# REQUEST FOR QUOTATION
*(THIS IS NOT AN ORDER)*

THIS RFQ [X] IS [ ] IS NOT A SMALL BUSINESS SET-ASIDE



| 1. REQUEST NO. | 2. DATE ISSUED | 3. REQUISITION/PURCHASE REQUEST NO. | 4. CERT. FOR NAT. DEF. UNDER BDSA REG. 2 AND/OR DMS REG. 1 | RATING |
|---|---|---|---|---|
| N65540-04-Q-0029 | 03 NOV 18 | 93420 32951869 | | |

5a. ISSUED BY
CONTRACTING OFFICER
NSWC CARDEROCK DIVISION

6. DELIVER BY *(Date)*
04 JAN 16

7. DELIVERY
[X] FOB DESTINATION [ ] OTHER *(See Schedule)*

5b. FOR INFORMATION CALL *(NO COLLECT CALLS)*

NAME
5001 S. BROAD STREET, CODE 335
PHILADELPHIA, PA 19112-1403
DAVID DENNISON

TELEPHONE NUMBER
AREA CODE 215 NUMBER 897-1494
FAX: 215 897-7059

9. DESTINATION N65540
a. NAME OF CONSIGNEE
NAVAL BUSINESS CENTER
ANTEON CORPORATION
ATTN: LARRY BARBER 6192475816

8. TO:
a. NAME
b. COMPANY
c. STREET ADDRESS
d. CITY
e. STATE
f. ZIP CODE

b. STREET ADDRESS
1675 BRANDYWINE AVE.
c. CITY
CHULA VISTA
d. STATE CA
e. ZIP CODE 91911-0000

10. PLEASE FURNISH QUOTATIONS TO THE ISSUING OFFICE IN BLOCK 5A ON OR BEFORE CLOSE OF BUSINESS *(Date)* 03 DEC 05

IMPORTANT: This is a request for information and quotations furnished are not offers. If you are unable to quote, please so indicate on this form and return it to the address in Block 5A. This request does not commit the Government to pay any costs incurred in the preparation of the submission of this quotation or to contract for supplies or services. Supplies are of domestic origin unless otherwise indicated by quoter. Any representations and/or certifications attached to this Request for Quotations must be completed by the quoter.

## 11. SCHEDULE *(Include applicable Federal, State and local taxes)*

| ITEM NO. (a) | SUPPLIES/SERVICES (b) | QUANTITY (c) | UNIT (d) | UNIT PRICE (e) | AMOUNT (f) |
|---|---|---|---|---|---|
| 0001 | REQN. NO. 93420 /32951869<br>ITEM NAME: 3.1KVA UPCS INVERTER UNIT IN ACCORDANCE WITH THE ATTACHED SPECIFICATIONS. | 5 | EA | | |
| 0002 | REQN. NO. 93420 /32951875<br>ITEM NAME: SNMP ADAPTER IN ACCORDANCE WITH THE ATTACHED SPECIFICATIONS. | 13 | EA | | |
| 0003 | REQN. NO. 93420 /32951872<br>ITEM NAME: RACKMOUNT BATTERY PACK IN ACCORDANCE WITH THE ATTACHED SPECIFICATIONS. | 5 | EA | | |
| 0004 | REQN. NO. 93420 /32951882<br>ITEM NAME: EXTERNAL ABTTERY CABINET IN ACCORDANCE WITH THE ATTACHED SPECIFICATIONS. | 8 | EA | | |
| 0005 | REQN. NO. 93420 /32951876<br>ITEM NAME: SERVICE MANUAL IN ACCORDANCE WITH THE ATTACHED SPECIFICATIONS. | 4 | EA | | |

| 12. DISCOUNT FOR PROMPT PAYMENT | a. 10 CALENDAR DAYS (%) | b. 20 CALENDAR DAYS (%) | c. 30 CALENDAR DAYS (%) | d. CALENDAR DAYS NUMBER | PERCENTAGE |
|---|---|---|---|---|---|
| | | | | | |

