



Overview

A highly advanced integrated genset control system, this device provides genset control, transfer switch control, metering, protection, and programmable logic in a simple, easy-to-use, reliable, rugged, and cost effective package.

Features

- Generator metering (includes three-phase mains)
- Engine and generator protection: 27, 32R, 40Q, 59, 810/U
- Optional enhanced generator protection: 47, 51, 78, and 81ROCOF
- BESTCOMSPPlus® Software
 - Programming and setup
 - Intuitive and powerful
 - Remote control and monitoring
 - Programmable logic
 - USB communications
- Automatic transfer switch control
- Automatic synchronizer (optional)
- Exercise timer
- SAE J1939 engine ECU communications
- Automatic generator configuration detection
- Expandable functionality via add-on modules
 - [CEM-200 Contact Expansion Module](#)
 - [AEM-200 Analog Expansion Module](#)
- Multilingual capability
- Remote communications to Basler's RDP-110 (remote display panel)
- Sixteen programmable contact inputs
- Up to 15 contact outputs: 3 contacts rated for 30 Adc and up to 12 programmable contacts rated for 2 Adc

Benefits

- Provides integrated engine-genset control, protection, and metering in a single package.
- The Offline Simulator, provided in BESTlogic™ Plus, helps test and troubleshoot logic without the need for expensive hardware.
- Flexible programmable logic and programmable I/O make it easy to expand the DGC-200's inputs and outputs with the CEM-200 (Contact Expansion Module) and the AEM-200 (Analog Expansion Module). This saves time and money by eliminating unnecessary external PLCs and control relaying.

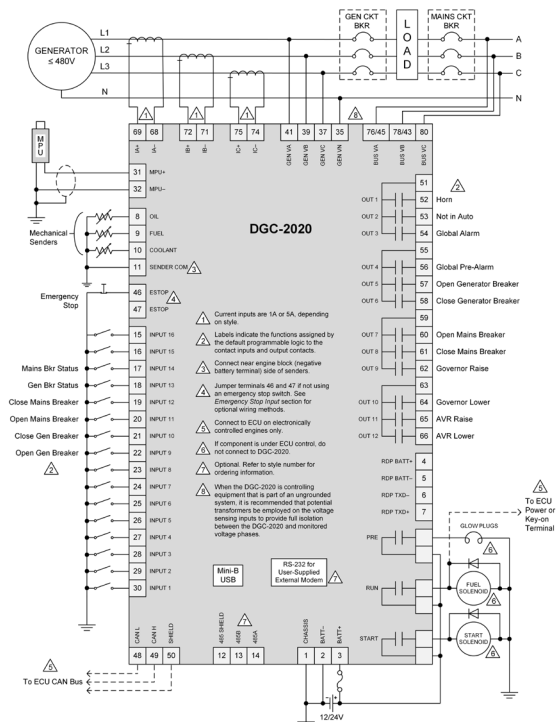


Figure 1 - DGC-200 Connection Diagram for a Typical Application

Specifications

Power Supply

Nominal: 12 or 24 Vdc
 Range: 6 to 32 Vdc
 Battery Ride Through: Starting at 10 Vdc, withstands cranking ride-through down to 0 V for 50 ms

Power Consumption

Sleep Mode: 5 W
 Normal Operation: 7.9 W
 Maximum: 14.2 W

Current Sensing

1 A Sensing: 0.02 to 1.0 Aac, continuous
 2 Aac for 1 second
 5 A Sensing: 0.1 to 5.0 Aac, continuous
 10 Aac for 1 second
 Burden: 1 VA

Voltage Sensing

Range: 12 to 576 Vrms L-L
 Frequency Range: 10 to 72 Hz for 50/60 Hz style,
 10 to 480 Hz for 400 Hz style
 Burden: 1 VA
 One-second Rating: 720 Vrms

Contact Sensing

Contact Inputs (16): Accepts normally open (N.O.), Dry Contacts, programmable
 Emergency Stop: Normally closed (N.C.), Dry Contact

Engine Speed Sensing

Magnetic Pickup
 Voltage Range: 6 to 70 Vpp
 Frequency Range: 32 to 10,000 Hz
 Generator Frequency
 Generator Voltage Range: 12 to 576 Vrms
 via ECU over J1939

