

Rack Mount Type On-line mini UPS

ALS-RM series

A switch that can select the output voltage is set up in the front panel.

The best output voltage corresponding to an environment and usage can be selected by a button operation.

可直接使用前面板的按键来选择与设定适用于现场环境的输出电压。

■ KRM Type KRM模式 100/110/115/120V

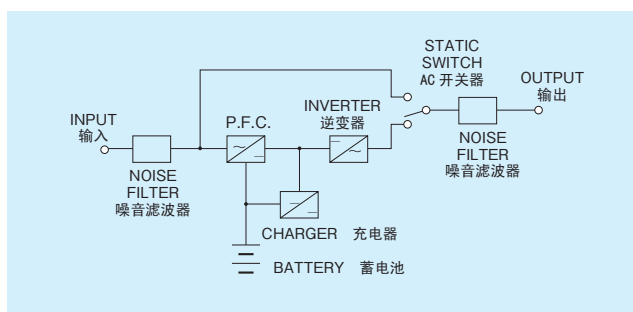
■ KHRM Type KHRM模式 200/220/230/240V



Feature 特长

- It uses the constant inverter feeding power method so that input is switched to a battery without interruption when power supply trouble happens. As a result, steady electric power can be always supplied.
在供电系统发生故障时，UPS 采用在线的方式，马上切换成电池供电，持续供应稳定及高品质的电源。
- A built-in high-efficiency converter eliminates noises such as harmonic and provides clean electric power.
内建高效率变流器，可过滤谐波与噪音并提供更高品质的电力。
- Green mode is adopted; therefore, it is switched to constant commercial feeding power upon low load condition. Low cost performance is achieved in this method.
(※ This function can be canceled from the front panel.)
在低载时，UPS 会自动切换成省电模式来降低电力消耗，可更有效节省电费。
(可在前面板取消此功能设定)
- The cooling fan is a quiet type adjusting the speed according to the feeding method. It is a low noise design easy for environment.
采用低噪音设计的静音型散热风扇，并可依据不同的供电量来调整风扇的转速。
- Exchange of batteries can be conducted more easily from the front side by the hot-swap method and it can be done while operating.
电池组采用热插拔设计，可以在机器运转时直接拔除并进行更换。
- Self-diagnosis function to inform residual battery level. Battery level can be confirmed beforehand.
内建电池自我诊断功能，可事先确定蓄电池的可供电量。
- Information can be exchanged with the interface card (optional).
可使用选配的通讯界面卡做资料传输。

Block Diagram 结构图



The ALS-RM series always outputs from the inverter even in normal condition and stabilizes the voltage and the frequency through a constant inverter feeding power method. The PFC is installed on the input side to defend the power supply environment.

