

MainsCompact^{NT}

Mains supervision controller



Datasheet

Product description

- Mains controller for multiple systems equipped with IntelliCompact NT MINT gen-set controllers
- Mains monitoring and protection
- Synchronizing of the gen-set group to the mains

Key features

- Mains measurements: V, A, Hz, kW, kVA, PF, kWh, kVAh (3 phase, true RMS)
- Mains protections:
 - Undervoltage, overvoltage
 - Vector shift
 - Binary input for external mains decoupling relay
- Bus measurements: V (3 phase, true RMS), Hz
- Mains failure detection using integrated mains protections (voltage, frequency, phase shift)
- AMF Function, Mains import/export
- High tariff avoidance, Peak shaving, Peak lopping
- MCB control, MGCB control
- Soft loading / unloading
- Test of the Multi-AMF function (with or without load)
- Wide range of communication interfaces – RS232, RS485, USB, Modbus, GSM/Analog modem, GPRS, Ethernet
- Event based history with capacity for nearby 200 records



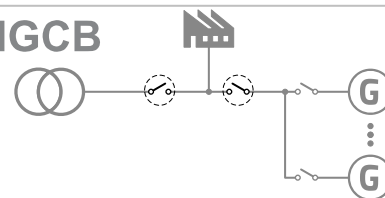
Order code: **MC-NT**



Application overview

MCB & MGCB

Mains & Master
Generator Circuit
Breaker



Technical data

Power supply

Power supply range	8-36 V DC
Power supply drop-out immunity	50 ms (from min. 10 V)
Power consumption	approx. 200 mA / 8 V; 50 mA / 36 V
Peak power consumption (LT)	approx. 0,56 A / 8 V; 1,8 A / 36 V
Backup battery type	CR 1225
Estimated backup battery lifetime	10 years

Operating conditions

Operating temperature	-20-70 °C
Operating temperature (LT version)	-40-70 °C
Operating humidity	95% non-condensing (IEC/EN 60068-2-30)
Protection degree (front panel)	IP65
Vibration	5-25 Hz, +/- 1,6 mm; 25-100 Hz, a = 4 g
Shocks	a _{max} 200 m/s ²
Storage temperature	-30-80 °C

Voltage measurement

Measurement inputs	3 ph bus voltage 3 ph mains voltage
Measurement type	True RMS
Voltage range	480 V Ph-Ph (277 V Ph-N)
Max. measured voltage	340 V Ph-N
Voltage accuracy	1 % from the range
Frequency range	30-70 Hz, measured from L3
Frequency accuracy	0,05 Hz

Current measurement

Measurement inputs	3ph mains current
Measurement type	True RMS
Current range	5 A
Max. measured current	9 A
Max. allowed current	12 A continuous, 50 A/1 s
Current accuracy	2 % from the range

Binary inputs

Number	7 non-isolated
Input resistance	4,2 kΩ
Common pole	Positive, V _s = 8-36 V DC
Close/Open indication	0-2 V close contact 4 V - V _s open contact

Binary outputs

Number	6 non-isolated
Operating voltage	8-36 V DC
Switching to	negative supply terminal
Max current	0,5 A (2 A per group)

