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System Information

Einstellen des Wechselrichters wie für Typ A und anpassen der markierten Parameter.

Versionen

Gerätename	Symo GEN24 10.0
Hardware ID	pilot-0.6e-2963528898180858059
WebUI	1.28.1-3
User Agent	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/128.0.0.0 Safari/537.36 OPR/114.0.0.0
Softwareversion	ROW 1.34.2-1

Dieser Softwarestand wird mindestens benötigt.

Software-Revisionen

CoyoteCore	1.28.1-3
DEVICEGROUP	1.34.2-1
GEN24	1.34.2-1
GEN24ROW	1.34.2-1
GEN24SYMO	1.34.2-1
Kronos	1.2.1-26392
KronosV3	3.2.3-26737
Rhea	2.15.1-2
S10RW-pilot	1.28.1-3
Zeus	3.1.3-19439
imx6sx-pilot	1.28.1-3

Hardware-Revisionen

3PN10K-34381005314960147	34381005314960147|4,071,594|0.6L__|3PN10K|R|
PILOT-34389501800001508	34389501800001508|4,071,452|0.6E_B|PILOT|R|
ROX-L-34361001193940351	34361001193940351|4,071,779|0.2B_C|ROX-L|R|

Netzwerk

Ethernet (LAN1)

status	connected

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ip	192.168.150.64
dns	192.168.150.1
mask	255.255.255.0
gateway	192.168.150.1

WLAN

status	disconnected

Lizenz

Seriennummer	34837258
Nennleistung	10000
Sequenznummer	1
Artikelnummer	4,210,157,002

Aktivierte Features

Artikelnummer	Name
41,300,221	Battery Operation
41,300,222	Full Backup

Setup Version

Grid Code	AT1E - cos phi=1
Region	Austria
Grid Code Id	196645 (0x30025)
Grid Code Version	V 01.00.47.00

Länder-Setup

Allgemein

Startup and Reconnection

Option	Value	Unit
Grid Monitoring Time Startup	60	s

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Option	Value	Unit
Grid Monitoring Time Reconnection	300	s

Ramp Rates

Ramp-Up at Startup and Reconnection

Option	Value	Unit
Ramp-Up at Startup and Reconnection	Ein	
Ramp-Up at Startup and Reconnection Rate	0.16	%/s

Ramp-Up Irradiation

Option	Value	Unit
Ramp-Up Irradiation	Aus	
Ramp-Up Irradiation Rate	0.167	%/s

Ramp-Down Irradiation

Option	Value	Unit
Ramp-Down Irradiation	Aus	
Ramp-Down Irradiation Rate	0.167	%/s

Ramp-Up Communication

Option	Value	Unit
Ramp-Up Communication	Aus	
Ramp-Up Communication Rate	0.3	%/s

Ramp-Down Communication

Option	Value	Unit
Ramp-Down Communication	Aus	
Ramp-Down Communication Rate	0.3	%/s

Import

Option	Value	Unit
Battery Grid Import Limit	100000	W

Netz- und Anlagenschutz

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Voltage

Inner Limits

Option	Value	Unit
Undervoltage U<	184	V
Undervoltage Time U<	1.46	s
Overvoltage U>	264.5	V
Overvoltage Time U>	0.06	s

Middle Limits

Option	Value	Unit
Voltage Middle Limits	Aus	
Undervoltage U<	190	V
Undervoltage Time U<	0.18	s
Overvoltage U>	270	V
Overvoltage Time U>	0.18	s

Outer Limits

Option	Value	Unit
Voltage Outer Limits	Ein	
Undervoltage U<<	57.5	V
Undervoltage Time U<<	0.46	s
Overvoltage U>>	264.5	V
Overvoltage Time U>>	0.06	s

Long Time Average Limit

Option	Value	Unit
Long Time Average Limit	Ein	
Overvoltage U>	255.3	V
Overvoltage Averaging Time U>	600	s

