New InteliMains^{NT}



MAINS SUPERVISION CONTROLLER



Description

New Technology InteliMains is a member of the Inteli family designed for multiple (up to 31) gensets operating in parallel to mains. InteliMains^{NT} controller connects a group of gen-sets to the mains or groups of gen-sets among themselves. InteliMains^{NT} allows reverse synchronising of the gen-set group operating in multi-island mode to the mains or to another group of gen-sets, controls mains C.B. or bus-tie breaker, measures mains power, power factor, reactive and apparent power, 3 phase system import/export. InteliMains^{NT} controller is equipped with a powerful graphic display. Icons, symbols and bar graphs for intuitive operation together with high functionality set new standards in gen-set control.

Benefits

- Easy solution even of complex systems with one or more groups of gen-sets - less wiring and components
- Designed to work also as bus-tie synchronizer
- Graphical site schematic for easy site overview aggregates on one place all important system parameters
- Many types of communication easy supervision and servicing
- Perfect price/performance ratio



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MAINS SUPERVISION CONTROLLER



Integrated fixed and configurable protections

- Mains IDMT overcurrent + Shortcurrent protection
- Vector shift protection
- All binary/analogue inputs free configurable for various protection types: History record / Alarm only / Warning / AlarmList Indication / AlarmList+History Indication / Mains protection / Mains protection with fault Reset / Breaker Open / Breaker Open with fault Reset / Fail sensor
- Additional 160 programmable protections configurable for any measured value to create customer-specific protections

Common features

Integrated PLC programmable functions (same size as IS-NT)

Selectable measurement ranges for AC voltages and currents 120 / 277 V, 0-1 / 0-5 A = High voltage applications support

Inputs and outputs configurable for various customer needs

RS232/RS485 interface with ModBus support; Analog/GSM/ISDN/CDMA modem support; SMS messages

The RS232/RS485 interface can serve as a bridge to all other controllers at the site (via CAN bus)

Event-based history (up to 500 records) with customer-selectable list of stored values; RTC; statistic values

Interface to remote display unit (IG-Display)

Dimensions 180x120 mm (front panel)

Sealed to IP 65

IM-NT Features (MCB+MGCB mode)

AMF function based on mains failure, outputs a signal to start the gen-set group

Many SPtM-equivalent mains parallel modes (SysBaseload, Analog Extern SysBaseload, Import/Export, Analog Extern Import/Export, Temp By Power)

Peak shaving

Test mode (Test on load for the complete gen-set group)

Two application layouts - MCB only or MCB+MGCB control (see schematics)

Mains measurement: U, I, Hz, kW, kVAr, kVA, PF, kWh exp., kWh imp., kVAhr exp., kVAhr imp.

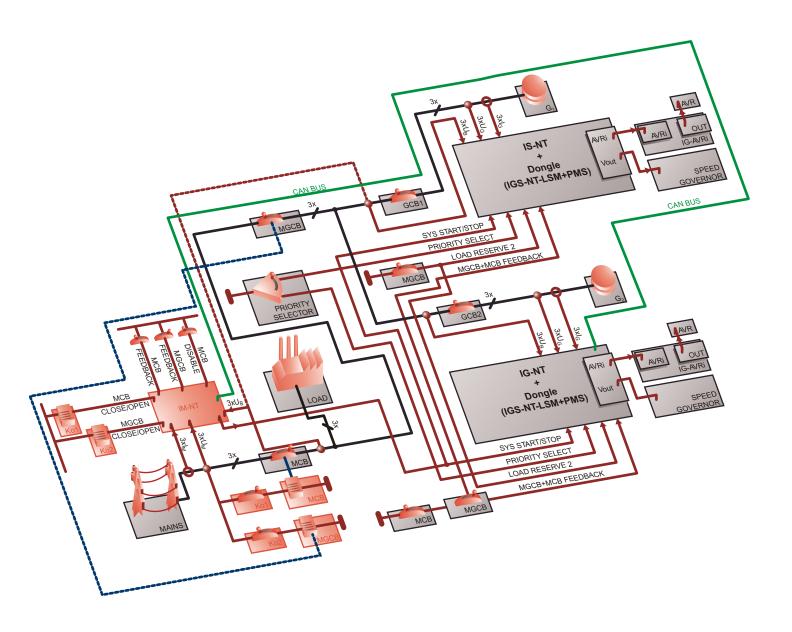
Bus measurement: U, I, Hz

Sum gen-sets kWh and kVAhr

Selectable partial or full MCB and/or MGCB control

Load Shedding - 3 steps; selectable based on gen-sets power or mains import

High voltage application support - AC voltage measurement range selectable 277/120V



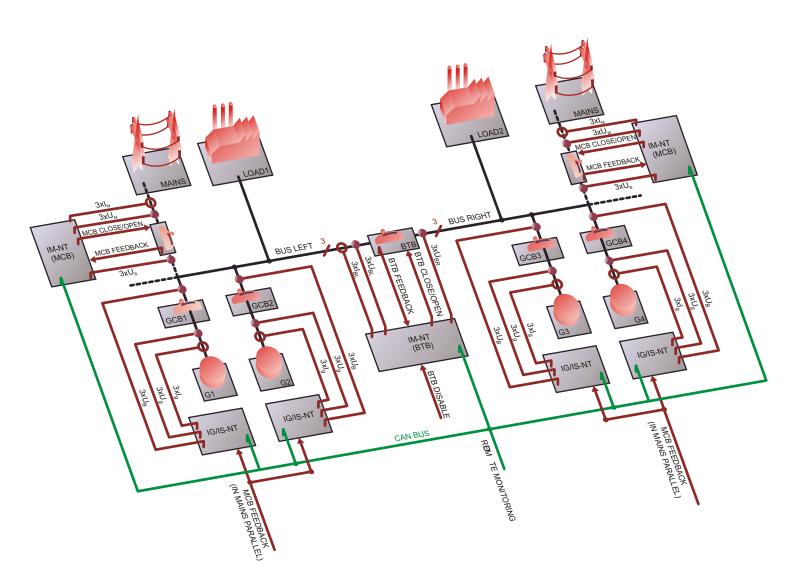
IM-NT Features (Bus-Tie controller mode)

