

UPS **MILITARY** **FIELD-GRADE**

Uninterruptible Power Supply



Smaller

Lighter

More Powerful



Sealed Weather-Proof Construction

SynQor®

UPS **MILITARY** **FIELD-GRADE** Uninterruptible Power Supply

SynQor's Military Field-Grade Uninterruptible Power Supply units are designed for the extreme environmental and demanding electrical conditions of Military/Aerospace applications. SynQor's UPS incorporates field proven high efficiency designs and rugged packaging technologies. SynQor's UPS units will accept a wide range of input voltage and frequency values while delivering a well-conditioned AC or DC output to the load. The use of lithium polymer batteries permits the lowest profile and lowest weight solution in its power class. It is designed and manufactured in SynQor's USA facilities to comply with a wide range of military standards. Options include two DC outputs, a DC input rated for military 28 VDC sources, and an electronic breaker on the AC output to permit fault-tolerant parallel operation for higher power and/or N+M systems.

UPS AC & DC PRODUCT FEATURES

- ◆ Sealed, weather-proof, shock-proof construction
- ◆ Military Tough, Die-Cast Aluminum Chassis
- ◆ 1250W-1500VA; 2500W-3000VA output power
- ◆ >10 minute run-time at full power
- ◆ Full power operation -20°C to +55°C (Storage: -40°C to +65°C)
- ◆ True on-line double conversion
- ◆ Hot swappable internal battery pack (lithium polymer)
- ◆ Universal AC input: 80-265VAC; 47-65Hz
- ◆ Dual input: AC and optional DC
- ◆ True on-line double conversion
- ◆ Cold-start with no AC or DC input connections
- ◆ Power factor correction at AC input
- ◆ Pure sinusoidal AC output voltage (115VAC, 60Hz)
- ◆ Handles 0.0—1.0 power factor loads and non-linear loads
- ◆ User I/O and Configuration signal ports
- ◆ Up to 3 units can be combined for higher power, voltage or a 3-Phase AC output
- ◆ Up to 32 units can be combined to form a higher power, fault-tolerant, glitch-free system, perhaps with N+M redundancy, by ordering with the "AC Output Electronic Breaker" option and the appropriate configuration cable

AC & DC Output Models

- ◆ UPS-1500-S-1U rack mount unit & battery 32 lbs.
17.00" W x 21.60" D x 1.73" H 1U high
- ◆ UPS-1500-E-2U rack mount unit & battery 50 lbs.
17.00" W x 21.60" D x 3.33" H 2U high
- ◆ UPS-3000-S-2U rack mount unit & battery 65 lbs.
17.00" W x 22.22" D x 3.40" H 2U high

DC Output Models

- ◆ UPS-1250-S-1U rack mount unit & battery 33 lbs.
17.00" W x 22.25" D x 1.73" H 1U high
- ◆ UPS-1250-E-2U rack mount unit & battery 52 lbs.
17.00" W x 22.25" D x 3.33" H 2U high

OPTIONS

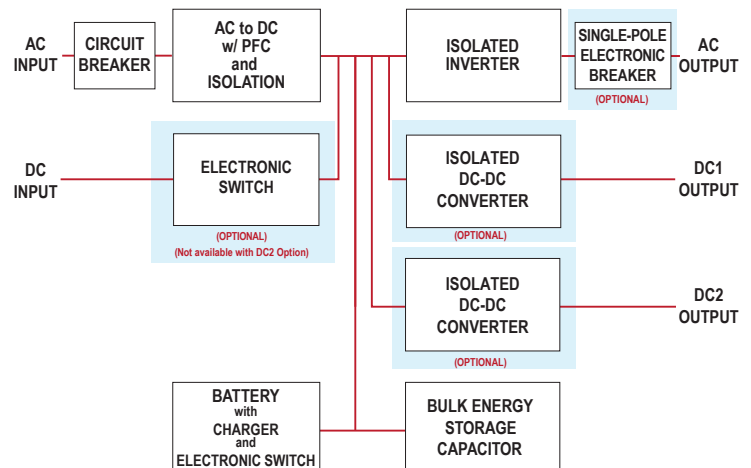
- ◆ DC input (28Vnom) for dual source
- ◆ 2U Extended battery pack gives >24 minutes of run-time (UPS-1500-E-2U)
- ◆ Wide-range AC input frequency: 47Hz to 800Hz
- ◆ 3-Phase AC input: 85-140V_{RMS,L-N} (147-242V_{RMS,L-L})
- ◆ 115Vrms or 230Vrms AC output
- ◆ 50Hz, 60Hz, or 400Hz output
- ◆ DC1: Auxiliary isolated DC output (up to 500W each)
- ◆ DC2: High power DC output parallelable for higher power (UPS-1500 up to 1250W; UPS-3000 up to 2500W)
- ◆ Total AC & DC1 & DC2 output power UPS-1500 = 1250W
- ◆ Total AC & DC1 & DC2 output power UPS-3000 = 2500W
- ◆ Shipboard version with floating neutral wire
- ◆ Rack mounting style
- ◆ N+1 redundancy

