Guardian GES

The Guardian GES prewired assembly is engineered to streamline the installation of Guardian technology.

Easily installed alongside existing distribution boards, the Guardian continuously monitors the building's electricity supply and infrastructure. It helps identify faults early, ensuring safe isolation or timely alerts to the building owner, preventing potential issues before they escalate into catastrophic failures.

Detected faults

Broken Neutral,

- Dangerous touch voltage (TNCS)
- Can create 400V voltage levels on single-phase 230V loads causing serious damage to appliances
- Potential fire hazard

High and Low voltage,

- Overheating - Potential fire risk
- Erratic performance of equipment
- Damage to appliances, reduced equipment lifespan

Phase imbalance

- Reduced Equipment Efficiency
- Equipment Damage
- Increased Energy Losses

Stray voltage

- Serious risk of electrocution
- Equipment damage
- Fire Hazard
- Interference with electronics

Product Features and Benefits:

- Pre-wired for Easy Installation: Simplifies setup, saving time and effort.
- Visual Display: Provides clear alerts and status updates at a glance.
- Cloud Connectivity: Ethernet connection enables seamless integration with a cloud-based platform for remote monitoring and management.
- Modbus Compatibility: Connects effortlessly with third-party building management systems.
- Load Isolation: Capable of isolating loads via external contactors or matt:e 5-pole ARDs for enhanced safety.
- Fire Alarm Integration: Supports simple integration with fire alarms to automatically isolate loads during activation, ensuring compliance and safety.

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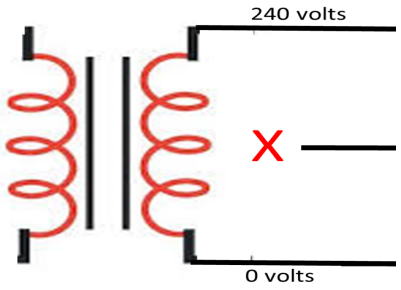
Guardian

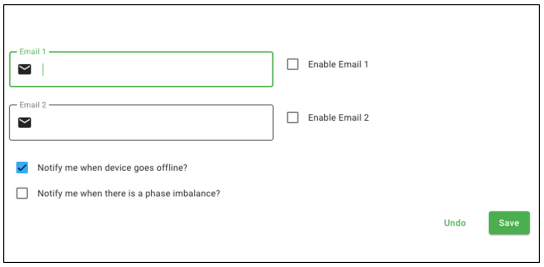
a revolution in electrical safety

With the latest firmware update (V1.2, November 2024, Firmware 006_001_23), the Guardian introduces enhanced safety and monitoring features:

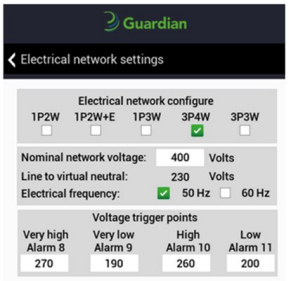
Advanced detection of loss of neutral and stray voltages in split-phase systems, with the ability to alert users and isolate the load automatically.

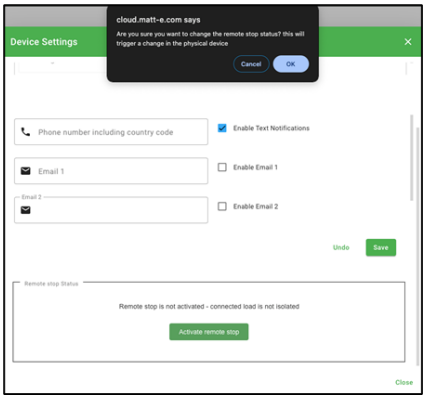


Monitoring of phase imbalances exceeding 3%, with actionable insights to optimize electrical installations and alerts viewable via the portal.



A screen lock function to prevent unauthorized access, complemented by a simplified, user-friendly settings interface.





Remote load isolation directly from the cloud portal for added convenience and control.

