Smart Online True Double Conversion UPS
Single Phase With Highly Protection
Rack Tower UPS

R10 Series

(1000 - 10000VA. 230V)

- Dalton R10 Rack mounted UPS is aspire to introduce the latest DSP true online double conversion UPS for protecting critical loads , IT , Data centers , Servers so as to safeguard your valuable equipment and critical data from any interrupted power, such as surges, blackouts and lighting strikes.

- Rack/Tower convertible design.
- Microprocessor control optimizes reliability.
- Filtered, and stabilized sine wave supply.
- (SNMP) card Support.
- Intelligent battery management.
- Generator compatible.
- Two -year warranty For Eco-mode operation.
- SLC Greenery solution.
- Downloadable monitoring software for Windows, Linux and Mac.
- Advanced DSP and 3-level technology.
- Flexible battery configuration (settable 16-20 batteries).
- Digitally controlled charge.
- High charging current available (Max. 12 A).
- Advanced digital parallel technology.
- Effective software and hardware protection function.
- Robust self-diagnostic function, and abundant event log for check.
- True double conversion technology.
- Output Unity power factor 1.
- Graphical Comprehensive LCD display.
- Converter mode available.
- High efficiency 95% (up to 98% in ECO mode).
- Emergency Power Off.
- Battery test, manual and automatic.
- Wide input voltage and frequency range.
- Backup extensions available for all power ratings.
- LCD+LED display, multi-functional keys operation, friendly human-machine interface.
- High input power factor and low current THD.
- Fan speed varies intelligently with temperature .
- Powerful background software for parameters configuration.
- 15 years spare parts support.
- Advanced multi-platform communications: RS232, USB, RS485, SNMP and dry contacts communication interfaces.

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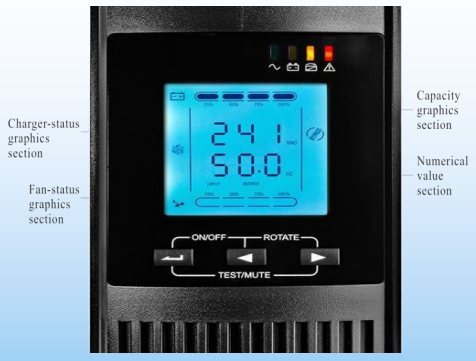
Graphical LCD Display

Dalton R10 The front display panel provides all major systems parameters and operational status of the UPS that include full diagnostics for simple, easy servicing. R10 LCD series UPS with DSP control, systematically checks each component and displays the result using on LCD display.

This feature allows service technicians the ability to pinpoint and repair the UPS very quickly.

Is fully digital signaling processor (DSP) controlled to provide quality supply, reduces the number of components and hence increases reliability and improve performance.



Advanced LCD Rotated by pushing front button

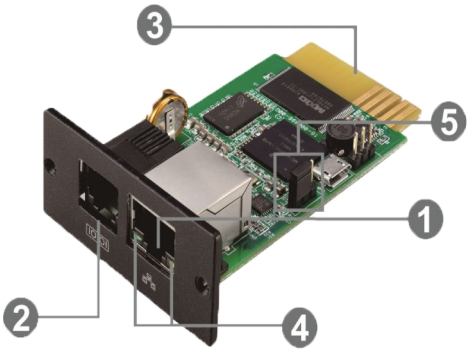
Simple network management protocol (SNMP)

Dalton R10 provide a SNMP which is a popular protocol for network management. It is used for collecting information from, and configuring, network devices, such as servers, printers, hubs, switches, and routers on an Internet Protocol (IP) network.
Dry contact card provides isolated contacts for industrial and remote alarm application.

Inelegant communications

Software support most OS for remote monitor and control UPS through LAN, warning notifications through broadcast and mobile phone, multi-shutdown PCs, and schedule UPS self-test.

This unique software provides complete power protection for computer system during power failure.



