY: [Signature]
City Attorney Date

301891 PO#144544
ACCOUNT DATA:

BY: [Signature]
Verified by Finance Officer V-188888
Funds available. 4/8/22 FL 3/1/22
072-0403-017-65-00 120066
\$333,370.00
{Signatures continued on next page}

CONSULTANT
TOTAL ONLINE PROTECTION, LLC,
A California Limited Liability Company

BY: 
(Signature)

Michael F. Tassinari
(Typed Name)

Its: President
(Title)

BY: _____
(Signature)

(Typed Name)

Its: _____
(Title)

Taxpayer I.D. No. 46-0981071

ADDRESS: 42914 Cinnamon Ln.
Temecula, CA 92592

TELEPHONE: (800) 265-8262

FAX: (951) 389-3600

E-MAIL: mtassinari@top-pwr.com



December 8, 2021

City of Merced
Michael R. Beltran II, PE
City Engineer
678 W 18th Street
Merced, CA 95340

Reference: 111021-ENG

We are pleased to submit our response to the above solicitation for Data Center Uninterruptable Power Supply Replacement Data Center HVAC Replacement for the City of Merced Data Center.

Total Online Protection installs, maintains, and repair Critical Power Equipment for multiple government contracts. Total Online Protection (T.O.P.) has experience in government contracting and providing solutions to numerous government agencies. From Military bases to utilities, T.O.P. has the experience and skill to successfully manage government project or contracts.

Scope of Work

Engineering

1. Provide Electrical, Mechanical, and Structural engineering suitable for building permit.
2. Submit plans for permit.
3. No fee has been included for permits, as it was stated that this would be a no fee permit.

Electrical

1. Receive, inspect and stage new UPS systems supplied by others.
2. Shut down 208V UPS load.
3. Demo old 208V UPS.
 - a. UPS will be removed from the site and disposed of in an approved manner.
4. Install new UPS same location as old UPS.
5. Utilize existing wiring from existing bypass panel to feed new UPS input and outputs.
6. Provide electricians assistance with standard factory startup.
7. Shut down 480V UPS load.
8. Demo old 480V UPS.
 - a. UPS will be removed from the site and disposed of in an approved manner.
9. Install new UPS and maintenance bypass cabinet same location as old UPS.
10. Replace existing overcurrent input with new overcurrent protection.
11. Install new input feeders from utility input to new bypass panel.
12. Connect existing UPS output into new UPS bypass panel.
13. Provide electricians assistance with standard factory startup.
14. New HVAC units have a lower load rating than what is listed on the drawings provided.
So only disconnects and fuses will be changed out to feed new units.

Mechanical

1. Performing one at a time complete the following for each AC unit.
2. Demo the existing fan coils and condensers.
3. If required, demo piping between floors.
4. Install new AC unit and condenser supplied by others.
 - a. Crane will be required to get units onto and off roof.
 - b. Crane to be staged in the alley.
5. If required, install new piping between floors.
6. Complete factory startup of units as required by manufacturer.

EXHIBIT A

EXCEPTIONS, CLARIFICATIONS, AMENDMENTS

Exceptions, Clarifications, Amendments

List requests for proposal clarifications and exceptions below, if any, sign and submit with your proposal response.

Quoting 20kva

Eaton 9355 Series

Three Phase Online Tower UPS

20kVA/18kW, Single Feed, 208Y/120V, 50/60Hz Hardwired In/Out w/ internal rotary maint
bypass 18 minutes internal runtime at full load

with

Eaton 9355 Series

480V/480V Input/Output Isolation Cabinet

contains rotary style MBP

Josie Dela Cruz

BIDDER/PROPOSER: TOTAL ONLINE PROTECTION

CONTRACT NAME AND LOCATION	DESCRIPTION OF WORK/SERVICES	OWNER'S NAME, ADDRESS, CONTACT PERSON, EMAIL ADDRESS, PHONE NO.	ESTIMATED VALUE OF BIDDER'S / PROPOSER'S WORK/SERVICES	ESTIMATED COMPLETION DATE
San Diego Sheriff Department 558651-03 Contract	Prime <input checked="" type="checkbox"/> Sub <input type="checkbox"/> Description: UPS and DC Maintenance	Stephen Jaskowiak Stephen.Jaskowiak@sdsheriff.org 5560 Overland Ave, San Diego CA 92123	\$ \$173,000	2023
San Diego Sheriff Department Contract 559686	Prime <input checked="" type="checkbox"/> Sub <input type="checkbox"/> Description: Battery Replacement	Marcus Coney marcus.coney@sdsheriff.org 5560 Overland Avenue San Diego CA 92123	\$ 599,000	2024
Orange County Sheriff Coroner Emergency Operations Center Contract MA-060-19011648	Prime <input checked="" type="checkbox"/> Sub <input type="checkbox"/> Description: UPS and Battery Maintenance and Repair	Elizabeth Ochoa 431 The City Drive South Orange, CA 92868 Elochoa@ocsd.org	\$ 312,000	2023
Orange County Public Works C029075 - MA-080-21011215	Prime <input checked="" type="checkbox"/> Sub <input type="checkbox"/> Description: UPS and Battery Maintenance and Repair	Robert Kmetz Facilities Contracts Manager, OC Public Works OC Facilities Maintenance & CUF 1143 E. Fruit Street, Santa Ana, CA 92701	\$50,000- NTE \$200,000	2021
Dept. of Defense Dept of the Army Ft. Huachuca HC102819P0031	Prime <input checked="" type="checkbox"/> Sub <input type="checkbox"/> Description: UPS, Batteries and DC maintenance and repair	Brian Foyt-(520) 533-2738 George Hargon brian.s.foyt.civ@mail.mil	\$ 525,000	2024

Social Security Administration Maryland and California 28321318P00051349	Prime <input checked="" type="checkbox"/> Sub <input type="checkbox"/> Description: UPS and Battery Maintenance	Robert Gruber - 410-965-9563 Robert.Gruber@ssa.gov Peter Gray - (510) 970-4137 Peter.gray@ssa.gov	\$ 95,000 - CA 123,150 - MD	2023
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DEFENSE MEDIA ACTIVITY RIVERSIDE
23755 Z STREET
RIVERSIDE CA
HQ0516-20-C-0001 P00002

Michael Johnson, MBA, CPMM
Facilities Manager
MSO, Directorate
DMA, Riverside
23755 Z Street
Riverside, CA 92518
(951) 413-2352 Office

\$35,000.00/YEAR
5-YEAR
CONTRACT

Page 1 of 1

Department of Veterans Affairs
Network Contracting Office 22
4811 Airport Plaza Drive Suite 600
Long Beach CA 90815
Order #36C26221P0784

Edward Hunt
Email:Edward.hunt1@va.gov
Phone: 818-891-7711 X 38839
Cell: 818-770-0976

\$818,000.00
Generator Repair
Project

2021

BIDDER/PROPOSER: TOTAL ONLINE PROTECTION LLC

LIST OF COMPLETED CONTRACTS - LAST FIVE (5) YEARS

CONTRACT NAME AND LOCATION	DESCRIPTION OF WORK/SERVICES	OWNER'S NAME, ADDRESS, CONTACT PERSON, EMAIL ADDRESS, PHONE NO.	ACTUAL FINAL CONTRACT VALUE	CONTRACT DATE AND DURATION
Battery Shelter Yuma MCAS	Prime Sub ✓ Description: Install exterior insulated panel system Relocate -48VDC breaker panel with main breaker and (18) load breakers, Solar Panel upgrade kit. Install (2) 120volt wall-mount air-conditioning systems, (2) Sun-Barrier Awnings, High velocity ventilated -48VDC powered cabinet with Venting and weather and rodent proof hood, (2) 3000 watt DC inverters.	Dane Lesch Contract #45253223 Dane Lesch	\$394,038.00	2020
Battery & DC Power Kit Installation	Prime Sub ✓ Description: Remove, replace & recycle (96) Unigy II Deka 3AVR95-33 batteries, (4) strings of (24) cells. Install DC Disconnect Switch for MPR-9400; (4) DC AIRCO 12500B 3670 Watt - 12500 BTU/h 24 VDC or 48 VDC wall mounted HVAC units, (4) Fabrication kits for HVAC units, (6) PVC Strip curtains HVAC patricians dual layer, Fabrication kit for split level strip patricians, misc. materials and services to install and optimize kit.	Dane Lesch Contract #B81-45328551/70053A-54183-25255	\$390,897.00	2020
Server Room Camp Pendleton	Prime Sub ✓ Description: Remove and Install 300 Kva Uninterruptible Power Supply and Horizontal Stack Assembly Modular steel tray, 480VDC, 1600 ah Absolute GP Batteries	Contract #B43-45189818	\$377,324.20	2019
Server Room Camp Pendleton	Prime <input type="checkbox"/> Sub <input type="checkbox"/> Description: Furnish and install (2) 8-ton DATA AIR CRAC units GFAU-03534 GF air cooled up-flow 35kw 460V, GHRC G Force remote condenser 39kw 3ph 460V Modify DX refrigerant piping to match new unit configurations.	Dane Lesch Contract #B43 - 35483169	\$121,365.00	2019
Telecomm Batteries MCAS MIRAMAR	Prime ✓ Sub <input type="checkbox"/> Description: Remove, Replace & recycle (276) Batteries in Main Telecomm room and 6 substations	Richard Travers Contract #M0068117P0093	\$167,142.84	2019

September 18, 2020

To whom it may concern,

I am writing this letter on behalf of Total Online Protection and the team of employees they have put together. In my role, I work for the United States Marine Corps, Marine Corps Installations West (MCIWEST) Radio Services and I am responsible for all radio communications systems for all Marine Corps bases on the west coast and have input to policy and acquisition Marine Corps wide. I regularly work with companies, large and small, as I coordinate the design, development, maintenance, and management of communication systems and the power systems that support them.

Over the past five years I have worked with Mike Tassinari and Jesse Olivas of Total Online Protection on numerous projects and sustainment contracts supporting the Marine Corps to include UPS & battery installations/replacements, HVAC systems, generator/transfer switch installations, solar and general electrical support and maintenance plans. These projects were not always in the easiest of places to get to. Some have been in the middle of the desert at remote mountain top sites with treacherous dirt roads. The conditions that they have had to work in have been extreme as well. The Total Online Protection personnel always remained professional and had great attitudes. The quality and workmanship that they provide is above reproach and they go above and beyond to ensure the customer is happy.

Total Online Protection provides fair and reasonable bids and I believe the value for the price paid is very high. The personnel are friendly and attentive and can always be reached when needed. Total Online Protection will do whatever is required to complete a job on time or sooner. They are my go to vendor for power systems jobs.

Working with the Total Online Protection team has always been a pleasure and led to successful projects and I look forward to working with them more in the future.

If you have any questions pertaining to this letter, please contact me.

Regards,

Dane Lesch
Radio Services Manager
Marine Corps Installations West (MCIWEST) G-6
Camp Pendleton, CA 92055
(760)725-1952 (office)
(760)586-9592 (cell)
dane.lesch@usmc.mil

From: [Brooks, David](#)
To: [Josie de la Cruz](#)
Subject: RE: Reference Letter
Date: Friday, September 18, 2020 3:14:38 PM
Attachments: [image018.png](#)
[image001.png](#)
[image012.png](#)
[image013.png](#)
[image014.png](#)
[image015.png](#)
[image016.png](#)

Good afternoon Josie,

In response to your request for an official reference from San Diego County Sheriff's department I provided the following ;

Total Online Protection, LLC (TOP) has been conducting maintenance and inspections on UPS batteries supporting San Diego & Imperial County's Regional Communication System from June 27, 2018 to present. TOP has met and continues to meet the requirements for the fixed price full-service contract, servicing 59 communications facilities through San Diego and Imperial counties.

