Products: Genset Controllers Device Series: easYgen-3x00XT

CONVERSION TOOL EXCEPTIONS

**Manual adaptions**

To make the easYgen-3000XT more flexible it was necessary to add new parameters or substitute known parameters by new ones with similar functions. These parameters could not be converted by the setting conversion tool. The conversion tool is setting these parameters to default. If it is a new parameter e.g. a new LogicsManager in most cases the default settings make the easYgen-3000XT to work like the easYgen-3000. For some functions a manual adjustment is required.

A manual adjustment is mainly required for the following functions (refer to the chapters of the manual which are noted in this document):

# easYgen-3x00XT (all variants) related adaptions

### Firing speed detection

Firing speed detection of the easYgen-3000XT is always handled via LogicsManager parameter 12951 (chapter “Engine Start/Stop”).

(Parameter 3324 “LogicsManager for firing speed” is not available in the easYgen-3000XT.)

### Free Alarms 1 - 4

The easYgen-3000XT has dedicated LogicsManagers for every Free Alarm 1-4. For this reason the parameters On/Off are not existing anymore. (The Ids of the other settings have changed but they will be converted) (chapter “Free Configurable Alarms”)

### Analog inputs (internal /external)

The easYgen-3000XT has expanded hardware ranges (chapter “Analog Inputs”) and new types for the internal analog inputs.

The scaling of the internal and external analog inputs is now related to the physical hardware range (chapter “Analog Inputs (general)”) For this reason the values of tables A/B must be adapted too if used. Take a look to the parameters for the units too

### Analog outputs (internal /external)

The scaling of the internal and external analog outputs is now related to the physical hardware range (chapter “Analog Outputs”) For this reason the values of tables A/B must be adapted too if used.

### J1939 ECUs

The easYgen-3000XT has a new handling of external devices via CAN2. These are J1939 devices like ECUs or Axiomatic terminals (chapter “J1939 Interface”)

### J1939 Monitoring:

The easYgen-3000XT has an improved handling of external J1939 devices monitoring (chapter “CAN Interface 2 - J1939 Interface”).

### Expansion Modules at CANopen Interface

The easYgen-3000XT has a new handling of external CANopen devices at CAN 2 (IKD, Phoenix, Wago). These are external terminals for analog and digital inputs and outputs (chapter “Expansion Modules at CANopen Interface”, “Setup Expansion Modules at CAN2”).

### Generator Busbar Mains phase rotation

The parameters for “Generator Busbar Mains phase rotation” (e.g. 2940) are not available anymore. Phase rotation is now monitored with “Operating Range Failure” check 12 (chapter “Operating Range Failure”).

### Power load share factor / gain:

The parameters “Active. power load share factor” (5530) and “React. power load share factor” (5630) are substituted by “Active power load share gain” (4522) and “React. power load share gain” (4534). (Chapter “Load Sharing, Parameters”)

### Power factor characteristic PF(P):

The 4 points for power (5787, 5789, 5028, 5030) are changed from [kW] to [%]. (Chapter ”Power factor characteristic PF(P)”)

### Enable test ramp /Disable load setpoint

The LogicsManager “Enable test ramp” (11465) with LM24.76 “Enable test ramp status ” is substituted by “Disable load setpoint ramp” (12853) with LM 87.76 “Disable load ramp”. (Chapter “Configure: Load Control (general).

### Internal kVAr setpoints:

The upper value of the parameters “Internal kVAr setpoints” 1/2 (5745, 5746) are limited by the parameter “Mains rated react. power [kVAr]” (1746). For this reason “Mains rated react. power [kVAr]” must be configured first.

### Frequency set points, analog variables frequency set point.

The analog managers “5518 AM Frequency SP1[Hz]” and “5519 AM Frequency SP2[Hz]” require source values with the unit **Hz** e.g. like shown in the table below:

|  |  |  |
| --- | --- | --- |
| **Analog manager for****frequency set points** | Source **[Hz]** e.g.: | Comment |
| 5518 AM Frequency SP1**[Hz]** 5519 AM Frequency SP2**[Hz]** | 05.51 Internal freq.setp.1 [Hz] | Be aware that the analog variables 05.01, 05.02, 05.03 are with the unit percent in the easYgen-3000XTand could **not** be used as source for these analog managers. |
| 05.52 Internal freq.setp.2 [Hz] |
| 05.53 Interface freq.setp. [Hz] |

### Active load set points, analog variables active load set point.

The analog managers “5539 AM ActPower SP1 **[W]**”, “5540 AM ActPower SP2 **[W]**”, “5606 AM ActPower SP3 **[W]**” and “5609 AM ActPower SP4 **[W]**” require source values with the unit **W** e.g. like shown in the table below:

|  |  |  |
| --- | --- | --- |
| **Analog manager for load****set points** | Source **[W]** e.g.: | Comment |
| 5539 AM ActPower SP1 **[W]** | 05.54 Internal P setp.1 [W] | Be aware that the analog |
| 5540 AM ActPower SP2 **[W]** | 05.55 Internal P setp.2 [W] | variables 05.04, 05.05, 05.06, |
| 5606 AM ActPower SP3 **[W]** | 05.30, 05.34 are with the unit |
| 05.80 Internal P setp.3 [W] |
| 5609 AM ActPower SP4 **[W]** | percent in the easYgen-3000XT |
| 05.84 Internal P setp.4 [W] |
|  | and could **not** be used assource for these analog managers. |
| 05.56 Interface P setp [W] |
|  |  |  |

