



iTrust II Scalable UPS Array (3-18KVA)

Power Availability

IDEAL PROTECTION FOR MISSION-CRITICAL NETWORK APPLICATIONS



Smart Scalable

Remarkable Redundancy

Powerful Charging Module

Distributed Paralleling

Compact Design

Intelligent Management



SMART SCALABLE

The iTrust[®] is a scalable, modular, flexible solution uniquely designed to meet customer's ever-changing power needs. With an expandable level of redundancy and increase run times through plug-and-play 3 kVA power modules and battery modules, customers can build a power solution specific to their needs. The iTrust[®] can be configured to fit six- or twelve-slot cabinets with the lowest cost of ownership in the 3 ~ 18 kVA range.

Easy Scalable To Expand

Itrust II's frame design provides the user with the maximum adaptability that is demanded in today's ever-changing network environment. Because Itrust II is scalable for redundancy, power capacity or battery runtime or even charging capacity, you'll have greater flexibility in how you can use the system. Configurations can be cost-effectively upgraded without re-investing in a new system or installation.

12-Bay And 6-Bay Models Available

With a 6 Bay, Itrust II provides capacity up to 18KVA in a non-redundancy mode and up to 15KVA in an N+1 mode.

With a 12 Bay, the same total capacity can be achieved and 6 additional rack space can be available for battery and charging module.



Hot Swappable Power Module

Hot-swappable

Hot-swappable modules allow you to add or replace power/battery/charging/display modules without shutting the load down or affecting power to it. In redundant mode, this means no downtime for repair.

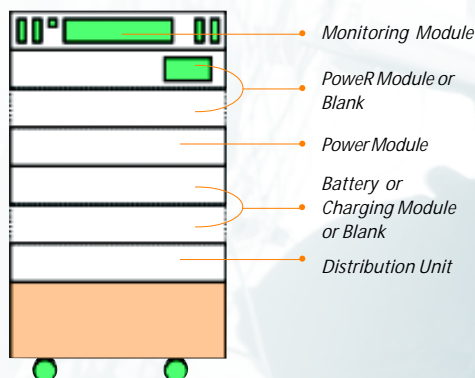
Flexibility and Compatibility

Each module, in spite of Power or Battery or Charging module, can be operated in any of the bays! This will avoid the possible failure caused by installation mistake. Moreover, this design brings you flexibility when configuring a system.

AutoAdaptable

Allows you replace or add new modules (Power/Battery/Charger) without any required re-programming of system control. The monitoring module, which is the 'EYE' of the system, can auto detected the plug-in & out of any module and re-program the system by itself accordingly. This can avoid the 'have to' interrupt of the output when extending your system and significantly

Configuration Diagram on a 12-bay system



- Each bay can be equipped with either PM(Power Module) or CM(Charging Module) or BM(Battery Module);
- To achieve lower barycenter for firm standing, it's recommended to put the heavier BM in lower bay;
- For CM, maximum 40A can be equipped.

HIGHER RELIABILITY ACHIEVED

Distributed Paralleling Technology — Each Power Module are controlled by a separate DSP and the paralleling to each other are done by module itself. The monitoring module is just an ‘eye’ of the system but not as a ‘brain’ of the system as before. In this way, we can assure the safety of the system even with the failure of the monitoring module.

Redundant Power Modules — Parallel redundancy is achieved by adding extra power modules that equally share the electrical load.

Redundant Battery Modules — Multiple battery modules can provide redundancy capability in addition to extended run time

Bypass — The build-in Auto & Manual Bypass assures continuity of power to critical loads and achieve easy and safe maintenance

Redundancy for build-in Ancillary Power Supply — We equip each power module with a unique ancillary power supply and all of them have 3 inputs for redundancy

3

HIGH PERFORMANCE



12-Bay Rack with 6 Power Module at Top

Compact Design — 2U height for each module

Strong Charging Ability — 10A/20A additional charger are available as an option to enlarge the charging ability (maximum 40A) for fast battery recover time on long back-up system

High Efficiency — AC-AC > 90%

Intelligent Control — Latest DSP based control system to achieve higher level precision and reliability

Excellent Input Performance — IGBT based rectifier to achieve 0.99 input power factor

Extremely Wide Input Window — On-line, double conversion topology, achieve -45% - +25% input window

Intelligent Battery Management — Boost/Float Charge Auto Transfer; Programmable Self-test; Temperature Compensation; Precise Back-up Time Prediction etc.