Thank you,



David Brooks

Manager
Wireless Services Division
Regional Communication System
Email: david.brooks@sdsheriff.org
Phone: 858-694-3953 | Mobile: 619-643-1388
www.sdsheriff.net

SAN DIEGO COUNTY
SHERIFF'S DEPARTMENT

CONFIDENTIALITY NOTICE:

This email, including attachments, may include confidential and/or proprietary information, and may be used only by the person or entity to which it is addressed. If the reader of this email is not the intended recipient or his or her authorized agent, the reader is hereby notified that any dissemination, distribution or copying of this email is prohibited. If you receive this email in error, please notify the sender by replying to this email and deleting this email immediately.



ORANGE COUNTY SHERIFF'S DEPARTMENT

SHERIFF-CORONER DON BARNES

September 17, 2020

To whom this may concern:

This is to confirm that Total Online Protection is the current contractor handling Uninterruptable Power Source (UPS) and Battery maintenance at our Loma Ridge facility under a standing contract effective May 26, 2019. Under our standing contract, Total Online Protection performs Preventative Maintenance and as-needed repairs. To date, they have consistently provided timely service and have provided good communication on issues that have arisen with our equipment.

Respectfully,

Elizabeth Ochoa
Facilities Contract Services Supervisor

From: [Richardson, David B CIV USARMY 106 SIG BDE \(USA\)](#)
To: [Josie de la Cruz](#)
Subject: LETTER OF RECOMMENDATION ICO TOTAL ONLINE PROTECTION
Date: Wednesday, September 16, 2020 3:28:34 PM

To whom this may concern,

This email recommendation is for any person concerned desiring to obtain services from Total Online Protection. During my tenure working as a Contract Officer Representative dealing with a contract that is now 3 years going and we have received nothing less than excellent maintenance and support from this vendor. The dealings with this vendor have been nothing less than outstanding, quick to respond, and very professional. As a customer, I appreciate the support and highly recommend this company to anyone desiring an IT Maintenance Company who deals with IT Services in UPS and APC's.

Very Respectfully,

David B Richardson

800.265.8262 | TotalOnlineProtection.com

Exclusions and Clarifications:

1. We cannot guarantee sound level to be compliant with existing smaller units.
2. Load Bank testing of the new UPS has been excluded.
3. All labor to be non-union at prevailing wages.
4. All work to be performed during regular business hours.
5. All applicable taxes have been included in the quoted price.

PRICING STRUCTURE

Cost Summary	
Cost	Total
Equipment	\$112,972.00
Documentation and training	\$ 5,000.00
Support/Maintenance	\$ 15,000.00
Installation / Engineering	\$164,630.00
MISC /other	\$ 35,768.00
Grand Total	\$333,370.00

I have attached the following documents for your perusal

- List of references
- Product Description and Datasheet

Please call us if you have any questions or concerns.

Thank you.

TOTAL ONLINE PROTECTION LLC

www.totalonlineprotection.com

Contact: Josie dela Cruz

Phone: 951-331-5873

Email: jcruz@top-pwr.com

DUNS #: 842157674

CAGE #: 6U7C1

TAX ID #: 460981071

CA C10 License# 1042917

UNINTERRUPTIBLE POWER SUPPLY

1st Unit

Eaton 9355 Series
Three Phase Online Tower UPS
15kVA/13.5kW, 208Y/120V, 50/60Hz
Hardwired In/Out w/ rear mount rotary maint bypass 64-Batt (3-High)13.3
minutes internal runtime at full load

includes (1) 5x8 start-up Service, domestic US
only(required for warranty validation/activation)

Dims: 47.8"H x 12"W x 33.7"D each
Weight: 609 lbs each

Std Warranty: 1 Year Parts, 90 Days Labor, 1 Year PredictPulse Remote
Monitoring

Power Xpert Gateway Card UPS

Upgrade from 5x8 to 7x24 Startup 15kVA

Eaton Flex Plan for UPS, Year 1
Next Day Rsp, 7x24 Cvg Only

Eaton Flex Plan for UPS, Years 2+
Next Day Rsp, 7x24 Cvg Only
priced per year, PMs required in Years 4+ for coverage

2nd Unit

Eaton 9355 Series
Three Phase Online Tower UPS
20kVA/18kW, Single Feed, 208Y/120V, 50/60Hz Hardwired In/Out w/ internal
rotary maint bypass 18 minutes internal runtime at full load

includes (1) 5x8 start-up Service, domestic US only(required for warranty
validation/activation)

Dims: 66"H x 20"W x 34.1"D each
Weight: 1160 lbs each

Std Warranty: 1 Year Parts, 90 Days Labor, 1 Year PredictPulse Remote
Monitoring

Eaton 9355 Series
480V/480V Input/Output Isolation Cabinet
contains rotary style MBP

Dims: 66"H x 20"W x 34.1"D each
Weight: 792 lbs each

Power Xpert Gateway Card UPS

Upgrade from 5x8 to 7x24 Startup 30kVA

Eaton Flex Plan for UPS, Year 1
Next Day Rsp, 7x24 Cvg Only

Eaton Flex Plan for UPS, Years 2+
8 Hr Rsp, 7x24 Cvg Only
priced per year, PMs required in Years 4+ for coverage

Services overview

Service matters

Power Quality UPS
services and support

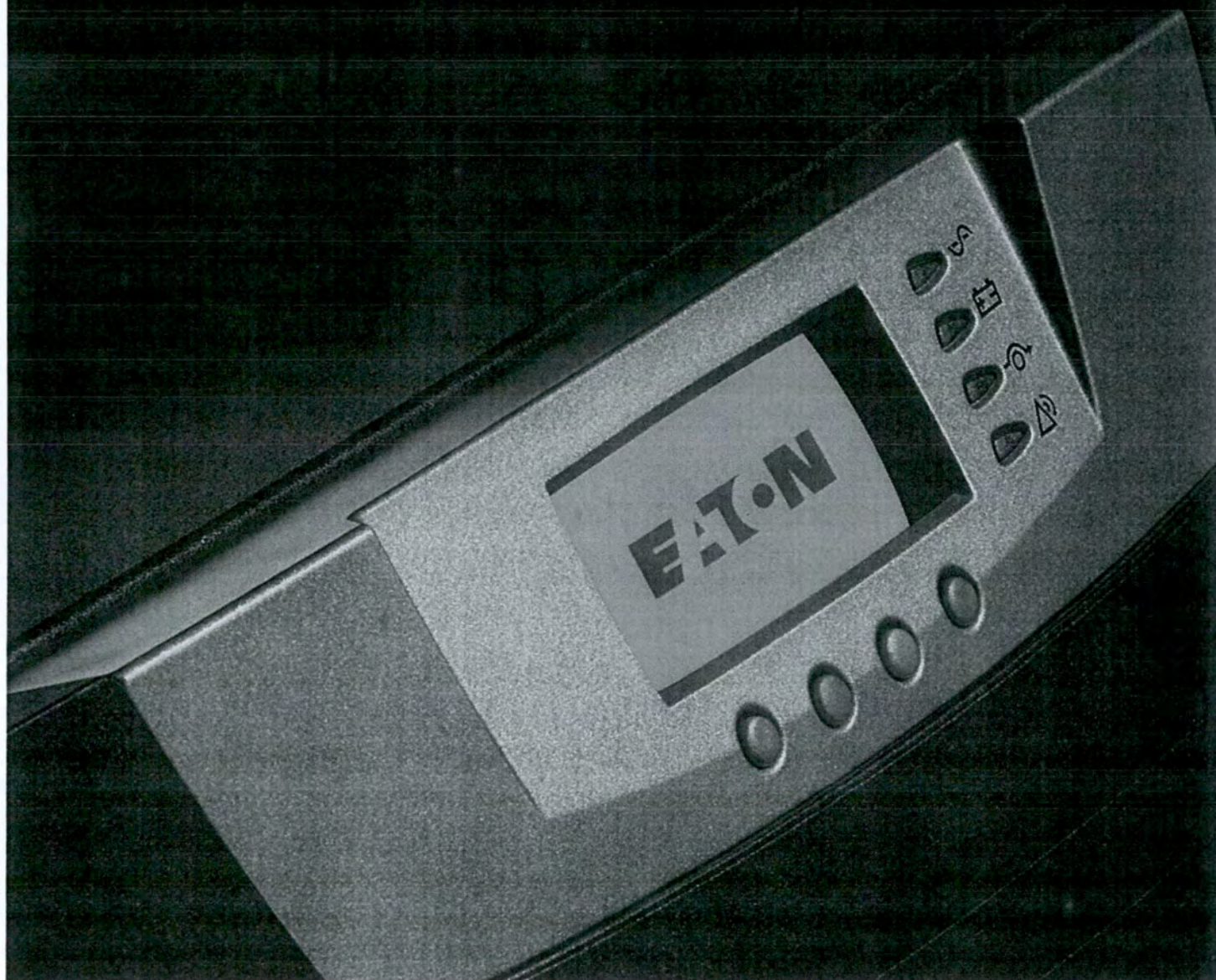
November 2021

EATON

Powering Business Worldwide

Eaton 9355 UPS

Scalable. Compact. Flexible.




EATON


Powering Business Worldwide


Agility, scalability and space efficiency – with greater standard runtime

The Eaton 9355 is a mid-size, three-phase uninterruptible power system (UPS) that delivers superior power protection for the ever-expanding loads in today's space-constrained data centers.

The double-conversion topology of the 9355 means that it protects IT infrastructure from all of the most common power problems to give data center managers greater peace of mind. The 9355 also offers an industry-leading combination of flexibility, scalability and power density—all in an innovative, high-efficiency package.

 The 9355's sleek, end-of-row tower design is available in 10 kVA and 20 kVA configurations, upgradeable to 15 kVA and 30 kVA, respectively, and offers the smallest footprint of any comparable UPS. Standard internal batteries often eliminate the need for costly and space-consuming external battery cabinets.

 An on-board power distribution module gives data center managers additional flexibility by helping to preserve valuable rack space and making the rack-based environment truly plug and play. This module can be configured for hardwired output or with a variety of output receptacles, reducing site preparation and installation expenses.

 Up to four 9355 UPSs can be paralleled for either redundancy or extra capacity using Eaton's patented Powerware Hot Sync paralleling technology. Powerware Hot Sync also enables wireless paralleling in the event of a communications failure, providing the industry's only truly redundant paralleling solution.

The 9355's space-efficient design and outstanding performance and reliability make it perfect for corporate, telecom, healthcare, banking, industrial and retail applications. Combined with Eaton's world-class warranty and service plans, expert technical support, and broad selection of options—and backed by 40 years of R&D excellence—the 9355 is the ideal power protection solution for small data centers.