### Voltage set points, analog variables voltage set point.

The analog managers “5618 AM Voltage SP.1**[V]**“ and “5619 AM Voltage SP.2**[V]**” require source values with the unit **V** e. g .like shown in the table below:

|  |  |  |
| --- | --- | --- |
| **Analog manager for****voltage set points** | Source **[V]** e.g.: | Comment |
| 5618 AM Voltage SP.1**[V]** 5619 AM Voltage SP.2**[V]** | 05.57 Internal volt. setp.1 [V] | Be aware that the analog variables 05.07, 05.08, 05.09 are with the unit percent in the easYgen-3000XTand could **not** be used as source for these analogmanagers. |
| 05.58 Internal freq.setp.2 [V] |
| 05.59 Interface freq.setp. [V] |

### Power factor/reactive load set points, analog variables power factor/reactive load set point.

The analog managers “5638 AM PF/VAr SP.1[-/var]”and “5639 AM PF/VAr SP.2[-/VAr]” require source values like shown in the table below:

|  |  |  |
| --- | --- | --- |
| **Analog manager power factor set points** | Source **[%]** e.g.: | Comment |
| 5638 AM **PF**/VAr SP.1**[-/var]**5639 AM **PF**/VAr SP.2**[-/var]** | 05.10 Int.pow.factor setp1 [%] | (It is like the former easYgen-3000.) |
| 05.11 Int.pow.factor setp2 [%] |
| 05.12 Interface pow.factor [%] |
|  |  |  |
| **Analog manager reactive****power set points** | Source **[VAr]** e.g.: |  |
| 5638 AM PF/**var** SP.1**[-/var]**5639 AM PF/**var** SP.2**[-/var]** | 05.81 Internal kvar setpoint 1 | Don’t use 10.01, 10.02 and10.03 these analog variables are very different from the former easYgen. |
| 05.82 Internal kvar setpoint 2 |
| 05.83 Interface kvar setpoint |

### PID control:

Parameters “Value format” are substituted by parameters “Unit” (chapter “PID {x} Control”)

### easYgen-3500XT-P1 related adaptions:

If a converted wset file is used for an **easYgen-3500XT** a manual adjustment is required for the following functions (refer to the chapters in the manual) too:

### Breaker Controller LS5

The LS5 related settings must be configured manually.

Breaker application mode (chapter “General Breaker Settings”). Emergency start segments parameter (chapter “Emergency Run”). Monitoring (chapter “Multi-unit missing LS5”). LS5 related command flags (Configure LogicsManager)

### Run-up Synchronization

Run-up Synchronization related settings must be configured manually (Chapters “Run-up Synchronization”, “Run-Up Synchronization”).

### Application modes breaker

If there is a breaker mode with **GGB** or **LS5** parameter 3444 must be configured manually (chapter “General Breaker Settings”).

### Generator Group Breaker (GGB)

Generator Group Breaker (GGB) related settings must configured manually (Chapter “General Breaker Settings”, “Configure Breakers GGB”)

### easYgen-3500XT-P2 related adaptions:

If a converted wset file is used for an **easYgen-3500XT-P2** a manual adjustment is required for the following functions (refer to the chapters in the manual) too:

### Busbar measurement

Check parameter “Busbar 1 voltage measuring” (1856) for the bus bar if it matches the wiring

### LS5

The LS5 related settings must be configured manually. Breaker application mode (chapter “General Breaker Settings).

Emergency start segments parameter (chapter “Emergency Run”). Monitoring (chapter “Multi-unit missing LS5”).

LS5 related command flags (Configure LogicsManager)

### Run-up Synchronization

Run-Up Synchronization related settings must be configured manually (Chapters “Run-up Synchronization”, “Run-up Synchronization”).

### Application modes breaker

If there is a breaker mode with **GGB** or **LS5** parameter 3444 must be configured manually (chapter “General Breaker Settings”).

### Generator Group Breaker (GGB)

Generator Group Breaker (GGB) related settings must configured manually (Chapter “General Breaker Settings”, “Configure Breakers GGB )

### Internal digital inputs 13- 23

Internal digital inputs 13- 23 settings must be configured manually

### Internal digital outputs 13- 20

Internal digital outputs 13- 20 settings must be configured manually

### Internal analog inputs 4-10 /outputs 3-6

Internal analog outputs 4-10/outputs 3-6 settings must be configured manually

**Disclaimer Items:**

* Please check in all cases the correct function of
	+ Breaker close commands (Correct Synchronization) (disconnect first the close command)

## Breaker open commands

* + Engine start and stop command
	+ Grid code relevant parameters

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