

This is a family installation manual for Hazardous Location applications in China.

这是一份适用于中国危险场所应用的安装手册。

Read this first!

English

Before operating this device, please read this manual thoroughly and retain this manual for future reference! This device may only be installed and put into operation by qualified personnel. If damage or malfunction should occur during operation, immediately turn power off and send device to the factory for inspection. The device does not contain serviceable parts. The information presented in this document is believed to be accurate and reliable and may change without notice. For any clarifications the English translation will be used.

⚠ WARNING

Risk of electrical shock, fire, personal injury, or death:

- Turn power off before working on the device. Protect against inadvertent re-powering.
- Do not open, modify or repair the device.
- Use caution to prevent any foreign objects from entering the housing.
- Do not use in wet locations or in areas where moisture or condensation can be expected.
- Do not touch during power-on and immediately after power-off. Hot surfaces may cause burns.

Product Description

The UB-series are uninterruptible power supply controllers (DC-UPS controllers), which are used in combination with a 24V power supply and an external battery modules to bridge power failures. When the power supply provides sufficient voltages, the DC-UPS controller charges the battery. When the power supply voltage falls, the energy stored in the battery is released to the DC bus in a regulated process.

Intended Use

This device is designed for installation in an enclosure and is intended for commercial use, such as in industrial control, process control, monitoring and measurement equipment or the like. Do not use this device in equipment where malfunction may cause severe personal injury or threaten human life.

If this device is used in a manner outside of its specification, the protection provided by the device may be impaired.

List of covered units and their ratings:

UB10.241

Input: DC 24V, 17A
Output in power supply mode:
15A (below 60°C), 11.3A (at 70°C)
Output in battery mode:
10A (below 60°C), 7.5A (at 70°C) continuous
15A (below 70°C) up to 5s
Temperature range: -25°C to +70°C
Allowed battery size: 12V, 3.9 to 40Ah
Ex Protection level: Ex ec nC IIC T3 Gc

UB10.242

Input: DC 24V, 18A
Output in power supply mode:
15A (below 50°C)
Output in battery mode:
10A (below 50°C)
15A (below 50°C) up to 5s
Temperature range: -25°C to +50°C
Allowed battery size: 12V, 17 to 130Ah
Ex Protection level: Ex ec nC IIC T3 Gc

UB10.245

Input: DC 24V, 17A
Output in power supply mode:
24V output: 15A (below 50°C), 10A (at 70°C)
12V output: 5A (below 50°C), 4A (at 70°C)
Max. 360W (below 50°C) 180W (at 70°C) for both outputs
Output in battery mode:
24V output: 10A (below 50°C), 7.5A (at 70°C)
12V output: 5A (below 50°C), 4A (at 70°C)
Max. 240W (below 50°C) 120W (at 70°C) for both outputs
Temperature range: -25°C to +70°C
Allowed battery size: 12V, 3.9 to 40Ah
Ex Protection level: Ex ec nC IIC T3 Gc

安装要求!

中文

在操作本产品之前, 请仔细阅读本手册, 并保留本手册以供将来参考!

本产品只能由有相关资质的人员安装和操作。

如果安装或运行过程中发生损坏或故障, 立即切断电源, 并将产品返回厂商检查。

本产品不包含需要维护的零件。

本文件中提供的信息准确、可靠; 如有修改, 恕不另行通知。

本文件翻译自英文版本, 中英文版本之间如有差异, 应以英文版为准。

⚠ 警告

触电、火灾、人身伤害或死亡危险:

- 在设备上执行作业前, 先切断电源。提供保护, 以免设备意外重新通电。
- 由于产品内部有高压, 请勿自行打开或维护本产品。
- 谨防任何异物进入壳体。
- 切勿在潮湿地点或可能会出现湿气或冷凝区域使用该产品。
- 电源在运行期间及刚断电时, 切勿触碰。灼热的表面可能会造成烫伤。

产品介绍

UB 系列是不间断电源控制器 (DC-UPS 控制器), 与 24V 电源和外部电池模块结合使用, 以弥补电源故障。当电源提供足够的电压时, DC-UPS 控制器给电池充电。当电源电压出现故障时, 储存在电池中的能量通过 UB 的调节释放到直流总线上。

预期用途

本装置设计安装在机箱内, 用于商业用途,

如工业控制、过程控制、监测和测量设备或类似设备。

请勿将本装置用于发生故障可能导致严重人身伤害或威胁人类生命的设备中。

如果本装置的使用方式不符合其规格, 本装置所提供的保护可能会受到影响。

涵盖的型号和额定规格:

