



	DGC-2020ES	DGC-2020
Features		
Front Panel LCD with Pushbuttons	Yes	Yes
Front Panel Programming	Yes	Yes
Removable Terminal Strips	Yes	Yes
Real Time Clock	Yes	Yes
Battery Backup	Yes	Yes
Engine Metering	Yes	Yes
Generator Voltage Metering	Yes, 3-Phase	Yes, 3-Phase
Generator Current Metering	Yes, 3-Phase	Yes, 3-Phase
Bus Voltage Metering	Optional, 3-Phase	Yes, 3-Phase
Frequency Metering	Generator and Optional Bus	Generator and Bus
Battery Voltage Monitoring	Yes	Yes
ECU Data	Optional	Yes
Diagnostic Trouble Codes	Optional	Yes
Remote Start/Stop Capabilities	Yes	Yes
Remote Display Panel	Optional RDP-110	Optional RDP-110
Event Log	Yes, up to 30 Events	Yes, up to 30 Events
Audible Horn	Optional	Optional
Emergency Stop Input	Optional	Optional
Battle Override	Yes	Yes
High Line/Low Line Override	Yes	Yes
Alternate Frequency Override	Yes	Yes
Single Phase Override	Yes	Yes
Selectable Pre-Alarms	Yes	Yes
Selectable Alarms	Yes	Yes
Maintenance Due Alarm	Yes	Yes
Breaker Hardware Management	Yes	Yes
Cranking Ridethrough	0 Vdc for 50mSec Typical (starting from 10 Vdc nominal voltage)	0 Vdc for 50mSec Typical (starting from 10 Vdc nominal voltage)
Special Features Functions		
VAR Sharing over Ethernet	No	via the LSM-2020
kW Sharing over Ethernet	No	via the LSM-2020
kW Sharing over a Load Share Line	No	via the LSM-2020
Speed Trim	No	via the LSM-2020
VAR/pf Control	No	via the LSM-2020
Generator Sequencing	No	via the LSM-2020
Demand Start/Stop	No	via the LSM-2020
Automatic Synchronizer	No	via the LSM-2020
Governor Biasing	No	via the LSM-2020
AVR Biasing	No	via the LSM-2020
400Hz Capabilities	No	Optional
Remote Control	Yes, via USB	Yes, via USB, LSM-2020 or Modbus
Inputs and Outputs		
Analog Sender Inputs	Optional, 3 Resistive	3 Resistive
Digital Inputs	7	16
Digital Outputs	4	up to 15
Generator Voltage Input Rating	5-576Vac L-L	0-576Vac L-L
Generator Current Input Rating	1A or 5A	1A or 5A
Bus Voltage Input Rating	5-576Vac L-L	5-576Vac L-L
Frequency Input Method	MPU/Generator Voltage/Optional ECU	MPU/Generator Voltage/ECU
MPU Input Voltage Rating	6-70Vpp	6-70Vpp
MPU Input Frequency Rating	32Hz to 10kHz	32Hz to 10kHz
Battery Voltage Rating	6-32Vdc	6-32Vdc
Contact Ratings	(3) 5A & (4) 2A @30 Vdc	(3)30A & (12) 2A @30 Vdc
BESTCOMSPlus® PC Software		
Programmable via a PC	Yes	Yes
Configurable Protection	No	Yes
Configurable Elements	Yes	Yes
Programmable Logic via BESTlogic™ Plus	Yes	Yes
Virtual Switches	Yes	Yes
Crank Profile	Yes	Yes