NOTE: Additional provisions and representations [ ] are [ ] are not attached

13. NAME AND ADDRESS OF QUOTER
a. NAME OF QUOTER
b. STREET ADDRESS
c. COUNTY
d. CITY
e. STATE
f. ZIP CODE

14. SIGNATURE OF PERSON AUTHORIZED TO SIGN QUOTATION

15. DATE OF QUOTATION

16. SIGNER
a. NAME *(Type or print)*
b. TELEPHONE AREA CODE NUMBER
c. TITLE *(Type or print)*

VENDOR:

SECTION F TIME OF DELIVERY

DELIVERIES SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS

| ITEM | QUANTITY | DELIVERY REQUIRED |
|---|---|---|
| 0001 | 5 EA | 04-JAN-16 |
| 0002 | 13 EA | 04-JAN-16 |
| 0003 | 5 EA | 04-JAN-16 |
| 0004 | 8 EA | 04-JAN-16 |
| 0005 | 4 EA | 04-JAN-16 |

52.247-34 F.O.B. DESTINATION (NOV 1991)

52.213-4 Terms and Conditions--Simplified Acquisitions (Other Than Commercial Items) (OCT 2003)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS) clauses that are incorporated by reference:

(1) The clauses listed below implement provisions of law or Executive order:

(i) 52.222-3, Convict Labor (June 2003) (E.O. 11755).

(ii) 52.222-21, Prohibition of Segregated Facilities (Feb 1999) (E.O. 11246).

(iii) 52.222-26, Equal Opportunity (Apr 2002) (E.O. 11246).

(iv) 52.225-13, Restrictions on Certain Foreign Purchases (Oct 2003) (E.o.s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

(v) 52.233-3, Protest After Award (Aug 1996) (31 U.S.C. 3553).

(2) Listed below are additional clauses that apply:

(i) 252.204-7003, Control of Government Personnel Work Product (Apr 1992)

(ii) 52.232-1, Payments (Apr 1984).

(iii) 52.232-11, Extras (Apr 1984).

(iv) 52.233-1, Disputes (Jul 2002).

(v) 252.243-7001 Pricing of Contract Modifications (Dec 1991)

(vi) 52.244-6, Subcontracts for Commercial Items (Apr 2003).

(vii) 52.253-1, Computer Generated Forms (Jan 1991).

(b) The Contractor shall comply with the following FAR and DFARS clauses, incorporated by reference, unless the circumstances do not apply:

(1) The clauses listed below implement provisions of law or Executive order:

(i) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (Sept 2002) (E.O. 13126). (Applies to contracts for supplies exceeding the micro-purchase threshold.)

(ii) 52.222-20, Walsh-Healey Public Contracts Act (Dec 1996) (41 U.S.C. 35-45) (Applies to supply contracts over

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$10,000 in the United States, Puerto Rico, or the U.S. Virgin Islands).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001) (38 U.S.C. 4212) (Applies to contracts of $25,000 or more).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793). (Applies to contracts over $10,000, unless the work is to be performed outside the United States by employees recruited outside the United States.) (For purposes of this clause, United States includes the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.)

(v) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001) (38 U.S.C. 4212) (Applies to contracts of $25,000 or more).

(vi) 52.222-41, Service Contract Act of 1965, As Amended (May 1989) (41 U.S.C. 351, et seq.) (Applies to service contracts over $2,500 that are subject to the Service Contract Act and will be performed in the United States, District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, Johnston Island, Wake Island, or the outer continental shelf lands).

(vii) 52.223-5, Pollution Prevention and Right-to-Know Information (Aug 2003) (E.O. 13148) (Applies to services performed on Federal facilities).

(viii) 252.225-7001, Buy American Act and Balance of Payments Program (Apr 2003) (Applies to all contracts for supplies unless an exception is authorized by DFARS 225.1101(2) (i) through (iv).

(ix) 252.225-7013, Duty-Free Entry (Apr 2003) (Applies to all contracts for supplies except for those supplies that will not enter the customs territory of the United States).

(x) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (Oct 2003). (Applies when the payment will be made by electronic funds transfer (EFT) and the payment office uses the Central Contractor Registration (CCR) database as its source of EFT information.)

(xi) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration (May 1999). (Applies when the payment will be made by EFT and the payment office does not use the CCR database as its source of EFT information.)