Fast Overvoltage Disconnect

Option	Value	Unit
Fast Overvoltage Disconnect Threshold	120	%V

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Option	Value	Unit
Fast Overvoltage Disconnect Time	0.003	s

Startup and Reconnection

Option	Value	Unit
Mode	Startup Values are used for Startup and Reconnection	
Startup Minimum Voltage	195.5	V
Startup Maximum Voltage	250.7	V
Reconnection Minimum Voltage	195.5	V
Reconnection Maximum Voltage	250.7	V
Tripping time for voltage limit violation	1	s

Frequency

Inner Limits

Option	Value	Unit
Underfrequency f<	47.5	Hz
Underfrequency Time f<	0.06	s
Overfrequency f>	51.5	Hz
Overfrequency Time f>	0.06	s

Outer Limits

Option	Value	Unit
Frequency Outer Limits	Ein	
Underfrequency f<<	47.5	Hz
Underfrequency Time f<<	0.06	s
Overfrequency f>>	51.5	Hz
Overfrequency Time f>>	0.06	s

Alternative Limits

Option	Value	Unit
Frequency Alternative Limits	Aus	
Underfrequency f<	49.5	Hz

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Option	Value	Unit
Underfrequency Time f<	0.1	s
Overfrequency f>	50.5	Hz
Overfrequency Time f>	0.1	s

Startup and Reconnection

Option	Value	Unit
Mode	Startup Values are used for Startup and Reconnection	
Startup Minimum Frequency	47.5	Hz
Startup Maximum Frequency	50.1	Hz
Reconnection Minimum Frequency	47.5	Hz
Reconnection Maximum Frequency	50.1	Hz
Tripping time for frequency limit violation	1	s

Rate of Change of Frequency (RoCoF) Protection

Option	Value	Unit
Rate of Change of Frequency (RoCoF) Protection	Aus	
RoCoF Limit	2.5	Hz/s
RoCoF Detection Measuring Window Time	0.5	s
RoCoF Trip Time	0.3	s

DC Injection

Inner Limit

Option	Value	Unit
Mode	Aus	
DC Current Absolute Value	0.9	A
DC Current Relative Value	0.5	%A
DC Injection Time	0.2	s

Outer Limit

Option	Value	Unit
Mode	Aus	

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Option	Value	Unit
DC Current Absolute Value	0.9	A
DC Current Relative Value	0.5	%A
DC Injection Time	0.18	s

Netzstützende Funktionen

Voltage Fault Ride Through

Option	Value	Unit
Mode	Ein	

Region 1

Option	Value	Unit
Static Threshold	80	%V
Static Detection Mode	L-L and L-N Voltage	
Current Calc Mode	Active Symmetric Current	
k-factor Positive Sequence	2	
k-factor Negative Sequence	2	

Region 2

Option	Value	Unit
Static Threshold	0	%V
Static Detection Mode	L-N Voltage	
Current Calc Mode	Passive	
k-factor Positive Sequence	0	
k-factor Negative Sequence	0	

Region 3

Option	Value	Unit
Static Threshold	0	%V
Static Detection Mode	L-N Voltage	
Current Calc Mode	Passive	

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Option	Value	Unit
k-factor Positive Sequence	0	
k-factor Negative Sequence	0	

General - Voltage Fault Ride Through

Option	Value	Unit
Reactive Current Limitation Over-Excited	100	%
Reactive Current Limitation Under-Excited	100	%
Follow-Up Time	0.02	s
Sudden Voltage Change Detection (SVCD)	Aus	
Insensitivity Range (SVCD)	5	%
Deactivation Time (SVCD)	5	s
Operation Range Check	Ein	
Operation Range Undervoltage Limit	10	%V
Operation Range Undervoltage Timeout	1.2	s

