GCCP 1.5 Control Panel

Image shown may not reflect actual configuration

GCCP 1.5 - Control Panel

The GCCP 1.5 is an easy to use Synchronizing Auto Start Control Module suitable for use in a multi-generator load-share system,designed to synchronize up to 32 generators including electronic and non-electronic engines. The GCCP 1.5 monitors the generator and indicates operational status and fault conditions, automatically starting or stopping the engine on load demand or fault condition.

Description

System alarms are annunciated on the LCD screen (multiple language options available), illuminated LED and audible sounder. The event log will record 250 events to facilitate easy maintenance. An extensive number of fixed and flexible monitoring, metering and protection features are included as well as comprehensive communication and system expansion options. Using the PC Configuration Suite Software allows easy alteration of the operational sequences, timers and alarms. With all communication ports capable of being active at the same time, the genset controller is ideal for a wide variety of demanding load share applications.

Full Range of Attachments

- Wide range of system expansion attachments, designed specifically to work with the GCCP controller
- Flexible packaging options for easy and cost effective installation

Benefits

- 132 x 64 pixel ratio display for clarity
- Real-time clock provides accurate event logging
- Ethernet communication provides built in advanced remote monitoring.
- Can be integrated into building management systems (BMS) and programmable logic control (PLC)
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- Advanced Internal PLC editor allows user configurable functions to meet specific application requirements.
- Generator load demand
- Automatic hours run balancing
- Mains (Utility) de-coupling/Test mode
- Dead bus sensing
- Bus failure detection
- Direct governor and AVR control
- Volts and frequency matching
- kW and kVAr load sharing
- Dead bus synchronizing

Features

- 4-line back-lit LCD text display
- LED and LCD alarm indication
- Comprehensive synchronising & load-sharing capabilities (uL site certification required)
- Built-in AVR control
- Base load (kW export) functionality
- Positive & negative kVAr export control
- Mains (utility) de-coupling protection
- Generator power (kW, kV Ar, kV A & pf) monitoring
- Overload (kW & kV Ar) protection
- Reverse power (kW & kV Ar) protection
- Unbalanced load protection
- Independent earth fault protection
- Advanced integral PLC editor
- 11 Configurable inputs, 8 Configurable outputs
- Configurable flexible sensor inputs
- User configurable RS232, RS485 and Ethernet communications
- MODBUS RTU & TCP support
- User configurable MODBUS pages
- Advanced SMS control and fault messaging (additional GSM modem required)
- Easy access diagnostic pages including modem diagnostic pages
- Data logging and trending
- CAN, MPU and Frequency speed sensing
- Front panel editing with PIN protection
- Configuration Suite PC software via USB
- LED and LCD alarm indication
- Configurable display languages
- USB connectivity
- Customisable status screens
- Five key menu navigation
- 3 Configurable maintenance alarms
- Multiple date and time run scheduler
- Manual fuel pump control
- Charge alternator failure protection
- Load switching (load shedding and dummy load control
- Configurable event log (250)
- Backed up real time clock

World Wide Product Support

- Cat dealers provide extensive pre and post sale support
- Cat dealers have over 1,600 dealer branch stores operating in 200 countries

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SPECIFICATIONS

DC SUPPLY

CONTINUOUS VOLTAGE RATING
8 V to 35 V continuous

CRANKING DROPOUTS
Able to survive 0 V for 50 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries.

MAXIMUM OPERATING CURRENT
460 mA at 12 V, 245 mA at 24 V

MAXIMUM STANDBY CURRENT
375 mA at 12 V, 200 mA at 24 V

CHARGE FAIL/EXCITATION RANGE
0 V to 35 V

GENERATOR & BUS

Voltage Range: 15V to 333 V AC (L to N)
Frequency Range: 3.5 Hz to 75 Hz

MAGNETIC PICK-UP

Voltage Range: +/- 0.5 V to 70 V
Frequency Range: 10,000 Hz (max)