(xii) 252.247-7023, Transportation of Supplies by Sea (May 2002) Alternate III (May 2002) (Applies when transporting any supplies by sea under this contract.)

(2) Listed below are additional clauses that may apply:

(i) 252.204-7004, Required Central Contractor Registration (Nov 2001) (Applies to all contracts unless an exception is authorized by DFARS 204.7302.)

(ii) 52.209-6, Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (July 1995) (Applies to contracts over $25,000).

(iii) 52.211-5 Material Requirements (Aug 2000) (Applies to contracts for supplies that are not commercial items).

(iv) 52.211-17, Delivery of Excess Quantities (Sept 1989) (Applies to fixed-price supplies).

(v) 252.225-7002, Qualifying Country Sources as Subcontractors (Apr 2003) (Applies if the contract is subject

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to the DFARS clause 252.225-7001, Buy American Act and Balance of Payments Program (see (b)(1)(viii) above)).

(vi) 52.243-1, Changes--Fixed Price (Aug 1987) (Applies to fixed-price contracts for supplies).

(vii) 52.243-1, Changes--Fixed Price (Aug 1987) Alternate I (Apr 1984) (Applies to fixed price contracts for services, other than architect-engineer or other professional services, and no supplies are to be furnished).

(viii) 52.243-1, Changes--Fixed Price (Aug 1987) Alternate II (Apr 1984) (Applies to fixed price contracts for services (other than architect-engineer services, transportation, or research and development) and supplies are to be furnished).

(ix) 52.243-1, Changes--Fixed Price (Aug 1987) Alternate V (Apr 1984) (Applies to fixed price contracts for research and development).

(x) 52.247-29, F.o.b. Origin (Jun 1988) (Applies to supplies if delivery is f.o.b. origin).

(xi) 52.247-34, F.o.b. Destination (Nov 1991) (Applies to supplies if delivery is f.o.b. destination).

(xii) 52.222-42, Statement of Equivalent Rates for Federal Hires (May 1989) (Applies if the contract amount is expected to be over $2,500 and the contract is subject to the clause 52.222-41, "Service Contract Act of 1965, As Amended" (see (b)(1)(vi) above)).

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

This Statement is for Information Only:

It is not a Wage Determination

| Employee Class | Monetary Wage--Fringe Benefits |
|---|---|
| | |
| | |
| | |
| | |

(xiv) 52.246-11 Higher-Level Contract Quality Requirement (Feb 1999) (Applies to contracts when the contracting officer finds it is in the Governments interest to require that higher-level quality standards be maintained and such standards are selected and identified in the clause).

The Contractor shall comply with the higher-level quality standard selected below. [If more than one standard is listed, the offeror shall indicate its selection by checking the appropriate block.]

| | Title | Number | Date | Tailoring |
|---|---|---|---|---|
| * | | | | |
| * | | | | |
| * | | | | |
| * | | | | |

[Contracting Officer insert the title, number (if any), date, and tailoring (if any) of the higher-level quality standards.]

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(c) FAR 52.252-2, Clauses Incorporated by Reference (Feb 1998). This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

FAR clauses - http://www.arnet.gov/far/
DFARS clauses - http://www.acq.osd.mil/dp/dars/dfars.html

(d) Inspection/Acceptance. The Contractor shall tender for acceptance only those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in contract price. The Government must exercise its postacceptance rights--

(1) Within a reasonable period of time after the defect was discovered or should have been discovered; and

(2) Before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.

(e) Excusable delays. The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence, such as acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

(f) Termination for the Government's convenience. The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges that the Contractor can demonstrate to the satisfaction of the Government, using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred that reasonably could have been avoided.

(g) Termination for cause. The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such

VENDOR:

termination shall be deemed a termination for convenience.
(h) Warranty. The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.

