

InteliMains NT

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

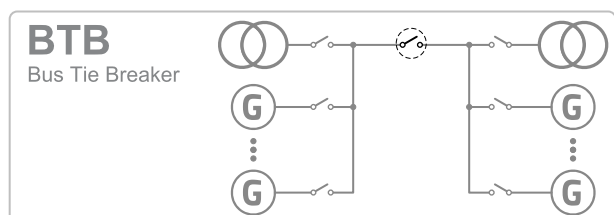
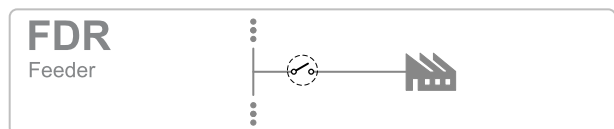
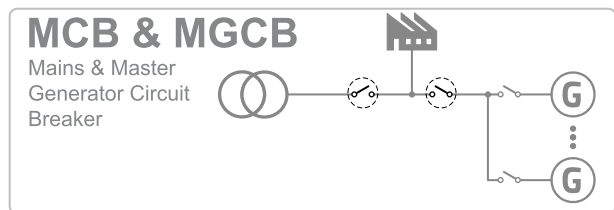
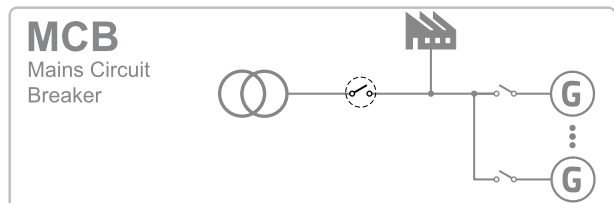
Key features

- ▶ 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

Mains Supervision Controller

- ▶ 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	$a=200\text{m/s}^2$
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 M Ω ph-ph, 0.3 M Ω 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 k Ω
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

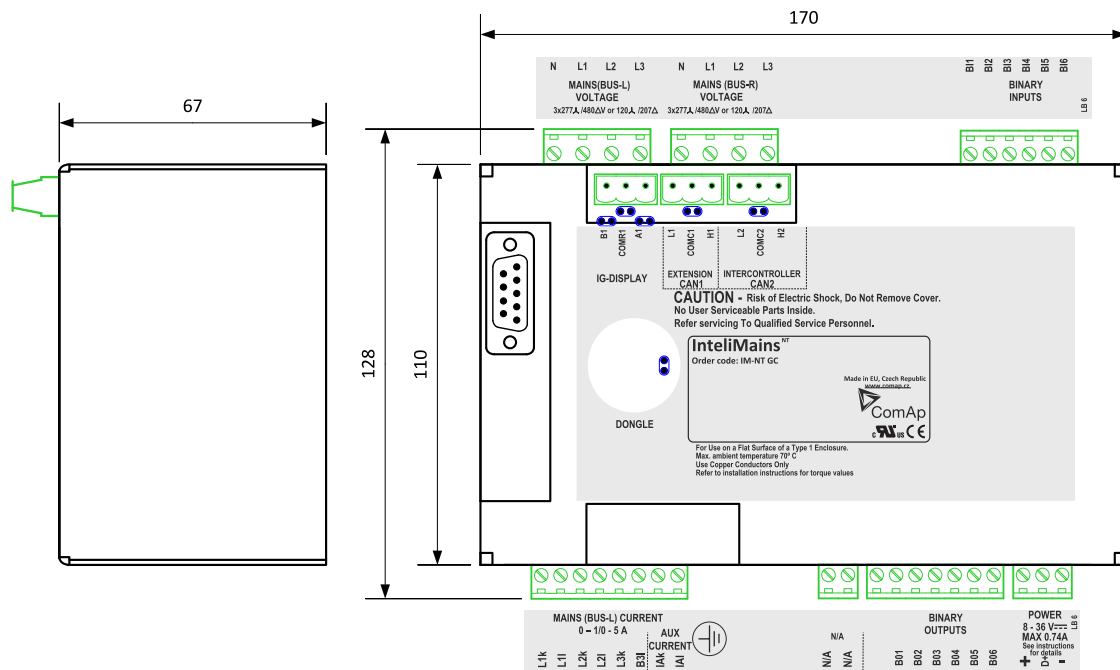
Communications

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

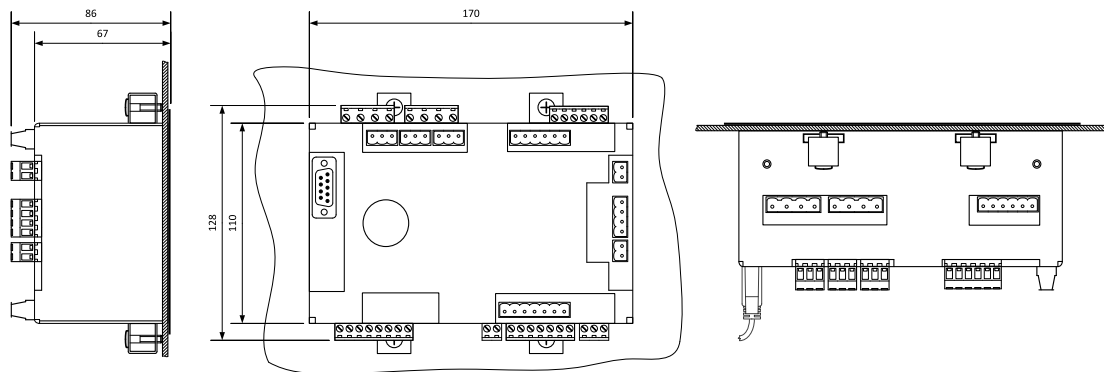
Display

Type	Build-in monochromatic
Resolution	128 \times 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
Inteli IO8/8	8 Binary inputs and 8 Binary outputs packed in a small unit (HW switchable to IO16/0)
Inteli IO16/0	16 Binary inputs packed in a small unit (HW switchable to IO8/8)
Inteli AIN8	8 Analog inputs and 1 pulse/frequency input in a small unit
InteliAIN8TC	8 Thermocouple Analog inputs in a small unit
IS-AIN8	8 Analog inputs packed in a rugged metal unit
IGS-PTM	8 Binary inputs, 8 Binary outputs, 4 Analog inputs and 1 Analog output in a unit
IGL-RA15	15 Binary LED output (3 colors) packed in a rugged metal unit
I-AOUT8	8 Analog outputs packed in a rugged metal unit
InternetBridge-NT	Multiple Internet connections (PC and Modbus) to all controllers on CAN2 or RS485
I-LB+	Direct connection (PC) to all controllers on CAN2 or RS485

Related products

Product	Description
InteliVision 5	Color 5.6" display for monitoring and control
InteliVision 5 RD	Color 5.6" display for monitoring and control (RS485 isolated and backlit buttons)
InteliVision 8	Color 8" display for advanced monitoring, control & trending, USB capable
InteliVision17T	Color 17" display for complete monitoring and control of multiple controllers

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		



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