

Technical Data



Note: Unless otherwise noted, data contained in these technical specifications should be considered typical; actual performance may vary.

APC Smart-UPS On-Line Model List

120 V Output / 120 V Input

- | | |
|---|-----------------|
| • APC Smart-UPS RT 1500 VA Rack Tower 120 V | SURTA1500RMXL2U |
| • APC Smart-UPS RT 1500 VA 120 V | SURTA1500XL |
| • APC Smart-UPS RT 2200 VA RM 120 V | SURTA2200RMXL2U |
| • APC Smart-UPS RT 2200 VA 120 V | SURTA2200XL |
| • APC Smart-UPS RT 3000 VA Rack Tower 120 V | SURTA3000RMXL3U |
| • APC Smart-UPS RT 3000 VA 120 V | SURTA3000XL |

120 V, 208 V Output / 208 V Input

- | | |
|---|---------------------|
| • APC Smart-UPS RT 3000 VA 208 V with 208 V to 120 V Step-Down Transformer | SURTD3000XLT-1TF3 |
| • APC Smart-UPS RT 3000 VA Rack- Mount 208 V with 208 V to 120 V Step-Down Transformer | SURTD3KRMXL3U-TF5 |
| • APC Smart-UPS RT 5000 VA 208 V to 208/120 V | SURTD5000RMXLP3U |
| • APC Smart-UPS RT (Rack/Tower) 5000 VA 208 V with 208 V to 120 V Step-Down Transformer | SURTD5000XLT-1TF3 |
| • APC Smart-UPS RT (Rack/Tower) 6000 VA 208 V with 208 V to 120 V Step-Down Transformer | SURT6000XLT-1TF3 |
| • APC Smart-UPS RT 6 kVA RM 208 V with 208 V to 120 V 2 U Step-Down Transformer | SURT6KRMXL3U-TF5 |
| • APC Smart-UPS RT 6000 VA RM 208 V to 208/120 V | SURTD6000RMXLP3U |
| • APC Smart-UPS RT (Rack/Tower) 8000 VA 208 V with 208 V to 120 V Step-Down Transformer | SURT8000XLT-1TF3 |
| • APC Smart-UPS RT 8 kVA RM 208 V with 208 V to 120 V 2 U Step-Down Transformer | SURT8KRMXL6U-TF5 |
| • APC Smart-UPS RT 10,000 VA 208 V with 208 V to 120 V Step-Down Transformer | SURT10000XLT-1TF10K |
| • APC Smart-UPS RT 10,000 VA 208 V with (2) 208 V to 120 V Step-Down Transformer | SURT10000XLT-2TF3 |
| • APC Smart-UPS RT 10 kVA RM 208 V with (2) 208 V to 120 V 2 U Step-Down Transformer | SURT10KRMXL6U-TF5 |
| • APC Smart-UPS RT 15 kVA RM 208 V with 208 V to 120 V 10 kVA Step down Transformer | SURT15KRMXLT-1TF10K |
| • APC Smart-UPS RT 15 kVA RM 208 V with 208 V to 120 V 5 kVA Step-Down Transformer | SURT15KRMXLT-TF5 |
| • APC Smart-UPS RT 20 kVA RM 208 V with 208 V to 120 V 10 kVA Step-Down Transformer | SURT20KRMXLT-1TF10K |
| • APC Smart-UPS RT 20 kVA RM 208 V with 208 V to 120 V 5 kVA Step-Down Transformer | SURT20KRMXLT-TF5 |