These updates significantly enhance the Guardian's functionality, providing smarter, safer, and more efficient electrical management.

matt:e Caring about your World

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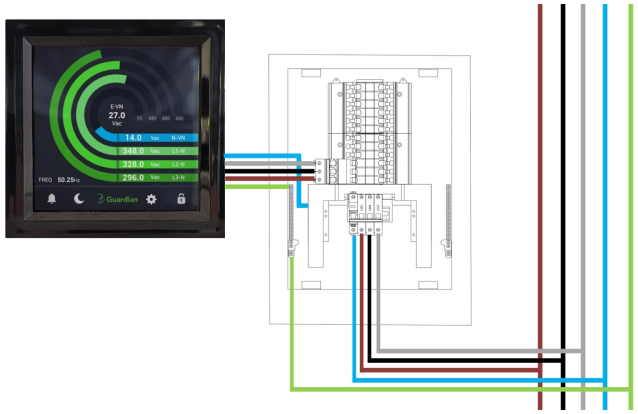
Simple Installation:

The Guardian GES is designed for hassle -free setup, easily installed alongside existing distribution or panel boards and connecting directly to the building's power supply.

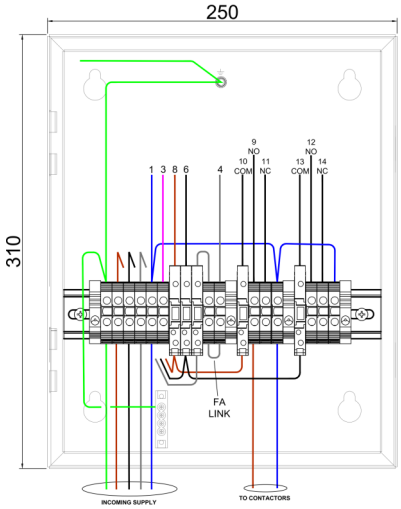
For access to the cloud-based portal, the device must be hardwired to the local router via an Ethernet connection.

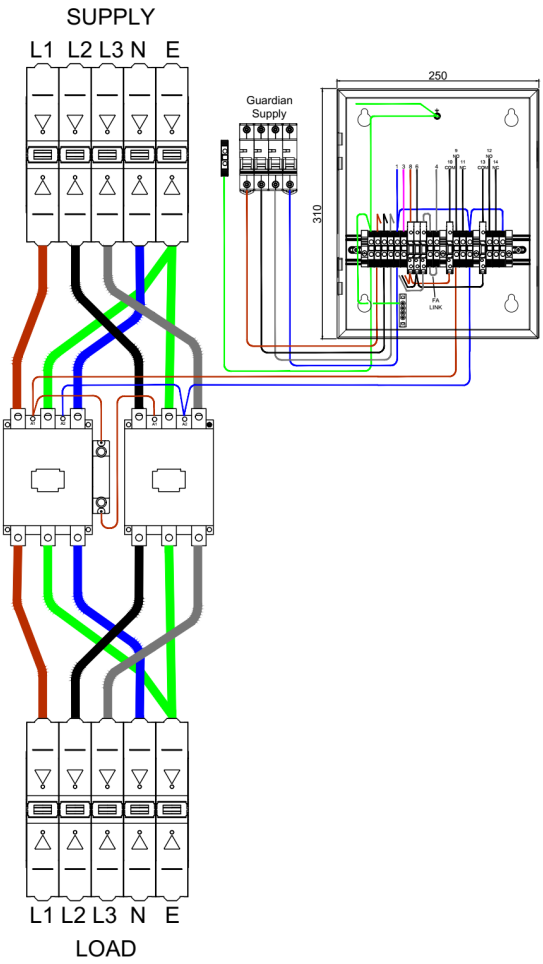


Safe Isolation of Large Loads:

The Guardian device, with its parallel connection, is compatible with installations of any size.

For isolating critical loads, it supports external contactors or UV release mechanisms on MCCBs, ensuring reliable and safe operation.