SPECIFICATION COMPLIANCE

UPS units are designed to meet:

- ◆ MIL-STD-461F - Electromagnetic Interference
- ◆ MIL-STD-704F - Aircraft Electrical Power
- ◆ MIL-STD-810G - Environmental Engineering
- ◆ MIL-STD-1275D - Vehicle Electrical Power
- ◆ Mil-STD-1399-300B - Interface Shipboard

BLOCK DIAGRAM



AC & DC Output Options

Base Models				
Model Number	Power	Battery Run-Time@Full Power (80% Power)	Height (W x D x H)	Weight
UPS-1500-S-1U (1 Standard Battery Pack)	1250 W 1500 VA	>10 min. (>13 min.)	1U (17" x 21.60" x 1.73")	32 lbs.
UPS-1500-E-2U (1 Extended Battery Pack)	1250 W 1500 VA	>24 min. (>31 min.)	2U (17" x 21.60" x 3.33")	50 lbs.
UPS-3000-S-2U (2 Standard Battery Packs)	2500 W 3000 VA	>10 min. (>13 min.)	2U (17" x 22.22" x 3.40")	65 lbs.

Base Models	Options						
	AC Input Freq Type	AC Output Voltage	AC Output Neutral Wire	AC Output Set Point Freq	DC Input / DC2 Output	DC1 Output	Additional Options
UPS-1500-S-1U- UPS-1500-E-2U- UPS-3000-S-2U-	L W T	1 2	G F R	5 6 4	S D M P R V W	00 12 15 24 28 40 50	-0 -C -E 00 CE

Options	
AC Input Freq Type	L 47-65 Hz W 47-800 Hz T 3-Phase 45-800 Hz
AC Output Voltage	1 115 Vrms 2 230 Vrms
AC Output Neutral Wire	G Grounded F Floating* R AC Output Electronic Breaker*
AC Output Set Point Freq	5 50 Hz 6 60 Hz 4 400 Hz
DC Input / DC2 Output	S Not Installed D DC Input M DC2 Out 24 VDC with Droop Share P DC2 Out 24 VDC No Share R DC2 Out 28 VDC with Droop Share V DC2 Out 28 VDC No Share W DC2 Out 50 VDC No Share
DC1 Output	00 None 12 12 V 15 15 V 24 24 V 28 28 V 40 40 V 50 50 V
Additional Options	-0 None -E Ethernet/SNMP -C Ethernet/SNMP with Configuration Loading 00 No CE Marking CE CE Marking

Not all combinations make valid part numbers, please contact SynQor for availability. See the Product Summary web page for more options.

***Notes:**

Order "F: Floating" option when configuring the AC output for multi-unit combinations of up to 3 units.

Order "R: AC Output Electronic Breaker" option for fault-tolerant, glitch-free parallel systems of up to 32 units with N+M redundancy. The AC output neutral wire will not be connected to the chassis. Requires Ethernet / SNMP Option.

Examples:

UPS-1500-E-2U-L1G6D28-000, UPS-1500-S-1U-L2G5S00-E00

UPS-1500-S-1U-L2G5S00-0CE (230 V output with CE marking)

DC Only Output Options

Base Models				
Model Number	Power	Battery Run-Time@Full Power (80% Power)	Height (W x D x H)	Weight
UPS-1250-S-1U (1 Standard Battery Pack)	1250 W	>10 min. (>13 min.)	1U (17" x 22.25" x 1.73")	33 lbs.
UPS-1250-E-2U (1 Extended Battery Pack)	1250 W	>24 min. (>31 min.)	2U (17" x 22.25" x 3.33")	52 lbs.