Strong Overload Capability — 125%, 10mins

Low Noise — < 55dB

Intelligent Fan Speed Regulation — Energy saving when load is low, optimize system noise

Self- Diagnosing — Send alert to network manager or service provider via network (with SNMP card) in the event of an internal failure



GREAT MANAGEABILITY



Dry contacts and 3 serial communications port are standard. The unit also includes four slots ports for future multiple user options. They are

Large LCD display — Chinese/English version available

RS232/485 — Local monitoring via serial port

SNMP/WEB Card — Remote monitoring via Internet/Intranet

Modbus Card — adapt for BMS system

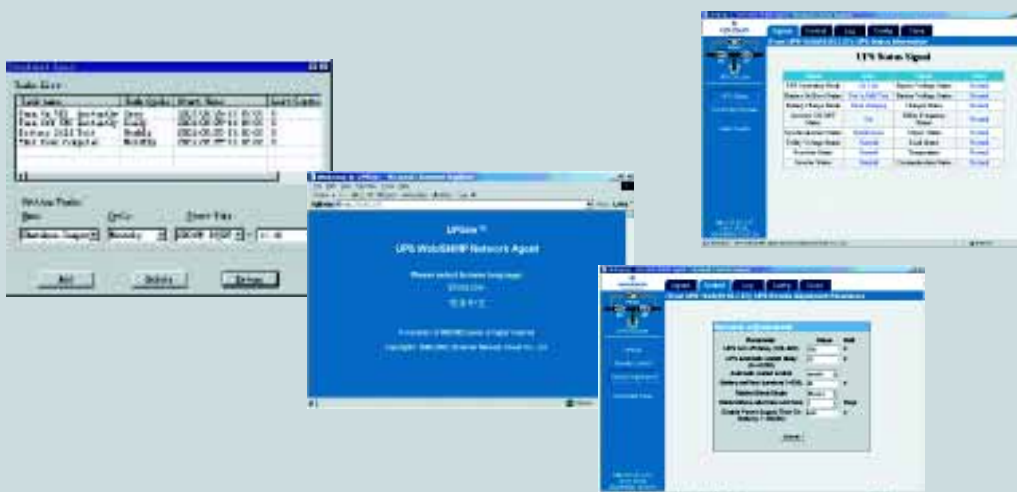
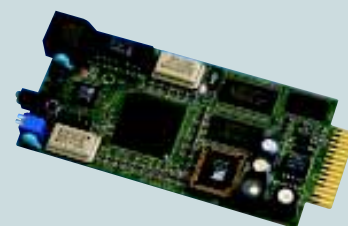
Intelligent Signal Convert Box — Signal converter for analog & digital signal for remote transmit monitoring

MONITORING SOFTWARE

Upsite — Point to point monitoring via RS232

UPSite Plus — Remote monitoring via LAN/WAN, up to 65500 units.

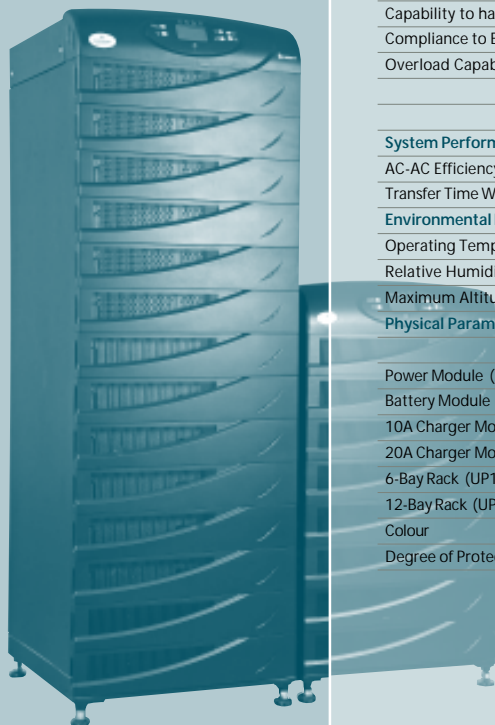
Auto Shutdown Software — As a standard option (Free) of SNMP card to prevent unexpected server shutdowns. The software provides unattended orderly shutdown for one computer or many, and is especially effective with large server farms. This software is available for all popular operating system.





