DHF RT SERIES UPS

RANGE : 1 KVA - 20 KVA 1:1/3:1

Rack Mountable UPS

LI READY

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FEATURES

- Advanced DSP And 3-Level Technology
- Output Power Factor 1.0
- Active Power Factor Correction (APFC), Input Power Factor Up To 0.99
- High Efficiency 95% (Up To 98% In ECO Mode)
- Flexible Battery Configuration
- Digitally Controlled Charger

The DHF RT Series rack-mounted UPS offers dependable backup power for essential equipment in space-constrained settings. Available in single-phase options (1-10 kVA) and three-phase options (10-20 kVA), the RT Series guarantees continuous operation of servers, networking gear, and data storage during power outages. Its compact design fits standard 19-inch racks, making it suitable for network closets, distribution frames, and small offices. DHF RT series provides effective surge protection, prolongs hardware lifespan, and supports remote management. Additionally, DHF RT Series reduces reactive power, improves energy efficiency, and ensures business continuity. Its flexible battery configurations support 16 to 20 batteries with digitally controlled charging to maintain optimal battery health.

TECHNICAL SPECIFICATIONS

Single Phase Input - Single Phase Output

MODEL	DHF RT 101	DHF RT 102	DHF RT 103	DHF RT 106	DHF RT 110
CAPACITY	**1 kVA / 1 kW**	**2 kVA / 2 kW**	**3 kVA / 3 kW**	**6kVA/6KW**	**10kVA/10KW**
INPUT					
Rated voltage	208 / 220 / 230 / 240 Vac				
Voltage range	180–280 Vac (no derating)		110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 288 Vac (no derating)		
Frequency	50/60 Hz ± 5 Hz (auto-sensing)				
Power factor	≥ 0.99				
Bypass voltage range	0.4–1.0 (settable)				
Total harmonic distortion (THDi)	≤ 5%				
OUTPUT					
Rated Voltage	208 / 220 / 230 / 240 Vac (settable via LCD)				
Voltage regulation	±1%				
Frequency	45–55 Hz or 55–65 Hz (synchronized range); 50 / 60 Hz ± 0.1 Hz (battery mode)				
Waveform	Sinusoidal				
Power factor	1.0				
Total harmonic distortion (THDv)	≤ 2% (linear load), ≤ 4% (non-linear load), ≤ 5% (non-linear load)				
Crest factor	3:1				
Overload	105% ~ 110% for 30 min, 110% ~ 130% for 10 min, 130% ~ 150% for 30 s, >150% for 500 ms				
BATTERIES					
DC voltage	24V / 36V	48V / 72V	72V / 96V	192 Vdc (192–240 Vdc settable)	
Charging current	1–12A settable			Standard model: 1 A, Long time model: 5 A (default), 1–5 A settable, 12 A (optional)	
Recharge time	Standard model: 90% capacity restored in 8 hours Long time model: depends on capacity of battery				
SYSTEM					
Efficiency on Eco Mode	≥97.5%	≥98.5%	≥98.3%	≥98.5%	
Transfer time	0 ms				
Protections	Short-Circuit, Overload, Overtemperature, Battery Low Voltage, Over & Under Voltage and Fan Failure				
Max. Number of Parallel Connections	4				
Communications	RS232 (standard), USB / RS485 /Dry Contacts / SNMP /Battery Temperature Compensation (optional)				
Display	LCD +LED				
ENVIRONMENT					
Operating temperature	0–50°C				
Storage temperature	–25°C – +70°C (excluding batteries)				
Relative humidity	0 ~ 95% (non-condensing)				
Operation Altitude	≥1000 m; derating 1% for each additional 100 m				
IP rating	IP 20/21				
Noise level at 1m	≤50 dB		≤55 dB	≤ 58 dB	
OTHERS					
DIMENSIONS (W×D×H) mm	440×338×88			514 × 968 × 188	
Net weight (kg)	5.2	7.28	7.52	12	14
Gross weight (kg)	7.32	10	10.26	14	16

TECHNICAL SPECIFICATIONS

Three Phase Input - Single Phase Output

MODEL	DHF RT 3110	DHF RT 3115	DHF RT 3120
Capacity	10 kVA / 10 kW	15 kVA / 15 kW	20 kVA / 20 kW
INPUT			
Rated voltage	380 / 400 / 415 Vac		
Voltage range	190 ~ 304 Vac (linear derating between 50% and 100% load); 304 ~ 478 Vac (no derating)		
Rated Frequency	50 / 60 Hz (auto-sensing)		
Power factor	≥ 0.99		
Bypass voltage range	-40% ~ +15% (settable)		
Total harmonic distortion (THDi)	≤ 5%		
OUTPUT			
Rated Voltage	208 (PF=0.9) / 220 / 230 / 240 Vac		
Voltage regulation	± 1%		
Frequency	Synchronized to bypass in mains mode; 50 / 60 Hz ± 0.1 Hz in battery mode		
Waveform	Sinusoidal		
Power factor	1.0		
Total harmonic distortion (THDv)	≤ 1% (linear load); ≤ 3% (non-linear load)		
Crest factor	3:1		
Overload	105% ~ 110% for 10 min, 110% ~ 125% for 1 min, 126% ~ 150% for 30 s		
BATTERIES			
DC voltage	192 Vdc (192 ~ 240 Vdc settable)		
No. of Battery	16 pcs (16 ~ 20 settable)		
Charging current	10 A		
SYSTEM			
Efficiency	≥ 95% at Mains, ≥ 98% in ECO mode		
Transfer time	0 ms		
Protections	Short-Circuit, Overload, Overtemperature, Battery Low Voltage, Overvoltage, Undervoltage and Fan Failure		
Max. Number of Parallel Connections	4		
Communications	RS232 (Standard), USB / RS485 / Dry Contacts / SNMP / Battery Temperature Compensation (Optional)		
Display	LCD + LED		
OTHERS			
Operating temperature	0°C ~ 50°C		
Storage temperature	-25°C ~ 70°C (without battery)		
Relative humidity	0 ~ 95% (non-condensing)		
Altitude	≥ 1000 m, derating 1% for each additional 100 m		
IP rating	IP 20/21		
Noise level at 1m	≤ 58 dB		
DIMENSIONS (W×D×H) mm	440 × 650× 88	440 × 780× 132	
Net weight (kg)	17	25.5	
Gross weight (kg)	19	28	