Bus Left measurement: U, I, Hz, kW, kVAr, kVA, PF, kWh exp., kWh imp., kVAhr exp., kVAhr imp.

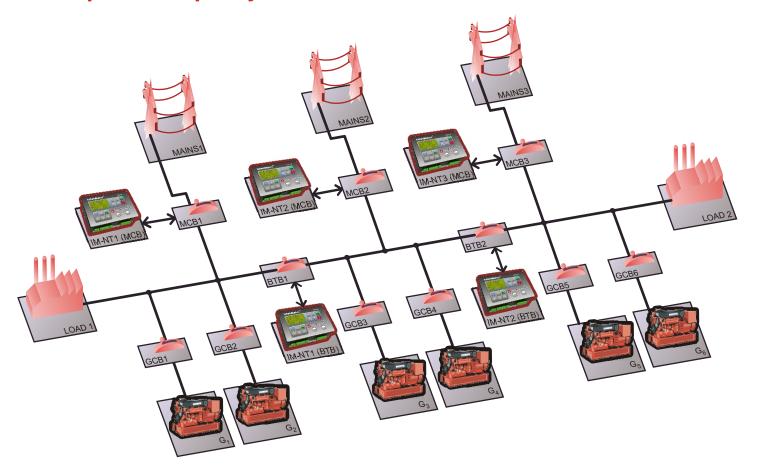
Bus Right measurement: U, I, Hz

Manual or automatic (intelligent) selection of the gen-set group (side) to be influenced during synchronizing

Selectable partial or full BTB control



Example of a complex system



Communication extension features

- IG-IB (Ethernet/Internet communication support; multiple gen-set control via Internet; active e-mails on gen-set failure; Internet dial-up / callback function)
- ▶ I-LB/I-LB+ (direct, modem or USB connection (USB available in + version only); control of multiple gen-sets; RS485 / ModBus support for direct connection; Analog/GSM/ISDN/CDMA modem support; modem callback function)
- ▶ I-CR (CAN Repeater module; allows an extension of the standard CAN bus length)
- InteliMonitor free PC SCADA software for supervision of single or multiple controllers (IG/IS-NT, IG, IS, ID); configurable site structure; easy site overview, data logging, graphs, common history log; direct / modem / Internet connection
- ▶ GenConfig free configuration tool for IG/IS-NT controllers; allows full configuration of an NT controller and it's peripherals

Extension features

- up to 10x IS-AIN8 (8 analogue configurable inputs; 2 or 3 wire resistive sensors; voltage, current sensors; thermocouples)
- ▶ up to 4x IS-BIN16/8 (16 binary inputs, 8 binary outputs, galvanic separated I/O)
- p up to 4x **I-AOUT8** (8 analogue configurable outputs)
- up to 4x **IGS-PTM** (4 analogue inputs, 1 analogue output; 8 binary inputs, 8 binary outputs)
- up to 4x IGL-RA15 (15 green / amber / red LED indicators)
- ▶ IG-Display; graphical remote display; distance from the controller up to 1 km; (LT) (GC) (Marine) modifications available

HW modification codes

Order code IM-NT (LT) (GC) (Marine)

 ${\bf LT} = {\bf Low}$ Temperature; display equipped with heating foil for operation down to -30°C

GC = Graphical Characters; besides of standard european latin character sets, one additional font (12x12, e.g. chinese) can be shown on the display **Marine** = HW approved from Marine certifying authorities

NEW TECHNOLOGY RANGE OF CONTROLLERS

BASIC TYPE TABLE	BINARY INPUTS	BINARY OUTPUTS	ANALOG INPUTS	ANALOG OUTPUTS	COMMUNICATION PORTS	AC MEASUREMENT RANGES (GEN., MAINS/BUS)	REMOTE DISPLAYS	INTEGRATED PLC
IG-EE	6	6	-	-	1x RS232/RS485	277 V, 0-5 A	1x IG-Display	standard
IG-EEC	6	6	-	-	2x RS232/RS485, USB	120 / 277 V, 0-1 / 0-5 A	1x IG-Display	standard
IG-NT	12	12	3	-	1x RS232/RS485	277 V, 0-5 A	1x IG-Display	standard
IG-NTC	12	12	3	-	2x RS232/RS485, USB	120 / 277 V, 0-1 / 0-5 A	1x IG-Display	standard
IS-NT-BB	16	16	4	1	2x RS232/RS485, USB	120 / 277 V, 0-1 / 0-5 A	up to 3x IS-Display	extended
IM-NT	6	6	-	-	1x RS232/RS485	120 / 277 V, 0-1 / 0-5 A	1x IG-Display	extended



InteliMains is a mains supervision controller, which integrates mains protections, mains-parallel control of a group of gen-sets and many other related features. It also contains an integrated PLC for easier complex system setup.

For more information about our products and solutions visit our web-pages

www.comap.cz



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