

# UNITY / I<sup>®</sup> Three-Phase

UNINTERRUPTIBLE POWER SYSTEMS

10kVA/kW TO 220kVA/kW  
Superior three-phase  
power protection at  
lowest life-cycle costs.

60Hz

## Built to Protect:

- > Large Mainframe-Oriented Data Centers
  - > Computer Rooms, Small Mainframes, Mini-Computers, Centralized or Clustered Servers
  - > Medical Analysis Equipment
  - > Telecommunications
- 
- > Mission-Critical Equipment

## Energy-efficient Design

Typical three-phase UPSs are constantly converting power twice – AC to DC, then DC to AC. Their two power modules run continuously, consuming large amounts of energy. Patented UNITY/I Three-Phase UPSs employ only one power module and perform only a single power conversion. This design generates less heat, consumes less energy, and can cost less to operate.

## Up to 97% Efficient

UNITY/I Three-Phase systems are so efficient that they can pay for themselves within a few years. They use as little as three percent of incoming power (rather than the 10 or 15% of typical three-phase designs). This big edge in efficiency can mean thousands of dollars saved each year.

## Performance That Excels

Whenever power fails, reliable UNITY/I Three-Phase protection prevents interruptions or changes in the steady sine-wave power your equipment receives. Unlike a typical three-phase system, a UNITY/I Three-Phase UPS draws a clean sinusoidal current from the utility. With no rectifier to produce harmful input current distortion, this system requires no costly filtering. Connected emergency generators are only required to be 1.5 times the size of the UNITY/I system. The systems are kW-rated and therefore can protect power factor-corrected, kW-rated equipment without oversizing; UPSs that are kVA-rated must be derated for kW-rated applications. UNITY/I Three-Phase supports and protects many kinds of loads, including 100% unbalanced loads, high-crest factor computers, large industrial motor drives, and digital controllers.

## Proven Reliability

UNITY/I Three-Phase technology has proven to be outstandingly reliable in hundreds of installations. A smaller parts count, a large overload capacity of 250% for one minute, a wide power factor range, advanced, microprocessor-controlled self-diagnostics, and battery monitoring all enhance reliability.

## Easy System Expansion

UNITY/I Three-Phase units can be easily connected in parallel. This makes enlarging capacity or adding redundancy much simpler and more economical than with typical three-phase UPSs. Loads as large as 1980kW can be protected by connecting up to nine units.



**Best  
Power**  
UNINTERRUPTIBLE  
POWER SYSTEMS

The Best Solution™

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## Three-Phase

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### 60Hz Specifications

Models	10kVA	15kVA	20kVA	30kVA	40kVA	60kVA	80kVA	100kVA	120kVA	160kVA	220kVA	
Model Number	UT310	UT315	UT320	UT330	UT340	UT360	UT380	UT3010	UT3120	UT3160	UT3220	
Capacity	10kVA	15kVA	20kVA	30kVA	40kVA	60kVA	80kVA	100kVA	120kVA	160kVA	220kVA	
VA	10kW	15kW	20kW	30kW	40kW	60kW	80kW	100kW	120kW	160kW	220kW	
Dimensions (inches)	59.1 x 24 x 31.5			59.1 x 39.4 x 31.5				74.8 x 63 x 31.5				
H x W x D (mm)	1500 x 600 x 800			1500 x 1000 x 800				1900 x 1600 x 800				
Runtime w/internal batteries*	16/30	9/15	12/16/30	9/15	N/A							
Weight w/internal (lbs.)	1111/1331	1237/1464	1748/1882/2317	2112/2438	N/A							
batteries (kg)	504/604	561/664	593/859/1053	958/1106	N/A							
Weight without (lbs.)	749	901	1176	1330	1798	2214	2479	2688	3729	4831	5493	
batteries (kg)	340	409	534	604	815	1005	1125	1220	1692	2192	2492	
<b>Operation</b>												
Input and Output Voltage	208Y in 208Y/120 out 220Y in 220Y/127 out 480Y in 480Y/277 out						480Y in 480Y/277 out					
Input Voltage Range	+10%, -15% programmable (+15%, -20% maximum)											
Utility	±10% programmable											
Bypass	100% static symmetrical, ±1%; 100% static asymmetrical, ±3%, 0 to 100% load step, ±5%											
Output Voltage Range	60 Hz ±6% programmable											
Input Frequency	60 Hz (utility synchronized) ±0.1% free running											
Output Frequency	216VDC											
DC Voltage	360VDC						408VDC					
Efficiency AC to AC												
Normal mode	93%	93%	94%	94%	95%	95%	96%	96%	96%	96%	96%	
Economy mode	95%	95%	96%	96%	96%	97%	97%	97%	97%	97%	97%	
Typical losses (kW)												
Normal mode (.8PF load)	0.6	0.9	1.02	1.5	1.68	2.53	2.67	3.3	4.0	5.33	7.33	
Economy mode (.8PF load)	0.42	0.63	0.67	1.0	1.33	1.48	1.98	2.47	2.97	3.96	5.44	
Surge Protection	Meets IEEE 587/ANSIC62.41-91.											
EMI Suppression	FCC Part 15 Sub Part J Class A											
Autostart	Programmable											
Agency Approvals	UL 1778/CSA @22.2 #107.1; UL and cUL (Canada) listed.											
Load Power Factor	0.9 leading to 0.4 lagging											
Harmonic Distortion	Input <5%; Output <3% linear load, <5% nonlinear load											
Transient Attenuation	Differential mode - 60 to 80dB; common mode 120dB						Differential mode 60 to 80dB; common mode 40 to 80dB					
Overload Capacity	Utility operation - 250% for one min, 150% for 10 min.; battery operation - 150% for one min., 125% for 10 min.											
<b>Environmental</b>												
UPS Operating Temperature	0° to 40° C (32° to 104° F)											
UPS Storage Temperature	-20° to 70° C (-4° to 122° F)											
Relative Humidity	0 to 95%, non-condensing											
Altitude	Up to 3300 feet (1000 meters). Derate temperature for higher elevation.											
Audible Noise at one meter	<57dB			<65dB						<73dB		

\*Additional runtimes available, contact factory. All specifications subject to change without notice.



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