Efficiency

Models with 120 V Output / 120 V Input

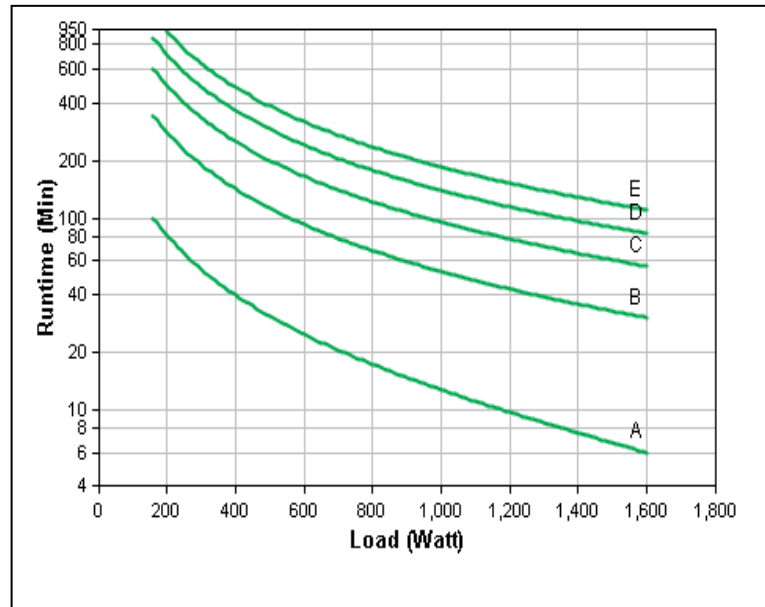
Model	SKU	Efficiency @ full load
APC Smart-UPS RT 1500 VA Rack/Tower 120 V	SURTA1500RMXL2U	89.0%
APC Smart-UPS RT 1500 VA 120 V	SURTA1500XL	89.1%
APC Smart-UPS RT 2200 VA RM 120 V	SURTA2200RMXL2U	89.1%
APC Smart-UPS RT 2200 VA 120 V	SURTA2200XL	89.1%
APC Smart-UPS RT 3000 VA Rack/Tower 120 V	SURTA3000RMXL3U	85.7%
APC Smart-UPS RT 3000 VA 120 V	SURTA3000XL	85.7%

Models with 120 V, 208 V Output / 208 V Input

Model	SKU	Efficiency @ full load
APC Smart-UPS RT 3000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURTD3000XLT-1TF3	92.0%
APC Smart-UPS RT 3000 VA Rack-Mount 208 V with 208 V to 120 V Step-Down Transformer	SURTD3KRMXL3U-TF5	92.0%
APC Smart-UPS RT 5000 VA 208 V to 208/120 V	SURTD5000RMXLP3U	90.0%
APC Smart-UPS RT Rack/Tower 5000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURTD5000XLT-1TF3	91.0%
APC Smart-UPS RT Rack/Tower 6000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURT6000XLT-1TF3	92.0%
APC Smart-UPS RT 6 kVA RM 208 V with 208 V to 120 V 2 U Step-Down Transformer	SURT6KRMXL3U-TF5	92.0%
APC Smart-UPS RT 6000 VA RM 208 V to 208/120 V	SURTD6000RMXLP3U	90.0%
APC Smart-UPS RT Rack/Tower 8000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURT8000XLT-1TF3	93.0%
APC Smart-UPS RT 8 kVA RM 208 V with 208 V to 120 V 2 U Step-Down Transformer	SURT8KRMXL6U-TF5	93.0%
APC Smart-UPS RT 10,000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURT10000XLT-1TF10K	92.0%
APC Smart-UPS RT 10,000 VA 208 V with (2) 208 V to 120 V Step-Down Transformer	SURT10000XLT-2TF3	92.0%
APC Smart-UPS RT 10 kVA RM 208 V with (2) 208 V to 120 V 2 U Step-Down Transformer	SURT10KRMXL6U-TF5	92.0%
APC Smart-UPS RT 15 kVA RM 208 V with 208 V to 120 V 10 kVA Step-Down Transformer	SURT15KRMXLT-1TF10K	94.0%
APC Smart-UPS RT 15 kVA RM 208 V with 208 V to 120 V 5 kVA Step-Down Transformer	SURT15KRMXLT-TF5	94.0%
APC Smart-UPS RT 20 kVA RM 208 V with 208 V to 120 V 10 kVA Step-Down Transformer	SURT20KRMXLT-1TF10K	94.0%
APC Smart-UPS RT 20 kVA RM 208 V with 208 V to 120 V 5 kVA Step-Down Transformer	SURT20KRMXLT-TF5	94.0%