(End of clause)

52.232-36 Payment by Third Party (May 1999)

(a) General. The Contractor agrees to accept payments due under this contract, through payment by a third party in lieu of payment directly from the Government, in accordance with the terms of this clause. The third party and, if applicable, the particular Governmentwide commercial purchase card to be used are identified elsewhere in this contract.
(b) Contractor payment request. In accordance with those clauses of this contract that authorize the Contractor to submit invoices, contract financing requests, other payment requests, or as provided in other clauses providing for payment to the Contractor, the Contractor shall make such payment requests through a charge to the Government account with the third party, at the time and for the amount due in accordance with the terms of this contract.
(c) Payment. The Contractor and the third party shall agree that payments due under this contract shall be made upon submittal of payment requests to the third party in accordance with the terms and conditions of an agreement between the Contractor, the Contractor's financial agent (if any), and the third party and its agents (if any). No payment shall be due the Contractor until such agreement is made. Payments made or due by the third party under this clause are not payments made by the Government and are not subject to the Prompt Payment Act or any implementation thereof in this contract.
(d) Documentation. Documentation of each charge against the Government's account shall be provided to the Contracting Officer upon request.
(e) Assignment of claims. Notwithstanding any other provision of this contract, if any payment is made under this clause, then no payment under this contract shall be assigned under the provisions of the assignment of claims terms of this contract or the Assignment of Claims Act of 1940, as amended, 31 U.S.C. 3727, 41 U.S.C. 15.
(f) Other payment terms. The other payment terms of this contract shall govern the content and submission of payment requests. If any clause requires information or documents in or with the payment request, that is not provided in the third party agreement referenced in paragraph (c) of this clause, the Contractor shall obtain instructions from the Contracting Officer before submitting such a payment request.

(End of clause)

Your quotation must include the following information:

Price list number and date

or

Cost breakdown by direct labor (list categories, hours

VENDOR:

and pay rates). In addition to the direct rates, provide the applicable indirect information (G&A), overhead, facilities capital cost of money (FCCM) and profit.

or

Applicable General Services Administration (GSA) contract number.

If unable to quote FOB, Destination, please complete the following:

FOB Point _____

Estimated Shipping Charge _____

Business size:

Large _____ Small _____ Nonprofit _____

Cage Code _____

Tax Identification Number (TIN) _____

DUNNS _____

ELIGIBILITY REQUIREMENTS

All contractors and individuals doing business with the Federal Government must be registered at the Contractor Central Registration Database located at:
http:ccr.dlsc.dla.mil/.

ELECTRONIC DISTRIBUTION OF CONTRACT DOCUMENTS

All contract award and contract modification documents will be distributed electronically using the Navy Air Force Interface (NAFI) system. The contractor's copy will be provided in portable document format (pdf) as an attachment to an e-mail that will be sent to the contractor by the NAFI system. A pdf file may be accessed using Adobe Acrobat Reader software. This is a free software that may be downloaded at:
http://www.adobe.com/products/acrobat/readstep.html

Provide the following information that will be used to make electronic distribution for any resultant contract:

Name of Point of Contact to Receive Distribution _____

Phone Number for Point of Contact _____

E-Mail Address for Receipt of Distribution _____

USE OF THE GOVERNMENTWIDE COMMERCIAL PURCHASE CARD

VENDOR:

Will you accept the Governmentwide Commercial Purchase Card as a method of purchasing supplies and/or services.

_____Yes _____ No

Will you accept the Governmentwide Commercial Purchase Card as a method of payment for your invoice.

_____Yes _____ No

DUTY FREE ENTRY

Will any materials being shipped to the Government require a duty-free entry certificate for foreign supplies.

_____Yes _____ No

If yes, please include dollar amount $_____

# TECHNICAL EVALUATION CRITERIA

The offeror shall furnish information that demonstrates the UPCS it proposes to furnish will comply with all the requirements set forth in the Specification. The technical proposal for the UPCS shall address in detail the following factors in order to be evaluated.

1. UPCS Design & Performance
   The offeror shall provide information for the UPCS it intends to furnish that will comply with the requirements contained in the UPCS Specification. In particular, the offeror must furnish information that demonstrates the control capabilities of the UPCS Inverter Unit will satisfy the applicable specification requirements and the UPCS Inverter Unit, External battery Rack, the SNMP Adapter and External Battery Cabinet to be furnished will not exceed the specified dimensional requirements.

2. Corporate Experience
   The offeror shall provide information on its experience with the manufacture of UPCS or similar items for either commercial or military use. It shall also furnish information on the equipment, facilities, and other production resources it possesses that it will use during the performance under any resulting contract.