Hardware overview

1- Ethernet Port (10/100Base-T)

2- Sensor Port*

3– Golden Finger

4– Ethernet Status LEDs

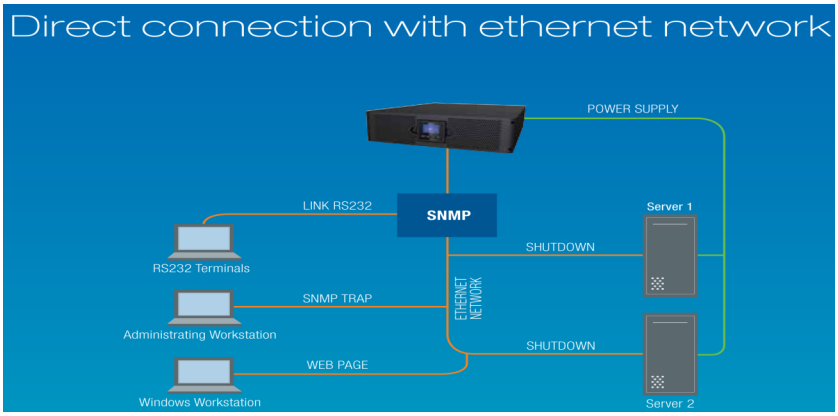
5- 10/100M RJ45 Ethernet Connector

Configuration requires a password. The default password for the SNMP card is 12345678.

AS 400N CARD
RELAY CARD

MODBUS INTERFACE

SNMP CARD



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Easy installation and maintenance

Dalton R10 provides an ease of installation and operation is guaranteed.

The 1-3 kVA module is a plug-n-play device where all you need to do is to plug it in a wall socket to begin protection.

The 6-10 kVA UPS only requires basic electronic competence to properly start up the unit.

Intelligent battery management

This technology guarantees a “seamless” power supply regardless of the quality and the presence or absence of mains power supply, feeding from batteries where necessary.

It is therefore the best possible solution for loads that require perfect and continuous power.

It powers and protects any type of load in relation to the lack of switching between mains and battery operation.

Front & Rear panel

- **Front panel** only has the LCD display.

- **Rear panel**

1. AC Input.
2. DC Input.
3. Outlet.
4. Breaker.
5. Fan.
6. Modem/Tel/Fax.
7. Parallel Card (Optional).
8. RS232.
9. USB.
10. EPO.
11. SNMPAS400 (Optional).

Intelligent battery management

Temperature compensated charging extends life and advanced algorithms recommend replacement date.

The UPS can inform user which batteries need to be replaced and auto detect when additional battery packs are added.

Operating flexibility

Different operating modes are available to reduce energy consumption based on specific load and user requirements.

On line: maximum load protection and output voltage waveform quality;

ECO Mode: the UPS uses Line interactive technology, with the load powered by the mains, reducing consumption and thus improving efficiency (up to 98%); In ECO Mode,

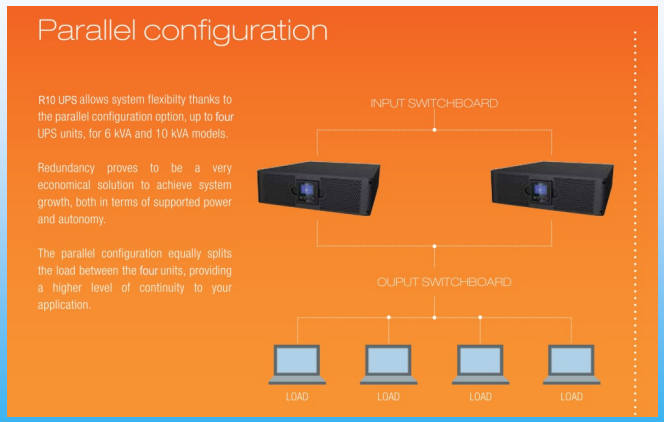
The load is supplied by the mains and when the battery is fully charged, the fan will stop running for energy saving.

Smart Active Mode: the UPS automatically selects On line or Line interactive operation, depending on the quality of the mains supply, checking the number, frequency and type of disturbances present;

Standby off: the UPS supplies the load only when the mains fails.

The inverter begins working with a progressive start up sequence to prevent inrush currents; Frequency Converter operation (50 or 60 Hz).

N+X Power scalable parallel redundancy .



Dalton provides a Redundant Parallel technology that can parallel Four units of Uninterruptible Power Supply (UPS) modules with true redundancy.

With RPA, there is no need for external electronics or switches to control the UPS modules in the parallel system.

One of the UPS modules in the system arbitrarily takes a leadership while the other UPS modules have access to all control parameters.

If one UPS fails to operate, the load is automatically redistributed among the others.

If the lead UPS fails to operate then a different UPS automatically takes on the leadership role.

The RPA systems are designed to have no single points of failure, Ensuring the highest level of power protection for critical loads.