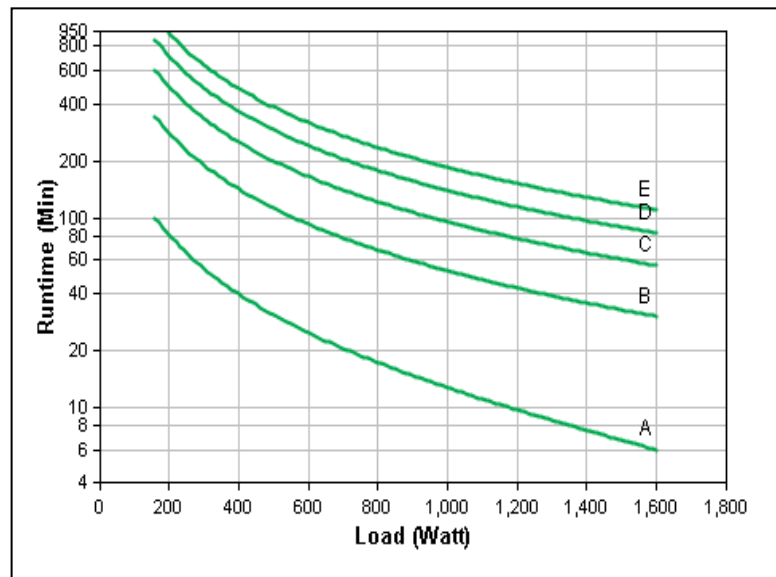
APC Smart-UPS RT 2200 VA RM 120 V, Battery Run-Times (minutes):

Curve	Part number(s)
A	SURTA2200RML2U
B	SURTA2200RML2U + (1)SURTA48RMLBP
C	SURTA2200RML2U + (2)SURTA48RMLBP
D	SURTA2200RML2U + (3)SURTA48RMLBP
E	SURTA2200RML2U + (4)SURTA48RMLBP



APC Smart-UPS RT 2200 VA 120 V, Battery Run-Times (minutes):

Curve	Part number(s)
A	SURTA2200XL
B	SURTA2200XL + (1)SURTA48XLBP
C	SURTA2200XL + (2)SURTA48XLBP
D	SURTA2200XL + (3)SURTA48XLBP
E	SURTA2200XL + (4)SURTA48XLBP



AC Input (continued)

Model	SKU	Input Voltage Range for Main Operation ¹
APC Smart-UPS RT 1500 VA Rack/Tower 120 V APC Smart-UPS RT 1500 VA 120 V APC Smart-UPS RT 2200 VA RM 120 V APC Smart-UPS RT 2200 VA 120 V APC Smart-UPS RT 3000 VA Rack/Tower 120 V APC Smart-UPS RT 3000 VA 120 V	SURTA1500RMXL2U SURTA1500XL SURTA2200RMXL2U SURTA2200XL SURTA3000RMXL3U SURTA3000XL	90 -150 V
APC Smart-UPS RT 3000 VA 208 V with 208 V to 120 V Step-Down Transformer APC Smart-UPS RT 3000 VA Rack-Mount 208 V with 208 V to 120 V Step-Down Transformer APC Smart-UPS RT 5000 VA 208 V with 208 V to 120 V Step-Down Transformer APC Smart-UPS RT 6000 VA 208 V with 208 V to 120 V Step-Down Transformer APC Smart-UPS RT 6 kVA RM 208 V with 208 V to 120 V 2 U Step-Down Transformer APC Smart-UPS RT 3000 VA Rack/Tower 208 V APC Smart-UPS RT 3000 VA 208 V APC Smart-UPS RT 5000 VA Rack/Tower 208 V APC Smart-UPS RT 5000 VA 208 V APC Smart-UPS RT 6000 VA Rack/Tower 208 V APC Smart-UPS RT 6000 VA 208 V	SURTD3000XLT-1TF3 SURTD3KRMXL3U-TF5 SURTD5000XLT-1TF3 SURT6000XLT-1TF3 SURT6KRMXL3U-TF5 SURTD3000RMXLT3U SURTD3000XLT SURTD5000RMXLT3U SURTD5000XLT SURT6000RMXLT3U SURT6000XLT	160 – 280 V
APC Smart-UPS RT 5000 VA RM 208 V to 208/120 V APC Smart-UPS RT 6000 VA RM 208 V to 208/120 V	SURTD5000RMXLP3U SURTD6000RMXLP3U	156 - 236 V
All 8000 VA to 20 kVA models		160 – 280 V
¹ These voltage ranges are for operation at full load. At half load, the UPS will run at lower voltage, but might not start up or charge the battery. Therefore, do not attempt to run the unit at input voltages below these ranges.		

