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RA009 Programmable Remote Alarm Annunciator

Product Description

The RA009 is a flush mount UPS/IPS remote alarm system. The system can interface with Starkstrom UPS/IPS systems via an RS485 Modbus network and can monitor up to 20 IPS systems and interconnected UPS systems to provide alarm monitoring to clinical areas.

The RA009 has the advantage of using an intuitive fully graphical interface to display all interconnected systems with colour coded alarm states with detailed system alarm information and customisable text for the location of a circuit fault (e.g. Bed 3, Sockets 5 to 10).

The system supports a separate RS485 mimic network for connection to allow all alarms to be mimicked out to other RA009 systems and to 3rd party systems, e.g. Building Management System.

Weight excluding backbox 0.5kg.

Alarms

Home screen with graphical display status for up to 20 IPS panels, UPS system and 10 mimic panels.

Up to 2231 alarms monitored in total, including:

- IPS insulation/load/temperature information
- EDS alarms – location of circuit with insulation fault
- UPS alarms – mains fail, Bypass/UPS on/battery fault
- MCB Trip Monitoring Module
- Starkstrom Auto-Transfer Switch monitoring
- Mimic panel communication monitoring

Alarm statuses can be relayed to up to 10 mimic panels, including Building Management System. Interactive alarm test function provides graphical display of alarm test status to all connected panels.

Audible single tone alert (configurable), mutable for 20 minutes. Visual Red, Yellow and Green alerts on screen compliant with IEC10364 and BS7671 18th edition.

Customisable text labels for IPS panels, alarm panels and final circuits allow easy recognition of alerts.

Connected devices can be enabled/disabled and configured specific to each mimic panel, allowing different alarms to be displayed appropriate to each area served by the UPS/IPS system.

Display

7" display with touch overlay, 600x1024 pixels, 32-bit colour depth

When the system is healthy the screensaver mode with easy-to-read device status takes over after 4 minutes of inactivity. The system returns to the home screen when the screen is pressed, or an alarm occurs. There is also a screen lock function for safe cleaning of the display.

Communication

Connects to Starkstrom EDS400, IPM400, IPM500, MTMM and aSATS devices. (IPM400 firmware rev 9 or later, EDS400 firmware rev 10 or later, SATS firmware R03/R04 or later)

IPS and mimic communication operates on separate networks allowing concurrent communication to improve performance and reliability

Modbus communication allows all UPS/IPS data to be monitored by the Building Management System.

Service access via Bluetooth and USB allows download of log files, transfer of settings, software updates.

Logging

Maximum log file size 1GB (typically approx. 10 million log entries)

The most recent 28 alarms are displayed in the alarm history screen; a scrollbar allows full history of system to be reviewed.

For every log entry the date and time, device and circuit reference are recorded along with alarm text and customisable location text.

When an alarm is acknowledged or cleared this is marked in the log.

Electrical

Input Voltage: 90-264VAC 50-60Hz (Unit to be fed from UPS to allow continued operation during loss of mains supply).
Live, Neutral and Earth power input connections, max cable CSA 6mm^2
Fuse rating: 2A
Power consumption: During typical operation 5W, Max 7W.
Overvoltage category II
Pollution degree 2
Alarm cabling: 2 core screened to IPS panels, 2 core screened to mimic panels if fitted and Building Management System. Belden 9463 or equivalent recommended.
Network: RJ45 network port 1Gbit/s

Physical Dimensions

RA009 fascia: 146mm wide x 205mm tall x 10mm deep
RA009 backbox with PSU: 134mm wide x 195mm tall, mounting depth 50-60mm.
RA009 retrofit fascia (for upgrading existing RA003 system): 174mm wide x 250mm tall x 10mm deep

Product Legislation and Standards of Conformity

EU Ref	EU Title	UK Ref	UK Title
2014/ 35/EU	Low Voltage Directive	2016/ 1101	Electrical Equipment (Safety) Regulations 2016
2014/ 30/EU	Electromagnetic Compatibility Directive	2016/ 1091	Electromagnetic Compatibility Regulations 2016
2011/ 65/EU	Restriction of Hazardous Substances (RoHS) Directive	2012/ 3032	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Reference	Title	Edition
EN 60529:1992+A2	Degrees of protection provided by enclosures (IP Code)	2013
IEC 61000-6-3	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for equipment in residential environments	2020
IEC 60364-7-710	Low-voltage electrical installations - Requirements for special installations or locations. Medical locations	2002
IEC 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements	2023
IEC 61557-8+C1	Electrical safety in low voltage distribution systems up to 1000 Vac and 1500 Vdc - Equipment for testing, measuring or monitoring of protective measures - Part 8: Insulation monitoring devices for IT systems	2015
IEC 61557-9+C1	Electrical safety in low voltage distribution systems up to 1000 Vac and 1500 Vdc - Equipment for testing, measuring or monitoring of protective measures - Part 9: Equipment for insulation fault location in IT systems	2015