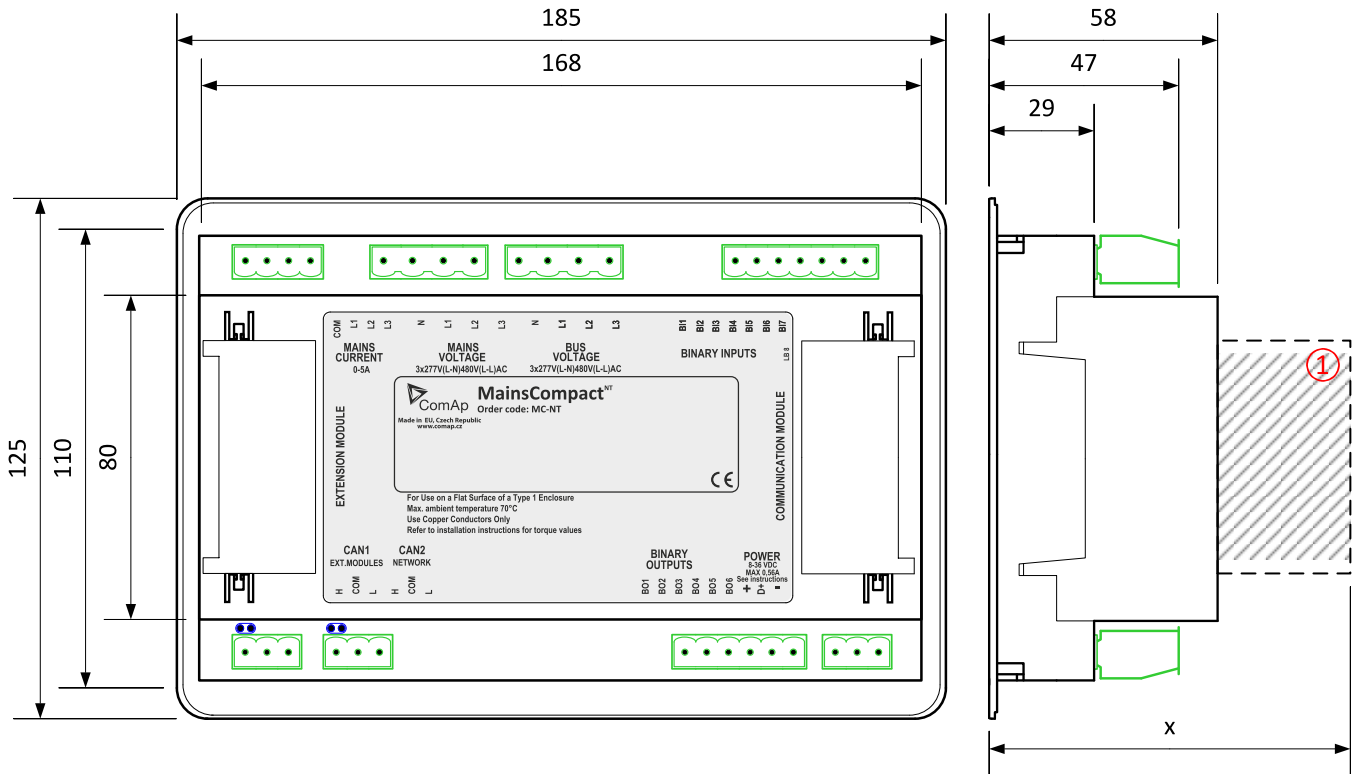
Communication

CAN1	External modules 250 kbps, max 200 m Isolated
CAN2	Intercontroller and comm extensions 250/50 kbps, max 200/800 m Isolated

Display

Type	Built-in monochromatic
Resolution	128x64

Dimensions, terminals and mounting

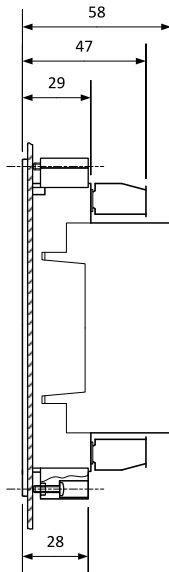


① Plug in module

Note: Dimension x depends on plug-in module

Panel door mounting

Overview of parameter x



Plug-in module	Parameter x [mm]
IL-NT-AOUT8	75
IL-NT-BIO8	74
IC-NT-CT-BIO7	76
IL-NT-RS232	113
IL-NT-RS232-485	115 @ RS232 / 74 @ RS485
IL-NT-GPRS	122
IL-NT-S-USB	128
IB-Lite	108

Note: Parameter x includes reserve for connectors of plug-in modules.

Note: The controller is to be mounted onto the switchboard door. The requested cut-out size is 175x115 mm. Use the screw holders delivered with the controller to fix the controller into the door.

Available extension modules

Product	Description	Order code
IL-NT-AOUT8	8 analog outputs packed in a unit	IL-NT-AOUT8
IL-NT-BIO8	8 binary inputs in a unit (HW switchable to 8 binary outputs)	IL-NT-BIO8
IC-NT-CT-BIO7	7 binary inputs (HW switchable to 7 binary outputs) and 1 AC current measuring input	IC-NT-CT-BIO7
IG-IOM	8 binary inputs, 8 binary outputs, 4 analog inputs and 1 analog output in a unit	IG-IOM
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
IL-NT-RS232	Communication module which provides additional RS232 interface for controller	IL-NT-RS232
IL-NT-RS232-485	Communication module which provides additional RS232 and RS485 interface for controller	IL-NT-232-485
IL-NT-GPRS	Communication module with integrated GSM modem with GPRS Internet connection	IL-NT-GPRS
I-LB+	Direct connection (PC) to all controllers on CAN2	I-LB+
InternetBridge-NT	Multiple Internet connections (PC and Modbus) to all controllers on CAN2 or RS485	IB-NT
IL-NT-S-USB	Communication module which provides additional USB interface for controller	IL-NT-S-USB
IB-Lite	Communication module which provides additional Ethernet interface for controller	IB-Lite

Related products

Product	Description	Order code
IntelliCompact ^{NT} MINT	Gen-set Controller for MainsCompact ^{NT} controllers	IC-NT MINT
IC-NT RD (SW)	Remote Display Software for IntelliCompact NT	IC-NT RD

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	Mains/bus under/overfrequency	81H,81L
Bus overload	32	Vector shift	78
Mains/bus under/overvoltage	59,27		

Certificates and standards

• EN 60068-2-30 • EN 61000-6-1 • EN 61000-6-2 • EN 61000-6-3 • EN 61000-6-4 • EN 61010-1	
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