AC Output

Nominal Output Voltage	APC Smart-UPS RT models
120 V	1500 VA Rack Tower 120 V (SURTA1500RMXL2U) 1500 VA 120 V (SURTA1500XL) 2200 VA RM 120 V (SURTA2200RMXL2U) 2200 VA 120 V (SURTA2200XL) 3000 VA Rack Tower 120 V (SURTA3000RMXL3U) 3000 VA 120 V (SURTA3000XL)
120 V, 208 V, 220 V, 240 V	3000 VA 208V with 208V to 120V Step-Down Transformer (SURTD3000XLT-1TF3) 3000 VA Rack- Mount 208 V with 208 V to 120 V Step-Down Transformer (SURTD3KRMXL3U-TF5) 5000 VA 208 V with 208 V to 120 V Step-Down Transformer (SURTD5000XLT-1TF3) 6000 VA 208 V with 208 V to 120 V Step-Down Transformer (SURT6000XLT-1TF3) 6 kVA RM 208 V with 208 V to 120 V 2 U Step-Down Transformer (SURT6KRMXL3U-TF5) 6000 VA RM 208 V to 208/120 V (SURTD6000RMXLP3U) 8000 VA 208 V with 208 V to 120 V Step-Down Transformer (SURT8000XLT-1TF3) 8 kVA RM 208 V with 208 V to 120 V 2 U Step-Down Transformer (SURT8KRMXL6U-TF5) 10,000 VA 208 V with 208 V to 120 V Step-Down Transformer (SURT10000XLT-1TF10K) 10,000 VA 208 V with (2) 208 V to 120 V Step-Down Transformer (SURT10000XLT-2TF3) 10 kVA RM 208 V with (2) 208 V to 120 V 2 U Step-Down Transformer (SURT10KRMXL6U-TF5) 15 kVA RM 208 V with 208 V to 120 V 10 kVA Step down Transformer (SURT15KRMXL-1TF10K) 15 kVA RM 208 V with 208 V to 120 V 5 kVA Step-Down Transformer (SURT15KRMXL-TF5) 20 kVA RM 208 V with 208 V to 120 V 10 kVA Step-Down Transformer (SURT20KRMXL-1TF10K) 20 kVA RM 208 V with 208 V to 120 V 5 kVA Step-Down Transformer (SURT20KRMXL-TF5)
208 V, 220 V, 240 V	3000 VA Rack Tower 208 V (SURTD3000RMXL3U) 3000 VA 208 V (SURTD3000XLT) 3000 VA Rack Tower 208 V (SURTD3000RMXL3U) 3000 VA 208 V (SURTD3000XLT) 5000 VA Rack Tower 208 V (SURTD5000RMXL3U) 5000 VA 208 V (SURTD5000XLT) 6000 VA Rack/Tower 208 V (SURT6000RMXL3U) 6000 VA 208 V (SURT6000XLT) 8000 VA Rack/Tower 208 V (SURT8000RMXL6U) 8000 VA 208 V (SURT8000XLT) 10,000 VA Rack/Tower 208 V (SURT10000RMXL6U) 10,000 VA 208 V (SURT10000XLT) 15 kVA RM 208 V (SURT15KRMXL) 20 kVA RM 208 V (SURT20KRMXL)

