

Order code: IM-NT GC

Mains Supervision Controller

Datasheet

Product description

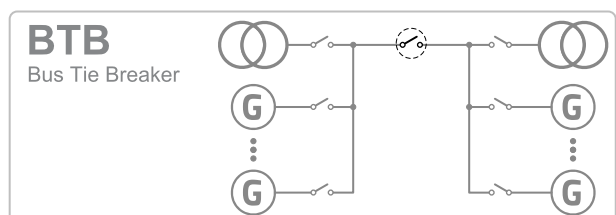
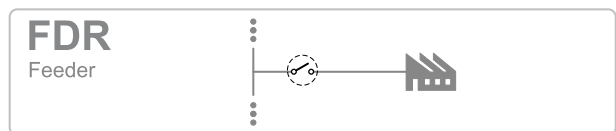
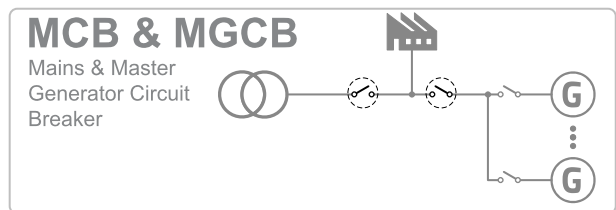
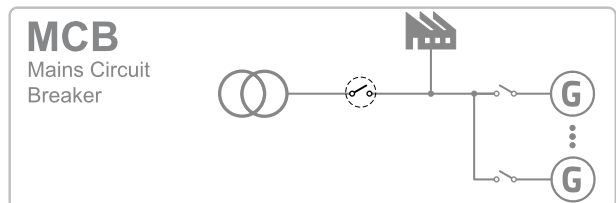
- ▶ Compact switchgear test controller with built-in display
- ▶ Built-in control for up to 32 logic groups divided by Bus Tie Breakers
- ▶ High level control for complex systems

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

- ▶ True RMS (TRMS) is used with Voltage, Current and Power measurement

Application overview



Technical data

Power supply

Power supply range	8-36 V DC
Power consumption	0.4 A / 8 VDC 0.15 A / 24 VDC 0.1 A / 36 VDC
RTC battery	10 years (replacable by official service)
Fusing	2 A (without BOUT consumption)
Max. Power Dissipation	16 W

Operating conditions

Operating temperature	-30 °C to +70 °C
Storage temperature	-40 °C to +80 °C
Max. operating altitude	2000 m above sea level for max 480 V 4000 m above sea level for max 400 V
Operating humidity	95 % w/o condensation
Vibration	5-25 Hz, ± 1.6 mm 25-100 Hz, a = 4 g
Shocks	a=200m/s ²
Heat radiation	16 W

Voltage measurement

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

Current measurement

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

Binary inputs

Number	6, non-isolated
Input resistance	4.7 kΩ
Close/Open indication	0-2 V DC close contact >4 V DC open contact

Binary outputs

Number	6, non-isolated
Max current	0.5 A (2 A per group)
Switching to	Positive supply terminal