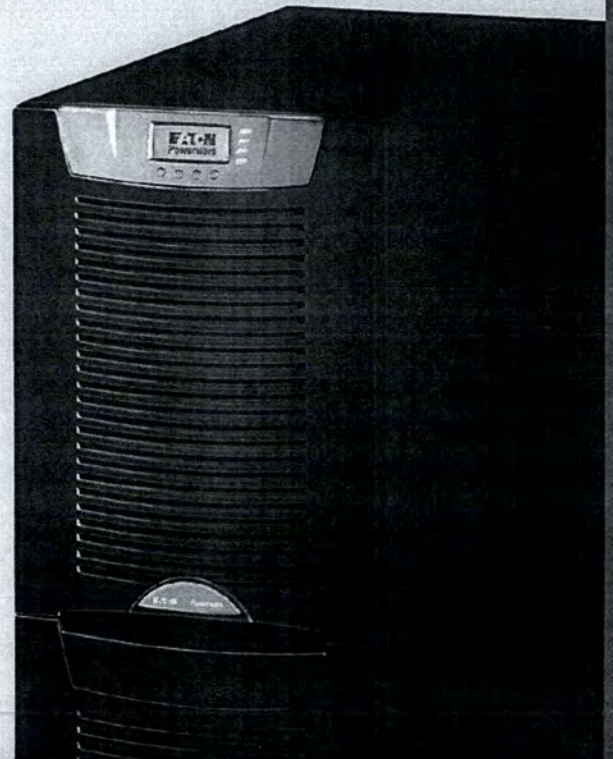
Product snapshot

Power rating:	10, 15, 20 and 30 kVA at 0.9 power factor (three phase)	Frequency:	50/60 Hz auto-sensing
Form factor:	Small-footprint tower, black	Dimensions:	10 and 15 kVA two-high configuration: 32.2" H x 12" W x 32.5" D
Topology:	Double conversion		10 and 15 kVA three-high configuration: 47.8" H x 12" W x 32.5" D
Battery backup:	Up to 22 minutes typical, extendable up to three hours		20 and 30 kVA: 66" H x 20" W x 34" D
Input voltage:	208V/120V or 220V/127V		
Output voltage:	208V/120V or 220V/127V 480V: 120V/208V or 600V: 120/208 with input isolation transformer (at 60 Hz only)		

Eaton 9355 UPS

Features and benefits

- Compact tower form factor offers up to 75 percent smaller footprint and 13 percent more power capacity than comparable UPSs for industry-leading power density
- All-in-one design with internal batteries and integrated power distribution module with maintenance bypass switch delivers a complete power protection solution in one box for simplified installation
- Double-conversion topology provides complete power protection, isolating valuable IT equipment from all nine of the most common power problems
- High 0.9 output power factor for more real power in less space
- Internal batteries on all standard configurations support up to 350 percent more runtime than comparable UPSs
- Scalable 10 kVA and 20 kVA configurations can be upgraded to provide 50 percent more power without additional hardware
- On-board, plug-and-play power distribution module allows for hardwired output or 15 different output receptacle options, enhancing flexibility and reducing installation costs
- Patented Powerware Hot Sync paralleling technology enables paralleling of up to four 9355 UPSs for additional capacity or redundancy
- Microprocessor-controlled ABM technology with innovative three-stage charging technique extends the useful life of UPS batteries and optimizes battery recharge time
- Power management software suite includes applications for remote UPS monitoring, management and shutdown to help ensure system and data integrity





10 kVA



15 kVA



20 kVA



30 kVA

Premium power protection

With the 9355 UPS, data center managers can safely eliminate the effects of electrical line disturbances and guard the integrity of their systems and equipment. The 9355 is a true double-conversion, three-phase system that can be used to prevent loss of valuable electronic information and minimize equipment downtime.

- The 9355 continually monitors incoming electrical power and removes the surges, spikes, sags, and other irregularities that are inherent in commercial utility power
- Working with a building's electrical system, the 9355 supplies the clean, consistent power required by sensitive electronic equipment for reliable operation
- During brownouts, blackouts, and other power interruptions, internal batteries provide emergency power to safeguard operation

Self-diagnosis

The 9355 constantly monitors its own operation—such as voltage, temperature and function of internal components—and sends an alarm or takes action if it detects a potential problem.

Self-correction

If it senses a problem, the 9355 instantly transfers the power path to a bypass source with zero interruption in power. When the alarm condition passes, the 9355 automatically reverts from bypass to normal power.

The 9355 UPS features a four-button graphical LCD that provides useful information such as load status, events, measurements and settings.

Advanced battery management

The 9355 UPS offers innovative technologies to maximize the health and service life of its internal and external batteries:

- ABM technology uses a unique three-stage charging technique that significantly extends battery service life and optimizes recharge time when compared to traditional trickle charging
- Temperature-compensated charging monitors battery temperature and adjusts the charge rate accordingly, which properly charges the battery and greatly extends battery life
- An integrated battery management system tests and monitors battery health and remaining lifetime, providing user notification to guide preventive maintenance

Eaton's UPS batteries are field replaceable. One person, working alone, can easily replace a battery without disrupting data center operations or power to protected equipment.

Green power performance

The 9355 delivers a robust combination of low input current distortion and high power factor for maximum efficiency. Operating at greater than 90 percent efficiency across all load ranges, the 9355 helps to reduce utility costs, extend battery runtimes and produce cooler operating conditions.

In addition, Eaton's use of sustainable materials and highly efficient manufacturing technology results in dramatic savings in carbon footprint as compared to competitive UPS products.

Maximum runtime, minimum footprint

The 9355 UPS provides industry-leading power density and a 75 percent footprint reduction versus comparable UPS solutions. All standard 9355 configurations incorporate internal batteries to provide up to 350 percent more runtime and offer 13 percent more capacity at equivalent VA ratings. Extended runtime allows the 9355 to power this extra capacity nearly four times longer without additional hardware, eliminating the need for costly and space-consuming external battery cabinets.

Standard 10 kVA and 20 kVA capacity models can also be upgraded to 15 kVA and 30 kVA, respectively, providing 50 percent more power with no additional hardware and no increase in footprint.

The 9355's small footprint requires only three to six square feet of floor space, enabling easy data center space-planning and preserving valuable raised-floor real estate.

Industry-leading scalability and redundancy

Today's critical applications require redundancy for ultimate reliability—and the 9355 delivers. Eaton's innovative Hot Sync technology and optional maintenance bypass parallel tie cabinet work together with the 9355 to provide an advanced, cost-effective UPS paralleling system.

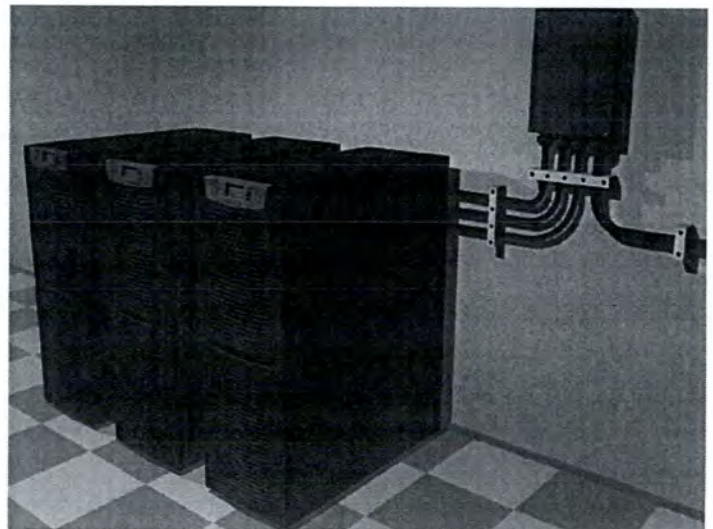
The patented Hot Sync technology enables system load sharing, allowing any UPS module in the system to serve as a backup for any other module. Hot Sync's wireless paralleling capability also ensures system stability in the event of a communications failure.

Using a wall-mounted maintenance bypass parallel tie cabinet, data center managers can easily parallel up to four 9355 UPSs for either redundancy or capacity. UPSs can be quickly added to the pre-installed parallel tie cabinet and brought online in minutes, and individual UPSs can be isolated and swapped out for maintenance—significantly reducing installation and maintenance expenses.

Most other paralleling systems on the market use a top-down configuration in which the master fails when any subsidiary module fails. With Eaton's unique approach, each UPS is independent, yet synchronized with the others to prevent any single point of failure and help eliminate costly downtime.

Additional paralleling benefits include:

- Scalability, from 10 to 120 kVA using one parallel tie cabinet
- N+3, N+2 or N+1 redundancy, from 10 to 90 kVA in a compact footprint—often in a smaller footprint than a single large UPS
- Redundant battery systems, with each parallel UPS containing its own internal batteries

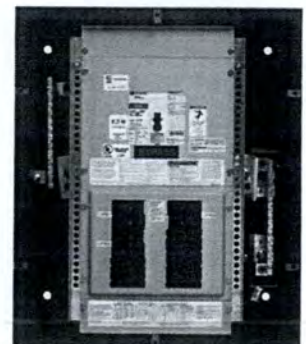


Up to four 9355 UPSs can be paralleled for capacity or redundancy—often in a smaller footprint than a single large UPS

Parallel tie cabinet



Front



Rear

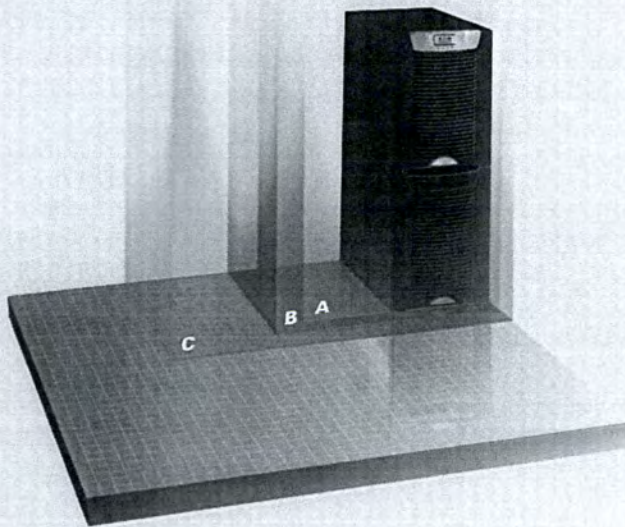
10 and 15 kVA Configurations

20 and 30 kVA Configurations

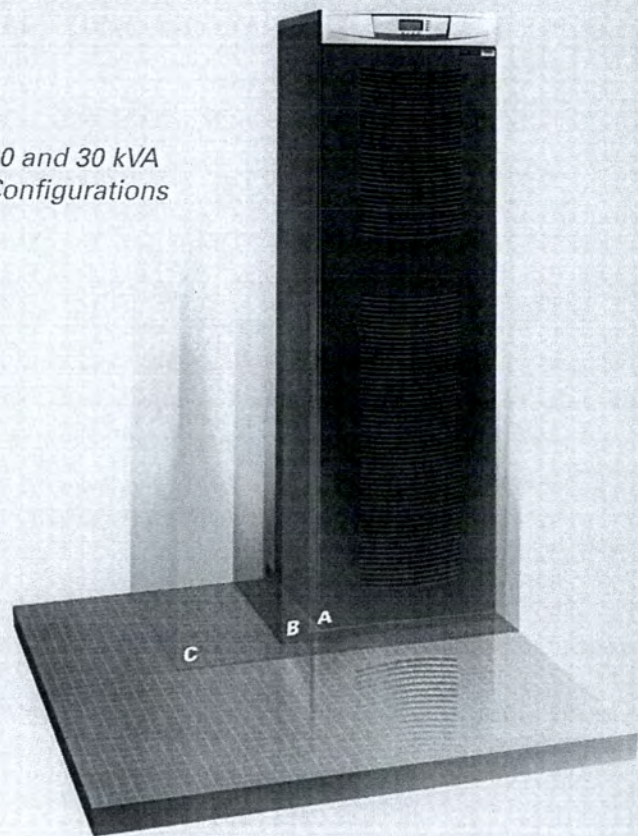
At 15 kVA, the 9355 occupies
70% less footprint
than competitor C

At 20 kVA, the 9355 occupies
48% less footprint
and delivers over three times
the battery runtime

10 and 15 kVA
Configurations



20 and 30 kVA
Configurations



	Dimensions (inches)			Footprint (square inches)	Battery Runtime (minutes)	
	W	D	H		10 kVA	15 kVA
9355	12	34	32	408	9	5
Competitor A	21	33	59	693	5	5
Competitor B	24	36	82	864	5	5
Competitor C	33	40	63	1320	5	5

	Dimensions (inches)			Footprint (square inches)	Battery Runtime (minutes)	
	W	D	H		20 kVA	30 kVA
9355	20	34	66	680	18	11
Competitor A	21	33	59	693	5	5
Competitor B	24	36	82	864	5	5
Competitor C	33	40	63	1320	5	5

Flexible, integrated power distribution

An on-board power distribution module (PDM) gives the 9355 the flexibility necessary to adapt to the diverse and continually changing data center environment. This integrated PDM allows data center managers to preserve valuable rack space and reduce heat by feeding nine to 100 kW of rack servers from one 9355 UPS.