Active Power

Voltage-dependent Power Control

Option	Value	Unit
Mode	Aus	
Activation Threshold Overvoltage	253	V
Gradient Overvoltage	21.74	%/V
Calculation Mode	Pmax = Pn-Pn(k*dV)	
Active Grid Support	Aus	
Activation Threshold Undervoltage	0	V
Gradient Undervoltage	0	%/V
Time Constant (τ)	5	s
Stop Voltage at Overvoltage	270	V
Power at Stop Voltage - Overvoltage	0	%
Stop Voltage at Undervoltage	220	V
Power at Stop Voltage - Undervoltage	100	%
Activation Delay	0	s
Reset Delay	0	s

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Frequency-dependent Power Control

Option	Value	Unit
Mode	On (without Hysteresis)	
Configuration Method	Use Gradient	
Transition Frequency at Overfrequency	66	Hz
Transition Frequency at Underfrequency	45	Hz

Frequency-dependent Power Control - Overfrequency

Option	Value	Unit
Calculation Mode Overfrequency	Pmax = Pm-Pm(k*df)	
Activation Threshold Overfrequency	50.2	Hz
Gradient Overfrequency	40	%/Hz
Stop Frequency - Overfrequency	52	Hz
Power at Stop Frequency - Overfrequency	0	%
Upper Deactivation Threshold Overfrequency	50.2	Hz
Lower Deactivation Threshold Overfrequency	49.8	Hz

Frequency-dependent Power Control - Underfrequency

Option	Value	Unit
Active Grid Support	Ein	
Calculation Mode Underfrequency	Pmax = Pm-Pn(k*df)	
Activation Threshold Underfrequency	49.8	Hz
Gradient Underfrequency	200	%/Hz
Stop Frequency - Underfrequency	48	Hz
Power at Stop Frequency - Underfrequency	0	%
Upper Deactivation Threshold Underfrequency	50.2	Hz
Lower Deactivation Threshold Underfrequency	49.8	Hz

Frequency-dependent Power Control - General - Frequency-dependent Power Control

Option	Value	Unit
Return Gradient 1	0.16	%/s
Return Gradient 1 Alternative	5	%/s

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Option	Value	Unit
Return Gradient 1 Alternative Threshold	100	%W
Return Gradient 2 Mode	Off	
Return Gradient 2	5	%/s
Deactivation Time	0	s
Intentional Delay	0.5	s
Time Constant (τ)	0	s

Frequency-dependent Power Control - Battery SoC Limitation for Grid Support

Option	Value	Unit
Mode	Aus	
Battery SoC Lower Limit	10	%
Battery SoC Upper Limit	90	%

General - Active Power

Option	Value	Unit
Priority at Underfrequency	Priority on Manual Power Limitation	

Reactive Power

Option	Value	Unit
Mode	Cos φ - Constant Power Factor	
P/Q Priority	Q Priority	
Cos φ Minimum	0.1	

const cos φ

Option	Value	Unit
cos φ - Power Factor	1	
Direction / Excitation	Injection / OverExcited / Capacitive	
Time Constant (τ)	0.1	s

Q Absolute - Constant Reactive Power

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Option	Value	Unit
Q - Reactive Power (Var)	0	var
Time Constant (τ)	0.1	s

Q Relative - Constant Reactive Power

Option	Value	Unit
Q - Reactive Power (% of Nominal Apparent Power)	0	%var
Time Constant (τ)	0.1	s
Power Reference (RefType)	Apparent Power	

Cos φ(P) - Power-dependent Power Factor Characteristic

Cos φ(P) - Power-dependent Power Factor Characteristic - Point 1

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	0	%W
cos φ - Power Factor	1	
Direction / Excitation	Injection / OverExcited / Capacitive	

Cos φ(P) - Power-dependent Power Factor Characteristic - Point 2

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	0	%W
cos φ - Power Factor	1	
Direction / Excitation	Injection / OverExcited / Capacitive	

Cos φ(P) - Power-dependent Power Factor Characteristic - Point 3

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	50	%W
cos φ - Power Factor	1	
Direction / Excitation	Injection / OverExcited / Capacitive	

Cos φ(P) - Power-dependent Power Factor Characteristic - Point 4

Option	Value	Unit

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Option	Value	Unit
Active Power (% of Nominal Apparent Power)	100	%W
cos φ - Power Factor	0.9	
Direction / Excitation	Absorption / UnderExcited / Inductive	

