

InteliGen 500



Parallel gen-set controller

Datasheet

Product description

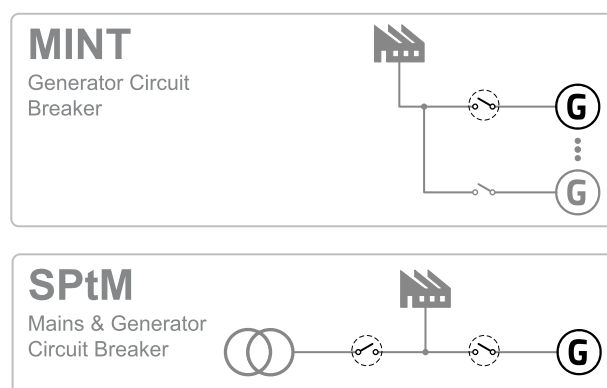
- ▶ Comprehensive paralleling Gen-set controller
- ▶ Parallel operation for up to 32 Gen-sets
- ▶ Direct communication with ECU
- ▶ Remote control and monitoring
- ▶ Flexible, extendable, yet user friendly

Key features

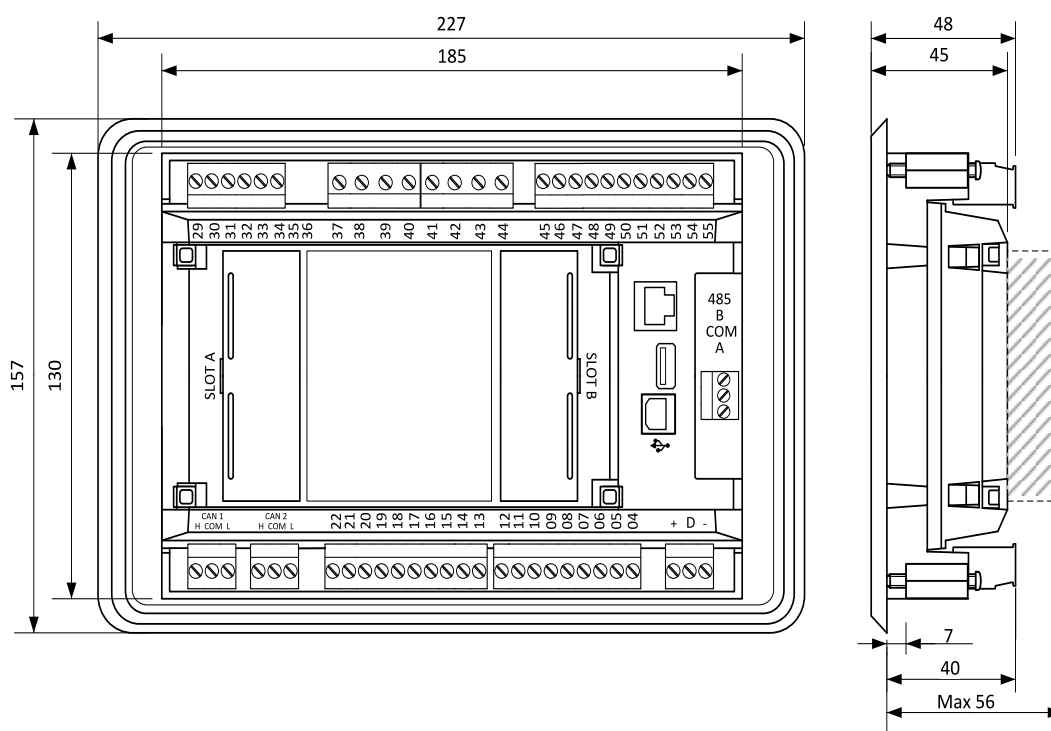
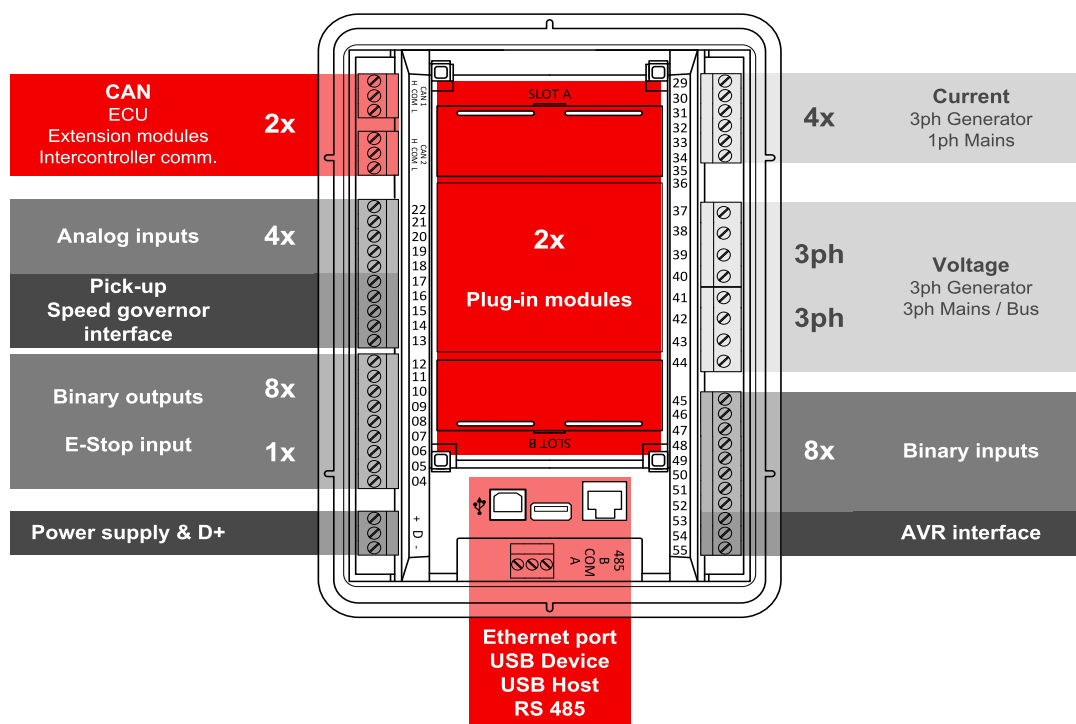
- ▶ Multiple Island or Single Parallel to Mains applications both in one controller
- ▶ PLC support with PLC Editor and monitor
- ▶ Perfect solution for rental applications:
 - Rental timers
 - Geo-Fencing and tracking via WebSupervisor
 - Alternative configuration
 - Droop and Emergency droop
- ▶ Load sharing and VAR sharing via CAN
- ▶ Wide communication capabilities including
 - Integrated USB for configuration
 - Isolated RS485 port on board for Modbus
 - Integrated USB Host for uploading/downloading FW/Configuration with USB key
 - Integrated Ethernet port
- ▶ High accuracy of voltage and current measurement
- ▶ Cloud-based monitoring and control