The PDM can be configured to feature a user-selectable mix of NEMA and IEC output receptacles, helping to reduce site preparation and installation costs. These high-density, high-amperage receptacles support blade servers, network switches and other power-hungry IT equipment.

The PDM's circuits are clearly labeled to simplify load balancing while branch circuit breakers provide branch circuit protection and on/off operation for groups of receptacles. Other features include a maintenance bypass switch that allows the data center manager to service the 9355 without shutting down the connected loads to increase availability, reduce mean time to repair and maintenance costs, and lower total cost of ownership.

Simplified rack-based power distribution options

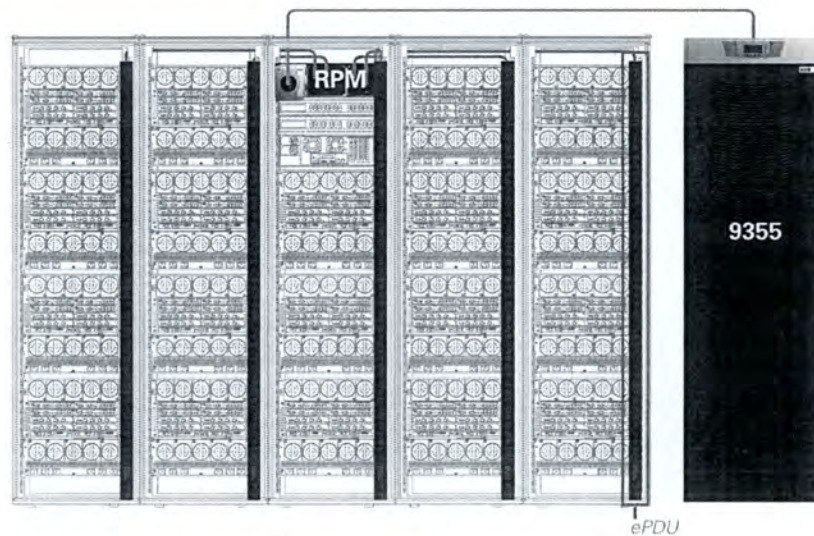
The 9355's on-board power distribution module is compatible with Eaton's optional rack power modules (RPM) and enclosure power distribution units, providing maximum flexibility in distributing power throughout the facility or data center. The RPM and ePDU enable primary power distribution from the 9355 to secondary power distribution devices or directly to IT equipment, for organized power distribution with fewer cables to manage and fewer distribution points to monitor.

Both solutions deliver power to loads of various voltages and can be configured to include user-selectable combinations of NEMA, IEC and hardwired inputs, and NEMA and IEC output receptacles.

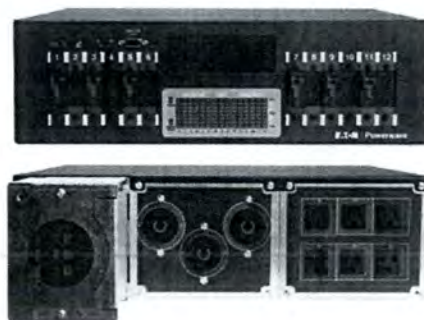
ePDUs are available in space-saving 0U-vertical and 1U-horizontal configurations making the ePDU ideal for high-density rack environments.

ePDUs allow users to meter, monitor, switch, sequence and manage branches or individual outlets.

Eaton RPMs and ePDUs simplify power distribution by reducing the number of cables to manage and distribution points to monitor



ePDUs



Rack power module
(front and rear view)



Integrated power
distribution module

Additional 9355 options

Options cabinets

For maximum flexibility, Eaton offers four options cabinet models for the following applications:

- Options cabinet with a maintenance bypass switch (MBS) that provides wrap-around bypass for UPS maintenance or service without shutting down the load
- Options cabinet with both MBS and input isolation transformer that allows operation from a 208V, 480V, or 600V 60-Hz source (input transformer in single-feed systems or bypass transformer in dual-feed systems)
- Options cabinet for dual-feed systems that provides a second input from a 208V, 480V, or 600V 60-Hz source
- Options cabinet with an output isolation transformer for 480V loads

Wall-mount maintenance bypass panels

Eaton offers a comprehensive line of optional wall-mounted maintenance bypass panels compatible with the 9355 UPS. The wall-mounted bypass panel is used to bypass the UPS during maintenance or servicing, providing wrap-around bypass for UPS service without shutting down the load. And for more flexible power distribution, these maintenance bypass panels can be equipped with surge protection and provisions for 36 poles of distribution utilizing Eaton's Cutler-Hammer breakers.

Proven warranty and support services

Customers consistently rank Eaton services number one in quality. Eaton's comprehensive, world-class service solutions are designed to improve costs, uptime, reliability, power quality and safety. And with 240 customer service engineers in North America and 1,200 international authorized service providers, Eaton has more service personnel than any other UPS manufacturer.

The standard factory warranty covers:

- System warranty: One year parts / 90 days labor
- Battery warranty: Two years parts / 90 days labor

Extensive service options for enhanced reliability

For support beyond the warranty period, Eaton offers enhanced service options including onsite startup, corrective and preventive maintenance, battery solutions, training, remote monitoring and factory spare parts and upgrades. Customizable three-phase UPS services packages allow customers to select the plan that provides the right combination of system uptime, convenience and value.

Service Plans

Eaton 9355 UPS Service Plans	PowerTrust Value	ProActive	PowerTrust	PowerTrust Preferred	Flex Contracts
Parts and Labor for Electronics	●	●	●	●	Custom Service Contracts
Parts and Labor for Batteries	○	○	○	○	
5x8 On-Site Corrective Maintenance	●				
7x24 On-Site Corrective Maintenance		●	●	●	
Next Business Day Response	●				
Eight-Hour Response		●	●	●	
Four-Hour Response		○	○	○	
Two-Hour Response		○	○	○	
5x8 UPS Preventive Maintenance Visit	One per year	○	One per year		
7x24 UPS Preventive Maintenance Visit	○	One per year	○	Two per year	
Battery Preventive Maintenance Visit	○	○	One per year	Two per year	
eNotify Remote Monitoring Service	●	●	●	●	
Discounted Spare Parts Kit, T&M, and Upgrades		30%	30%	30%	

● Included feature

○ Optional

Enhanced communication capabilities

The 9355 UPS is equipped with a variety of standard communications features for network connectivity and remote management applications, including:

- RS-232 serial port
- Two X-Slot communication bays
- Relay output contacts
- Two programmable signal inputs
- Remote emergency power-off (REPO)

Easy network connectivity and monitoring

ConnectUPS-X card

The ConnectUPS-X Web/SNMP X-Slot card connects the 9355 directly to an Ethernet network and the Internet and enables graceful shutdown of multiple computers over the network. The ConnectUPS-X Web/SNMP also features a three-port switching hub.

Modbus card

The Modbus card is an X-Slot device that allows continuous, real-time monitoring of the 9355 through a Building Management System (BMS) or industrial automation system.

Relay interface cards

The relay interface card for the X-Slot enables remote UPS shutdown and provides isolated dry contact Form-C relay outputs for utility failure, low battery, UPS alarm/OK, and on bypass.

Environmental Monitoring Probe

The environmental monitoring probe (EMP) works with the 9355 and ConnectUPS-X card to remotely monitor ambient temperature and relative humidity of the remote environment. The EMP can also be configured to provide status of two additional contact devices such as smoke detectors or open-door sensors.

Power Xpert Gateway Series cards

Power Xpert Gateway Series X-Slot cards provide Web-enabled, real-time monitoring of UPSs, PDUs and RPPs through standard onboard Web pages, Power Xpert software or third-party software.

Power Xpert meters

Power Xpert meters combine state-of-the-art technology with next-generation power diagnostics, data trending and performance benchmarking with a twist-and-click LCD display.

Centralized control and visibility

The 9355 UPS is shipped with the Eaton Software Suite CD. The software suite includes the following applications, as well as a user-friendly wizard to guide users through software selection and installation:

- LanSafe power management software
- PowerVision UPS performance analysis and monitoring software (30-day trial version)
- NetWatch network monitoring software

eNotify Remote Monitoring

Eaton's eNotify Remote Monitoring Service provides 24x7 real-time monitoring of the 9355 and battery systems and alerts both service technicians and the customer when a problem is detected. Proactive monitoring enables technical experts to respond immediately to more than 40 alarm conditions and, in many cases, resolve issues remotely with minimal or no downtime. Additional eNotify benefits include:

- One-way outbound status and event e-mails for security and reliability
- Fast diagnosis and notification of critical alarms
- Monthly customer reports including power event logs and overall UPS and battery health summaries



ConnectUPS-X Web/
SNMP X-Slot card



Power Xpert Gateway
Card 2000



Modbus card



Relay Interface cards



Environmental
Monitoring Probe



LanSafe



Foreseer



PowerVision

Model selection guide (10 and 15 kVA)

Power Rating (kVA/kW) ¹	Description	Input/Output Voltage	Part Number ²	Base Runtime	Dimensions (HxWxD, in.)	Weight (lb.) ³
10 / 9	2-high w/32 battery	208/208	KA1011100000010	8	32.2x12.0x33.5	373.0
10 / 9	3-high w/64 battery	208/208	KA1012100000010	22	47.8x12.0x33.5	609.0
10 / 9	2-high w/32 battery	220/220 ⁴	KA1011200000010	8	32.2x12.0x33.5	373.0
10 / 9	3-high w/64 battery	220/220 ⁴	KA1012200000010	22	47.8x12.0x33.5	609.0
10 / 9	3-high w/32 battery and input isolation transformer	480/208	KA1013400000010	8	47.8x12.0x33.5	577.0
10 / 9	3-high w/32 battery and input isolation transformer	600/208	KA1013600000010	8	47.8x12.0x33.5	577.0
15 / 13.5	2-high w/32 battery	208/208	KA1511100000010	4	32.2x12.0x33.5	373.0
15 / 13.5	3-high w/64 battery	208/208	KA1512100000010	13	47.8x12.0x33.5	609.0
15 / 13.5	2-high w/32 battery	220/220 ⁴	KA1511200000010	4	32.2x12.0x33.5	373.0
15 / 13.5	3-high w/64 battery	220/220 ⁴	KA1512200000010	13	47.8x12.0x33.5	609.0
15 / 13.5	3-high w/32 battery and input isolation transformer	480/208	KA1513400000010	4	47.8x12.0x33.5	577.0
15 / 13.5	3-high w/32 battery and input isolation transformer	600/208	KA1513600000010	4	47.8x12.0x33.5	577.0

1. 50/60 Hz auto-sensing.

2. An input neutral is required for all configurations unless the input isolation transformer is used. For parallel systems, change the fifth configure-to-order (CTO) digit to a 2 and include parallel tie cabinet.

3. Add 47 lb. for two-high configurations or 50 lb. for three-high configurations to determine shipping weight.

4. 220V units are wye connected 220/127V input and 220/127V output, three-phase, four-wire plus ground.