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Device only specification

SPECIFICATION

EN: ENGLISH	DE: DEUTSCHE	FR: FRANÇAIS	ES: ESPAÑOL	IT: ITALIANO	VALUE
Measurement Inputs	**Eingänge**	**Entrées**	**Entradas**	**Ingressi**	
Max Load	Maximale Belastung	Charge maximale	Carga máxima	Carico massimo	**10W**
Single Phase	Einphasen	Monophasé	Monofásico	Monofase	**100-277 VAC 50-60Hz**
Split Phase	Split-Phase	Biphasé	Bifásico	Bifase	**100-277 VAC 50-60Hz**
3 Phase	Dreiphasen	Triphasé	Trifásico	Trifase	**100-480 VAC 50-60Hz**
Outputs	**Ausgänge**	**Les sorties**	**Salidas**	**Uscite**	
Relay Contacts	Relaiskontakte	Coordonnées du relais	Contactos de relé	Contatti relè	**DC-13: 30V / 5A MAX AC-15: 277V / 5A MAX**
Min. recommended wetting current	Empfohlener Mindestbenetzungsstrom	Courant de mouillage mini	Corriente de humectación mín.	Corrente di bagnatura min.	**50mA**
Connections	**Anschlüsse**	**Connexions**	**Conexiones**	**Connessioni**	
Type	Typ	Type	Tipo	Tipo	**Spring Clamp**
Wire type	Draht-Typ	Type de câble	Tipo de cable	Tipo di filo	**Copper Solid or Stranded**
Min. cable temperature rating	Min. Temperaturfestigkeit	Température de fonctionnement mini	Clasificación de temperatura mín.	Valore temperatura min.	**65°C (149°F)**
Wire strip length	Abisolierlänge	Longueur de dénudage des câbles	Largo de pelado del cable	Lunghezza striscia filo	**6.5mm to 7mm (0.26" to 0.28")**
Wire gauge	Drahtstärke	Section des câbles	Calibre del cable	Diametro dei cavi	**0.8mm² - 3.3mm² (18AWG to 12AWG)**
Environment	**Umgebung**	**Conditions environnmentales**	**Medio ambiente**	**Ambiente**	
Temperature - operating	Betriebstemperatur	Température de fonctionnement	Temperatura - funcionamiento	Temperatura - funzionamento	**–20°C to +60°C (-4°F to +140°F)**
Temperature - storage	Lagertemperatur	Température de stockage	Temperatura - almacenamiento	Temperatura - conservazione	**–20°C to +70°C (-4°F to +158°F)**
Altitude	Betriebshöhe	Altitude	Altitud	Altitudine	**2000 metres**
Relative Humidity (non-condensing) - Continuous	Relative Luftfeuchtigkeit (nicht kondensierend) - Permanent	Hygrométrie permanente (sans condensation)	Humedad relativa (sin condensación) - Continua	Umidità relativa (senza condensa) - Continua	**1 – 85 %**
Measurement category	Messkategorie	Catégorie de mesure	Categoría de medición	Categoria di misura	**II**
Overvoltage category (IEC664)	Überspannungskategorie (IEC664)	Catégorie de surtension (CEI664)	Categoría de sobretensión (IEC664)	Categoria di sovratensione (IEC664)	**II**
Pollution Degree (IEC664)	Entstörgrad (IEC664)	Niveau de pollution (CEI664)	Grado de contaminación (IEC664)	Grado di inquinamento (IEC664)	**2**
IP rating (from the front)	Schutzklasse (an der Vorderseite)	Indice IP (face avant)	Clasificación IP (al frente)	Valore IP (dalla parte anteriore)	**IP20**

Guardian

UK Declaration of Conformity

We matt:e Ltd

Of 1 Langley Brook Business Park
Middleton
Tamworth
England
B78 2BP

In accordance with the following Directives:

The Electrical Equipment (Safety) Regulations 2016
The Electromagnetic Compatibility Regulations 2016
The Restriction of the Use of Certain Hazardous Substances in Electrical Equipment (Amendment) Regulations 2021

Hereby declare under our sole responsibility that:

Equipment matt:e Guardian
Model number(s) APM-VT-PWR-HV-D345

Are in conformity with the applicable requirements of the following documents:

Reference	Title	Edition (Date)
IEC 61010-1 laboratory use	Safety requirements for electrical for measurement, control, and	3.0 (2010-06)
IEC 61326-1	EMC requirements for equipment designed for measurement, Control and laboratory use	2.0 (2012-07)
IEC 61000-4-2	Electrostatic discharge (ESD) immunity test	2.0 (2008-12)
IEC 61000-4-3	Radiated, radio-frequency, electromagnetic field immunity test	3.2 (2010-04)
IEC 61000-4-4	Electrical fast transient/burst immunity test	3.0 (2012-04)
IEC 61000-4-5	Surge immunity test	3.0 (2014-05)
IEC 61000-4-6	Immunity to conducted disturbances, induced by radio-frequency fields	4.0 (2013-10)
IEC 61000-4-8	Power frequency magnetic field immunity tests	2.0 (2009-09)
IEC 61000-4-11	Immunity to voltage dips, interruptions and variations	2.0 (2004-03)
CISPR-11	Conducted Emissions	6.0 (2016-06)
EN55032	Radiated Emissions	2012 + AC 2013

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with all applicable Essential Requirements of the Directives.

Signed by: .....
Name: Richard Winter
Position: Director
Done at: Tamworth
On: 19/06/2023

UK CA