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Technical Specifications

	Model	R101000 1K	R101000 1KS	R102000 2K	R102000 2KS	R103000 3K	R103000 3KS	R106000 6K	R106000 6KS	R1010000 10K	R1010000 10KS
	Rating Power	1KVA/1KW		2KVA/2KW		3KVA/3KW		6KVA/6KW		10KVA/10KW	
Input	Input system	Single phase & earth ground hardwire three-wire (1 PH + N + G)									
	Voltage range	(176±3)VAC~ (280±3)VAC @100% load						(176±3)VAC~ (288±3)VAC @100% load			
	Power factor	≥0.99									
	Frequency	40 ~ 70 Hz (auto-sensing)									
	Total harmonic distortion (THDI)	≤ 6%						≤ 5%			
	Voltage range of bypass	(130±3)VAC~ (322±3)VAC (Adjustable by software)						(104±3)VAC~ (331±3)VAC (Adjustable by software)			
Output	Output system	Single phase & earth ground hardwire three-wire (1 PH + N + G)									
	Rated voltage	200V/208V/220V/230V/240V Adjustable									
	Power factor	1									
	Voltage precision	±1%									
	Bypass voltage range	- 25% ~ + 15% settable						- 40% ~ + 15% settable			
	Total harmonic distortion (THDV)	≤ 1% (linear load); ≤ 5% (non-linear load)						≤ 1% (linear load); ≤ 4% (non-linear load)			
	Output waveform	Pure Sinewave									
	Output frequency – Normal mode	1.The output frequency synchronizes with the input frequency when the input frequency is in the range of 46Hz~ 54Hz.									
	Output frequency – Battery mode	2.The output frequency is 50Hz when the input frequency is not in the range of 46Hz~ 54Hz. 3.Can be set as 60Hz.									
	Efficiency	≥ 91% (Mains mode) ≥ 86% (Battery mode) ≥ 96% (ECO mode)						≥ 94% at 100% load, max. 94.5% at 60% load, ≥ 98% in ECO mode			
	Inverter overload capacity (Utility power, 25°C)	105% ± 5% < Load ≤ 125% ± 5% 50s transfer to bypass 125% ± 5% < Load < 150% ± 5% 25s transfer to bypass Load > 150% ± 5%, 300ms transfer to bypass									
	Transfer time	0ms									
	Crest factor	3:1									
DISPLAY / INTERFACE	LCD Display	AC/ DC voltages; kVA/ kW; Frequency; Temperature; Battery & load level									
	LED Status Indicator	Utility power; Battery discharge; Inverter On									
	Protection degree	IP20									
	Acoustic Noise Level	55 dB @ 1 metre									
	Operating temperature	0 °C to 40 °C									
	Altitude	1000 m without derating									
	Storage temperature	UPS: -25 °C to 60 °C : batteries 0 °C to 40 °C									
	Operating Humidity	0 - 95% RH at 0 - 40°C (non-condensing)									
	Standard Communication	EPO / USB / RS232 / RJ11 / Intelligent Slot									
	Control	3 control push button for POWER ON / POWER OFF / FUNCTION KEY									
	Communication software	Windows XP/ 2003 and later version; Linux; Unix									
	Parallel	Up to 4 Units									
	Safety	IEC/EN62040-1, IEC/EN60950-1									
	EMC	IEC/EN62040-2, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5									
	Part number	R101000K	R101000KS	R102000K	R102000KS	R103000K	R103000KS	R106000K	R106000KS	R1010000K	R1010000KS
	Optional	SNMP Card/ Dry Contact AS400 Card/ CMC Card/ RS485 Card/ EMD Monitoring Device									
Battery	Batteries voltage	36VDC		72VDC		72VDC	96VDC	192VDC	240VDC	192VDC	240VDC
	Battery Type	Sealed maintenance-free lead –acid battery									
	Recharge time (at nominal load)	8 Hours (90%)									
	Backup time	Customizable, depend on qty of Battery Pack or External Battery used									
	Battery quantity	3	None	6	None	8	None	16	None	16	None
	Charge current	1A	6A	1A	5A	1A	5A	1A	5A	1A	6A
	Dimensions. W*D*H (mm)	438×338 ×86(2U)	438×430 ×86(2U)	438×430 ×86(2U)	438×468 ×86(2U)	438×560 ×86(2U)	438×468 ×86(2U)	438×658 ×172(4U)	438×579 ×86(2U)	438×658×172(4U)	438×579×86(2U)
	Weight (kg)	13	7	25	13	29.7	13.6	58	14	64	17

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