Model selection guide (20 and 30 kVA)

Power Rating (kVA/kW) ¹	Input/Output Voltage	Feed	UPS Part Number ²	Options Cabinet(s)	Base Runtime ³	Dimensions (HxWxD, in.)	Weight (lb.) ⁴
20 / 18	208/208	Single	KB2013100000010	None	18	66.0 x 20.0 x 34.1	1160.0
20 / 18	208/208	Single ⁶	KB2013100000010	KBT001100000010 ⁵	18	66.0 x 40.0 x 34.1	1695.0
20 / 18	208/208	Dual ⁶	KB2013100000010	KBT001100000010 KBT002100000010 ⁵	18	66.0 x 60.0 x 34.1	2230.0
20 / 18	220/220 ⁷	Single	KB2013200000010	None	18	66.0 x 20.0 x 34.1	1160.0
20 / 18	480/208	Single	KB2013100000010	KBT001200000010 ⁵	18	66.0 x 40.0 x 34.1	1695.0
20 / 18	480/208	Dual	KB2013100000010	KBT002200000010 KBT001200000010 ⁵	18	66.0 x 60.0 x 34.1	2230.0
20 / 18	600/208	Single	KB2013100000010	KBT001300000010	18	66.0 x 40.0 x 34.1	1695.0
20 / 18	600/208	Dual	KB2013100000010	KBT001300000010 ⁵ KBT002300000010	18	66.0 x 60.0 x 34.1	2230.0
20 / 18	480/480	Single	KB2013100000010	KBT001200000010 ⁵ KBT003200000010	18	66.0 x 60.0 x 34.1	2230.0
30 / 27	208/208	Single	KB3013100000010	None	11	66.0 x 20.0 x 34.1	1160.0
30 / 27	208/208	Single ⁶	KB3013100000010	KBT001100000010 ⁵	11	66.0 x 40.0 x 34.1	1695.0
30 / 27	208/208	Dual ⁶	KB3013100000010	KBT001100000010 ⁵ KBT002100000010	11	66.0 x 60.0 x 34.1	2230.0
30 / 27	220/220 ⁷	Single	KB3013200000010	None	11	66.0 x 20.0 x 34.1	1160.0
30 / 27	480/208	Single	KB3013100000010	KBT001200000010 ⁵	11	66.0 x 40.0 x 34.1	1695.0
30 / 27	480/208	Dual	KB3013100000010	KBT001200000010 ⁵ KBT002200000010	11	66.0 x 60.0 x 34.1	2230.0
30 / 27	600/208	Single	KB3013100000010	KBT001300000010	11	66.0 x 40.0 x 34.1	1695.0
30 / 27	600/208	Dual	KB3013100000010	KBT001300000010 ⁵ KBT002300000010	11	66.0 x 60.0 x 34.1	2230.0
30 / 27	480/480	Dual	KB3013100000010	KBT001200000010 ⁵ KBT003200000010	11	66.0 x 60.0 x 34.1	2230.0

1. 50/60 Hz auto-sensing.

2. An input neutral is required for all configurations unless the input isolation transformer is used. For parallel systems, change the fifth CTO digit to a 2 and include parallel tie cabinet.

3. All models include internal batteries.

4. Add 50 lb. to determine shipping weight.

5. Contains on-board maintenance bypass.

6. With isolation transformer.

7. 220V units are wye connected 220/127V input and 220/127V output, three-phase, four-wire plus ground.

Battery backup times (in minutes)

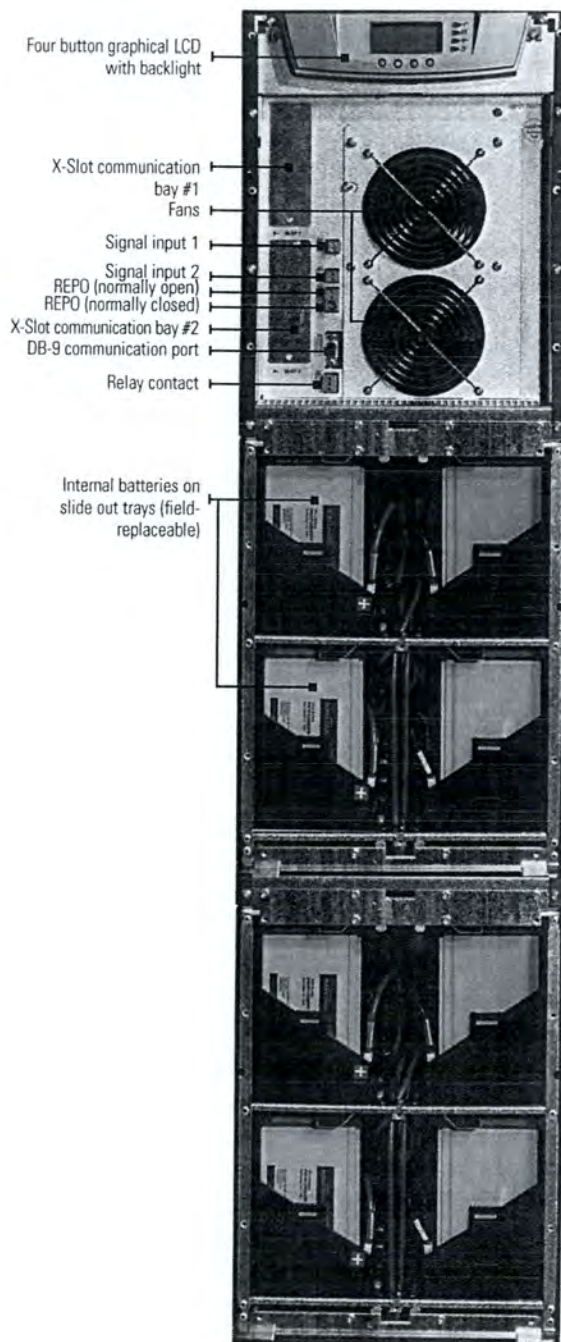
10-15 kVA backup times

VA	Watt	UPS + Internal 32 Battery	(1) EBM 64	(2) EBM 64	(3) EBM 64	(4) EBM 64	UPS + Internal 64 Battery	(1) EBM 96	(2) EBM 96	(3) EBM 96
15000	13500	5	23	43	65	89	13	43	77	113
14500	13050	5	24	45	68	93	14	45	81	119
14000	12600	5	25	47	72	97	15	47	84	125
13500	12150	6	26	49	75	102	16	49	88	130
13000	11700	6	28	52	78	106	17	52	92	136
12500	11250	6	29	54	82	111	18	54	96	142
12000	10800	7	30	57	86	116	19	57	101	149
11500	10350	7	32	59	90	122	19	59	106	156
11000	9900	7	33	62	94	129	20	62	111	164
10500	9450	8	35	66	100	136	21	66	117	174
10000	9000	8	37	70	106	144	23	70	124	184
9500	8550	9	40	74	112	153	24	74	132	196
9000	8100	10	42	79	120	163	26	79	141	209
8500	7650	11	46	85	129	175	28	85	152	225
8000	7200	12	49	92	139	189	30	92	164	242
7500	6750	13	53	100	151	205	32	100	178	263
7000	6300	15	58	109	164	224	35	109	194	286
6500	5850	16	64	119	180	245	39	119	212	314
6000	5400	18	70	131	198	270	43	131	234	346
5500	4950	20	78	145	220	300	47	145	259	383
5000	4500	22	87	162	245	334	53	162	289	428
4500	4050	25	97	182	276	376	59	182	325	-
4000	3600	29	110	207	313	426	67	207	369	-
3500	3150	33	127	238	359	-	77	238	423	-
3000	2700	38	148	277	418	-	90	277	-	-
2500	2250	46	176	329	-	-	107	329	-	-

20-30 kVA backup times

VA	Watt	UPS + Internal 1 Battery	Internal Battery + EBC - 36	Internal Battery + (1) EBC - 72	Internal Battery + (2) EBC - 72
30000	27000	11	31	56	89
29000	26100	11	33	58	90
28000	25200	12	35	60	93
27000	24300	12	38	62	95
26000	23400	13	40	65	98
25000	22500	14	43	68	101
24000	21600	14	46	71	103
23000	20700	15	48	74	106
22000	19800	16	51	76	109
21000	18900	17	53	79	111
20000	18000	18	56	82	114
19000	17100	19	58	85	117
18000	16200	20	62	88	120
17000	15300	22	66	92	130
16000	14400	24	71	96	142
15000	13500	26	75	101	154
14000	12600	28	79	105	166
13000	11700	31	84	110	178
12000	10800	35	88	114	201
11000	9900	38	94	119	256
10000	9000	42	101	134	251
7500	6750	58	117	188	347
5000	4500	90	188	294	543

Note: Backup times are approximate and may vary with equipment, configuration, battery age, temperature, etc.



Front view of three-high module with cover off

Technical Specifications for 10 and 15 kVA¹

Power

Ratings (kVA/Watts)	10 kVA/9 kW and 15 kVA/13.5 kW at 0.9 power factor
Topology	Double conversion

Electrical input

Nominal input voltage	208V/120V or 220V/127V three-phase 400V models also available
Input voltage range	-15%, +10% from nominal at 100% load without depleting battery
Operating frequency	50/60 Hz (45 to 65 Hz)
Input power factor	>0.99 typical, >0.96 frequency converter
Input current distortion	5% THD

Electrical output

Nominal output voltage	208/120, 220/127 Vac
Output voltage regulation	±1% static; ±5% dynamic at 100% resistive load change, <1 ms response time
Efficiency	91%, typical
Heat dissipation (BTU/hr)	10 kVA models: 3,798 @ 208V and 220V input 6,294 @ 480V and 600V (with input isolation transformer) 15 kVA models: 5,122 @ 208V and 220V input 8,134 @ 480V and 600V (with input isolation transformer)

Battery

Battery type	9 Ah, sealed, lead-acid, maintenance-free
Battery runtime	See battery backup time chart
Battery replacement	Field-replaceable
Charger	Default is 3.4A per battery string. Charger current is configurable from 0.5A to 25A per string with an overall maximum of 34A (limited by input current)
Start-on-battery	Allows start of UPS without utility input

General

Diagnostics	Full system self-test at startup
UPS bypass	Automatic on overload or UPS failure
Parallel for redundancy	Yes, using Powerware Hot Sync technology and capacity
Dimensions and weights	See model selection table
Overload (normal operation)	150% for 5 sec / 125% for 1 min (online), 110% for 10 min

Communications

LCD display	Graphical LCD with blue backlight
LEDs	(4) LEDs for notice and alarm
Audible alarms	Yes
Communication ports	(1) RS-232, (1) relay contact, (1) REPO, (2) environmental input
Communication slots	(2) X-Slot communication bays
Power management software	Bundled Software Suite CD

Environmental

Operating temperature	50–104°F (10–40°C), 45°C with 7.5% derating; Optimal battery performance: 77°F (25°C)
Storage temperature	32–77°F (0–25°C); Recommended battery storage: 59–77°F (15–25°C)
Relative humidity	0–95%, non-condensing
Audible noise	< 56 dBA at 1 meter (noiseless room) typical
Altitude	9,843 ft. (3000m) without derating

Certifications

Safety certifications	UL1778 5th Edition, CSA C22.2 No. 107.3-14, NOM-NYCE
EMC compliance	47 CFR Part 15/ICES-003 Class A
Quality	ISO 9001:2015, ISO 14001:2004
Surge	ANSI C62.41 Category B3, IEC 61000-4-5
Markings	cULus, NOM-NYCE

1. Due to continuous product improvements, program specifications are subject to change without notice.

Technical Specifications for 20 and 30 kVA¹

Power

Ratings	20 kVA/18 kW and 30 kVA/27 kW at 0.9 power factor
Topology	Double conversion
Electrical input	
Nominal input voltage	208V/120V, 220V/127V +10, -15% 480V/277V, 600V (480+600 with transformer) 400V models also available
Operating frequency	50/60 Hz (45 to 65 Hz)
Input power factor	0.99 typical
Input current distortion	<5% THD

