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# Reliable IT power protection

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*continuous power availability*

## EssentialPower™ X1 RT

**The single-phase UPS from 1 kVA to 20 kVA**

SWISS MADE

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# EssentialPower™, the single-phase UPS

**EssentialPower™** is the online, true double-conversion, single-phase UPS (Uninterruptible Power Supply).

From 1 to 20kVA, EssentialPower™ provides the most flexible and reliable solution ideal for small network devices, servers, point-of-sale, workstation clusters and light-industrial installations. EssentialPower™ satisfies any entry-level mission critical application demanding high availability and flexibility.

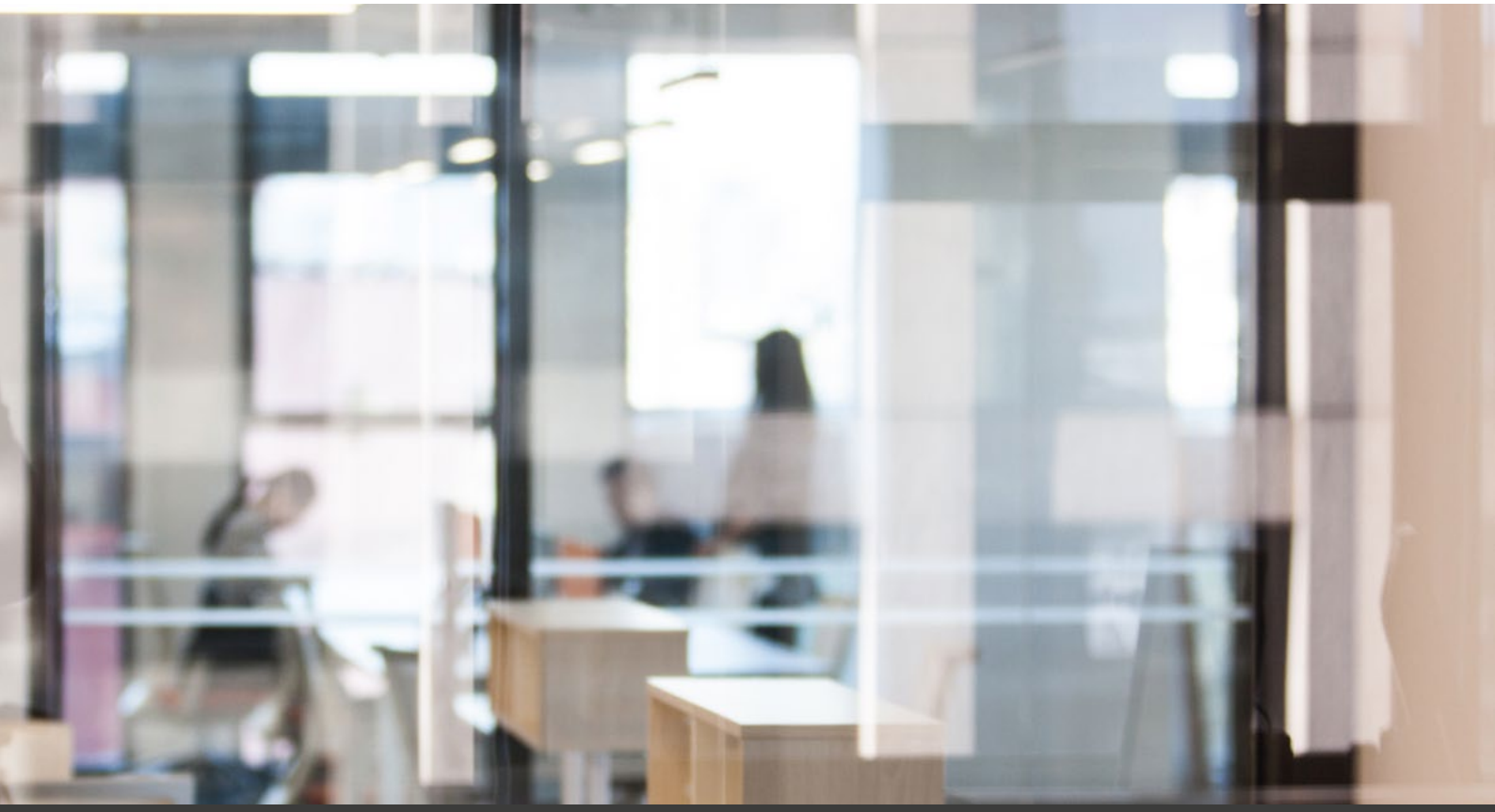
## Flexibility for any application

From 2U to 5U, mono-mono or tri-mono, EssentialPower can be used as standalone tower or rack-mounted UPS on any mission critical application.