Physical

Weights and Dimensions

UPS Cabinet	SKU	U-Space in Rack	Weight kg (lb)	Height mm (in)	Width mm (in)	Depth mm (in)
APC Smart-UPS RT 1500 VA Rack Tower 120 V	SURTA1500RML2U	2 U	27.5 (60.5)	85 (3.35)	432 (17.00)	559 (22.00)
APC Smart-UPS RT 1500 VA 120 V	SURTA1500XL	2 U	27.5 (60.5)	432 (17.00)	85 (3.35)	559 (22.00)
APC Smart-UPS RT 2200 VA RM 120 V	SURTA2200RML2U	2 U	27.5 (60.5)	85 (3.35)	432 (17.00)	559 (22.00)
APC Smart-UPS RT 2200 VA 120 V	SURTA2200XL	2 U	27.5 (60.5)	85 (3.35)	432 (17.00)	559 (22.00)
APC Smart-UPS RT 3000 VA Rack Tower 120 V	SURTA3000RML3U	3 U	54.6 (120.0)	130 (5.10)	432 (17.00)	660 (26.00)
APC Smart-UPS RT 3000 VA 120 V	SURTA3000XL	3 U	54.6 (120.0)	432 (17.00)	130 (5.10)	660 (26.00)
APC Smart-UPS RT 3000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURTD3000XLT-1TF3	6 U	111.4 (245.0)	432 (17.00)	259 (10.20)	660 (26.00)
APC Smart-UPS RT 3000 VA Rack-Mount 208 V with 208 V to 120 V Step-Down Transformer	SURTD3KRMXL3U-TF5	5 U	100.5 (221.0)	218 (8.60)	483 (19.00)	660 (26.00)
APC Smart-UPS RT 5000 VA RM 208 V to 208/120 V	SURTD5000RMXLP3U	3 U	58.1 (127.7)	130 (5.10)	432 (17.00)	660 (26.00)
APC Smart-UPS RT 5000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURTD5000XLT-1TF3	6 U	54.6 (120.0)	432 (17.00)	259 (10.20)	660 (26.00)
APC Smart-UPS RT (Rack/Tower) 6000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURT6000XLT-1TF3	6 U	54.6 (120.0)	432 (17.00)	259 (10.20)	660 (26.00)
APC Smart-UPS RT 6 kVA RM 208 V with 208 V to 120 V 2 U Step-Down Transformer	SURT6KRMXL3U-TF5	5 U	100.5 (221.0)	218 (8.60)	432 (17.00)	660 (26.00)