Electrical output

Nominal output voltage	208/120, 220/120 Vac 480/227 with output transformer
Output voltage regulation	±1% static; ±4% dynamic with 100% step load recovery within 1 ms response time
Efficiency	91%, typical
Heat dissipation (BTU/hr)	<i>20 kVA models</i> 6,762 @ 208V and 220V input 10,450 @ 480V and 600V (with input isolation transformer) <i>30 kVA models:</i> 9,220 @ 208V and 220V input 13,831 @ 480V and 600V (with input isolation transformer)

Battery

Battery type	9 Ah, sealed, lead-acid, maintenance-free
Battery runtime	See battery backup time chart
Battery replacement	Field-replaceable
Charger	Default is 8A

General

Diagnostics	Full system self-test at startup
UPS bypass	Automatic on overload or UPS failure
Parallel for redundancy	Yes, using Powerware Hot Sync technology for redundancy and capacity
Dimensions and weights	See model selection table
Overload	150% for 5 sec / 125% for 1 min (online), 110% for 10 min

Communications

LCD display	Graphical LCD with blue backlight
LEDs	(4) LEDs for notice and alarm
Audible alarms	Yes
Communication ports	(1) RS-232, (1) relay contact, (1) REPO, (2) environmental input
Communication slot	(2) X-Slot communication bays
Power management software	Bundled Software Suite CD

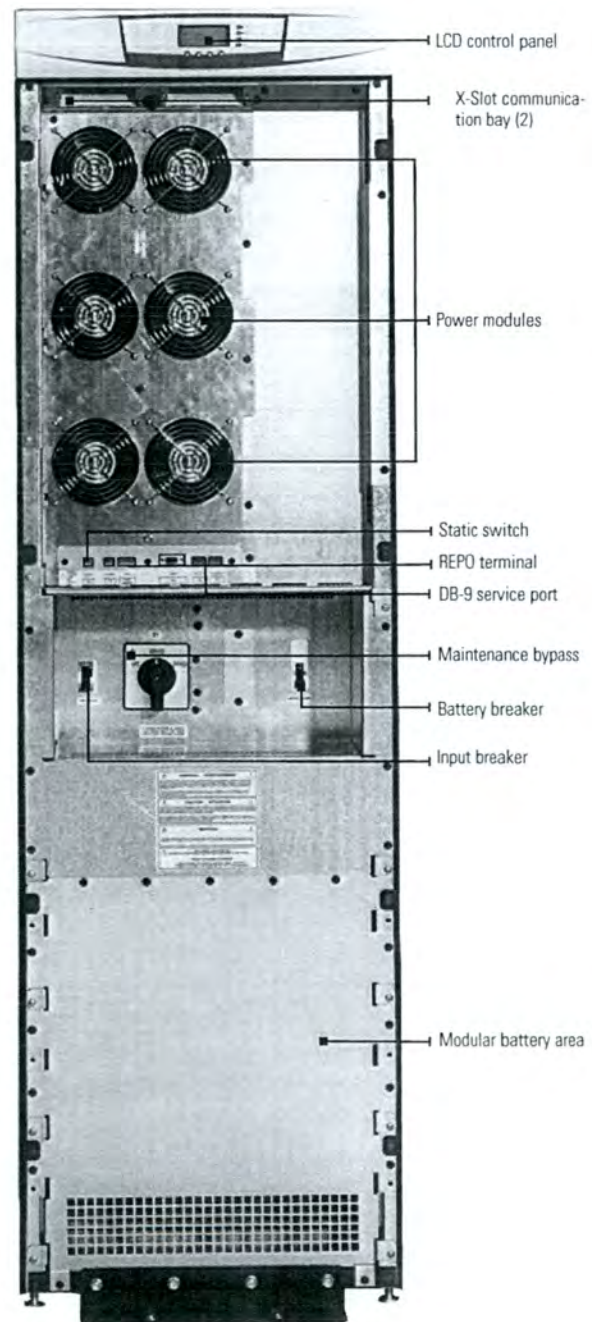
Environmental

Operating temperature	50–104°F (10–40°C), 45°C with 7.5% derating; Optimal battery performance: 77°F (25°C)
Storage temperature	32–77°F (0–25°C); Recommended battery storage: 59–77°F (15–25°C)
Relative humidity	0–95%, non-condensing
Audible noise	< 58 dBA at 1 meter depending on load
Altitude	<3000m

Certifications

Safety certifications	IEC 62040-1-1, IEC 60950, EN 62040-1-1, UL 1778, NOM-0190SCP8-1993
EMC compliance	EN 50091-2 Class A
Quality	ISO 9001: 2000 and ISO 14001:1996
Markings	UL, cUL, NOM-NYCE

1. Due to continuous product improvements, program specifications are subject to change without notice.



20/30 kVA UPS

Power Distribution Module with Mechanical Bypass Switch (10 and 15 kVA Models)

NEMA Output Receptacle(s) ¹ Quantity	Breaker	Voltage (V)	Receptacle Code ²	Phase(s)	Enter "Receptacle Code" into CTO Digits #
(1) L15-30R	30A	208	2	3	9, 10 or 11 only
(1) L21-20R	20A	208/120	3	3	9, 10 or 11 only
(1) L21-30R	30A	208/120	4	3	9, 10 or 11 only
(2) 5-15R	15A	120	A	1	9,10,11,12
(2) 5-20R UL	20A	120	B	1	9,10,11,12
(2) 6-15R	15A	208	D	2	9,10,11,12
(2) 6-20R	20A	208	E	2	9,10,11,12
(2) L5-15R	15A	120	F	1	9,10,11,12
(1) L5-20R*	20A	120	G	1	9,10,11,12
(1) L5-30R*	30A	120	H	1	9,10,11,12
(2) L6-15R	15A	208	I	2	9,10,11,12
(1) L6-20R*	20A	208	J	2	9,10,11,12
(1) L6-30R*	30A	208	K	2	9,10,11,12
(1) L14-20R*	20A	120/208	L	2	9,10,11,12
(1) L14-30R*	30A	120/208	M	2	9,10,11,12
Blank Panel	N/A	N/A	X	N/A	9,10,11,12
(2) IEC 320 C13 (120V)	20A	120	N	1	9,10,11,12
(2) IEC 320 C19 (120V)	20A	120	P	1	9,10,11,12

1. The combined quantities of LOCKING receptacles (denoted by *) must not exceed four per unit. 1. Arrange receptacle codes in numerical-alphabetical order in digits 9 through 12 of the CTO number. Example 1: A PDM with an L21-20, an L14-30, and Qty 2 IEC320-C19 would have digits 9 through 12 of the CTO arranged as "3MPP". Example 2: A PDM with a 5-15R, and an L6-30 and an L14-30 would have digits 9 through 12 of the CTO arranged as "AKMX". Please be sure utilize the "X" designation for any of the four total slots not populated.

Options (10 and 15 kVA)

Description	Part Number	Input/Output Voltage (V)	Dimensions (H x W x D, inches)	Weight (lb)
Two-high line and match battery module (64 batteries)	103004192-5501	N/A	32.2 x 12 x 30.2	480
Three-high line and match battery module (96 batteries)	103004193-5501	N/A	47.8 x 12 x 30.2	710
Wall-mount parallel tie cabinet (2-Breaker MBP) ^{1,3}	124100020-001	N/A	36 x 20 x 5.8	68
Wall-mount Remote EPO Switch	103002939	N/A	4.5 x 4.5 x 4.5	3
Zone 4 Seismic Mounting Kit	103004194-5501	N/A	-	-
Remote monitor display panel ²	103002687-001	N/A	4.9 x 5.9 x 1.6	3
Spare parts kit	106711169	N/A	N/A	N/A
10 to 15 kVA upgrade	103004657	N/A	N/A	N/A
Upgrade to a parallel UPS module				
three-breaker maintenance bypass panels	UP08N-PAR1	N/A	N/A	N/A
100A Bus, 200A Neutral, & 60A MBP, MIB, MIS ³	124100027-001	208/208	48 x 20 x 5.8	120
With integral 120 KA TVSS (100A Bus, 200A Neutral, and 60A MBP, MIB, MIS) ³	124100027-002	208/208	60 x 20 x 5.8	120
With 36-pole distribution provisions (Cutler-Hammer GHB 65 kAIC, or GBHW 22 kAIC and BAB 10 kAIC only) ³	124100027-003	208/208	72 x 20 x 5.8	210
With 36-pole distribution provisions and integrated TVSS (Cutler-Hammer GHB 65 kAIC, GBHW 22 kAIC and BAB 10 kAIC only) ³	124100027-004	208/208	90 x 20 x 5.8	225

1. 208V/208V input/output voltage. 225A bus, 200A neutral, (1) 225A MBP and (4) 80A MIS.

2. Requires Industrial Relay and Display Card. See X-Slot Connectivity

3. Add 40 lb. for shipping weight of panels and 50 lb. for panels with panelboard provisions.

Options (20 and 30 kVA)

Description	Part Number	Input/Output Voltage (V)	Dimensions (H x W x D, inches)	Weight (lb)
Two-string line and match battery cabinet (36 batteries)	103005183	N/A	66.0 x 20.0 x 34.1	1105
Four-string line and match battery cabinet (72 batteries)	103004868	N/A	66.0 x 20.0 x 34.1	2060
Option cabinet containing maintenance bypass (no transformer)	KBT000000000010	208/208	67.0 x 20.0 x 34.1	205
Wall-mount parallel tie cabinet (two-breaker MBP) ^{1,3}	124100026-001	208/208	48.0 x 20.0 x 5.8	150
Remote monitor display panel ²	103002687-001	N/A	N/A	N/A
Remote EPO switch (wall mounted)	103002939	N/A	N/A	N/A
Zone 4 seismic kit	103004896	N/A	N/A	N/A
Spare parts kit	106711170	N/A	N/A	N/A
20 to 30 kVA upgrade	103004901	N/A	N/A	N/A
Upgrade to a parallel UPS module	UP08N-PAR	N/A	N/A	N/A
Three-breaker maintenance bypass panels				
225A Bus, 200A Neutral and 125A MBP, 110A MIB, 110A MIS) ³	124100028-001	208/208	48.0 x 20.0 x 5.8	120
With integral 120 KA TVSS				
(100A Bus, 200A Neutral and 60A MBP, MIB, MIS) ³	124100028-002	208/208	60.0 x 20.0 x 5.8	120
With 36-pole distribution provisions (Cutler-Hammer				
GHB 65 kAIC, or GBHW 22 kAIC and BAB 10 kAIC only) ³	124100028-003	208/208	72.0 x 20.0 x 5.8	210
With 36-pole distribution provisions and integrated TVSS (Cutler-				
Hammer GHB 65 kAIC, GBHW 22 kAIC and BAB 10 kAIC only) ³	124100028-004	208/208	90.0 x 20.0 x 5.8	225

1. 400A Bus, 200A Neutral, (1) 350A MBP and (4) 110A MIS.

2. Requires Industrial Relay and Display Card. See X-Slot Connectivity Options table.

3. Add 40 lb. for shipping weight of panels and 50 lb. for panels with panelboard provisions.

X-Slot Connectivity Options

Description ¹	Value for CTO Digit 8	Part Number (if ordered separately)
None (No Pre-installed X-Slot card)	0	—
ConnectUPS-X Web/SNMP/xHub Card	3	116750221-001
Modem Card	7	05146288-5501
Modbus Card	4	103005425-5591
Relay Card (AS/400 compatible)	5	1018460
Industrial Relay and Display Card ²	6	103003055
CAN Bridge Parallel Card	N/A	103004336

1. The UPS has two X-Slots. One card can be factory installed while the second X-Slot card can be purchased separately.

2. 5A @ 250V. Provides (4) form-C relay contacts for integrating UPS alarms into security and alarm systems. Also provides signal information for the Remote Monitor Display Panel (part number 103002687-001).



