

InteliMains^{NT}

Compact switchgear controller



Datasheet

Product description

- Compact switchgear test controller with built-in display
- Built-in control for up to 32 logic groups divided by Bus Tie Breakers
- High level control for complex systems

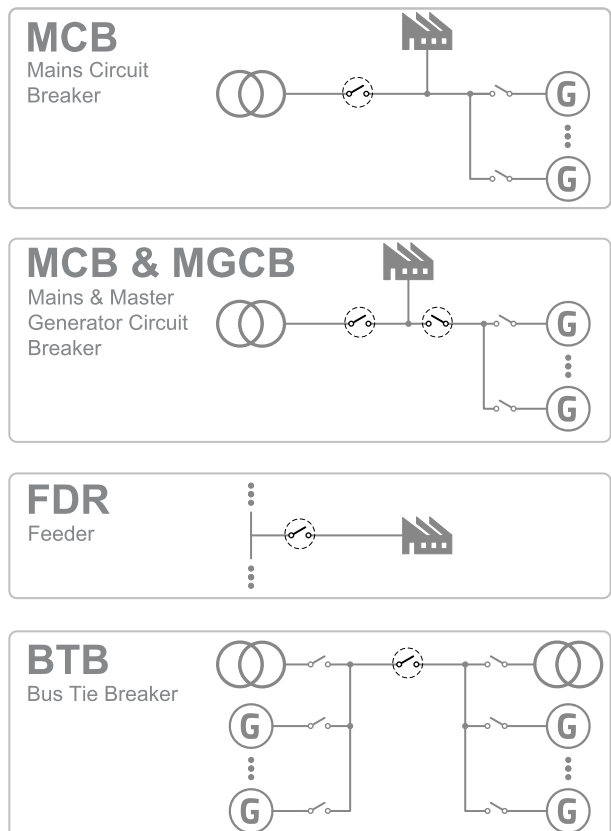
Key features

- Built-in breaker control
- Genset group synchronization, Loadsharring and VARsharring via CAN2
- Customizable load control in parallel to mains
- Highly configurable
 - Timers, internal PLC, Force value and more
- Compatible with ComAp's InteliVision displays
- Monitoring and configuration with ComAp's PC tools
- Extended communications with InternetBridge-NT
- Extensive built-in protection functions
 - Undervoltage, overvoltage
 - Underfrequency, overfrequency and more
- Full Modbus slave support (RS232)
- Extendable with ComAp's extension modules



Order code: **IM-NT GC**

Application overview



Technical data

Power supply

| | |
|--------------------|--|
| Power supply range | 8-36 VDC |
| Power consumption | 0.4A / 8VDC 0.15A / 24VDC 0.1A / 36VDC |
| RTC battery | 10 years (replacable by official service) |
| Fusing | 2A (without BOUT consumption) |

Operating conditions

| | |
|-----------------------|--|
| Operating temperature | -30°C to +70°C |
| Storage temperature | -40°C to +80°C |
| Operating humidity | 95% w/o condensation |
| Vibration | 5-25Hz, ± 1.6 mm 25-100Hz, a=4g |
| Shocks | a=200m/s ² |

Voltage measurement

| | |
|---------------------|---|
| Measurement inputs | 3ph-n Mains voltage 3ph-n Bus voltage |
| Measurement range | 110V/277V |
| Max allowed voltage | 125% |
| Accuracy | 1% of 110V/277V |
| Frequency range | 40-70Hz (at accy 0.1Hz) |
| Input impedance | 0.6M Ω ph-ph 0.3M Ω ph-n |

Current measurement

| | |
|---------------------|--------------------------------------|
| Measurement inputs | 3ph Mains current 1ph Bus current |
| Measurement range | 1A/5A |
| Max allowed current | 1000%/200% |
| Accuracy | 2% of 1A/5A |
| Input impedance | <0.1 Ω |

Binary inputs

| | |
|-----------------------|---|
| Number | 6 non-isolated |
| Input resistance | 4.7k Ω |
| Close/Open indication | 0-2VDC close contact >4 VDC open contact |

