Professional On-Line & Line-Interactive UPS Solutions

True Double Conversion 1.0kVA - 20kVA & 30kVA - 800kVA

Output Power Factor 0.9 - Rack/Tower 2 in 1 Design - LCD Display - Perfect Battery Pack

Knight Series Online Rack UPS System

3.0/6.0kVA LCD Display– 1-P In / 1-P Out with battery bank solution

Knight 3.0 kVA Rack specially designed to with stand high fluctuation power. Built-in input OVCD, it becomes a rugged UPS to protect your equipment against extreme high voltage.
Knight 6.0 kVA Rack is a high flexibility UPS with 2-in-1 design which integrates standard backup UPS and long-run UPS into one unit by simply adjusting charging current via LCD front panel. This high flexibility UPS offers easy-adjustable battery numbers design for diverse applications

Features & Advantages

- **True double-conversion**
- **Microprocessor control optimizes reliability**
- **Input power factor correction**
- **Output power factor 0.8**
- **Adjustable charge current suitable for long backup tme**
- **Wide input voltage (110 V – 300 V)**
- **Converter mode available**
- **ECO mode for energy saving**
- **Generator compatible**
- **Smart SNMP works well with either USB or RS-232 together display allows easy monitoring and access of UPS status**
- **UPS Warranty: 3 years – Battery Bank Warranty: 2 years**


Knight 3kVA


Knight 3kVA rear view


Knight 6kVA

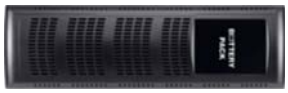

Knight 6kVA rear view

Battery Bank for Knight Rack Series 3.0 kVA UPS

Battery bank	Battery Type	Batteries	Bank Capacity	Dimension
BB-72/9RT	12V/9Ah	6 pcs	72V / 9Ah	600 x 438 x 88 mm
BB-72/18RT	12V/9Ah	12 pcs	72V / 18Ah	600 x 438 x 88 mm

Backup Time: Please see the following Backup Time Table

Battery Bank for Knight Rack Series 6.0 kVA UPS



Battery bank	Battery Type	Batteries	Bank Capacity	Dimension
BB-240/9RT	12V/9Ah	20 pcs	240V / 9Ah	580 x 438 x 133 mm

Backup Time: Please see the following Backup Time Table

Backup Time Table for Knight Series 3.0/6.0 kVA UPS

UPS	Battery Bank	Backup Time (min) 100%	75%	50%
Knight KN-1103RL Rack 3.0 kVA	without Internal Battery	0	0	0
	+ 1 BB-72/9RT - 72V / 9 Ah	5	8,3	12,5
	+ 1 BB-72/18RT - 72V / 18 Ah	10	18	27
	+ 2 BB-72/18RT - 72V / 36 Ah	23	38	56
	+ 3 BB-72/18RT - 72V / 54 Ah	35	57	85
	+ 4 BB-72/18RT - 72V / 72 Ah	46	76	113
Knight KN-1106RL Rack 6.0 kVA	without Internal Battery	0	0	-
	+ 1 BB-240/9RT - 240V / 9 Ah	8	19	-
	+ 2 BB-240/9RT - 240V / 18 Ah	37	46	-
	+ 3 BB-240/9RT - 240V / 27 Ah	49	56	-
	+ 4 BB-240/9RT - 240V / 36 Ah	79	84	-

P	Model	kVA	Form	Datasheet	Brochure	Manual	SNMP Card	Software	Price
1	KN-1103RL	3.0 kVA	Rack	PDF	PDF	PDF	Go to SNMP	Go to Software	Pricelist
2	KN-1106RL	6.0 kVA	Rack						

Specification

Model	KN-1103RL	KN-1106RL
Input		
Capacity	3.0 kVA / 2,4 kW	6.0 kVA / 4,8 kW
Nominal Voltage	200/208/220/230/240 VAC	
Voltage Range	110-300 VAC ± 1%	110-300 VAC ± 1% @50% Load 176-300VAC ± 1% @100% Load

Frequency Range		40Hz ~ 70 Hz	46Hz ~ 54Hz or 56Hz ~ 64 Hz
Phase		Single phase with ground	
Power Factor		≧ 0.99 @ Nominal Voltage (Full load)	
Output			
Output Voltage		200/208/220/230/240VAC	
Voltage Regulation		± 3%	± 1%
Frequency range (Synchronized Range)		47~ 53Hz or 57 ~ 63Hz	46~ 54Hz or 56 ~ 64Hz
Frequency Range (Batt. Mode)		50Hz ± 0.25Hz or 60Hz ± 0. Hz	50Hz ± 0.1Hz or 60Hz ± 0.1Hz
Overload		100%~110%:audible warning 110%~130%: UPS shut down in 30 seconds at battery mode or transfer to bypass when the utility is normal >130%:UPS shuts down immediately at battery mode or transfer to bypass mode when the utility is normal 3:1 (Max)	-
Current Crest Ratio		3:1 (Max)	
Harmonic Distortion		≦ 3 % THD (Linear Load) ≦ 6 % THD (Non-linear Load)	≦ 3 % THD (Linear Load) ≦ 6 % THD (Non-linear Load)
Transfer Time	**Bypass to Inverte**	Zero	
	Inverter to Bypass	4 ms (Typical)	Zero
Waveform (Batt. Mode)		Pure Sinewave	
Efficiency			
AC Mode		90%	89%
Battery Mode		89%	88%
Battery			
Standard Backup	**Battery Type**	Depending on the capacity of external battery bank	
	Numbers	72V (6x 12V)	240V (20x 12V)
	Typical Recharge Time	Depending on the capacity of external battery bank	
	Charging Current (max.)	1.0/2.0/4.0/6.0A ± 10%	4.0/6.0A ± 10%
	Charging Voltage	82.1 VDC ± 1%	8273.1 VDC ± 1%
Indicators			
LCD or LED		Load level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicators	
Alarm			
Battery Mode		Sounding every 4 seconds	
Low Battery		Sounding every second	
Overload		Sounding twice every second	
Fault		Continously sounding	
AC Input & Output Connectors			
AC Input Connerctos		1x IEC 320 C20	Terminal
AC Output Connerctos		4 x IEC 320 C13	Terminal
Standards			
IEC 62040-1 (safety)		Yes	
IEC-62040-2 (EMC)		Yes	
CE		Yes	
Physical dimensions			
Standard Model	**Dimension (mm)**	480 (D) x 438 (W) x 88 (H) (2U)	580 (D) x 438 (W) x 88 (H) (2U)
	Net Weight (kgs)	10	15
Environment			
Humidity		20-90% RH @ 0-40°C (non-condensing)	
Noise Level		Less tahn 50dBa @ 1 Meter	Less tahn 55dBa @ 1 Meter
Management			
Smart RS-232 / USB		Supports Windows 2000/2003/XP/Vista/2008/7, Linux, Unix, and MAC	
Optional SNMP		Power management from SNMP manager and web browser	

**Derate to 80% of capacity in Frequency converter mode and to 80% when the output voltage is adjusted to 100/200/208VAC*
**When using internal batteries from 16-19, the unit will de-rate according to the below formula: P = PRating x N/20.*
***Derate capacity to 60% of capacity in CVCF mode and to 90% when the output voltage is adjusted to 208VAC.*
****If the UPS is installed or used in a place where the altitude is above than 1000m, the output power must be derated one percent per 100m.*

Product specifications are subject to change without further notice