Base Models	Options				
	AC Input Freq	DC Regulation Type	DC Output Voltage	DC Input	Additional Options
UPS-1250-S-1U- UPS-1250-E-2U-	L W	R	24 28	D00	-0 -E -C 00 CE

Options	
AC Input Freq	L 47-65 Hz W 47-800 Hz
DC Regulation	R Fully Regulated
DC Output	24 24 V Output 28 28 V Output
DC Input	D00 DC Input
Additional Options	-0 No Ethernet/SNMP -E Ethernet/SNMP -C Ethernet/SNMP with Configuration Loading 00 No CE Marking CE CE Marking

Not all combinations make valid part numbers, contact SynQor for availability. See the Product Summary web page for more options.

Examples: UPS-1250-S-1U-LR28D00-000, UPS-1250-E-2U-WR28D00-E00,

UPS-1250-S-1U-LR28D00-0CE (with CE mark)

Expansion Battery Module (EBM)

SynQor's Military Field-Grade UPS Expansion Battery (EBM) units are designed for the extreme environmental and demanding electrical conditions of Military Land, Shipboard, & Aerospace applications. SynQor's EBM incorporates field proven high efficiency designs and rugged packaging technologies. This EBM will accept a wide range of input voltage and frequency values while delivering a DC power source to the UPS. The use of lithium polymer batteries permits the lowest profile and lowest weight solution in its power class. It is designed and manufactured in SynQor's USA facilities to comply with a wide range of military standards.

EBM PRODUCT FEATURES

- ◆ Sealed, weather-proof, shock-proof construction
- ◆ >45 minute run-time at full power 1250W UPS
- ◆ >20 minute run-time at full power 2500W UPS
- ◆ Integral 500W battery charger
- ◆ Full power operation: -20°C to +55°C (Storage: -40°C to +65°C)
- ◆ Universal AC input: 80-265VAC; 47-63Hz/ 360-800Hz
- ◆ Power factor correction at AC input
- ◆ Dual input (AC and DC)
- ◆ Cold start with no AC or DC input connections
- ◆ Up to 3 units can be combined for extended run time
- ◆ User I/O, Ethernet and Configuration signal ports
- ◆ 2U high rack mount unit (3.40" x 17.00" x 22.28")
- ◆ Low weight: 61 lbs.