UB10.241

输入: DC 24V, 17A
电源输出模式:
15A (低于 60°C), 11.3A (在 70°C)
电池输出模式:
10A (低于 60°C), 7.5A (在 70°C) 持续
15A (低于 70°C) 长至 5s
温度范围: -25°C 到 +70°C
允许的电池容量: 12V, 3.9 至 40Ah
防爆等级: Ex ec nC IIC T3 Gc

UB10.242

输入: DC 24V, 18A
电源输出模式:
15A (低于 50°C)
电池输出模式:
10A (低于 50°C)
15A (低于 50°C) 长至 5s
温度范围: -25°C 到 +50°C
允许的电池容量: 12V, 17 至 130Ah
防爆等级: Ex ec nC IIC T3 Gc

UB10.245

输入: DC 24V, 17A
电源输出模式:
24V 输出: 15A (低于 50°C), 10A (在 70°C)
12V 输出: 5A (低于 50°C), 4A (在 70°C)
两种输出均最高 360W (低于 50°C) 180W (在 70°C)
电池输出模式:
24V 输出: 10A (低于 50°C), 7.5A (在 70°C)
12V 输出: 5A (低于 50°C), 4A (在 70°C)
两种输出均最高 240W (低于 50°C) 120W (在 70°C)
温度范围: -25°C 到 +70°C
允许的电池容量: 12V, 3.9 至 40Ah
防爆等级: Ex ec nC IIC T3 Gc

UBC10.241, UBC10.241-N1

Input: DC 24V, 17A
Output in power supply mode:
 15A (below 40°C)
Output in battery mode:
 10A (below 40°C)
 15A up to 5s
Temperature range: 0°C to +40°C
Allowed battery size: battery is included (5Ah)
Ex Protection level: Ex ec nC IIC T3 Gc
 UBC10.241-N1 is the same as UBC10.241 but without assembled battery

UB20.241

Input: DC 24V, 28A
Output in power supply mode:
 25A (below 60°C), 18.8A (at 70°C) continuous
 30A (below 70°C) up to 5s
Output in battery mode:
 20A or 468W (below 60°C), 15A or 351W (at 70°C) continuous
Temperature range: -40°C to +70°C
Allowed battery size: 24V, 3.9 to 150Ah
Ex Protection level: Ex ec nC IIC T4 Gc

All models optional with suffix "-C1" for conformal coated pc-boards

WARNING EXPLOSION HAZARDS!

The device is suitable for use in Group II Zone 2 environments.
 Substitution of components may impair suitability for this environment.
 Do not disconnect the device or operate the control switches unless power has been switched off or the area is known to be non-hazardous.
 A suitable enclosure must be provided for the end product which has a minimum protection of IP54 and fulfils the requirements of the EN 60079-0.
 Do not use batteries other than the original batteries supplied by the manufacturer or batteries, which are approved according to GB/T 3836.3 (EN/ IEC 60079-7) .
 The device shall only be used in an area of at least pollution degree 2, as defined in GB/T 16935.1.
 The device is fulfilled the requirements related to Ex properties of GB/T 3836.1-2021, GB/T 3836.3-2021, GB/T 3836.8-2021.

UBC10.241, UBC10.241-N1

输入: DC 24V, 17A
 电源输出模式:
 15A (低于 40°C)
 电池输出模式:
 10A (低于 40°C)
 15A 长至 5s
 温度范围: 0°C 到 +40°C
 允许的电池容量: 包含电池 (5Ah)
 防爆等级: Ex ec nC IIC T3 Gc
 UBC10.241-N1 和 UBC10.241 是一样的, 区别在于没有安装电池

UB20.241

输入: DC 24V, 28A
 电源输出模式:
 25A (低于 60°C), 18.8A (在 70°C) 持续
 30A (低于 70°C) 长至 5s
 电池输出模式:
 20A 或 468W (低于 60°C), 15A 或 351W (在 70°C) 持续
 温度范围: -40°C 到 +70°C
 允许的电池容量: 24V, 3.9 至 150Ah
 防爆等级: Ex ec nC IIC T4 Gc

以上所有产品型号如带有尾缀-C1, 则表示该产品电路板有敷形涂覆工艺

警告 爆炸危险!

该设备适合在第 II 类第 2 区环境中使用。
 替换部件可能会影响对该环境的适用性。
 除非关闭电源或已知该区域无危险, 否则不要断开设备或操作控制开关。
 必须为最终产品提供一个合适的外箱, 其最低保护等级为 IP54, 并满足 GB/T 3836.1 (EN 60079-0) 的要求。
 不要使用制造商提供的原装电池或符合 GB/T 3836.3 (EN/ IEC 60079-7) 标准的电池以外的电池。
 设备须安装在不低于 GB/T 16935.1 定义的污染等级为 2 级的环境中。
 本产品符合 GB/T 3836.1-2021, GB/T 3836.3-2021, GB/T 3836.8-2021 中防爆性能的要求。