EssentialPower offers built-in internal batteries from 1 to 6 kVA, and the possibility to connect matching battery cabinets for autonomies of up to 4 hours

## Benefits

- **Standalone tower or 19" rack-mount configurations**
- **Connectivity: USB, RS-232, potential-free contacts**
- **EPO contact inputs for remote shutdown**
- **Cold start**
- **Parallel operation from 6 kVA to 20 kVA**
- **Frequency converter operation (50 Hz or 60 Hz)**
- **Connect up-to 4 battery modules to achieve hours of autonomy times**



# Connectivity

With a variety of options, like, communication cards, expansion relays, SNMP and ambient monitoring applications, **Essential Power™** can be easily integrated into any environment and building management system.

## Reliability

- **True-online double conversion, pure sinewave output**
- **Reliable digital power conversion architecture**
- **Wide range input window from 110 to 300 Vac**
- **Extended battery life I – U (DIN 41773)**
- **Patended backup runtime estimated on LCD**

## Ease of Service

- **Frontal access battery replacement**
- **Clean and clear user-friendly display**
- **Records event log and alarms up to 500**
- **Personalization & intelligend self-diagnostic**
- **Easy firmware Flash upgrade**
- **Manual maintenance bypass switch (optional)**

# Battery autonomy

## EssentialPower™ 11RT

| UPS Type | 1kVA<br>UPS-EP001-11-I03-2U | 2kVA<br>UPS-EP002-11-I06-2U<br>UPS-EP002-11-I06-3US | 3kVA<br>UPS-EP003-11-I06-2U<br>UPS-EP003-11-I06-4US | 6kVA<br>UPS-EP006-11-E-2U<br>UPS-EP006-11-I20-4U | 10kVA<br>UPS-EP010-11-E-3U |
|---|---|---|---|---|---|
| **Battery Cabinet** | CAB-EPBAT06-I06-2U | CAB-EPBAT12-I12-2U | CAB-EPBAT12-I12-2U | CAB-EPBAT20-I20-3U | CAB-EPBAT20-I20-3U |
| **Battery Type** | 7Ah | 7Ah | 9Ah | 7Ah | 9Ah |
| **UPS** | 9 | 10 | 7 | 9 | 6 |
| **UPS + 1 EPBATxx** | 22 | 23 | 18 | 24 | 17 |
| **UPS + 2 EPBATxx** | 39 | 39 | 31 | 42 | 21 |
| **UPS + 3 EPBATxx** | 55 | 56 | 44 | 61 | 29 |
| **UPS + 4 EPBATxx** | 70 | 73 | 58 | 81 | 44 |

## EssentialPower™ 31RT

| UPS Type | 10kVA<br>UPS-EP010-31-E-3U | 15kVA<br>UPS-EP015-31-E-5U | 20kVA<br>UPS-EP020-31-E-5U |
|---|---|---|---|
| **Battery Cabinet** | CAB-EPBAT20-I00-3U | CAB-EPBAT20-I00-3UH | CAB-EPBAT20-I00-3UH |
| **Battery Type** | 9Ah | 9Ah | 9Ah |
| **UPS** | N.A. | N.A. | N.A. |
| **UPS + 1 EPBATxx** | 7 | 4 | <3 |
| **UPS + 2 EPBATxx** | 19 | 11 | 7 |
| **UPS + 3 EPBATxx** | 31 | 18 | 13 |
| **UPS + 4 EPBATxx** | 45 | 27 | 19 |

*Autonomies @70% load.

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# The single-phase ATS-16-32A

The ATS (Automatic Transfer Switch) provides redundant power to single input devices by managing two separate, independent power sources.