SPECIFICATION

Models		3KVA	6KVA	9KVA	12KVA	15KVA	18KVA
		2.4KW	4.8KW	7.2KW	9.6KW	12KW	14.4KW
Model Name	-	UP11-0180/12(12-Bay)			UP11-0180/6(6-Bay)		
Input Parameters							
Rectifier Type		IGBT-based PFC					
Input Voltage	Vac	220V / 1ph / 3w					
Permissible Input Voltage Range	Vac	120-288VAC (50% output at 120V)					
Permissible Input Frequency Range	Hz	45-55					
Input Power Factor at nominal voltage		>=0.99 without any Filter					
Ace							
Battery							
Battery Type		VRLA					
Nominal Battery Bus	Vdc	96					
Output Parameters							
Inverter Type		IGBT-based					
Output Rating		3/6/9/12/15/18 KVA					
Output Power Factor		0.8					
Output Voltage	Vac	220V / 1ph / 3w					
Output Voltage Regulation	%	1					
Output Frequency	Hz	50					
Output Frequency Tracking Speed	°el	0.2/0.5/1Hz Programmable					
Capability to handle High Crest Factor Load		3:1					
Capability to handle Step Load	%	100					
Compliance to EMC Class-A		Applicable for both Radiated & Conducted					
Overload Capability	% FL	105 for continuous running					
		125 for 10 minutes					
		150 for 10 S					
System Performance							
AC-AC Efficiency	%	> 90					
Transfer Time When Input Fail	S	0					
Environmental Parameters							
Operating Temperature Range	°C	0 to 40 (UPS)					
Relative Humidity	%	0 to 95 (non-condensing)					
Maximum Altitude above MSL	m	1500 (as per IEC 62040 – 3)					
Physical Parameters & Standards							
		Dimension (W × D × H)mm			Weight (kg)		
Power Module (UF-P0030)		436 × 412 × 85			10.4		
Battery Module (UF-B0007-8)		436 × 400 × 36			26		
10A Charger Module (UFP-BCH110/10)		436 × 412 × 85			7.6		
20A Charger Module (UFP-BCH110/20)		436 × 412 × 85			10.4		
6-Bay Rack (UP11-0180/6)		500 × 552 × 994			70		
12-Bay Rack (UP11-0180/12)		500 × 552 × 1492			105		
Colour		Grey					
Degree of Protection		IP21					



WE GROW AS YOUR BUSINESS GROW. THE POWER IS ALWAYS ON.

iTrust II Scalable UPS Array (3-18KVA)

Power Availability

Emerson Network Power Co., Ltd. is a subsidiary company of American Emerson Electric Co.. It has 28 sales offices and 29 service centers all over China.

St. Louis-based US Emerson Electric Co., was established in 1890 and has been one of the renowned international companies. Emerson's expertise covers 5 areas: Process Control; Electronics and Telecommunications; Industrial Automation; Heating, Ventilation and Air Conditioning; and Appliance and Tools. Its innovative solutions have been applied in more than 150 countries. Emerson has 60-plus divisions and 110,000 employees worldwide. It has been named as one of Industry Weekly's notable 100 Best-Managed Companies for five consecutive years. Emerson was ranked #392 in Global Top 500 and realized USD\$15.6 billion sales in FY2003, and again named one of "America's Most Admired Companies" by Fortune magazine.

Emerson Network Power Co., Ltd. uses its industry-leading network power technologies, R&D, manufacturing, global marketing and service platforms, to supply the world with the most comprehensive End-to-End Network Power Total Solution. We bring together technology & engineering to create solutions for the benefit of our customers. The core products include telecom power systems, board mounted power supplies, custom power supplies, UPS, precision air conditionings, outdoor shelter solutions, automatic transfer systems, network power protection products, VRLA batteries, LV & precision distribution cabinets, centralized power and environment monitoring systems, DC power systems and AC motor drive inverters used in electric utility power systems.

