

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 UC-series are DC-UPSs utilizing Electrochemical Double Layer Capacitors (EDLC), which are installed inside the DC-UPS. They can bridge power failures or voltage fluctuations and supply voltage to the DC 24V bus for a certain period, which allows for a safe shut-down of the system. Expensive downtimes, long restart cycles and loss of data can be avoided.

In times when the power supply provides sufficient voltages, the DC-UPS stores energy in the capacitors. In case of a mains voltage fault, this energy is released to the DC bus in a regulated process.

The DC-UPSs are maintenance-free and have a similar lifetime expectancy as power supplies. No regular replacement of the capacitors is necessary as is required for battery based DC-UPS systems.

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 models and their ratings:

UC10.241 Input: DC 24V, 17A
Output in power supply mode:
15A
Output in battery mode:
15A
Temperature range: -40°C to +60°C
Back-up time: 16.5s at 10A or 9s at 15A
Ex Protection level: Ex ec nC IIC T4 Gc

UC10.242 Input: DC 24V, 17A
Output in power supply mode:
15A
Output in battery mode:
15A
Temperature range: -40°C to +60°C
Back-up time: 33s at 10A or 18s at 15A
Ex Protection level: Ex ec nC IIC T4 Gc

UC10.242-73 Same as UC10.242 but with 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 unit or change unit settings 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 GB/T 3836.1 (EN 60079-0).

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.

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, 立即关闭电源, 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, 先关闭电源。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

UC 系列是内部集成电化学双层电容器 (EDLC) 的直流不间断电源。它们可以在电源故障或电压波动时, 向 24V 直流总线提供一段时间的电压, 从而实现系统的安全关闭。可以避免昂贵的停机时间、漫长的重新启动周期和数据损失。

在电源提供足够电压时, 直流不间断电源在电容器内部储存能量。当电源电压发生故障, 这些能量通过直流不间断电源的调节释放到直流母线。

与基于电池的直流不间断电源不同之处在于, 本直流不间断电源是免维护的, 预期寿命与电源类似的, 且无需定期更换电容器。

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:

UC10.241 输入: DC 24V, 17A
电源输出模式:
15A
电池输出模式:
15A
温度范围: -40°C 至 +60°C
缓冲时间: 16.5s 在 10A 或 9s 在 15A
防爆等级: Ex ec nC IIC T4 Gc

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缓冲时间: 33s 在 10A 或 18s 在 15A
防爆等级: Ex ec nC IIC T4 Gc

UC10.242-73 本产品在 UC10.242 基础上增加了电路板敷形涂覆工艺

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。不要断开设备的连接或改变设备的设置, 除非电源已被关闭或已知该区域无危险性。

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 3836.1 (EN 60079-0) 的要求。

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。