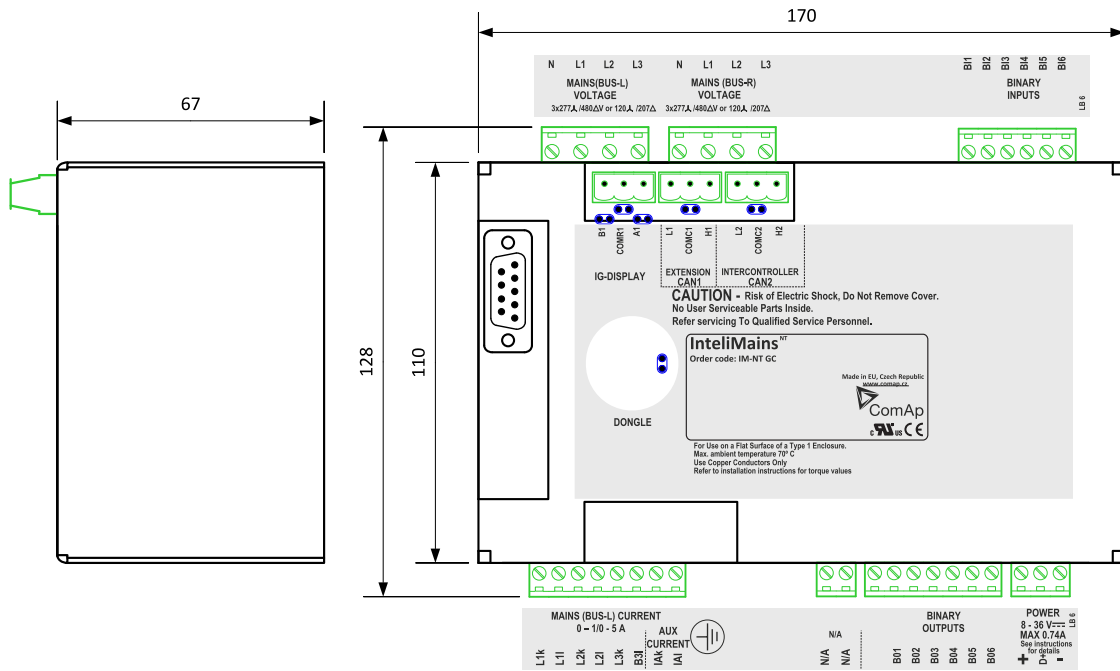
Communications

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

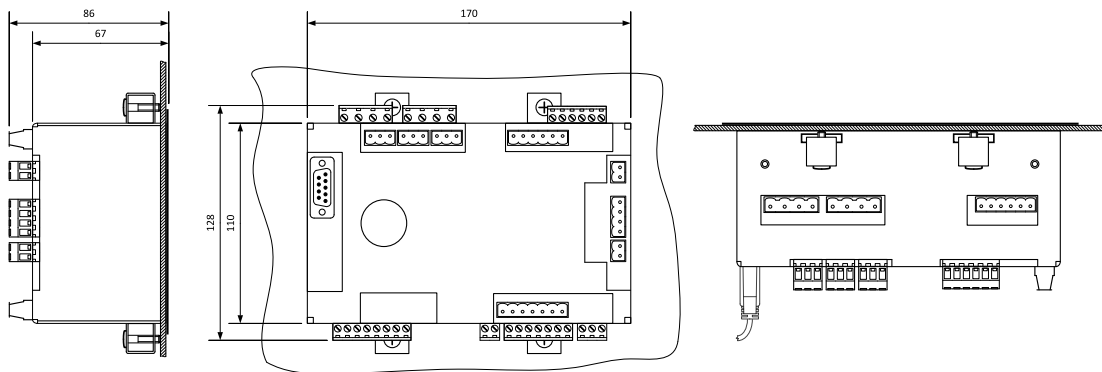
Display

Type	Build-in monochromatic
Resolution	128 × 64 px
Front cover	IP 65
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 1 mm wider than the unit on each side (i.e. cut-out dimensions 172 × 112 mm).

Available extension modules

Product	Description	Order code
Intel IO8/8	8 Binary inputs and 8 Binary outputs packed in a small unit (HW switchable to IO16/0)	I-IO8/8
Intel IO16/0	16 Binary inputs packed in a small unit (HW switchable to IO8/8)	I-IO8/8
Intel AIN8	8 Analog inputs and 1 pulse/frequency input in a small unit	I-AIN8
IntelAIN8TC	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+

Note: You can find all related manuals and materials for IntelIMains^{NT} at <https://www.comap-control.com/products/detail/intelimumains-nt>

Related products

Product	Description	Order code
IntelVision 5	Color 5.6" display for monitoring and control	INTELVISION 5
IntelVision 5 RD	Color 5.6" display for monitoring and control (RS485 isolated and backlit buttons)	INTELVISION 5 RD
IntelVision 8	Color 8" display for advanced monitoring, control & trending, USB capable	INTELVISION 8
IntelVision17T	Color 17" display for complete monitoring and control of multiple controllers	INTELVISION 17T



Functions and protections

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

Examples are below. Other functions can be found in the IM-NT Reference guide.

Description	ANSI code	Description	ANSI code	Description	ANSI code
Synchronism check	25	Temperature monitoring	49T	AC re-closing	79
Undervoltage	27	Overcurrent	50	Overfrequency	81H
Directional power relay	32	Overcurrent (IDMT)	51	Underfrequency	81L
Directional power	32P	Power factor	55	ROCOF	81R
Undercurrent	37	Overvoltage	59		
Current unbalance	46	Vector shift	78		

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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