

PROTEC NDC Series



- **LCD Display Interface**
Provides clear status of UPS key parameters
- **Convenient and Convertible (RT Model)**
Form factor to fit easily into small spaces
- **Pure Sinewave Output**
Simulates the utility when on battery for optimum device compatibility
- **Automated Voltage Regulator (AVR)**
Corrects a wide range of input voltage
- **Output Power factor 0.9**
To provide full power capability to electronic or IT equipment that may have a wide range of leading and lagging power factors
- **DSP Digital Control**
- **USB & RJ45 Communication Port**
- **Optional Sockets available**

Specifications :

Model	NDC16		NDC-RT16	NDC24	NDC-RT24
Capacity	1600 W / 2000 VA			2400 W / 3000 VA	
Form Factor	Tower	Rackmount		Tower	Rackmount
DC Input					
Rated Voltage	<div><div></div><div>• 36 V (S)</div><div>• 48 V (H)</div></div>			48 V	
DC input range (default)	<div><div></div><div>• 30 ~ 45 V (S)</div><div>• 40 ~ 60 V (H)</div></div>			40 ~ 60V	
AC Input					
AC input range (bypass mode)	<div><div></div><div>• 0 ~ 121 V / 132 V / 138 V / 144 Vac for 100 V / 110 V / 115 V / 120 Vac \pm 10 Vac</div><div>• 0 ~ 242 V / 264 V / 276 V / 288 Vac for 200 V / 220 V / 230 V / 240 Vac \pm 10 Vac</div></div>				
AC input range (mains mode)	<div><div></div><div>• 100 V: 70 ~ 130 Vac 110 V: 80 ~ 140 Vac 115 V: 85 ~ 145 Vac</div><div>• 120 V: 90 ~ 150 Vac 200 V: 145 ~ 260 Vac 220 V: 165 ~ 280 Vac</div><div>• 230 V: 175 ~ 290 Vac 240 V: 185 ~ 300 Vac</div></div>				
Frequency input range	50 Hz / 60 Hz (auto-sense), 50 Hz / 60 Hz \pm 5% ~ 15%				
Generator connection	Available (generator input power is settable)				
Output					
Inverter output range	<div><div></div><div>• 100 V / 110 V / 115 V / 120 Vac \pm 5% (settable)</div><div>• 200 V / 220 V / 230 V / 240 Vac \pm 5% (settable)</div></div>				
AC output range (bypass mode)	<div><div></div><div>• 0 ~ 121 V / 132 V / 138 V / 144 Vac for 100 V / 110 V / 115 V / 120 Vac \pm 10 Vac</div><div>• 0 ~ 242 V / 264 V / 276 V / 288 Vac for 200 V / 220 V / 230 V / 240 Vac \pm 10 Vac</div></div>				
AC output range (mains mode)	<div><div></div><div>• 100 V: 90 ~ 110 Vac 110 V: 99 ~ 121 Vac 115 V: 103 ~ 126 Vac</div><div>• 120 V: 108 ~ 132 Vac 200 V: 166 ~ 226 Vac 220 V: 188 ~ 245 Vac</div><div>• 230 V: 199 ~ 254 Vac 240 V: 210 ~ 264 Vac</div></div>				
Output frequency	50 / 60 Hz \pm 0.3 Hz (settable)				
Waveform	Pure sine wave				
Inverter efficiency	Max. 85%				
Energy saving mode	Settable (< 3% load) , enter in 80s				
No-load shutdown	Settable (< 3% load), shut down in 80s				
Transfer time	\leq 10ms				
THDV (resistive load)	\leq 5%				
Protections	Overload, short circuit (inverter), battery low voltage, battery overcharge, overtemperature				
Overload time (mains mode)	120s for 110%, 60s for 125%, 10s for 150% (transfer to bypass mode)				
Overload time (inverter mode)	60s for 110%, 10s for 125%, 5s for 150% (Shut down directly)				
Mute	Automatic mute in 60s or by manual				

Model	NDC16		NDC-RT16	NDC24	NDC-RT24
Batteries					
Battery capacity (H: external expansion)	12 V / 9 Ah x 3 (H: 12 V x 4)			12 V / 9 Ah x 4	
Charging current	Standard model (S): 1 A (default) Long time model (H): 10 A (default); < 10 A, set step 1 A; ≥ 10 A, set step 5 A Max. 20 A (H)			Standard model (S): 1 A (default) Long time model (H): 10 A (default); < 10 A, set step 1 A; ≥ 10 A, set step 5 A Max. 25 A (H)	
Equalizing charge voltage	Single battery 14.1 Vdc (default), 13.6 ~ 15 Vdc adjustable				
Floating charge voltage	Single battery 13.5 Vdc (default), 13.2 ~ 14.6 Vdc adjustable				
Low voltage alarm point	Single battery 10.8 Vdc (default), 9.6 ~ 13 Vdc adjustable				
Low voltage shutdown point	Single battery 10.2 Vdc (default), 9.6 ~ 11.5 Vdc adjustable				
Communications					
USB + RJ45	Supports Windows® 98 / 2000 / 2003 / XP / Vista / 2008 / 7 / 8 / 10				
SNMP (optional)	Power management from SNMP manager and web browser (standard with slot)				
Others					
Operating temperature	5°C ~ 40°C				
Operating humidity	Relative humidity ≤ 93%				
Noise level	≤ 50 dB (1m)				
Dimensions W x D x H (mm)	144 x 410 x 215 (S) 144 x 345 x 215 (H)	440 x 410 x 132 (S)	190 x 467 x 335.5 (S/H)	440 x 410 x 132 (S)	
Package Dimensions W x D x H (mm)	236 x 492 x 316 (S) 236 x 427 x 316 (H)	611 x 505 x 235 (S)	320 x 592 x 462 (S/H)	611 x 505 x 235 (S)	
Net Weight (kg)	18.5 (S) 17.8 (H)	21.3 (S)	28.1 (S) 28.0 (H)	26.7 (S)	
Gross Weight (kg)	19.8 (S) 18.8 (H)	24.5 (S)	30.2 (S) 30.0 (H)	30.5 (S)	

NDC Outlets



NDC-RT Outlets