ALS-RM 系列采用在线方式，即使在市电正常时也可一直从逆变器进行输出，并使电压和频率稳定。输入端搭载了 PFC，提供高品质的电源。

机柜型在线式不间断电源装置

ALS-RM系列

Specifications 规格

Model 型号		ALS						
		1.5KRM	1.5KHRM	2KRM	2KHRM	3KRM	3KHRM	5KHRM
Output 输出	UPS Type 供电方式	On-line Uninterruptible Power Supply 在线式供电方式						
	Capacity (KVA) 容量 (kVA)	1.5 (1050W)		2 (1400W)		3 (2100W)		5 (3500W)
	Phase 相位	Single Phase 2 wire 单相二线						
	Voltage 电压	100V	200V	100V	200V	100V	200V	200V
		110V	220V	110V	220V	110V	220V	220V
		115V	230V	115V	230V	115V	230V	230V
		120V	240V	120V	240V	120V	240V	240V
	Voltage Accuracy 电压精度	less than $\pm 3.0\%$ 小于 $\pm 3\%$						
	Transient Response 瞬态响应	less than $\pm 8.0\%$ 小于 $\pm 8\%$						
	Frequency 频率	50/60Hz auto tracking 50/60Hz 自动切换						
	Frequency Accuracy 频率精度	less than $\pm 0.3\%$ 小于 $\pm 0.3\%$						
	Wave form 波形	pure sine wave 正弦波						
	Wave Distortion 波形失真	less than 3.5% (lener load) 小于 3.5% (在线性负载下额定运行时)						
	Over Current Protection 过电流保护	turn to bypass automatically 自动转移到旁路						
Input 输入	Transfer Time 转换时间	Zero for Line or Reverse / 4mSec. Transfer to Bypass or Reverse 0 (逆变器供电⇌蓄电池供电) / 小于 4mSec. (逆变器⇌旁路)						
	Crest Factor 峰值因数	300%						
	Power Factor 功率因数	0.7						
	Backup Time 备用时间	6min 6 分钟		8min 8 分钟		6min 6 分钟		12min 12 分钟
	Phase 相位	Single Phase 2 wire 单相二线						
Mechanica 机器	Voltage 电压	85 ~ 135V	170 ~ 265V	85 ~ 135V	170 ~ 265V	85 ~ 135V	170 ~ 265V	170 ~ 265V
	Equipment efficiency 整机效率	more than 87% 87% 以上		more than 90% 90% 以上			more than 88% 88% 以上	
	Frequency 频率	50 / 60Hz						
Mechanica 机器	Dimension W 尺寸 宽 (mm)	426						
	D 深 (mm)	500						
	H 高 (mm)	88 (2U)		176 (4U) Inverter Unit(2U) + Battery Module(2U) 逆变器单元 (2U) + 蓄电池模块 (2U)			352 (8U) Inverter Unit (4U) +Battery Module (2U) × 2 逆变器单元 (2U) + 蓄电池模块 (2U) × 2	
	Weight (kg) 重量 (kg)	23.2		44.4		44.6		90

Expected battery life: 5 years 蓄电池预期寿命五年

In the by-pass transmission mode, the input voltage is output. 在旁路模式时, 输入电源将不经过 UPS 直接输出。

* Power failure amends time may change by the expected value.

停电补偿时间为预期值, 有时会发生变动。

Attention!
注意!

The ALS-RM series is not suitable for backup power supply of the following loads.
Please do not use it for the purpose, since it can cause damages.

● Inductive load ● Equipment with large inrush current ● Equipment that generates noise and harmonics
Example: Motors, transformers, plants, laser printers, and heaters, etc.

ALS-RM 系列不适用于以下负载的供电。如果使用的话, 会引起故障。请不要使用。

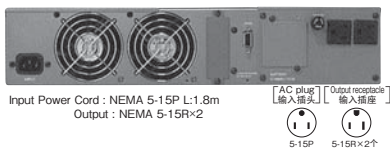
● 感应负载 ● 冲击电流较大的机器 ● 产生噪音和高次谐波的机器 例如: 电机类, 变压器, 成套设备, 激光打印机, 加热器等