## Reliability

**High automatic transfer speed between two sources (8 – 12 ms).**

**Takes up minimal space: 1U for 16 A and 2U for 32 A.**

**Includes USB, EPO, RS232 for dry contacts and slots for optional communication cards.**

## Technical Datasheet single-phase ATS

| | Model | 16A<br>ATS-UP016-U1 | 32A<br>ATS-UP032-U2 |
|---|---|---|---|
| General data | Rated Current | 16 A | 32 A |
| Input | Rated voltage | 200/208/220/230/240 Vac (±5%/10%/15%/20%) | |
| | Frequency | 50/60 Hz (±5%/10%/15%/20%) | |
| | Input sockets | 2 x IEC-C20 | 2 x 30 A terminal blocks |
| Output | Rated voltage | 200/208/220/230/240 Vac | |
| | Maximum output current | 16 A | 32 A |
| | Transfer time | 8–12 ms | |
| | Output sockets | 8 x IEC-C13<br>1 x IEC-C19 | 12 x IEC C13<br>2 x IEC C19<br>1 x 32 A terminal blocks |
| | Protection | Downstream short circuit | |
| Physical | Dimensions (WxDxH) mm | 440x275x44 | 440x275x88 |
| | Weight (kg) | 4 | 6 |
| Environmental parameters | Operation Temperature | -5°C to + 40°C | |
| | Operation Humidity | 0~90%RH (without condensing) | |
| Communications | Built-in communication ports | RS232, USB, EPO, relay card with dry contacts (5 out) | |
| | User interface | LED (source A and/or B, fault status) LCD (parameters: alarms, faults) | |
| | Optional accessories | RS485, SNMP/Web cards | |
| Standards and certifications | Standards | IEC EN 62368-1, IEC EN 62310-2 | |
| | Marking | CE | |

# Technical Datasheet

## EssentialPower™ 11RT

| | Model | 1kVA<br>UPS-EP001-11-I03-2U | 2kVA<br>UPS-EP002-11-I06-2U<br>UPS-EP002-11-I06-3US | 3kVA<br>UPS-EP003-11-I06-2U<br>UPS-EP003-11-I06-4US | 6kVA<br>UPS-EP006-11-E-2U<br>UPS-EP006-11-I20-4U | 10kVA<br>UPS-EP010-11-E-3U |
|---|---|---|---|---|---|---|
| General data | Output rated power | 1000VA /900W | 2000VA /1800W | 3000VA /2700W | 6000VA /6000W | 10000VA /10000W |
| | Output power factor | 0,9 | 0,9 | 0,9 | 1 | 1 |
| | Topology | Online double conversion | | | | |
| | Internal Batteries | YES | YES | YES | 2U: N.A.; 4U: YES | N.A. |
| | Parallel Configuration | N.A. | N.A. | N.A. | Up to 4 units | Up to 4 units |
| Input | Voltage range* | 110~300 Vac (Single+G) | | | 110~280 Vac (Single+G) | |
| | Frequency range | 44-66Hz (auto sensing) | | | 45-70Hz (auto sensing) | |
| | Input power factor | ≥ 0.99 @ 100% linear load | | | | |
| | Input Current Distorsion | < 7% (full load) | < 7% (full load) | < 7% (full load) | < 5% (full load) | < 5% (full load) |
| Output | Output voltage | 220/230/240 Vac (Single + G) | | | 200/208/220/230/240 Vac (Single + G) | |
| | Output voltage distortion | <3%@100% Linear Load; <6% @100% Non-Linear Load | | | <2%@100% Linear Load;<br><7% @100% Non-Linear Load | |
| | Output voltage regulation | ±1% | | | | |
| | Frequency range | ±1Hz or ±3Hz (selectable) | | | | |
| | Crest factor | 3:1 | | | | |
| | Output waveform | Pure sine wave | | | | |
| | Output sockets | 3 x IEC C13 | 6 x IEC C13 | 6 x IEC C13<br>1 x IEC C19 | Terminal blocks | Terminal blocks |
| | Overload Capacity Inverter | <105%continuous<br>106-120% for 30 seconds transfer to bypass.<br>121-150% for 10 seconds transfer to bypass. | | | <105%continuous<br>105-125% for 600 to 30 seconds transfer to bypass.<br>125-150% for 30 seconds to immediately transfer to bypass. | |
| Efficiency | Line Mode | Up to 92% | Up to 92% | Up to 92% | 93% | 93% |
| | High Efficiency Mode | ≥97% | | | Up to 98% | |
| Battery | Type | 12V VRLA, AGM (maintenance-free lead acid battery) | | | | |
| | Battery Configuration | 1x3x7Ah | 1x6x7Ah | 1x6x9Ah | E: External, 16/18/20 (std)<br>12-14 (opt)<br>I20: 20x5Ah Internal | E: External, 16/18/20 |
| | Charging Current | 2.1 A | 1.5 A | 1.5 A | 2 A | 2 A |
| | Recharge time (to 90%) | 4 hours | | | | |
| Functions | Multi-Mode | Normal/ ECO/ CVCF | | | | |
| | Audible or Visual | Line failure/ Battery low/ Transfer to Bypass/ System Fault | | | | |
| | Full protection | Overload, Over temperature, Short circuit, Discharge, Overcharge | | | | |
| | DC start | Yes (standard) | | | | |
| | Programmable outlet | Yes (standard) | Yes (standard) | Yes (standard) | N.A. | N.A. |
| Physical | Dimensions (WxHxD,mm) | 2U: 440x88x405 | 2U: 440x88x600<br>3US: 440x132x432 | 2U: 440x88x600<br>4US: 440x176x432 | 2U: 440x88x685<br>4U: 440x176x685 | 3U: 440x132x685 |
| | Net Weight (kgs/lbs) | 11.7/25.8 | 21.8/48.1 | 24.6/54.2 | E: 18.5/40.7<br>I20: 60/132.3 (5Ahx20) | 21.5/47.4 |
| Environmental | Operation Temperature** | 0~40°C / 32~104°F | | | | |
| | Operation Humidity | 20~95%RH (without condensing) | | | | |
| | Altitude | 1000m/3280ft without derating | | | | |
| | Noise Level | 50dBS @ 1-meter front | | | ≤55dBA @ 1 meter | ≤60dBA @ 1 meter |
| Communications | Standard | RS-232, USB, EPO, additional Slot for optional cards | | | | |
| | Option | RS485 (Modbus), Dry Contact Relay, SNMP/WEB Card | | | | |
| | User Interface | LEDs + LCD: Input: Voltage/Frequency; Output: Voltage/Current/Frequency/Load %; Battery: Voltage/Autonomy/Temperature | | | | |
| Standards and certifications | Safety | IEC / EN62040-1 | | | IEC / EN62040-1, UL1778 | |
| | EMC | IEC / EN62040-2 (C2) | | | EN62040-2, EN61000-3-2, EN61000-3-3, FCC Class A | |
| | Performance | IEC / EN62040-3 | | | | |
| | Manufacturing | ISO 9001:2015, ISO 14001:2015 / CE, UL, cUL, FCC | | | | |