In order to comply with the above, offerors may provide descriptive literature (such as catalogs, brochures, drawings, etc) for the UPCS it intends to furnish together with information describing how the existing system will be modified if necessary to meet the specification requirements.

# SPECIFICATION FOR 3.1KVA HARD-WIRED, SEACOTS CONFIGURED, RACKMOUNT FERRUPS® UPCS

## Item 0001

## 3.1KVA Hard-wired, SEACOTS Configured, Rackmount FERRUPS® UPCS Inverter Unit

**SEACOTS configured 3.1KVA,** hard-wired, *True-No-Break*, single phase, line interactive, **Rackmount Uninterruptible Power Conditioning System (UPCS)** inverter unit rated for 3.1KVA/2.2KW. Unit is configured and calibrated for use with a 48Vdc external battery rack (item 0002) with the following features, capabilities, etc:

1. **Inverter Unit - Technical**
   A) **Operational:**
      1) Topology: Single phase, line interactive, microprocessor controlled, Ferro-Resonant based.
      2) Nominal input voltage & frequency: 120V & 60Hz.
      3) Power output: Switch mode rated for 3.1KVA/2.2KW of continuous, true no break, regulated and conditioned, computer grade, sine wave power, both on-line and on inverter.
      4) Output voltage: nominal 120V.
         a) Regulation: +/- 3% for input voltages from +15% to –20%.
         b) THD: 5% or less @ rated KW
      5) Output frequency : 60Hz nominal.
         a) On line: tracks input within adjustable limits (+/-0.01 Hz to +/-3 Hz).
         b) Inverter: +/-0.005Hz.
      6) Efficiency, on line: 91%
      7) Lightning, Surge, Noise Protection:
         a) 2000:1 spike attenuation using ANSI/IEEE C62.41 Cat A & B criteria.
         b) Noise rejection: 1) common mode, > 120dB; 2) transverse (normal) mode, > 60dB.
      8) Overload capability: 150% surge & 125% for 10 minutes on line; 150% surge & 110% for 10 minutes on the inverter.
      9) DC voltage input/output supplied from external Rackmount battery cabinets delivering 48Vdc with fully charged batteries.
         a) Integral, internal, multi-stage 5A battery charger in inverter unit charges batteries in external battery cabinet. To be capable of recharging one string of four (4) each, 12V, 75AH, LAVR, AGM batteries, in good condition, from worst case [i.e. "Low Battery" shut down] to 90% charge within 11 hours. Anderson connector on the back of inverter to connect to battery pack DC cable.
      10) EMI Compliance: FCC Class A
   B) **Environmental:**
      1) Operating ambient temperature: 0 to 50°C.
      2) Relative humidity: 0 to 95%, without condensation.
      3) Maximum operating altitude: 3,050m (10,000 ft.).
      4) Audible noise @ 1m when on operating on the inverter: 51 dBA.

2. **Quality, Safety & Survivability:**
   A) **QA & Safety:**
      1) UL listed to Standard for Safety UL 1778.
      2) Integral Back Feed Relay breaks both "HOT" leads in the event of an internal fault.
      3) Internal AVR (PFM) board to enhance operation in poor load PF environments.
   B) **Survivability:**
      1) Configured for 1Ph-60Hz-120V input and 1Ph-60Hz-120V output; permits use of a Make-Before-Break (MBB) Maintenance By-pass switch for "No Break" transfer from inverter to line power and back again.
      2) Incorporates ruggedizing features required to withstand 901 shock and 167-1 vibration. Included are mounting "rails/tracks" which fit into the rack or console, and into which the **UPCS** inverter unit is mounted and secured.
      3) Standard internal neutral to ground bond broken to permit use on ungrounded ship's power systems.