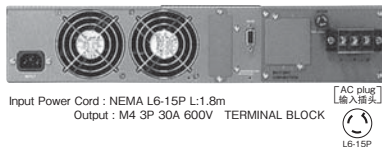
ALS-1.5KRM
ALS-2KRM
ALS-3KRM

External connection terminal 外部连接端子台

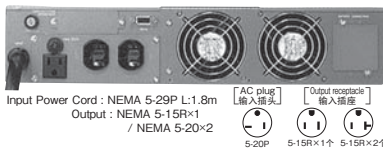
ALS-1.5KRM



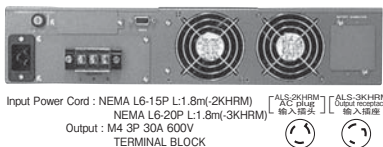
ALS-1.5KHRM



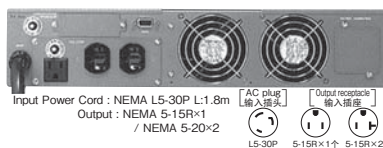
ALS-2KRM



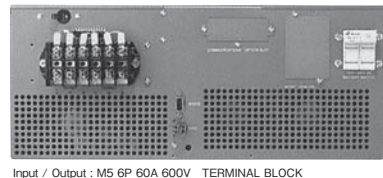
ALS-2KHRM/ALS-3KHRM



ALS-3KRM



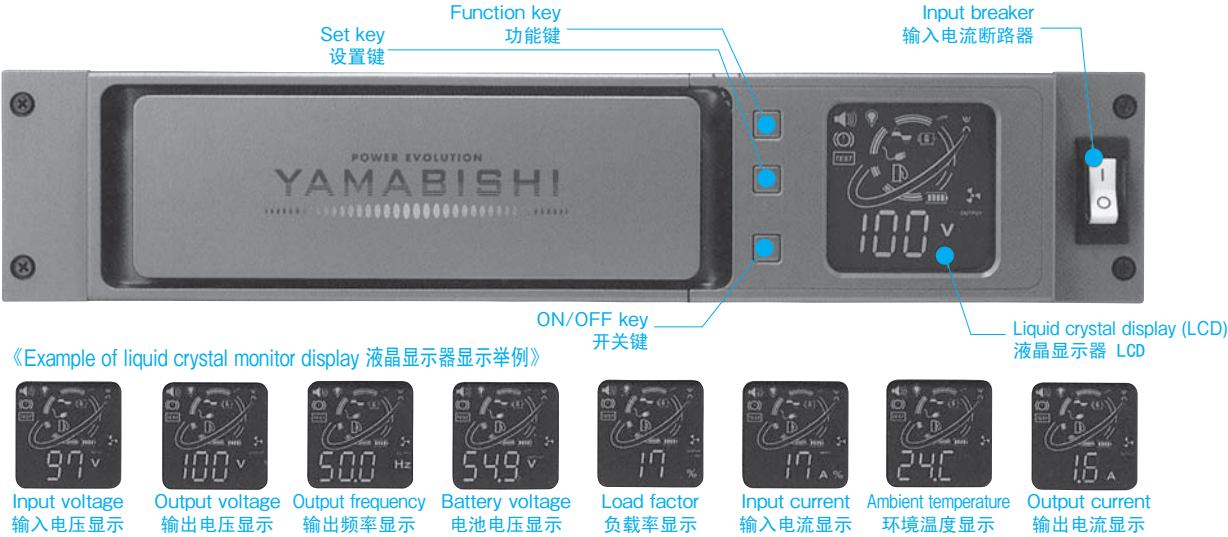
ALS-5KHRM



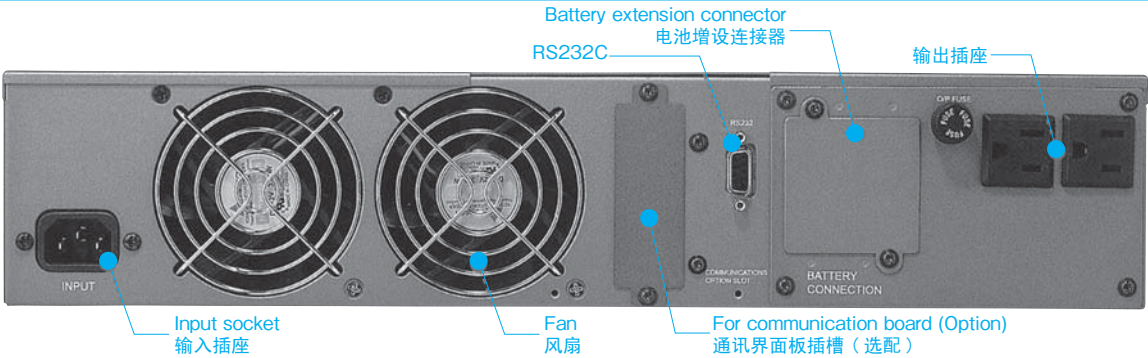
Rack Mount Type On-line mini UPS

ALS-RM series

Front panel 前面板



Output outlet 输出面板



A load factor / average backup time change list 负载率 / 平均可供电时间

	ALS-1.5KRM / ALS-1.5KHRM			ALS-2KRM / ALS-2KHRM			ALS-3KRM / ALS-3KHRM			ALS-5KHRM		
	normal	+1BM	+2BM	normal	+1BM	+2BM	normal	+1BM	+2BM	normal	+1BM	+2BM
100VA(70W)	135min	480min	930min	225min	538min	902min	240min	539min	903min	540min	830min	1154min
200VA(140W)	70min	252min	504min	120min	358min	538min	180min	359min	539min	360min	555min	929min
300VA(210W)	45min	195min	365min	90min	250min	410min	120min	252min	411min	280min	444min	704min
500VA(350W)	30min	115min	214min	50min	156min	250min	75min	158min	252min	180min	295min	467min
1kVA(700W)	10min	53min	104min	20min	77min	119min	30min	78min	120min	90min	158min	240min
1.5kVA(1050W)	6min	29min	58min	10min	47min	82min	20min	48min	83min	60min	106min	167min
2kVA(1400W)				8min	29min	54min	15min	34min	54min	45min	78min	120min
2.5kVA(1750W)							10min	26min	45min	30min	56min	101min
3kVA(2100W)							6min	20min	35min	25min	47min	82min
4kVA(2800W)										18min	39min	55min
5kVA(3500W)										12min	29min	42min