Options cabinet

RPM Configurations for 9355

Part Number	Input Cable	Receptacle 1	Receptacle 2	Metering
Y03100011100000	Hardwired Input	L21-20 (2)	L21-20 (2)	Local Power Meter
Y03100022100000	Hardwired Input	L21-30 (2)	L21-30 (2)	Local Power Meter
Y03100055100000	Hardwired Input	L6-30 (3)	L6-30 (3)	Local Power Meter
Y03100047100000	Hardwired Input	L6-20 (3)	5-20 (6)	Local Power Meter
Y03100017100000	Hardwired Input	L21-20 (2)	5-20 (6)	Local Power Meter
Y031000FF100000	Hardwired Input	L15-30 (2)	L15-30 (2)	Local Power Meter
Y301000BB100000	Hardwired Input	IEC320-C19 (6)	IEC320-C19 (6)	Local Power Meter



Wall-mount maintenance bypass panel

Welcome

Purchasing an uninterruptible power supply (UPS), however big or small, is an investment—in your business or organization, peace of mind, reliability and bottom line. Here's everything you need to know about the service and support we offer so you can make the most of your UPS for many years to come.

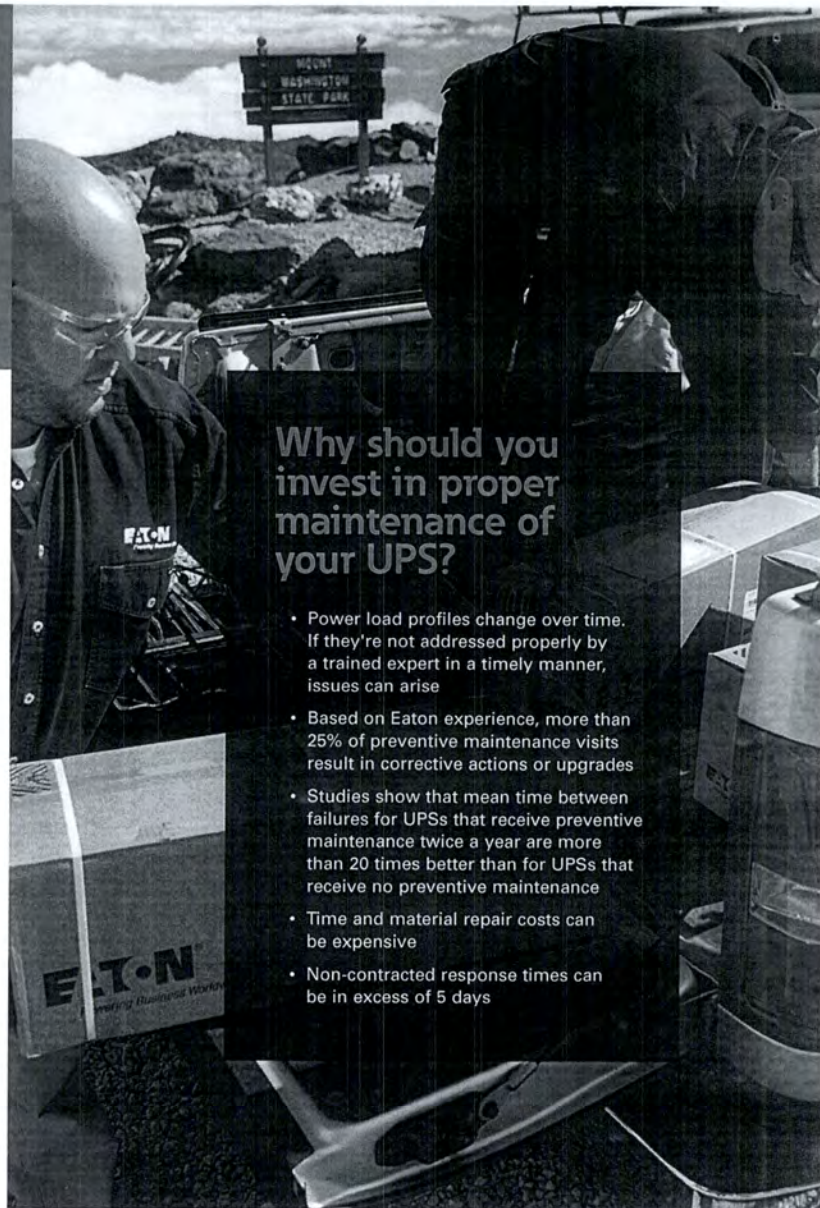
The old adage "If it isn't broken, don't fix it," may be feasible in some circumstances, but applying it to the maintenance of a UPS can have devastating consequences. Why? Because you rely on your UPS to deliver continuous power without disruption. Proper service is critical to ensuring optimal performance while also minimizing the risks of downtime and extending the life of your UPS.

This brochure outlines some of the basic concepts and benefits of UPS service. It's important to understand the coverage that comes with your UPS and then evaluate your options for a long-term plan. That way, you can keep your equipment functioning at its highest level of performance for many years.

If you have questions about your UPS or service coverage, visit us online at Eaton.com/UPSservices. If you'd prefer to speak with someone directly, call us at 1.800.843.9433 in the United States or 1.800.461.9166 in Canada.

Why should you invest in proper maintenance of your UPS?

- Power load profiles change over time. If they're not addressed properly by a trained expert in a timely manner, issues can arise
- Based on Eaton experience, more than 25% of preventive maintenance visits result in corrective actions or upgrades
- Studies show that mean time between failures for UPSs that receive preventive maintenance twice a year are more than 20 times better than for UPSs that receive no preventive maintenance
- Time and material repair costs can be expensive
- Non-contracted response times can be in excess of 5 days



Why should you have a preventive maintenance plan?

A preventive maintenance service plan for your UPS is much like completing routine repairs and inspections on your vehicle. Not only is completing scheduled maintenance recommended by every auto manufacturer, but the findings can help detect a range of ailments before they become serious issues.

Without proper maintenance, many UPSs fail prematurely since consumable components such as batteries, capacitors and fans wear out from normal use. Preventive maintenance is really one of the most cost-effective measures you can take to ensure the ongoing health of your critical equipment and overall business.

Because regular maintenance practices so dramatically improve UPS reliability and performance—while notably deterring downtime—it's an essential component to any end-to-end solution.

With more than 40 years of experience servicing industry-leading power quality equipment, Eaton can help you maintain the reliable performance of your UPS, giving you a higher return on your investment.

"Eaton's large local presence and responsive services assist us in maximizing reliability and scalability to meet customer needs, while also playing a key role in our ability to maintain uptime per customer service-level agreements and position us as an industry pricing leader . . . The mean time to repair is excellent."

Jason van Gaal, founder and chief executive officer, ROOT Data Center

Look out for the common causes of UPS failure

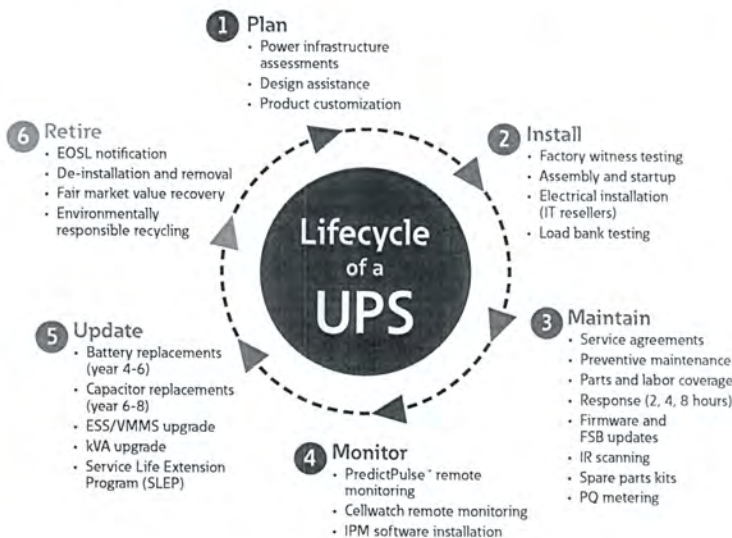
There are numerous reasons why UPSs fail. The most common causes are:

1. **Batteries.** Studies show that a leading cause of UPS failures is bad batteries, with temperature and cumulative discharges cited as the primary culprits.
2. **Fans.** Some fans fail because of their own electrical or mechanical limitations or when their ball bearings dry out. Fans may perform well for more than 10 years of continuous use, while others run for only short periods before locking up for mechanical reasons.
3. **Capacitors.** Like batteries, capacitors degrade over time. When a capacitor fails, there may not be any immediate visible effects.
4. **Transient spikes.** Damage may be caused to the input side of the UPS (filter/rectifier) when a transient lightning spike occurs.

Know what to expect as your UPS gets older

During a preventive maintenance visit, Eaton technicians inspect, test, calibrate, update and clean UPS components, as well as update software. You'll receive a report at the end of the visit detailing the results of the inspection and specific recommendations for remedial actions, proactive replacements and upgrades.

We have services to help you across the life of your UPS—from planning for a UPS, Service Life Extensions to its retirement. Here's what we recommend at each stage.



Recommended preventive maintenance schedule for 10 kVA+ UPSs

When to do what, so you can plan for the future. Here's our recommendation on keeping your UPS running in tip-top shape.

	Year																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Preventive maintenance (PM) visits																				
UPS PM	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Battery PM	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Performance testing (Load Bank, IR Scan, PQ Meter)			◆			◆			◆			◆			◆			◆		
PDU/RPP/SBM PM			◆			◆			◆			◆			◆			◆		
Electronic components (◆ Eaton recommends proactive replacement)¹																				
Uninterruptible Power Modules (UPMs)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Interface Boards (UPM & ISBM)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Control Boards (UPM & ISBM)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Power Supplies (UPM & ISBM)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Resistor Boards (ISBM)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Communications Service Boards (CSB)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Static switch	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Contactors	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Display	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
UPS replacement (alternative to electronic replacements)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Consumable components (◆ Eaton recommends proactive replacement)¹																				
Batteries (VRLA) on average ²	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Batteries (Wet Cell) on average ²	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Batteries (Lithium) on average ²	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Capacitors (AC, external to UPMs) 9390, 9395 ³	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Capacitors (DC, internal to UPMs) 9390, 9395 ³	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Capacitors (AC & DC, internal to UPMs) 9155, 9355, 93E ³	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Capacitors (AC & DC external & internal to UPMs) 9395P, 9395C ³	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Capacitors (AC & DC external & internal to UPMs) 93PM 480V ³	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Capacitors (AC & DC internal to UPMs) 93PM 208V ³	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fans ⁴	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Air filters ⁴	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

¹ Firmware updates are performed as necessary with customer approval. Parts if required are included at no charge for customers with service agreements with full parts coverage, otherwise billable.

² Field Service Bulletins are evaluated for potential updates. Parts if required are included at no charge for customers with service agreements with full parts coverage, otherwise billable.

³ Proactive full replacements of batteries, capacitors, fans, and UPS electronics (SLEP) are not covered under UPS or battery PMs, nor under standard Eaton service agreements, but can be purchased separately.

⁴ Eaton recommends full replacement of sealed batteries between 3-5 years of age and flooded batteries between 12-15 years of age.

⁵ Individual parts are replaced as applicable and necessary during PM visits. Parts if required are included at no charge under service agreements with full parts coverage, otherwise billable.