* Depending on the load percentage ** To be verified accordingly to the battery parameters

# EssentialPower™ 31RT

| | 10kVA<br>UPS-EP010-31-E-3U | 15kVA<br>UPS-EP015-31-E-5U | 20kVA<br>UPS-EP020-31-E-5U |
|---|---|---|---|
| General data | 10000VA /9000W | 15000VA /13500W | 20000VA /18000W |
| | 0,9 | | |
| | Online double conversion | | |
| | NO | | |
| | Up to 4 units | | |
| Input | 277 - 485 Vac (3Ph + N +PE) | | |
| | 45-65Hz (auto sensing) | | |
| | ≥ 0.95 @ at linear load | | |
| | <6% at linear load | | |
| Output | 220/230/240 Vac (Single + G) | 200/208/220/230/240 Vac (Single + G) | |
| | <3%@100% Linear Load; <5% @100% Non-Linear Load | | |
| | ±1% | | |
| | ±1Hz or ±3Hz (selectable) | | |
| | 3:1 | | |
| | Pure sine wave | | |
| | Terminal blocks | | |
| | <105%continuous<br>105-120% for 200 to 30 seconds transfer to bypass<br>120-150% for 30 seconds to 0.1 seconds | | |
| Efficiency | Up to 91% | | |
| | Up to 95% | | |
| Battery | 12V VRLA, AGM (maintenance-free lead acid battery) | | |
| | E: External: 20 | | |
| | 2 A | 4.5 A | 4.5 A |
| | External Battery Dependent | | |
| Functions | Normal/ ECO/ CVCF | | |
| | Line failure/ Battery low/ Transfer to Bypass/ System Fault | | |
| | Overload, Over temperature, Short circuit, Discharge, Overcharge | | |
| | | Yes (standard) | |
| | N.A. | | |
| Physical | 3U: 440x132x680 | 5U: 440x220x720 | 5U: 440x220x720 |
| | 28 /61.75 | 36 / 79.4 | 36 / 79.4 |
| Environmental | 0~40°C / 32~104°F | | |
| | 20~95%RH (without condensing) | | |
| | 1000m/3280ft without derating | | |
| | ≤50dBA @ 1 meter | ≤60 dBA @ 1 meter | |
| Communications | RS-232, EPO and additional Slot for optional cards | | |
| | USB, RS485 (Modbus), Dry Contact Relay, SNMP/WEB Card | | |
| | LEDs + LCD: Input: Voltage/Frequency; Output: Voltage/Current/Frequency/Load %; Battery: Voltage/Autonomy/TemperatureVoltage/Autonomy/Temperature | | |
| Standards and certifications | IEC / EN62040-1 | | |
| | IEC / EN62040-2 (C2) | | |
| | IEC / EN62040-3 | | |
| | ISO 9001:2015, ISO 14001:2015 / CE, UL, cUL, FCC | | |



**2U**
**1-6 kVA**

**3U**
**10kVA**

**4U**
**6kVA with Batteries**

**5U**
**15,20kVA**

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