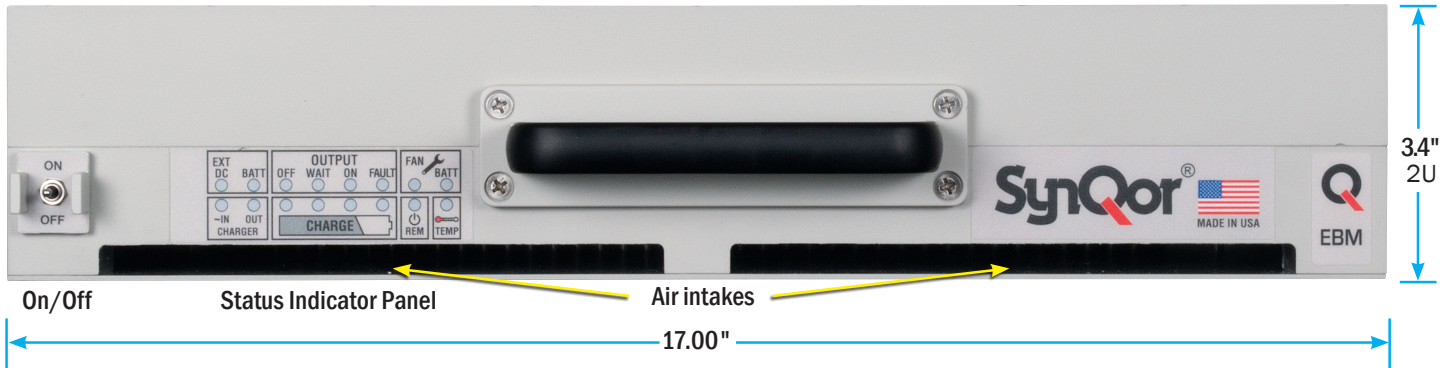


SPECIFICATION COMPLIANCE

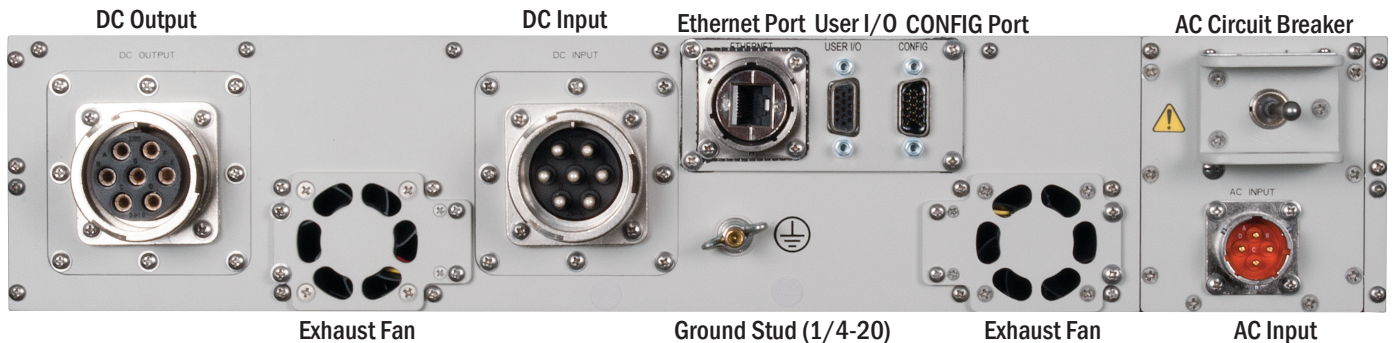
EBM units are designed to meet:

- ◆ MIL-STD-704F - Aircraft Electrical Power
- ◆ Mil-STD-1399-300B - Interface Shipboard
- ◆ MIL-STD-1275D - Vehicle Electrical Power
- ◆ MIL-STD-461F - Electromagnetic Interference
- ◆ MIL-STD-810G - Environmental Engineering

EBM-1000-2U



EBM-1000-2U-28-3000 BACK PANEL



Model Number	Power	Battery Run-Time @ Full Power	Height	Weight	Options		
					DC Input (28 V nom)	DC Output	AC Input Frequency (47-63 Hz or 360-800 Hz)
EBM-1000-2U	1250 W	>45 min.	2U	61 lbs.	•	28V	•
	2500 W	>20 min.					

Family	Watt Hours	Height	DC Output Voltage	Output Power	Charging Input	Additional Options
EBM	1000: 1000W Hr	2U: 3.40"	28: 28 Vdc	3000: 3000 W	W: 47-63 Hz / 360-800 Hz	E00: Ethernet / SNMP ECE: Ethernet / SNMP & CE Marking

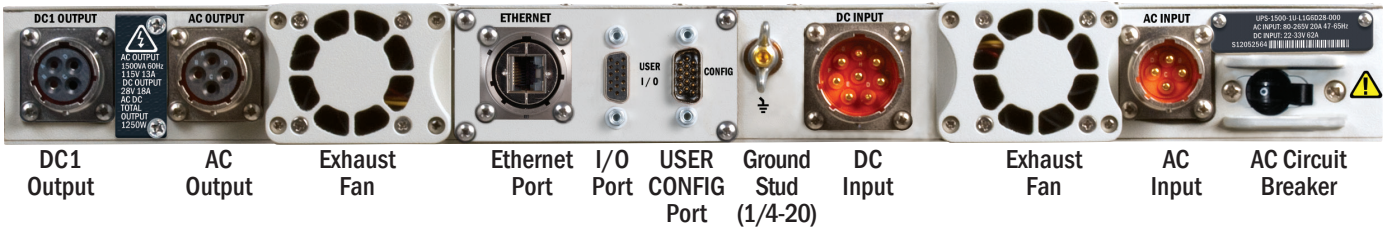
Part Numbering Example: EBM-1000-2U-28-3000-W-E00

For valid part numbers, refer to the website or contact your local sales representative or distributor.