Binary outputs

| | |
|--------------|-----------------------------------|
| Number | 6 non-isolated |
| Max current | 0.5A (2A per group) |
| Switching to | negative/positive supply terminal |

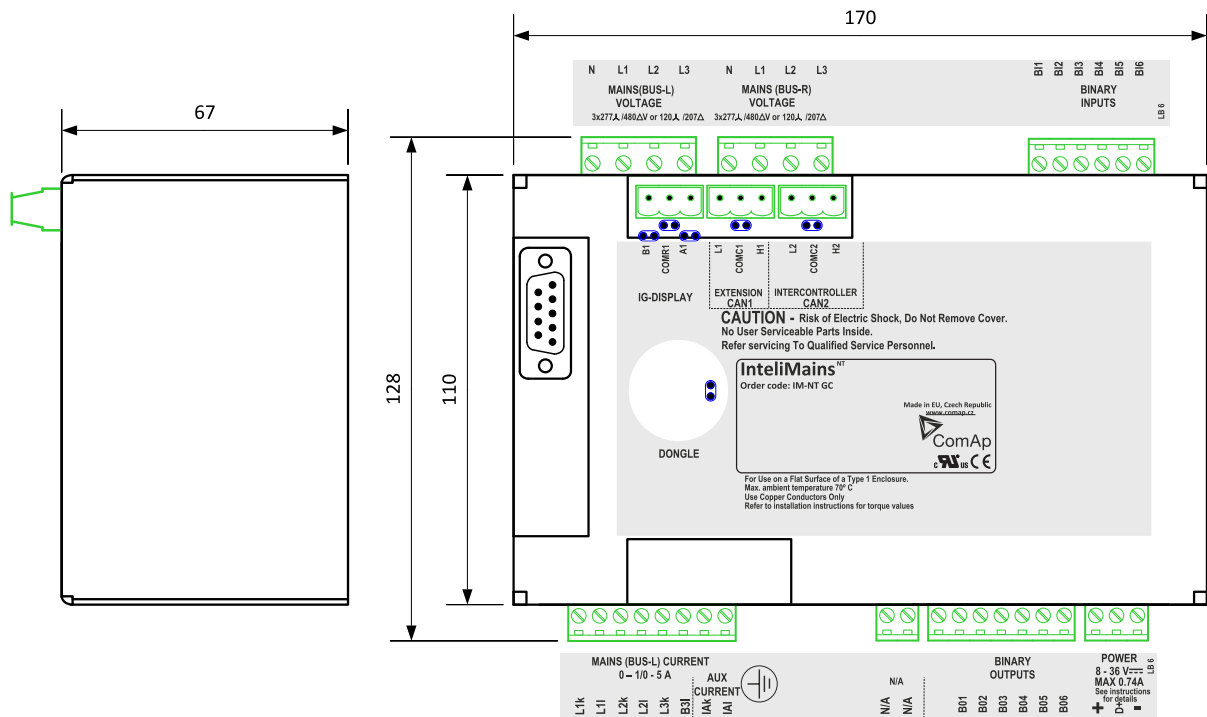
Communications

| | |
|--------------|--|
| RS232 | Direct/Modbus |
| Display port | non-isolated RS485, direct/modbus/terminal connection |
| CAN1 | External modules 250kbps, max 200m Isolated |
| CAN2 | Intercontroller and comm extensions 250/50kbps, max 200/1000m Isolated |