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Metering		
Front Panel Alpha/Numeric Display	64X128 Active Matrix Back Lit LCD	64X128 Active Matrix Back Lit LCD
Parameters simultaneously displayed	8 and Customizable	8 and Customizable
Programmable Display Parameters/Configuration	Yes	Yes
AC Volts	3% of Full Scale	1% of Full Scale
AC Amps	3% of Full Scale	1% of Full Scale
Hz	2% of Full Scale	0.25% of Full Scale
kW	6% of Full Scale	3% of Full Scale
kVA	6% of Full Scale	3% of Full Scale
kVAR	6% of Full Scale	3% of Full Scale
kWH	6% of Full Scale	3% of Full Scale
PF	±0.03 PF	±0.02 PF
Bus AC Volts	Optional, 3% of Full Scale	1% of Full Scale
Bus Frequency	Optional, 2% of Full Scale	0.25% of Full Scale
Oil Pressure	3% of Indication	3% of Indication
Coolant Temp	3% of Indication	3% of Indication
DC Battery Volts	3% of Indication	3% of Indication
Total Engine Run Hours	1% of Indication	1% of Indication
RPM	2% of Indication	2% of Indication
Total Number of Starts	Yes	Yes
Fuel Level	3% of Indication	2% of Indication
Protective Features		
Gen Overvoltage (59)	Yes	Yes
Gen Undervoltage (27)	No	Yes
Gen Overfrequency (81O)	Yes	Yes
Gen Underfrequency (81U)	Yes	Yes
Gen Timed Overcurrent (51)	No	Optional
Gen Voltage Imbalance (47)	Yes	Optional
Gen kW Overload	No	Yes
Gen Reverse Power (32R)	No	Yes
Gen Loss of Excitation (40Q)	No	Optional
High Generator Temperature	No	via RTD on AEM-2020
Mains Undervoltage(27)	No	Yes
Overvoltage (59)	No	Yes
Mains Overfrequency (81O)	No	Yes
Mains Underfrequency (81U)	No	Yes
Rate of Change of Frequency (81 ROCOF)	No	Optional
Vector Shift (78)	No	Optional
Communications		
Engine metering information via SAE J1939 & ECU	Optional	Standard
File Transfer Capability	Yes	Yes
Remote Via Modem/Dedicated phone line	No	Optional Dial Out
Password Protected Access	3 Levels	3 Levels
RS485 Comm to Remote NFPA Panel	with optional RDP-110	with optional RDP-110
RS485 Coms	No	with Modbus Protocol (Optional)
USB Port	Mini-B USB	Mini-B USB
J1939 CAN bus	Optional	Yes
Modbus	No	Optional
Accessories		
Annunciator Panel	RDP-110	RDP-110
CEM-2020 (10 Contact Inputs/12-1A and 12-4A Contact Outputs)	Yes (Optional with CAN bus)	Yes
CEM-2020H (10 Contact Inputs/12-2A and 6-10A Contact Outputs)	Yes (Optional with CAN bus)	Yes
AEM-2020 (Inputs: 8 Analog, 8 RTD, 2 Thermocouple; Outputs: 4 Analog)	No	Yes
LSM-2020	No	Yes
Agency Approvals		
UL Listed	UL6200	UL508
CSA Approved	Yes	Yes
NFPA 110 Level1	Yes	Yes
NFPA 99	Yes	Yes
IEEE C37.90A SWC /Fast Transient	Yes	Yes
IEEE C37.90.2 RFI Susceptibility	Yes	Yes
IEEE C62.41-1999	Yes	Yes
CE Approved	Yes	Yes
IP Front Panel Rating	IP56	IP54

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Environmental Specifications		
Salt Fog	IEC 68-2-52 Severity Level 2	Powered ASTM B 17-73 & IEC68-2-11
Operating Temperature	-40° to +70°C (-40° to +158°F)	-40° to +70°C (-40° to +158°F)
Humidity 95% Non-condensing	Yes	Yes
Dimensions (W x D x H)	8.81" x 2.57" x 6.81" 224mm x 65mm x 173mm	11.77" x 2.69 x 8.27" 299mm x 69mm x 210mm
Weight	1.9lbs (0.86 kg)	4.4lbs (2.0 kg)
Vibration	3-25Hz @ 1.6mm, 25-2000Hz @ 5G	10-500 Hz @ 5 G
Shock	15G's	15G's

Gray highlights indicate differences between the DGC-2020ES and the DGC-2020