EMERSON NETWORK POWER AP OFFICE LOCATIONS

ASIA PACIFIC HEADQUARTERS
EMERSON NETWORK POWER ASIA PACIFIC
7/F, DAH SING FINANCIAL CENTRE, 108 GLOUCESTER ROAD, WANCHAI, HONG KONG
TEL: 852-25722201 FAX: 852-28029250

EMERSON NETWORK POWER (AUSTRALIA) PTY LTD
BLOCK P, REGENTS PARK ESTATE, 391 PARK ROAD, REGENTS PARK, SYDNEY, NSW 2143, AUSTRALIA
TEL: 61-1300367686 FAX: 61-2-97438737

EMERSON NETWORK POWER (CHINA) LTD
NO.1 KEFA ROAD, SCIENCE & INDUSTRY PARK, NANSHAN DISTRICT, SHENZHEN 518057, CHINA
TEL: 86-755-86010808 FAX: 86-755-86010909

EMERSON NETWORK POWER (HONG KONG) LTD
7/F, DAH SING FINANCIAL CENTRE, 108 GLOUCESTER ROAD, WANCHAI, HONG KONG
TEL: 852-25722201 FAX: 852-28310114

EMERSON NETWORK POWER (INDIA) PRIVATE LTD
PLOT NO. C-20, ROAD NO. 19, WAGLE INDUSTRIAL ESTATE, THANE (WEST), MAHARASHTRA 400604, INDIA
TEL: 91-22-25807000 / 2388 FAX: 91-22-25828358

EMERSON NETWORK POWER (INDONESIA), C/O PT EMERSON INDONESIA
WISMA PONDOK INDAH 1ST FLOOR, J. SULTAN ISKANDAR MUDA V TA, JAKARTA 12310, INDONESIA
TEL: 62-21-7507800 FAX: 62-21-7507899

EMERSON NETWORK POWER DIVISION / EMERSON JAPAN LTD
NEW PIER TAKESHIBA, SOUTH TOWER 7F, 1-16-1 KAGAN, MINATO-KU, TOKYO 105-0022, JAPAN
TEL: 81-3-54038594 FAX: 81-3-54032924

EMERSON NETWORK POWER (KOREA)
8TH FL. HONGIK UNIVERSITY KANGNAM ART CENTER, 51-12 BANPO-DONG, SEOCHO-GU, SEOUL 137-044, KOREA
TEL: 82-2-34831500 FAX: 82-2-5927883

EMERSON NETWORK POWER (MALAYSIA) SDN BHD
WISMA GLOMAC 3, BLOCK C, 7TH FLOOR, JALAN SS 7/19, KELANA JAYA, 47301 PETALING JAYA, SELANGOR DARUL EHSAN, MALAYSIA
TEL: 60-3-78036868 FAX: 60-3-78032878

EMERSON NETWORK POWER (PHILIPPINES), INC.
3/F, KING'S COURT 1 BUILDING, 2129 CHINO ROSES AVENUE (FORMERLY PASONG TAMO), MAKATI CITY 1200, PHILIPPINES
TEL: 63-2-8934177 / 178 FAX: 63-2-8166833

EMERSON NETWORK POWER (SINGAPORE) PTE LTD
896 DUNEARN ROAD #03-08, SIME DARBY CENTRE, SINGAPORE 589472, R.O.S.
TEL: 65-64672211 FAX: 65-64670130

EMERSON NETWORK POWER (TAIWAN) LTD
11F, 141 JEN AI ROAD, SECTION 3, TAIPEI 106, TAIWAN, R.O.C.
TEL: 886-2-87713655 FAX: 886-2-87717297

EMERSON NETWORK POWER (THAILAND) CO LTD
123 SUNTOWERS BLDG.-B, 22ND FL, VIBHAVADI-RANGSIT ROAD, LADYAO, CHATUCHAK, BANGKOK 10900, THAILAND
TEL: 66-2-6178260 FAX: 66-2-6178277 / 278

While every precaution has been taken to ensure accuracy and completeness in this brochure, Liebert Corporation assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

©2002 Liebert Corporation. All rights reserved throughout the world. Specifications subject to change without notice.

All names referred to are trademarks or registered trademarks of their respective owners.

AP03DPG01HKR1