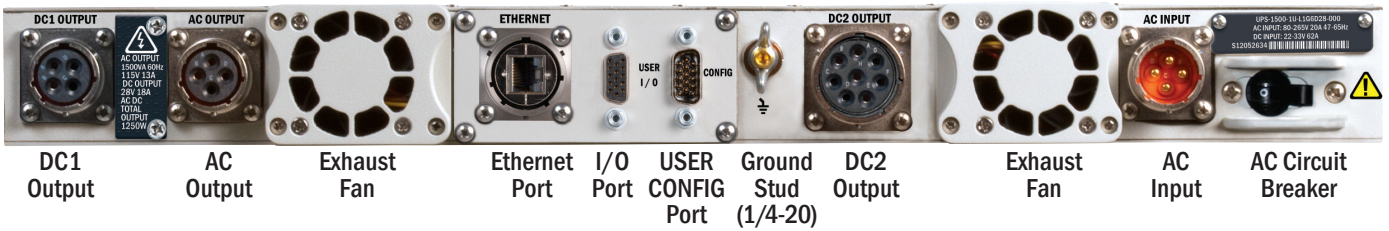
UPS-1500-1U



UPS-1500-1U WITH DC INPUT/DC1 OUTPUT



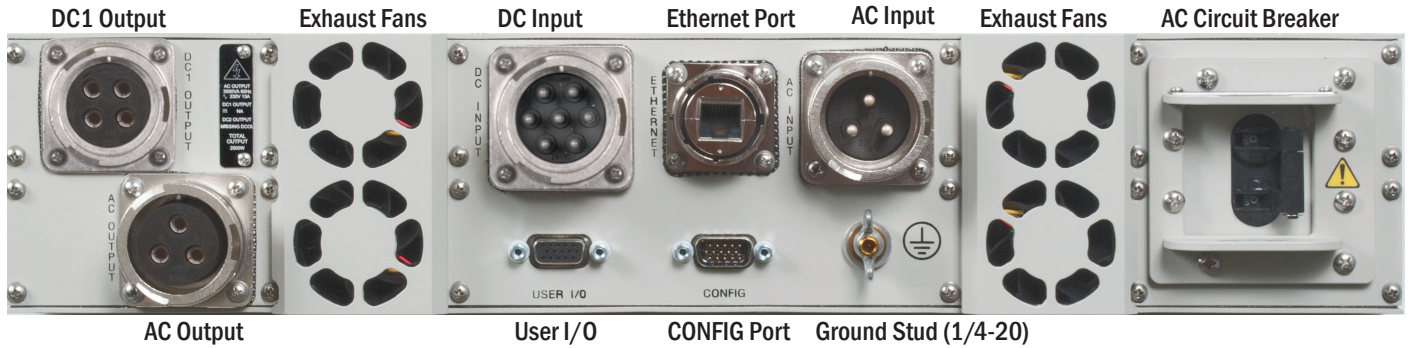
UPS-1500-1U WITH DC1 OUTPUT/DC2 OUTPUT



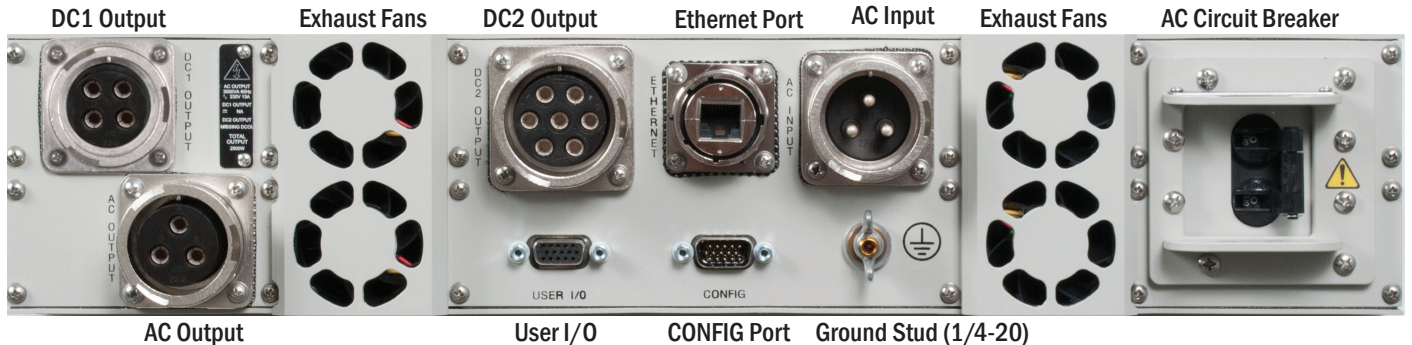