3. **Reliability, Connectivity, and Condition Based Maintenance Capabilities**

A) **Reliability:**

1) The micro-processor controlled **UPCS** incorporates a ferro-resonant transformer, which with associated circuitry, gives the unit unprecedented ability to work with all types of 1Ph-60Hz-120V input and loads. An Active Voltage Regulation feature combined with inherent power conditioning enables **UPCS** inverter units to convert input power from almost any 1Ph-60Hz-120Vac source and output ***continuously conditioned and regulated, true no-break, 1Ph-60Hz-120Vac computer grade power.***

B) **Connectivity and Condition Based Maintenance:**

1) All **UPCS** incorporate microprocessor control, alarm indicators, "at a glance" LEDs, and RS-232 port for monitoring of power conditions, alarm conditions, inverter status, and system parameters.
2) All **UPCS** come bundled with **CheckUPS II** power management software and connecting cables.
3) All **UPCS** incorporate self-diagnostics that run on system start up, and also run battery status checks at pre-set intervals (standard 7 days or as user selects). Background diagnostics trigger alarms whenever abnormal conditions exist for selected parameters. Parameter settings and status can be checked at any time, via the RS-232 port.
4) In addition, the **3.1KVA SEACOTS UPCS** has a front mounted keypad/data display for local monitoring and control.

4. **Other**

A) **Run Time:**

1) Run Time when operating on inverter/batteries, see Item 0002 for specific times,

B) **Installation:**

1) The **3.1KVA** hard-wired, Rackmount **SEACOTS UPCS** inverter unit fits readily through a standard 26" x 66" ships hatch. Dimensions: (including the mounting piece) are: no more than 9.75"h x 16"w x 26.25"d; Weight: not to exceed 140 lbs. Front panel dimensions: 10.5"h x 19"w.
2) The mounting "rails/tracks" are bolted into the rack or console. The **3.1KVA** Rackmount **SEACOTS UPCS** inverter unit is then installed and the front panel bolted into place. This permits removal of the inverter unit for inspection, maintenance, etc. without disturbing the mounting arrangement.

## Item 0002

## SEACOTS Configured Rackmount Battery Rack

**SEACOTS configured**, separately rackmounted, type 48Vdc Battery Rack - complete with batteries - for use with Item 0001, and incorporating the following features, etc:

1. **Quality, Safety & Survivability**
   A) **QA & Safety**:
      1) Designed and manufactured in the U.S.A. by an ISO 9001 certified company. Consists of a ruggedized COTS rackmount battery rack containing one (1) string of four (4), battery, 12Vdc, 75AH, AGM, valve regulated, sealed, no-maintenance batteries.
      2) The battery string is "protected" by an internal 150A fuse.
      3) Incorporates two (2) Anderson Connectors on the back of the rack which:
         a) Provide the DC power connection to the **3.1KVA** inverter unit (item 0001), and permit paralleling with additional Battery Packs to provide for extended run times.
         b) Act as DC disconnects.
      4) Mounting "rails/tracks" permit the Battery rack to be unbolted and slid out part way to provide access to the interior of the battery pack for inspections, battery voltage testing, tightening of interconnect cables, etc.
      5) Includes integral metal brackets and non-conducting insulating panel(s) to secure the batteries in place to prevent movement when the ship works in a seaway.
      6) Includes a "welding" grade cable to connect the battery rack to the UPS Inverter unit (Item 0001), and, in the case of two or more paralleled Battery Packs, the "between pack" interconnect cable(s).
      7) Includes battery interconnect cables, sized for proper amperage flow and made of fine stranded, highly flexible, welding cable to permit tight bends while precluding cable kinking and stress hardening.
   B) **Survivability**
      1) Ruggedized steel frame and panel construction to withstand 901 shock and 167-1 vibration. Shock test may be either a medium weight hammer test, 9 hits, three in each of three axes, or barge mounted high shock for a minimum of five hits.
         a) The Battery Rack/Pack shall be designed to accept one (1) string of four (4) each 12V, 75AH, LAVR, AGM, sealed, no-maintenance, batteries. To provide for battery string redundancy, racks can be designed so that two or more can be connected in parallel

