

# **Group: Basic settings**

Subgroup: Name

#### **Gen-Set Name**

#### Description

User defined name, used for the controller identification at remote phone or mobile connection. Gen-Set Name is maximally 15 characters long and can be entered using InteliConfig or from controller's configuration menu.

**Note:** If the Gen-Set Name is "TurboRunHours", the running hours will be counted faster - 1 minute in real will represent 1 hour.

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**Subgroup: Power settings** 

# **Nominal Power Split Phase**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	15 000 [kW]		
Default value	200 kW	Alternative config	Yes
Step	1 kW		
Comm object	9977	Related applications	AMF, MRS
Config level	Standard		
Setpoint visibility	Conditioned by the setpoint Connection type (page 177)		

#### Description

Nominal power of the gen-set for detected split-phase or mono phase connection. Generator **Overload BOC** (page 227) protection is based on this setpoint.

**Note:** This setpoint is used when setpoint **Connection type (page 177)** is adjusted to Autodetect and Autodetect detects connection type as Monophase or Splitphase.

Note: To lock this setpoint against editing you also have to lock setpoint Nominal Power Split Phase 1 (page 333), Nominal Power Split Phase 2 (page 337) and Nominal Power Split Phase 3 (page 341).

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#### **Nominal Power**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	15 000 [kW]		
Default value	200 kW	Alternative config	Yes
Step	1 kW		
Comm object	8276	Related applications	AMF, MRS
Config level	Standard		
Setpoint visibility	Always		
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#### Description

Nominal power of the gen-set. Generator Overload BOC (page 227) protection is based on this setpoint.

**Note:** This setpoint is used when setpoint **Connection type (page 177)** is adjusted to Monophase or Splitphase or 3Ph3Wire or High Leg D or 3Ph4Wire or when Autodetect detects connection type as 3Ph3Wire or High Leg D or 3Ph4Wire.

Note: To lock this setpoint against editing you also have to lock setpoint Nominal Power 1 (page 332), Nominal Power 2 (page 336) and Nominal Power 3 (page 340).

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## **Subgroup: Current settings**

#### **Nominal Current**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	1 10 000 [A]		
Default value	350 A	Alternative config	YES
Step	1 A		
Comm object	8275	Related applications	AMF, MRS
Config level	Standard		
Setpoint visibility	Conditioned by the setpoint Connection type (page 177).		
Description			

#### Description

It is current limit for mains current protections and means maximal continuous mains current. Nominal Current can be different from mains rated current value.

**Note:** To lock this setpoint against editing you also have to lock setpoint **Nominal Current 1** (page 330), **Nominal Current 2** (page 334) and **Nominal Current 3** (page 338).

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### **CT Ratio**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	1 5 000 [A/5A]		
Default value	2 000 A/5A	Alternative config	NO
Step	1 A/5A		
Comm object	8274	Related applications	AMF, MRS
Config level	Standard		
Setpoint visibility	Always		
Description			

### Description

Gen-set current transformers ratio.

Note: Generator currents and power measurement is suppressed if current level is below 1% of CT range.

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Subgroup: Voltage settings

# **Connection type**

Basic settings	Related FW	1.8.0
Mono Phase / SplPhL1L2 / SplPhL1L3/ 3Ph3Wire / High Leg D / 3Ph4Wire / Autodetect [-]		
3Ph4Wire	Alternative config	YES
[-]		
11628	Related applications	AMF, MRS
Standard		
Always		
	Mono Phase / SplPhL1L2 Autodetect [-] 3Ph4Wire [-] 11628 Standard	Mono Phase / SplPhL1L2 / SplPhL1L3 / 3Ph3Wire / F Autodetect [-] 3Ph4Wire Alternative config [-] 11628 Related applications Standard

# Description

# Connection type:

Mono Phase	Single phase voltage measurement L1-N 1x CT (Current Transformer)
SplPhL1L2	Double Delta connection  Split Phase  Two phase voltage measurement L1,L2 with 180° phase shift  2x CT (Current Transformer)
SpIPhL1L3	Double Delta connection  Split Phase  Two phase voltage measurement L1,L3 with 180° phase shift  2x CT (Current Transformer)
3Ph3Wire	Ungrounded Delta connection Open Delta Ungrounded Wye



	Split Phase Delta		
	Three phase voltage measurement L1,L2,L3 with 120° phase shift		
	No neutral is available 3x CT (Curi	rent Transformer)	
High Leg D	High Leg Delta connection		
	Three phase voltage measuremen	t L1,L2,L3	
	3x CT (Current Transformer)		
3Ph4Wire	Grounded Star (Grounded Wye) co	nnection – 3PY	
	Three phase voltage measuremen	t L1,L2,L3 with 120° phase shift	
	3x CT (Current Transformer)		
Autodetect	High Leg Delta	L1 >=100V; L1 <=140V	
		L2 >=140V	
	or	L3 >=100V; L3 <=140V	
	3PH3Wire or 3Ph4Wire	L1 >=100V	
		L2 >=100V	
	or	L3 >=100V	
	SplPhL1L2	L1 >=100V	
		L2 >=100V	
	or	L3 <= 20V	
	SpIPhL1L3	L1 >=100V	
		L2 <= 20V	
	or	L3 >=100V	
	Mono Phase	L1 >=100V	
	or		
	or	L2 <= 20V L3 <= 20V	

Note: To lock this setpoint against editing you also have to lock setpoint Connection Type 1 (page 329), Connection type 2 (page 333) and Connection type 3 (page 337).