UPS-3000-2U



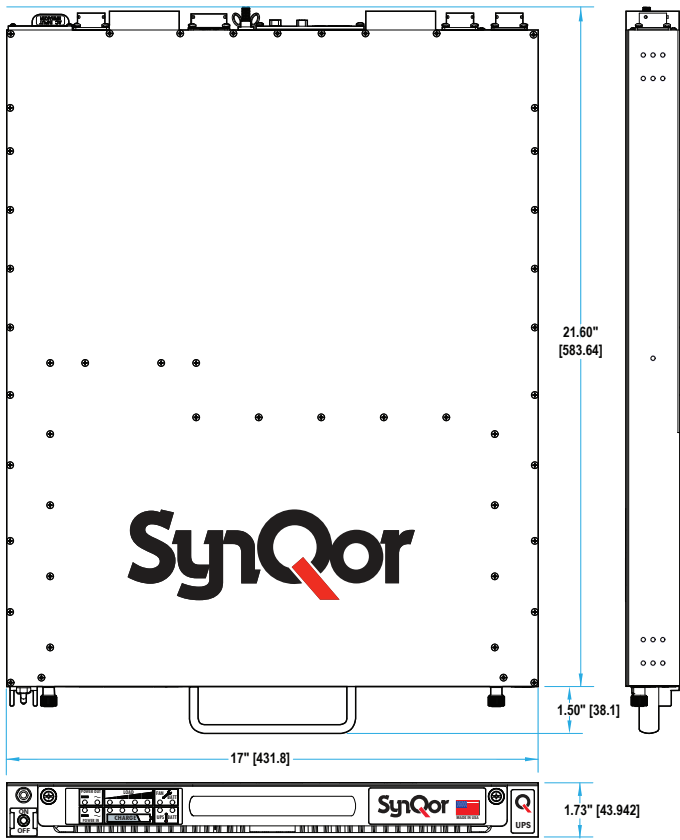
UPS-3000-2U WITH DC INPUT / DC1 OUTPUT



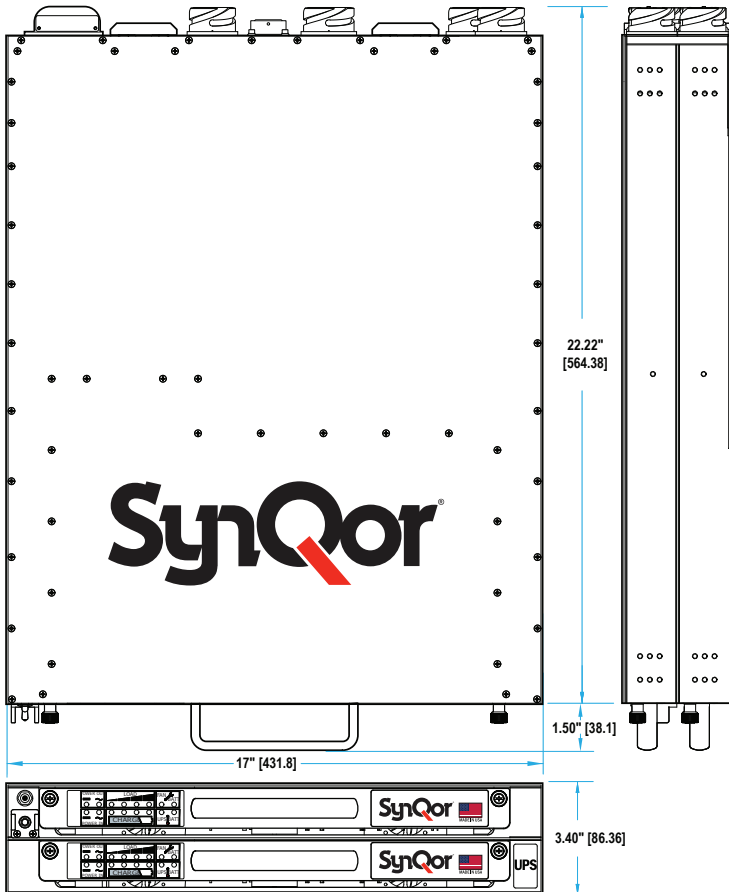
UPS-3000-2U WITH DC1 OUTPUT / DC2 OUTPUT



UPS-1500-S-1U



UPS-3000-S-2U



UPS-1500-E-2U

