

# UDC-RT SERIES

1~3kVA

1:1 phase PF: 1.0 ( PF0.9 0.8 Optional)



## Features

- Online double conversion
- Wide input voltage range (110~300Vac)
- Input power factor 0.99 (With PFC)
- Output power factor 1.0
- Optional charging current 1A or 2A for standard unit, 2A charging current is for 2 groups of inside batteries.
- Maximum charging current 12A (Long run unit)
- Charging current can be set by LCD(Long run unit)
- 50Hz/60Hz frequency converter mode
- Emergency power off function (EPO)
- ECO mode operation for energy saving
- Generator compatible
- SNMP + USB + RS232 multiple communications
- Smart battery charging design for optimizing battery performance
- Support lithium battery and BMS
- Selectable output voltage: 200,208,220,230,240Vac
- Low priority load disconnection function
- 8 minutes backup time standard units are optional



colourful LCD



gray LCD

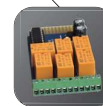


blue LCD

3 kinds of LCD can be selected



SNMP



Relay card



Battery Cabinets.  
(Optional)



The LCD panel can  
be rotated



3U for 3KVA standard unit

## Technical Specifications:

MODEL	UDC9101S-RT One	UDC9101H-RT One	UDC9102S-RT One	UDC9102H-RT One	UDC9103S-RT One	UDC9103H-RT One
Capacity (VA/Watts)	1000VA / 1000W		2000VA / 2000W		3000VA / 3000W	
Phase	Single phase with ground with					
<b>INPUT</b>						
Nominal Voltage	200/208/220/230/240Vac					
Operating voltage range	Low voltage of transferring to bypass	160Vac±5% @100%~80%load	140Vac±5% @80%~70%load	120Vac±5% @70%~60%load	110Vac±5% @60%~0%load (Ambient temp. <35°C)	
	Low threshold voltage of recovering from bypass	175Vac±5% @100%~80%load	155Vac±5% @80%~70%load	135Vac±5% @70%~60%load	125Vac±5% @60%~0%load (Ambient temp. <35°C)	
	High voltage of transferring to bypass	300Vac±5%				
	High threshold voltage of recovering from bypass	290Vac±5%				
Input Voltage Range	55~150Vac or 110~300Vac @ 60% load, 80~145Vac or 160~300Vac @ 100% load					
Operating frequency range	40~70Hz					
Power Factor	0.99					
Generator input	Support					
<b>OUTPUT</b>						
Output Voltage	200/208/220/230/240Vac					
Power Factor	1.0					
Voltage Regulation	±1%					
Frequency	Line mode (Synchronized range)	47~53Hz or 57~63Hz				
	Bat. mode	(50/60±0.1)Hz				
Crest Factor	3:1					
Harmonic Distortion (THDv)	≤2% THD (Linear load)					
	≤4% THD (Non-linear load)					
Waveform	Pure Sinewave					
Transfer Time	AC mode <-> Batt. Mode	Zero				
	Inverter <-> Bypass	4ms(Typical)				
<b>EFFICIENCY</b>						
AC Mode	88%		92%		92%	
Battery Mode	85%		88%		90%	
<b>BATTERY</b>						
Battery Type	12V9AH	Depends on the capacity of external batteries		12V9AH	Depends on the capacity of external batteries	
Numbers	2	2	3	4	4	6
Backup time	Long run unit depends on the capacity of external batteries					
Typical recharging time(Standard mode)	4 hours recover to 90% capacity					
Charging voltage	27.4VDC±1%	27.4VDC±1%	41.1VDC±1%	54.7Vdc±1%	54.7Vdc±1%	82.1Vdc±1%
Charging current(max.)	1A or 2A	12A max,can be set by LCD		1A or 2A	12A max,can be set by LCD	
<b>SYSTEM FEATURES</b>						
Line mode Battery mode	Ambient temp.<35°C	105%~110%: UPS transfer to bypass after 10 minutes when the utility is normal 110%~130%: UPS transfer to bypass after 1 minute when the utility is normal 130%~150%:UPS transfer to bypass after 5 seconds when the utility is normal >150%:UPS transfer to bypass immediately when the utility is normal				
	35°C<ambient Temp.<40°C	105%~110%: UPS transfer to bypass after 1 minute when the utility is normal 110%~130%: UPS transfer to bypass after 5 seconds when the utility is normal >130%:UPS transfer to bypass immediately when the utility is normal				
Short circuit	Hold whole system					
Overheat	Line mode: Switch to bypass; Backup mode: Shut down UPS immediately					
Battery low	Alarm and switch off					
EPO (optional)	Shut down UPS immediately					
Audible & Visual alarms	Line failure, Battery low, Over load, System fault					
Communication interface	USB, RS232, SNMP card(optional), Relay card(optional)					
<b>PHYSICAL</b>						
Dimension W × H × D (mm)	440*305*86.5			440*460*86.5	440*435*86.5	440*600*86.5/440*460*131
Net Weight (kg)	11.3	5.6	5.6	19.1	8.3	8.3
<b>ENVIRONMENT</b>						
Operating temperature	0~40°C					
Storage temperature	-25°C ~ 55°C					
Humidity range	20~90% RH @ 0~40°C (Non-condensing)					
Altitude	<1500m					
Noise Level	Less than 50dBA at 1 Meter					
<b>STANDARDS</b>						
Safety	IEC/EN62040-1,IEC/EN60950-1					
EMC	IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8					