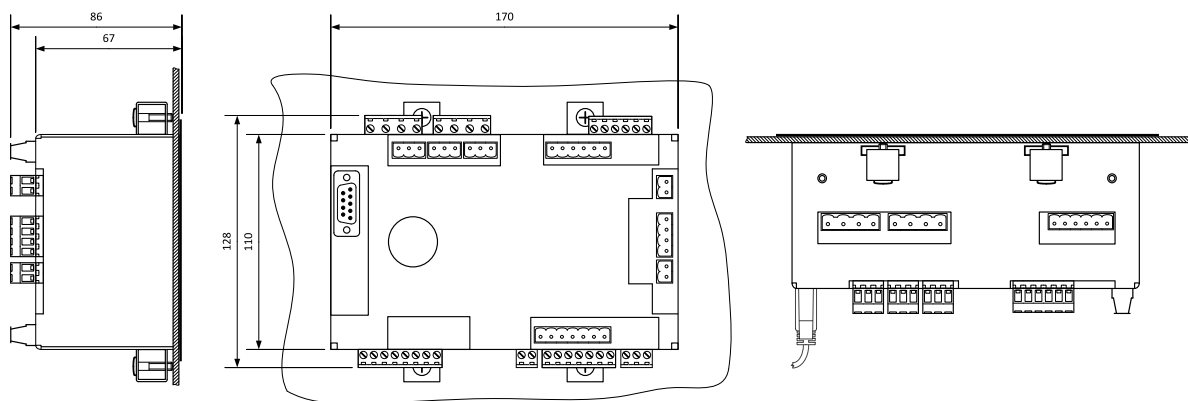
Display

| | |
|-------------|---|
| Type | Built-in monochromatic |
| Resolution | 128x64 |
| Front cover | IP65 |
| Others | Control buttons, Display buttons, Breaker and voltage stage LEDs |

Dimensions, terminals and mounting



Panel door mounting



Note: IntelliMains^{NT} can be mounted into panel doors as a standalone unit using provided metal holders. The cut-out for the unit should be 1mm wider than the unit on each side (i.e. cut-out dimensions 172x112mm).

Available extension modules

| Product | Description | Order code |
|-------------------|---|--------------------------|
| Inteli IO8/8 | 8 Binary inputs and 8 Binary outputs packed in a small unit (HW switchable to IO16/0) | I-IO8/8 |
| Inteli IO16/0 | 16 Binary inputs packed in a small unit (HW switchable to IO8/8) | I-IO8/8 |
| Inteli AIN8 | 8 Analog inputs and 1 pulse/frequency input in a small unit | I-AIN8 |
| InteliAIN8TC | 8 Thermocouple Analog inputs in a small unit | I-AIN8TC |
| IS-AIN8 | 8 Analog inputs packed in a rugged metal unit | IS-AIN8 |
| IGS-PTM | 8 Binary inputs, 8 Binary outputs, 4 Analog inputs and 1 Analog output in a unit | IGS-PTM |
| IGL-RA15 | 15 Binary LED output (3 colors) packed in a rugged metal unit | IGL-RA15 |
| I-AOUT8 | 8 Analog outputs packed in a rugged metal unit | I-AOUT8 |
| InternetBridge-NT | Multiple Internet connections (PC and Modbus) to all controllers on CAN2 or RS485 | IB-NT |
| I-LB+ | Direct connection (PC) to all controllers on CAN2 or RS485 | I-LB+ |

Related products

| Product | Description | Order code |
|-------------------|--|-----------------------------------|
| InteliVision 5 | Color 5.6" display for monitoring and control | INTELIVISION 5 |
| InteliVision 5 RD | Color 5.6" display for monitoring and control (RS485 isolated and backlit buttons) | INTELIVISION 5 RD |
| InteliVision 8 | Color 8" display for advanced monitoring, control & trending, USB capable | INTELIVISION 8 |

Note: You can find all related manuals and materials for InteliMains^{NT} at

Functions and protections

The described product fully supports the following functions and protections as defined by ANSI (American National Standards Institute):

| Description | ANSI code | Description | ANSI code |
|--------------------------------------|-----------|--------------------|-----------|
| Synchronism check | 25 | Overcurrent (IDMT) | 51 |
| Undevoltage | 27 | Power factor | 55 |
| Overload | 32 | Overvoltage | 59 |
| Load shedding | 32P | Vector shift | 78 |
| Undercurrent | 37 | AC reclosing | 79 |
| Current unbalance | 46 | Overfrequency | 81H |
| Voltage asymmetry and phase sequence | 47 | Underfrequency | 81L |
| Temperature monitoring | 49T | ROCOF | 81R |
| Overcurrent | 50 | | |

Certificates and standards

| | |
|--|---|
| <ul style="list-style-type: none"> EN 60068-2-6 ed.2:2008 EN 60068-2-27 ed.2:2010 EN 60068-2-30, May 2000 EN 60068-2-64 EN 61010-1:2003 |  |
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