Resistive Senders

Fuel Level Sender: 0 to 250 ohm nominal
 Coolant Temp Sender: 10 to 2,750 ohm nominal
 Oil Pressure Sender: 0 to 250 ohm nominal

Output Contacts

Fuel Solenoid, Engine Crank,
 Pre-Start Relays Rating: 30 Adc at 28 Vdc-make, break, and carry
 Programmable Relays: Up to 12
 Rating: 2 Adc at 28 Vdc-make, break, and carry

Protection

Generator: 27, 32R, 40Q, 59, 81O/U (standard)
 47, 51, 78, 81, ROCOF (optional)
 Engine: Oil pressure, coolant temperature, overcrank, ECU-specific elements, and diagnostic reporting.

Agency Approvals

UL recognized (Canadian and US safety standards),
 UL 6200:2019 recognized, NFPA compliant,
 CE compliant, UKCA compliant, China RoHS compliant,
 FCC 47 CFR Part 15 compliant

Communication

USB Port: USB 2.0, Mini-B jack
 RS-485 (optional): 9600 baud, 8 data bits, no parity
 RDP-110 (optional): 4,000 ft (1,219 m) max wire length, 20 AWG (0.52 mm²) min wire size
 Modem (optional): DB-9 connector (male)
 CAN Bus: 250 kb/s communication rate, 1.5 to 3 Vdc differential bus

Environmental

Operating Temp: -40°C to 70°C (-40°F to 158°F)
 Storage Temp: -40°C to 85°C (-40°F to 185°F)
 Humidity: IEC 68-2-38
 Salt Fog: ASTM B 17-73, IEC 68-2-11
 Ingress Protection: IEC IP54 for front panel
 Shock: 15 G in three perpendicular planes
 Vibration
 5 to 29 Hz: 1.5 G peak
 29 to 52 Hz: 0.036" (0.914 mm) double amplitude
 52 to 500 Hz: 5 G peak

Physical

Weight: 4.4 lb (2 kg)
 Dimensions (WxHxD): 11.77 x 8.27 x 2.69 inches
 (299 x 210 x 69 mm)

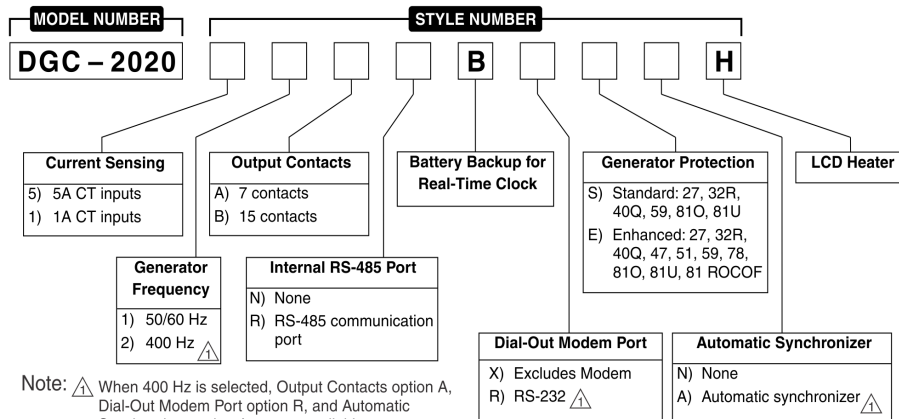
For complete specifications, download the instruction manual at www.basler.com.

Visit the Basler website!

Scan the QR code for more information on the DGC-2020 Digital Genset Controller.



Style Chart



Related Products

BE1-FLEX Protection, Automation and Control System

Designed to be configurable for nearly any Power System Application.

DECS-250 Digital Excitation Control System

Provides precise voltage, var and Power Factor regulation, and exceptional system response, plus generator and motor protection.

Accessories

AEM-2020 Analog Expansion Module

Easily increases the functionality by seamlessly adding analog inputs and outputs.

CEM-2020 Contact Expansion Module

Each module adds 10 inputs and 24 outputs that are easily programmed through BESTCOMSPiUs® for easy integration into the system.

RDP-110C Remote Display Panel

Provides remote alarm and pre-alarm indication and annunciation of system status, easily meeting the annunciation requirements of NFPA-110 applications.