2. **Run Time, Reliability, Connectivity, and Condition Based Maintenance Capabilities**
   A) **Run Time**:
      1) With a total of four (4), fully charged, Battery Pack, 12Vdc, 75AH, AGM, sealed, valve regulated, no-maintenance batteries, in good condition, installed, and based on a .7 power factor load:
         a) One **SEACOTS** Battery Pack will supply the **3.1KVA SEACOTS FERRUPS® UPCS** inverter with power for **45 min run time @ full load and 101 min. @ half load.**
         b) Two Battery Packs connected in parallel with fully charged batteries will provide for **101 min run time @ full load and 243 min. @ half load.**
   B) **Reliability.**
      1) The **SEACOTS** Battery Pack contains no moving parts or, excepting batteries, any failure prone components
   C) **Connectivity and Condition Based Maintenance**:
      1) Battery status is monitored by the **3.1KVA SEACOTS FERRUPS® UPCS** inverter unit's (Item 0001) diagnostic and control circuits – both at start-up and at preset intervals [factory setting: every seven (7) days] during continuous operation. Monitoring interval during continuous operation is a user adjustable parameter.
      2) Battery voltage is constantly monitored, and "**Near Low Battery**," "**Low Battery**," "**High Battery**" and "**Check Battery**" are alarm conditions.

D) **Recharge:**

1) Recharge time for the Battery Rack/Pack [with the inverter unit's 5A charger charging one string of 4 12V, 75AH, LAVR, AGM batteries, in good condition, - from worst case [i.e. "Low Battery" shut down] to 90% charge: a maximum of 11 hr for one battery pack, or 24 hr for two in parallel.

3. **Other**

A) **Installation:**

1) The hard-wired, Rackmount **UPCS** battery rack shall be "rail" or "slide" mounted and front bolt secured to permit ready access to the internals, and shall be of a size that fits readily through a standard 26" x 66" ships hatch.
2) Though the battery rack will be installed in a rack, it will ship unmounted and will be installed at the site.

**Battery** - Qty 4 per rack : 12V, 75AH, lead acid, valve regulated, (LAVR), absorbed glass mat (AGM) no-maintenance batteries. of a type and manufacture that have been (or are to be) shock and vibration tested with the battery rack offered, and incorporating the following features, capabilities, etc.

1. **Quality, Safety & Survivability:**

A) **QA & Safety**:

1) this battery should be valve regulated, lead acid battery
2) shall be flame retardant polypropylene case
3) shall be 12V 75AH @ 20 hr rate, 12V 282 watts/cell @ 15 min. rate
4) Shall be of a type and type and configuration for use shipboard and specifically the model that that was shock and vibration tested with the battery rack (item 0002).

2. **Reliability, Connectivity, and Condition Based Maintenance Capabilities:**

A) **Reliability:**

1) No moving parts. Only maintenance required is monitoring voltages and keeping terminals clean.

A) **Connectivity**:

1) No connectivity features.

2. **Other:**

A) **Installation**:

1) Each battery shall ship in its own individual carton.
2) Shall be capable of being handled without leakage of electrolyte.
3) To be doubled strapped with heavy duty straps in the battery rack to prevent movement in a seaway.

## Item 0003

## SNMP Adapter

**External SNMP Adapter** compatible with the **3.1KVA SEACOTS CONFIGURED RACKMOUNT UPCS** Inverter's (item 0001) logic to permit communication with connected equipment.

1. The SNMP Adapter is a network adapter for the UPCS Inverter (item 0001) that provides both SNMP and HTTP compatibility.
2. This SNMP Adapter connect to UPCS Inverter's (item 0001) serial port via true RS-232 and a twisted-pair Ethernet (10base T) network using RJ-45 connector connect to computer.
3. With the NetWatch client software, this SNMP Adapter can support remote monitoring and automatically shutdown the protected system during extend power outage from UPCS-protected computer system.

## Item 0004

## Service Manual for RACKMOUNT UPCS

**Manufacturer's Service Manuals** for each **3.1KVA SEACOTS CONFIGURED rackmount UPCS** package. Manuals shall include:

a) Details of equipment operation.
b) Recommended maintenance procedures and schedules.
c) Trouble shooting procedures.
d) Drawings and schematics of the Inverter Unit.
e) Parts lists with part numbers..