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# **Nominal Voltage Ph-N**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	80 20 000 [V]		
Default value	231 V	Alternative config	YES
Step	1 V		
Comm object	8277	Related applications	AMF, MRS
Config level	Standard		
Setpoint visibility	Conditioned by the setpoint Connection type (page 177).		
Description			

Nominal voltage (phase to neutral).

Note: To lock this setpoint against editing you also have to lock setpoint Nominal Voltage Ph-N 1 (page 331), Nominal Voltage Ph-N 2 (page 335) and Nominal Voltage Ph-N 3 (page 339).

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# **Nominal Voltage Ph-Ph**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	80 40 000 [V]		
Default value	400 V	Alternative config	YES
Step	1 V		
Comm object	11657	Related applications	AMF, MRS
Config level	Standard		
Setpoint visibility	Conditioned by the setpoint Connection type (page 177).		
Description	,		

#### Description

Nominal system voltage (phase to phase).

Note: To lock this setpoint against editing you also have to lock setpoint Nominal Voltage Ph-Ph 1 (page 332), Nominal Voltage Ph-Ph 2 (page 336) and Nominal Voltage Ph-Ph 3 (page 340).

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# **PT Ratio**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	0,1 500,0 [V/V]		
Default value	1,0 V/V	Alternative config	NO
Step	0,1 V/V		
Comm object	9579	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		
Description			
Generator voltage potential transformers ratio. If no PTs are used, adjust the setpoint to 1.			

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### **Vm PT Ratio**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	0,1 500,0 [V/V]		
Default value	1,0 V/V	Alternative config	NO
Step	0,1 V/V		
Comm object	9580	Related applications	AMF
Config level	Advanced		
Setpoint visibility	Conditioned by the setpoint Operation Mode (page 183)		
Description			
Mains voltage potential transformers ratio. If no PTs are used, adjust the setpoint to 1.			

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**Subgroup: Frequency settings** 

# **Nominal Frequency**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	45 65 [Hz]		
Default value	50 Hz	Alternative config	YES
Step	1 Hz		
Comm object	8278	Related applications	AMF, MRS
Config level	Standard		
Setpoint visibility	Always		
Description			

### Description

Nominal system frequency (usually 50 or 60 Hz).

**Note:** To lock this setpoint against editing you also have to lock setpoint **Nominal Frequency 1** (page 331), **Nominal Frequency 2** (page 335) and **Nominal Frequency 3** (page 339).

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#### **Gear Teeth**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	FGen->RPM / 1 500 [-]		
Default value	120	Alternative config	NO
Step	1		
Comm object	8252	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		

### Description

Number of teeth on the engine flywheel where the pick-up is installed. Set to zero if no pick-up is used and the Engine speed will be counted from the generator frequency.

Note: If no pickup is used, the D+ or W terminal should be used to prevent possible overcranking, which can occur if at least 25% of nominal generator voltage is not present immediately after exceeding firing speed.

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#### **Nominal RPM**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	100 4 000 [RPM]		
Default value	1 500 RPM	Alternative config	YES
Step	1 RPM		
Comm object	8253	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		
Description			

Nominal engine speed (RPM - revolutions per minute).

Note: To lock this setpoint against editing you also have to lock setpoint Nominal RPM 1 (page 331), Nominal RPM 2 (page 335) and Nominal RPM 3 (page 339).

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# **Subgroup: Controller settings**

#### Controller mode

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	OFF / MAN / AUTO[-]		
Default value	OFF	Alternative config	NO
Step	[-]		
Comm object	8315	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		
Description			

This setpoint can be used for changing the Controller mode remotely, e.g. via MODBUS. Use the mode selector on the main screen for changing the mode from the front panel. Use mode selector in the control window for changing the mode from InteliConfig.

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#### **Power On Mode**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	Previous / OFF [-]		
Default value	Previous	Alternative config	NO
Step	[-]		
Comm object	13000	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		
Description			

#### Description

This setpoint adjusts controller mode after power on of controller.

Previous	When controller is power on, than is switched into last mode before power off.
OFF	When controller is power on, than is switched into OFF mode.

Note: Remote modes - In case that some LBI remote mode is activated during power on of controller than this LBI has higher priority than this setpoint - controller mode is forced into mode selected via LBI. After deactivation of LBI, controller is switched into value selected via setpoint Power On Mode

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# **Operation Mode**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	AMF / MRS [-]		
Default value	AMF	Alternative config	NO
Step	[-]		
Comm object	12157	Related applications	AMF
Config level	Advanced		
Setpoint visibility	Always		
Description			

#### Description

Based on this setpoint is defined basic controller function.