Note: Battery life expectancy may be shortened due to battery deterioration or use environment.
注) 随着使用环境及蓄电池的损耗, 时间将缩短。

机柜型在线式不间断电源装置

ALS-RM系列

Option 选项

● Power management software 电源管理软件

ALS series has shutdown software "UPSilon2000" and "USHA PRO" for the network (optional).

This software is used to confirm the voltage and operating the ALS series UPS with the computer in front. It also protects HDD and data through its shutdown function by automatic shutdown of the computer when the power failure continues for a long time.

针对 ALS 系列, 可选择搭配 UPSilon2000 或 USHA PRO 等电源管理软件使用。(选配)

此两套电源管理软件除了可以藉由计算机确认 ALS 系列 UPS 的电压与操作状态外, 还可以设定自动关机的功能。在长时间处于停电状态时, 可对计算机设定自动关机保护数据与硬碟。

● Power management software UPSilon (Option) 电源管理软件 UPSilon (选配)

UPS is connected via RS232C. Automatic shutdown and monitoring of the UPS state can be setup.

可藉由 RS232 通讯界面与 UPS 连接并对 UPS 进行监控与关机设定。

Corresponding OS 相容的 OS 表	WINDOWS XP / 2000
	Redhat 7.0
	Redhat 9.0
	Mandrake 9.2
	Turbo Linux 8 Server
	FreeBSD2.2.7
	Suse10

* Corresponding OS will be updated on our website.
关于 OS, 可以在网站上进行更新。



■ WINDOWS WINDOWS 版



■ UNIX UNIX 版

● Power management software USHA PRO (Option) 电源管理软件 USHA PRO (选配)

Through Ethernet, automatic shutdown and monitoring of one or more UPS's state can be setup.

此套管理软件可以透过网络监控一台或多台的 UPS 操作状态, 并可做自动开机功能设定。

Corresponding OS 相容的 OS 表	WINDOWS XP / 2000
	Redhat 9.0
	Redhat ES
	Turbo Linux 8 Server
	Suse10

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● Parts 配件

Metal fittings for rack installation

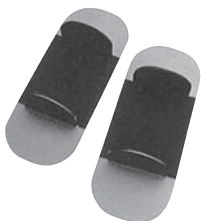
[accessory: screws] (Standard equipment)

They are used to install UPS itself and battery module on 19-inch rack.

They correspond for both JIS and EIA standard.

机架固定片【附螺丝组】(标准配件)

此组件的主要功能是将 UPS 本体与电池模组固定在 19 英寸机柜的滑轨上。适用的机柜规格包含 JIS 与 EIA。



A stand for parallel leaf

(Standard equipment)

A stand to put the main body of UPS and battery module in parallel leaf.

直立式支撑架 (标准配件)

搭配此支撑架, UPS 与电池模组可以直立置放。

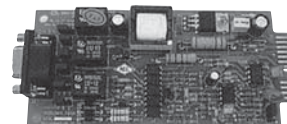


Blank panel (Standard equipment)

A panel that fills a gap made when the main body of UPS and battery module are installed in the rack.

间隔板 (标准配件)

此隔板的功能主要是安装在 UPS 与电池模组间, 来避免组装间隙外露。

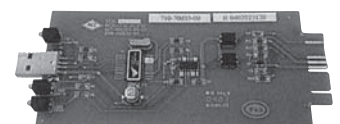


AC card (Option)

Warning point of contact card that sends signals of power failure, decrease of battery capacity and breakdown, etc. (D-sub 9 pins) UPS can be shutdown remotely.

AC 控制卡 (选配)

可以透过此控制卡 (DB9 Relay) 来传送停电, 电池低电压和各种故障讯息。并可使用远端控制来对 UPS 进行关机。



USB card (Option)

Interface card that communicates with UPS management software, Upsilon via USB.

USB 界面控制卡 (选配)

此卡可以透过 USB 界面与 UPS 管理软件 UPSilon 进行通讯。