- ▶ Active SMS and emails in different languages
- ▶ Up to 5 languages in the controller
- ▶ Configurable Modbus (User Modbus)
- ▶ Support of MODBUS RTU/TCP or SNMP v1/v2c
- ▶ Detailed history with up to 500 events
- ▶ Load shedding, dummy load capability
- ▶ Tier 4 Final support
- ▶ Automatic temperature based cooling/heating
- ▶ Comprehensive Gen-set protections
- ▶ Multipurpose flexible timers with full calendar
- ▶ True RMS measurement
- ▶ Operating temperature: -30 °C to +70 °C
(-40 °C to +70 °C if the device is powered on above -30 °C)*

Application overview



Dimensions, terminals and mounting



Power supply

Power supply range	8-36 VDC
Power consumption (without modules)	6 W
RTC battery	Replaceable (3 V)
Fusing power	5 A / 6 × 0.5 A BOUT
E-Stop fusing	1.2 A
Max. Power Dissipation	8 W

Operating conditions

Protection degree (front panel)	IP 65
Operating temperature	-30 °C to +70 °C (-40 °C to +70 °C)*
Storage temperature	-30 °C to +80 °C
Operating humidity	95 % non-condensing (EN 60068-2-30)
Vibration	5-25 Hz, ± 1.6 mm 25-100 Hz, a = 4 g
Shocks	a = 500 m/s ²
Surrounding air temperature rating 70 °C Suitable for pollution degree 2	

D+

Max. output current	250 mA
Charging fail threshold	80 % of U _{supply}

Voltage measurement

Measurement inputs	3ph-n Gen voltage , 3ph-n Mains
Measurement range	277 V / 480 V AC (EU) 346 V / 600 V AC (US/Canada)
Max. allowed voltage	350 V
Accuracy	1 %
Frequency range	40-70 Hz (accuracy 0.1 Hz)
Input impedance	0.72 MΩ ph-ph , 0.36 MΩ ph-n

Voltage regulator output

Protection	Isolated
Type	max ±10 VDC

Speed governor output

Output Type	±10 VDC or 5 V @ 500 Hz, PWM selectable by jumper
Protection	Non-isolated

Display

Type	Build-in colour TFT 5"
Resolution	800 × 480 px

Communications

USB Device	Non-isolated type B connector
USB Host	Non-isolated type A connector
RS485	Isolated
Ethernet	10/100 Mbit
CAN 1 + CAN 2	250 / 50 kbps, isolated, nominal impedance 120 Ω

Current measurement

Measurement inputs	3ph Gen current, 1ph Mains current
Measurement range	5 A
Max. allowed current	10 A
Accuracy	±20 mA for 0-2 A; 1 % of value for 2-5 A
Input impedance	<0.1 Ω

E-Stop

Dedicated terminal for safe E-Stop input
Physically disconnects binary outputs 1 & 2 from power supply

Binary inputs

Number	8, non-isolated
Close/Open indication	0-2 VDC close contact 6-36 VDC open contact

Binary outputs

Number	8, non-isolated
Max. current	BO 1-8 = 0.5 A
Switching to	positive supply terminal

Analog inputs

Number	4, switchable (R/U/I)
Range	R = 0-2500 Ω; U = 0-10 V; I = 0-20 mA
Accuracy	R: ±2 % from value ±5 Ω for 0-250 Ω R: ±4 % from value for 250 Ω-2500 Ω U: 1 % from value ±100 mV I: 1 % from value ±0.2 mA

Magnetic pickup

Voltage input range	4 Vpk-pk to 50 Vpk-pk in range 4 Hz to 1 kHz 6 Vpk-pk to 50 Vpk-pk in range 1 to 5 kHz 10 Vpk-pk to 50 Vpk-pk in range 5 to 10 kHz
Frequency input range	4 Hz to 10 kHz
Frequency measurement tolerance	0.2 % from range 10 kHz

Note: *) If the device is powered on above -30 °C

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