AMF	Normal AMF operation
MRS	When MRS mode is selected the controller will not perform AMF functions anymore. MCB
	button will be inactive and also mains measurement and protections will be disabled.
	The controller will keep TEST mode and the gen-set in AUTO mode will be able to start by
	REMOTE START/STOP (PAGE 534) binary input.

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#### **Controller Address**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	1 32 [-]		
Default value	1	Alternative config	NO
Step	1		
Comm object	24537	Related applications	AMF, MRS
Config level	Standard		
Setpoint visibility	Always		
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### Description

Controller identification number. It is possible to set controller address different from the default value (1) so that more IL controllers can be interconnected (via RS485) and accessed e.g. from MODBUS terminal.

**Note:** When opening connection to the controller it's address has to correspond with the setting in PC tool.

**Note:** This setpoint is common for CM-Ethernet, CM-GPRS and CM-4G-GPS modules.

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#### **Reset To Manual**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	Disabled / Enabled [-]		
Default value	Disabled	Alternative config	NO
Step	[-]		
Comm object	9983	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		

### Description

If this function is enabled, the controller will switch automatically to MAN mode when there is a red alarm in the alarm list and fault reset button is pressed. This is a safety function that prevents the gen-set starting again automatically in specific cases when fault reset button is pressed.

**Example:** Controller is in AUTO mode and there is red inactive unconfirmed alarm and fault reset button is pressed, controller will start automatically.

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# **Backlight Timeout**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	Disabled / 1 255 [min]		
Default value	Disabled	Alternative config	NO
Step	1 min		
Comm object	10121	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		
Description			

The display backlight is switched off when this timer exceed. When setpoint is adjusted to disabled then the display will be backlighted all the time.

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#### **Horn Timeout**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	Disabled / 1 599 [s]		
Default value	10 s	Alternative config	NO
Step	1 s		
Comm object	8264	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		
D			

#### Description

Setting of horn behavior.

Disabled Disabling the Horn sounding function

Timeout for HORN (PAGE 578) binary output. The HORN (PAGE 578) output is opened when

this timeout elapsed.

**Note:** Horn timeout starts again from the beginning if a new alarm appears before previous Horn timeout has elapsed.

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### **Zero Power Mode**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	Disabled / 1 - 360 [min]		
Default value	Disabled	Alternative config	NO
Step	1 min		
Comm object	8548	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		

#### **Description**

The controller is switched to Zero Power Mode when there is no user interaction with the controller for the preset time period. Zero Power Mode is disabled in AMF automatic mode. For the controller wake up press button Start or activate Binary Input 1. The controller will not switch to Zero Power Mode if generator is running. In Zero Power Mode binary outputs go to high impedance.

**Note:** Power consumption of controller in Zero Power Mode is 0 mA. Controller is internally disconnected from power supply.

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# **RunHoursSource**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	AUTO/ECU/INTERNAL [-]		
Default value	AUTO	Alternative config	NO
Step	[-]		
Comm object	13345	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		

# Description

This setpoint selects source of running hours

AUTO	If there is some ECU which send valid running hours, then this value is used.  Otherwise value from internal counter is used.
ECU	Running hours are taken from ECU if ECU send valid data. It is not possible to set and reset this value in statistics.
INTERNAL	Running hours are taken from internal counter. It is possible to set and reset this value in statistics.

**Note:** It is not necessary to restart controller when this setpoint is changed. Change of this setpoint should be applied immediately.

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#### **Screen Filter**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	Enable/Disabled [-]		
Default value	Disabled	Alternative config	NO
Step	[-]		
Comm object	15889	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		

# Description

This setpoint enables/disables filter values on CU screen and PC tools.

List of values which are filtered when filter is ON.

- ► Generator Voltage L1-L2
- Generator Voltage L2-L3
- Generator Voltage L3-L1
- Generator Voltage L1-N
- ► Generator Voltage L2-N
- ► Generator Voltage L3-N
- Generator Frequency
- Load kVA
- Load kVA L1
- Load kVA L2
- ▶ Load kVA L3
- Load kVAr
- Load kVAr L1
- ▶ Load kVAr L2
- ► Load kVAr L3
- Load kW
- Load kW L1
- Load kW L2
- ▶ Load kW L3

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# **Subgroup: HMI Settings**

# **Main Screen Line 1**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	RPM/PF/Run Hours/ATT/AIN1 [-]		
Default value	PF	Alternative config	NO
Step	[-]		
Comm object	13346	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		
Description			
This setpoint adjusts line 1 on Mains screen.			

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# **Main Screen Line 2**

Setpoint group	Basic settings	Related FW	1.8.0
Range [units]	RPM/PF/Run Hours/ATT/AIN1 [-]		
Default value	RPM	Alternative config	NO
Step	[-]		
Comm object	14628	Related applications	AMF, MRS
Config level	Advanced		
Setpoint visibility	Always		
Description			
This setpoint adjusts line 2 on Mains screen.			

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**Group: Engine settings** 

**Subgroup: Starting**