## 8 minutes backup time standard units

MODEL	UDC9101S-RT (UPS)	UDC9102S-RT (UPS+EBP)	UDC9103S-RT (UPS+EBP)		
Capacity (VA/Watts)	1000VA / 900W	2000VA / 1800W	3000VA / 2700W		
Phase	Single phase with ground				
<b>BATTERY</b>					
Battery Type	12V9AH-9S	12V9AH	12V9AH		
Numbers	4	8	12		
Backup time	8mins				
Typical recharging time(Standard mode)	8 hours recover to 90% capacity				
Charging voltage	27.4VDC ± 1%	54.7Vdc ± 1%	82.1Vdc ± 1%		
Charging current(max.)	1A / 2A	1A / 2A	1A / 2A		
<b>PHYSICAL</b>					
Dimension W × D × H (mm)	440*430* 86.5	440*435*86.5(UPS)	440*435*86.5(EBP)	440*435*86.5 (UPS)	440*578*86.5(EBP)
Net Weight (kg)	18.2	9.2	26.7	9.8	34.7

## SYSTEM SPECIFICATIONS---UDC1-3K-RT

MODEL(Battery Pack)	BC24RT	BC36RT	BC48RT	BC72RT	BC96RT
Charger input	208/220/230/240VAC				
<b>BATTERY SYSTEM</b>					
Battery Type	Sealed, Maintenance Free, Value Regulated, Lead Acid				
Typical Recharge Time	6-8-hours ( to 90% of full capacity)				
Typical Battery Life	3-5 years, depending on discharge cycles and ambient temp				
System Voltage	24VDC	36VDC	48VDC	72VDC	96VDC
Charging current (max)	1.4A				
Battery Quantity	4	6	8	12	8
Capacity (standard unit)	7Ah/9Ah(12V)				
Battery Cable Type	Premolded #12AWG				
<b>ENVIRONMENTAL</b>					
Operating Temperature (max)	0 to 40° C				
Operating/Storage Humidity	0-90% Non-Condensing				
<b>PHYSICAL</b>					
Size - Net W X D X H ( mm )	440*430*86.5	440*430*86.5	440*552*86.5	440*720*86.5	440*552*86.5
Weight - Net(kg)	17.4	22.5	28.5	41.1	28.5

## SYSTEM SPECIFICATIONS---UDC1-3K

MODEL(Battery Pack)	BC24T	BC36T	BC48T	BC72T	BC96T
Charger input	208/220/230/240VAC				
<b>BATTERY SYSTEM</b>					
Battery Type	Sealed, Maintenance Free, Value Regulated, Lead Acid				
Typical Recharge Time	6-8-hours ( to 90% of full capacity)				
Typical Battery Life	3-5 years, depending on discharge cycles and ambient temp				
System Voltage	24VDC	36VDC	48VDC	72VDC	96VDC
Charging current (max)	1.4A				
Battery Quantity	4	6	8	12	16
Capacity (standard unit)	7Ah/9Ah(12V)				
Battery Cable Type	Premolded #12AWG				
<b>ENVIRONMENTAL</b>					
Operating Temperature (max)	0 to 40° C				
Operating/Storage Humidity	0-90% Non-Condensing				
<b>PHYSICAL</b>					
Size - Net W X D X H ( mm )	144*209*399	144*209*399	191*337*460	191*337*460	191*337*460
Weight - Net(kg)	13.5	18.5	28.5	38.5	47.5