## Item 0005

## External Battery Cabinet

Qty 1: **SEACOTS configured**, 120Vdc, external Tower Type, deck mount Battery Cabinet for use with 18KVA UPCS Inverter Unit, and incorporating the following features, etc:

1. **Quality, Safety & Survivability:**
   A) **QA & Safety**:
      1) To be designed and manufactured in the U.S.A. by an ISO series 9000 registered company, for use with one (1) string of ten (10) each 12V, 134AH, LAVR, AGM, UPS12-475FR sealed, no-maintenance batteries for installation at time of Battery Cabinet installation. The cabinet shall incorporate internal insulation as required to prevent battery terminals from coming in contact with the steel enclosure.
      2) The battery string shall be "protected" by an internal 130V-200A fused link on one DC lead to permit the string to be disconnected for inspection, service, low voltage due to cell failure, etc.
      3) To incorporate an integral, ruggedized, internal DC Disconnect Switch for battery bank isolation. The switch handle to be mounted on the front of the battery cabinet for ready accessibility.
      4) To incorporate removable side panels to allow full access to the interior of the battery cabinet for inspections, battery voltage testing, tightening of interconnect cables, etc.
      5) To include sufficient high strength, braided nylon battery "straps" to "double tie" the batteries in place to prevent movement when the ship works in a seaway.
      6) To include a "welding' grade cable to connect the Battery Cabinet/Pack to the **UPCS** inverter unit (Item 0001)..
      7) To include a full set of battery interconnect cables, sized for proper amperage flow and made of fine stranded, flexible, welding cable to permit tight bends while precluding cable kinking and stress hardening.
   B) **Survivability:**
      2) Ruggedized steel frame and panel construction to withstand 901 shock and 167-1 vibration. Use of elastomer shock mounts is allowed to meet this requirement. Shock test may be either a medium weight hammer test, 9 hits, three in each of three axes, or barge mounted high shock for a minimum of five hits.
      3) The Battery Cabinet/Pack shall be designed to accept one (1) string of ten (10) each 12V, 134AH, LAVR, AGM, UPS12-475FR sealed, no-maintenance, batteries, which, together with the internal fused links. To provide for battery string redundancy, cabinets shall be designed so that two or more can be connected in parallel so that:
         b) One battery cabinet can be disconnected for ready inspection, service, etc. while the other battery cabinet(s) remain(s)s on-line to deliver DC power when required.
         c) In the event of cell failure, etc., the affected battery cabinet can be disconnected, the faulty cell removed, replaced with a new cell - **HOT SWAP** capability - and the cabinet returned to service without losing the DC power delivery capability of the other cabinet(s).

2. **Run Time, Reliability, Connectivity, and Condition Based Maintenance Capabilities:**
   A) **Run Time:**
      1) With the one (1) string of ten (10) each fully charged, 12V, 134AH, AGM, UPS12-475FR sealed, valve regulated, no-maintenance batteries installed, the Battery Pack shall supply the Inverter Unit (Item 0001) with power for **a minimum of 30 minutes run time @ full load.**
   B) **Reliability.**
      1) Aside from the ruggedized front panel mounted DC Disconnect switch, the Battery Cabinet shall contain no moving parts or, excluding batteries, failure prone components

   C) **Connectivity and Condition Based Maintenance:**
      1) Battery status shall be monitored by the 18KVA **UPCS** inverter unit's diagnostic and control circuits – both at start-up and at preset intervals [typical setting: every seven (7) days] during continuous operation. Monitoring interval during continuous operation is to be a user adjustable parameter.
      2) Battery voltage shall be constantly monitored, and "**Near Low Battery**," "**Low Battery**," "**High Battery**" and "**Check Battery**" are to be alarm conditions.

D) **Recharge:**

1) Recharge time for the Battery Cabinet/Pack [with the inverter unit's 20A charger charging one string of 10 12V, 134AH, LAVR, AGM UPS12-485FR batteries, in good condition, - from worst case [i.e. "Low Battery" shut down] to 90% charge: a maximum of 7 hr.

3. **Other:**

A) **Installation:**

1) The Battery Cabinet is to be designed so that it can readily fit through a standard 26" x 66" ships hatch. . Dimensions are: no more than 46"h x 31.75"w x 29"d; Weight: not to exceed 2600 lbs without the battery.
2) Though the battery cabinet will be installed on shock mounts, it will ship unmounted. The shock mounts will be installed at the site.