BUILT-IN AVR CONTROL

MINIMUM LOAD IMPEDANCE
1000Ω, Fully isolated

GAIN VOLTAGE
0 V to 10 V DC, Fully isolated

OFFSET VOLTAGE
+/- 10 V DC, Fully isolated

OUTPUTS

OUTPUT A (FUEL)
15 A DC at supply voltage

OUTPUT B (START)
15 A DC at supply voltage

OUTPUTS C & D
8 A AC at 250 V AC (Volt free)

AUXILIARY OUTPUTS E, F, G, H, I & J
2 A DC at supply voltage

DIMENSIONS

OVERALL
240 mm x 181 mm x 42 mm (9.4" x 6.8" x 1.6")

PANEL CUTOUT
220 mm x 160 mm (8.7" x 6.3")

MAXIMUM PANEL THICKNESS
8 mm (0.3")

OPERATING TEMPERATURE RANGE
-30 Deg C to +70 Deg C

STORAGE TEMPERATURE RANGE
-40 Deg C to +85 Deg C

Standards
UL, cUL Listed
Electro-Magnetic Compatibility BS EN 61000-6-2/6-4
Electrical Safety: BS EN 60950
Temperature: BS EN 60068-2-1, BS EN 60068-2-2
Vibration: BS EN 60068-2-6
Humidity: BS EN 60068-2-30, BS EN 60068-2-78
Shock: BS EN 60068-2-27
Degrees of protection provided by enclosures: BS EN 60529 Ingress Protection: IP65 - Front of module when installed into the control panel with the optional sealing gasket.

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OPTIONAL MODULES

Remote annunciator

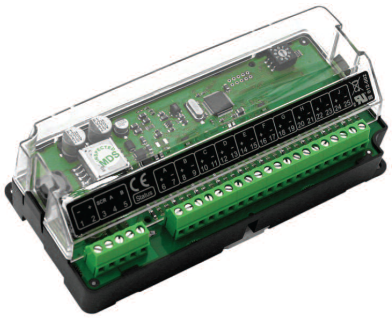
The Remote annunciator with an integral sounder is an output LED expansion module is designed to display a maximum of eight individual LED indications up to a maximum distance of 1km (0.6 miles).The Annunciator will consist of two modules to provide a 16 Channel Fault annunciation. The Panels are fitted with removable label cards which can be used to identify the standard NFPA alarms.

Key Features:

- Panel mount
- Vertical design
- In-built alarm
- Alarm mute button
- Max of 80 configurable LED's

Input Expansion Module

The Input Expansion module is used in conjunction with supported GCCP controllers to provide additional, flexible, input functionality. The module's ID switch is configurable from the module and the 10 inputs can be configured from within the 'host controller'. The inputs can be configured in a number of ways to connect to digital switches, resistive sensors, 0-10 V DC signals or 4-20 mA signals.

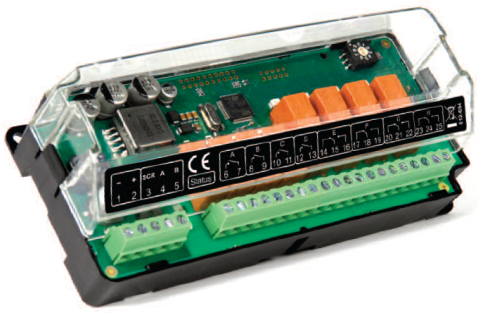


Key Features:

- DIN rail & chassis mount.
- Power on/link lost LED.
- 1.2km (0.75 Miles) working range.
- Connect maximum of 4 x Input Modules to a single host controller.
- Max of 40 configurable inputs.

Output Expansion Module

The output relay expansion module for use with compatible GCCP control modules has been designed to extend a host module's output capabilities.
A maximum of 10 relays can be connected to an individual module at any one time.
All outputs are configurable via the host controller.



Key Features:

- Power On/Link Lost LED ID SWITCH
- 10 expansion modules can be connected to 1 host controller at a time
- 1 km (0.6 Miles) working range.
- Max of 80 relay contacts.
- Terminal strip connection for quick and easy set-up