Additional services and upgrades

- **kVA upgrade:** Increase the power capacity of your UPS
- **Cellwatch battery monitoring:** Daily battery monitoring increases overall system reliability
- **PredictPulse remote monitoring:** 24x7 real-time monitoring of your UPS and battery systems by trained Eaton personnel
- **Energy Saver System (ESS):** Reduce your utility bill by maximizing the efficiency of your UPS to 99% without sacrificing reliability (9390, 93PM and 9395 UPS models)

Choosing the right service approach

Finding a service plan to ensure continuous power over a typical UPS lifecycle can be a relatively easy process. Now that you have a better understanding of why service is so important to extending the life of your UPS and its application, here are some questions to consider as you select the best coverage options.

1. What type of UPS service do I need?

- **Onsite repair** is primarily for large or hard-wired UPS products. Just contact Eaton's dispatch and customer care center and a factory-trained field technician will arrive at your site to diagnose and repair electronic or battery-related problems.
- **Depot exchange** (repair or replace) is primarily for smaller UPS products. Ship the UPS to a repair facility and we will return the repaired unit or a refurbished one.
- **Advance swap depot exchange** is primarily for small UPS products. Contact us and we will advance ship a refurbished unit.

2. Do I buy a support agreement, extended warranty or pay as I go?

- **Support agreements**, or service contracts, usually combine parts and labor coverage (electronics, batteries or both), one or more UPS preventive maintenance inspections annually, and a combination of coverage hours and arrival response time. Plans can be tailored to meet almost any need.
- **Extended warranties** may also be purchased for many UPS products. A warranty commonly covers specified parts and labor, such as electronic components for a fixed period of time, but may not include 24x7 coverage or arrival response time. Warranties also don't include preventive maintenance, but extra services can be purchased in addition to a warranty extension.
- **Time and material (T&M)** service is a pay-as-you-go approach where once something breaks, you contact Eaton and we schedule a technician to conduct the repair. T&M can be done via depot repair or onsite, based on the product, and can be expensive depending on what needs to be repaired. The uncertainty of knowing when a field technician will arrive can make T&M an unacceptable service solution for some organizations. Eaton's contract customers always take priority, resulting in T&M response times of up to five days based on the product and location for non-contract customers.

3. What should be covered?

- **UPS electronics parts and labor.**
- **UPS batteries, parts and labor.** Often the leading cause of failure, batteries generally need to be replaced every five years or less.
- **Preventive maintenance.** A preventive maintenance visit allows a field technician to annually inspect, test, calibrate and upgrade any UPS and/or battery components, while ensuring factory-specified performance.
- **Remote monitoring.** Remote monitoring allows us to view the UPS and battery system to expedite repairs and look for potential problems prior to failure. In the event of a critical alarm on your UPS, we notify you of the alarm and make a recommendation for how to address it. If a service contract is in place, a technician can be automatically dispatched to remedy the problem.

4. How much service do I need and how fast do I want my service delivered?

- Around the clock or continuous service is called **24x7 coverage**. A field technician will respond or deliver service at any hour, including weekends and holidays.
- **8x5 coverage** is limited to standard business hours (8 a.m. to 5 p.m.), Monday through Friday. If a problem occurs, it will be resolved within these hours.
- **Eight-, four-, two-hour or next business day response** defines how quickly the field technician arrives after you have requested a service visit. For some situations, response time can be very important as it determines how fast the field technician can begin resolving a problem.

5. How long should I plan for a UPS to last and how much should service cost?

- **Large UPS products** usually have a 15- to 20-year life span.
- **Small UPS products** can last 10 or more years, but are often replaced much sooner.
- **All UPS product life expectancies** can be maximized or extended via routine preventive service, part replacements and upgrade/modification kits.
- **The total cost of ownership (TCO)** varies widely based on the size of UPS, amount and type of batteries, quantity and type of services desired, and application. Maintenance costs can vary between 5 and 30 percent of product purchase price per year.

The answers to these five questions are not always clear. Eaton has trained specialists available to answer your questions and recommend a service solution tailored to your situation and budget.

Service spotlight: PredictPulse remote monitoring

PredictPulse™ remote monitoring service

The power of predictability.

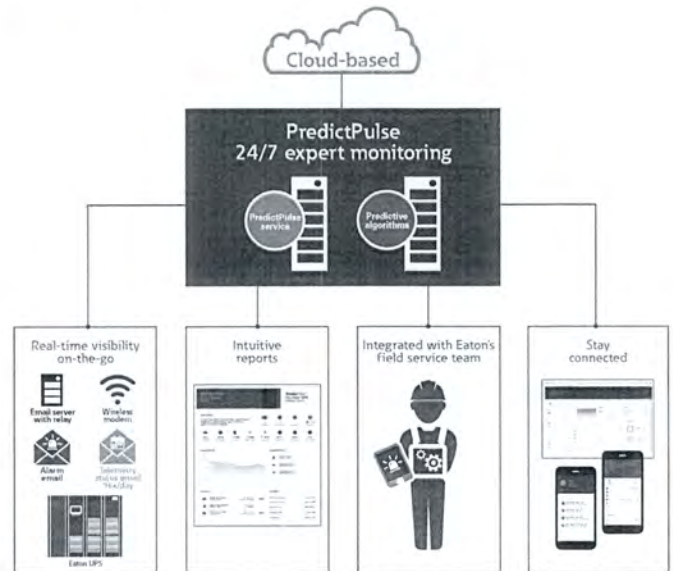
PredictPulse is a cloud-based monitoring and management service that collects and analyzes data from connected power infrastructure devices, providing us with the insight needed to make recommendations and take action on your behalf. Powered by CA Technologies, which brings together the best in hardware and software, this service is like doubling the size of your team.

PredictPulse Insight is the first cloud-based analytics service for data center infrastructure to predict the failure of power components. The new service adds predictive analytics to Eaton's next-generation PredictPulse remote monitoring service, shifting power monitoring from a reactive to a proactive model.

PredictPulse proactively monitors and manages power so you can:

- Save time. Focus on other critical IT tasks while this predictive analytics service and Eaton's remote monitoring team oversees power remotely
- Save money. Eliminate surprise maintenance expenses- this subscription-based service includes parts, labor, on-going preventative maintenance and expedited repairs
- Reduce risk. Utilize Eaton's propriety algorithms, based on data from thousands of installed devices to predict UPS component failure and proactively replace parts before issues arise
- Leverage the power of predictability by knowing what's coming; responding proactively; saving time, money and headaches — all with PredictPulse

Visit Eaton.com/PredictPulse for details



PredictPulse dashboard

U.S. warranty and support features included with new products

Our UPS and battery systems are backed by a standard factory warranty, so you know you're getting the performance and reliability you need. See below for the specific startup and warranty coverage for your UPS, battery and power distribution equipment.

Warranty*		9315, 9395, 9395 High Performance, 9395C, 93PM	9355	93E	9155	9PX, 9SX, FERRUPS (up to 3.1 kVA)	BladeUPS	9PXM, FERRUPS (4.3 – 18 kVA)	3S, 5S, 5SC, 5P, 5PX	PDU & STS	RPP
Limited factory warranty		1-year parts, 90 days onsite labor from startup ¹	1-year parts, 90 days onsite labor from startup ¹	1-year parts, 6 months onsite labor from purchase OR 1-year onsite labor from purchased startup ²	2-year parts, 90 days onsite labor from startup ¹	2 years from date of purchase ³	18 months from date of shipment ⁴	2-year parts, 90 days onsite labor from date of purchase ⁵	3 years from date of purchase with warranty registration, no load loss guarantee	If startup is purchased: 1-year parts and onsite labor from startup ⁶	1-year parts, 90 days onsite labor from date of purchase ⁷
Included service coverage		1-year total onsite labor from startup date (Service Protection Plan)									
24x7 onsite eight-hour response priority coverage		■		■ With startup purchase							
Bundled startup service		■ 24x7	■ 8x5		■ 8x5						
24x7 Customer Reliability Center triage and dispatch		■	■	■	■	■	■	■	■ With startup purchase	■ With startup purchase	
24x7 technical support access		■	■	■	■	■	■	■	■ With startup purchase	■ With startup purchase	
Depot exchange					■	■	■	■			
Lifetime load and protection guarantee						■		■			
PredictPulse remote monitoring (w/monthly monitoring summary report)		■ Includes connectivity parts upon enrollment	■	■	■				N/A	N/A	

*For complete details and footnote references, visit Eaton.com/StartupWarranty.

Eaton UPS support agreement features

Eaton service plans	PowerTrust Value	ProActive	PowerTrust	PowerTrust Preferred	Flex
Parts and labor for electronics	■	■	■	■	Custom service contracts
Parts and labor for batteries	□	□	□	□	
8x5 onsite corrective maintenance	■				
24x7 onsite corrective maintenance		■	■	■	
Next business day response	■				
8-hour response		■	■	■	
4-hour response (where available)		□	□	□	
2-hour response (where available)		□	□	□	
8x5 UPS preventive maintenance visit	1 per year	□	1 per year	□	
24x7 UPS preventive maintenance visit	□	1 per year		2 per year	
Battery preventive maintenance visit	□	□	1 per year	2 per year	
PredictPulse remote monitoring service	■	■	■	■	
Discounted spare parts & upgrade kits & T&M		30%	30%	30%	

■ Included feature □ Optional feature

Why choose Eaton?

According to customer surveys, here's why customers choose Eaton Service:

- Relationship with field technicians and their expert product knowledge
- Quick response by tapping into more than 240 field technicians
- Locally available field parts inventory
- Increased reliability by having an experienced technician with factory training and technical support resources who focus exclusively on Eaton products
- Reputation of being an outstanding service provider who delivers on promises
- Commitment to customers and their products
- Ability to manage risk of downtime and avoid financial costs of power disruption
- Ability to have a single source for battery replacements, upgrades, lifecycle and other service needs
- Price for value

Deep support structure

A key component of any service plan is the peace of mind that help will be there when you need it, regardless of the time of day or issue. In addition to providing highly trained team members onsite, Eaton service customers also have access to a host of additional resources at their fingertips, including:

- **Dedicated team of professionals**
We offer you round-the-clock access to our power quality experts.
- **Technical support**
Our technical support engineers have expertise in power, electrical engineering, software and connectivity, batteries, UPSs and related products.
- **Service delivery**
Emergency and scheduled maintenance for service plan contract customers always takes priority over T&M customers.
- **Parts you need**
When you rely on an Eaton service plan, rest assured that every factory-trained field technician stocks a solid inventory of parts to remedy UPS emergencies.

240

experienced,
factory-trained
technicians

Access

to parts inventory
maintained by
technicians

Risk

management to
control downtime
and costs



Range of service offerings

We understand that service plans are not "one size fits all." That's why we offer a broad range of service options, designed to meet the varied requirements and applications of businesses of all shapes and sizes.

Highly skilled technicians

A major differentiator for Eaton Service is our extensive network of more than 240 factory-trained field technicians across the U.S. and Canada.

Our technicians receive ongoing product training and certification. They also have constant exposure to Eaton UPS products and legacy brands, including Powerware, Exide Electronics, International Power Machines (IPM), Best Power, Deltec, Lortec and Fiskars. Because of their familiarity with these systems, Eaton field technicians deliver advanced troubleshooting and a reduced mean time to repair.

Priority on safety

All electrical equipment involves risk, so standardized safety processes are of the utmost importance to Eaton. Be assured that when working at your site, our technicians will have your equipment in mind and will maintain a safe and hazard-free environment. They have the training, knowledge, proprietary tools and personal protective equipment to perform their jobs efficiently while maintaining a safe work area.

"With some service companies, it seems as if you are working for them. There are so many other things going on in the hospital and I don't have time to hold hands and call people. I want someone who is here to help me, and with Eaton, that's what I get."

Fidel Bustamante,
lead electrician, Children's Hospital
Los Angeles