Shipping Weights and Dimensions

UPS Cabinet	SKU	Weight, kg (lb)	Height, mm (in)	Width, mm (in)	Depth, mm (in)
APC Smart-UPS RT 1500 VA Rack Tower 120 V	SURTA1500RMXL2U	31.4 (69.0)	260 (10.25)	610 (24.00)	737 (29.00)
APC Smart-UPS RT 1500 VA 120 V	SURTA1500XL	31.4 (69.0)	260 (10.25)	610 (24.00)	737 (29.00)
APC Smart-UPS RT 2200 VA RM 120 V	SURTA2200RMXL2U	31.4 (69.0)	260 (10.25)	610 (24.00)	737 (29.00)
APC Smart-UPS RT 2200 VA 120 V	SURTA2200XL	31.4 (69.0)	260 (10.25)	610 (24.00)	737 (29.00)
APC Smart-UPS RT 3000 VA Rack Tower 120 V	SURTA3000RMXL3U	63.6 (140.0)	347 (13.68)	603 (23.74)	980 (38.60)
APC Smart-UPS RT 3000 VA 120 V	SURTA3000XL	63.6 (140.0)	347 (13.68)	603 (23.74)	980 (38.60)
APC Smart-UPS RT 3000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURTD3000XLT-1TF3	127.3 (280.0)	658 (25.90)	603 (23.74)	980 (38.60)
APC Smart-UPS RT 3000 VA Rack- Mount 208 V with 208 V to 120 V Step-Down Transformer	SURTD3KRMXL3U-TF5	117.3 (258.0)	601 (23.68)	603 (23.74)	980 (38.60)
APC Smart-UPS RT 5000 VA RM 208 V to 208/120 V	SURTD5000RMXLP3U	72.1 (158.7)	347 (13.68)	603 (23.74)	980 (38.60)
APC Smart-UPS RT 5000 VA 208 V with 208 V to 120 V Step- Down Transformer	SURTD5000XLT-1TF3	127.3 (280.0)	658 (25.90)	603 (23.74)	980 (38.60)
APC Smart-UPS RT (Rack/Tower) 6000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURT6000XLT-1TF3	127.3 (280.0)	658 (25.90)	603 (23.74)	980 (38.60)
APC Smart-UPS RT 6 kVA RM 208 V with 208 V to 120 V 2U Step-Down Transformer	SURT6KRMXL3U-TF5	117.2 (258.0)	601 (23.68)	603 (23.74)	980 (38.60)
APC Smart-UPS RT 6000 VA RM 208 V to 208/120 V	SURTD6000RMXLP3U	72.1 (158.7)	347 (13.68)	603 (23.74)	980 (38.60)
APC Smart-UPS RT (Rack/Tower) 8000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURT8000XLT-1TF3	192.7 (424.0)	900 (35.43)	597 (23.50)	991 (39.00)

Environmental

Requirements for Operation and Storage

Operating Ambient Temperature	0 to 40 °C (32 to 104 °F)
Operating Relative Humidity	0–95% non-condensing
Maximum Operating Altitude	3000 meters (10,000 feet)*
Storage Ambient Temperature	–20 to 60 °C (-4 to 140 °F)
Storage Relative Humidity	0–95% non-condensing
Maximum Storage Altitude	1500 meters (50,000 feet)
Audible noise at 1 meter (3 feet) from surface of unit	< 55 dBA
Note: When the UPS is operated at maximum operating altitude, it must be derated to 90% of its nominal capacity.	

Heat Dissipation

Online Thermal Dissipation		
Model	SKU	BTUs per hr.
APC Smart-UPS RT 1500 VA Rack Tower 120 V	SURTA1500RMXL2U	537
APC Smart-UPS RT 1500 VA 120 V	SURTA1500XL	537
APC Smart-UPS RT 2200 VA RM 120 V	SURTA2200RMXL2U	587
APC Smart-UPS RT 2200 VA 120 V	SURTA2200XL	587
APC Smart-UPS RT 3000 VA Rack Tower 120 V	SURTA3000RMXL3U	655
APC Smart-UPS RT 3000 VA 120 V	SURTA3000XL	655
APC Smart-UPS RT 3000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURTD3000XLT-1TF3	636
APC Smart-UPS RT 3000 VA Rack- Mount 208 V with 208 V to 120 V Step-Down Transformer	SURTD3KRMXL3U-TF5	636
APC Smart-UPS RT 5000 VA 208 V to 208/120 V	SURTD5000RMXLP3U	1589
APC Smart-UPS RT (Rack/Tower) 5000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURTD5000XLT-1TF3	1150
APC Smart-UPS RT (Rack/Tower) 6000 VA 208 V with 208 V to 120 V Step-Down Transformer	SURT6000XLT-1TF3	1324
APC Smart-UPS RT 6 kVA RM 208 V with 208 V to 120 V 2 U Step-Down Transformer	SURT6KRMXL3U-TF5	1324
APC Smart-UPS RT 6000 VA RM 208 V to 208/120 V	SURTD6000RMXLP3U	1780