Cos φ(P) - Power-dependent Power Factor Characteristic - Point 5

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	0	%W
cos φ - Power Factor	1	
Direction / Excitation	Injection / OverExcited / Capacitive	

Cos φ(P) - Power-dependent Power Factor Characteristic - Point 6

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	0	%W
cos φ - Power Factor	1	
Direction / Excitation	Injection / OverExcited / Capacitive	

Cos φ(P) - Power-dependent Power Factor Characteristic - Point 7

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	0	%W
cos φ - Power Factor	1	
Direction / Excitation	Injection / OverExcited / Capacitive	

Cos φ(P) - Power-dependent Power Factor Characteristic - Point 8

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	0	%W
cos φ - Power Factor	1	
Direction / Excitation	Injection / OverExcited / Capacitive	

Cos φ(P) - Power-dependent Power Factor Characteristic - General

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Option	Value	Unit
Lock-In Voltage-Dependent (% of Nominal Voltage)	0	%V
Lock-Out Voltage-Dependent (% of Nominal Voltage)	0	%V
Time Constant (τ)	1	s

Q(P) - Power-dependent Reactive Power Characteristic

Q(P) - Power-dependent Reactive Power Characteristic - Point 1

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	0	%W
Reactive Power (% of Nominal Apparent Power)	0	%var

Q(P) - Power-dependent Reactive Power Characteristic - Point 2

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	25	%W
Reactive Power (% of Nominal Apparent Power)	0	%var

Q(P) - Power-dependent Reactive Power Characteristic - Point 3

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	25	%W
Reactive Power (% of Nominal Apparent Power)	0	%var

Q(P) - Power-dependent Reactive Power Characteristic - Point 4

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	100	%W
Reactive Power (% of Nominal Apparent Power)	0	%var

Q(P) - Power-dependent Reactive Power Characteristic - Point 5

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	0	%W
Reactive Power (% of Nominal Apparent Power)	0	%var

Q(P) - Power-dependent Reactive Power Characteristic - Point 6

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	0	%W

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Option	Value	Unit
Reactive Power (% of Nominal Apparent Power)	0	%var

Q(P) - Power-dependent Reactive Power Characteristic - Point 7

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	0	%W
Reactive Power (% of Nominal Apparent Power)	0	%var

Q(P) - Power-dependent Reactive Power Characteristic - Point 8

Option	Value	Unit
Active Power (% of Nominal Apparent Power)	0	%W
Reactive Power (% of Nominal Apparent Power)	0	%var

Q(P) - Power-dependent Reactive Power Characteristic - General

Option	Value	Unit
Lock-In Voltage-Dependent (% of Nominal Voltage)	0	%V
Lock-Out Voltage-Dependent (% of Nominal Voltage)	0	%V
Time Constant (τ)	1	s
Power Reference (Y-RefType)	Apparent Power	

Q(U) - Voltage-dependent Reactive Power Characteristic

Q(U) - Voltage-dependent Reactive Power Characteristic - Point 1

Option	Value	Unit
Voltage (% of Nominal Voltage)	92	%V
Reactive Power (% of Nominal Apparent Power)	43.6	%var

Q(U) - Voltage-dependent Reactive Power Characteristic - Point 2

Option	Value	Unit
Voltage (% of Nominal Voltage)	96	%V
Reactive Power (% of Nominal Apparent Power)	0	%var

Q(U) - Voltage-dependent Reactive Power Characteristic - Point 3

Option	Value	Unit
Voltage (% of Nominal Voltage)	105	%V

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Option	Value	Unit
Reactive Power (% of Nominal Apparent Power)	0	%var

Q(U) - Voltage-dependent Reactive Power Characteristic - Point 4

Option	Value	Unit
Voltage (% of Nominal Voltage)	108	%V
Reactive Power (% of Nominal Apparent Power)	-43.6	%var

Q(U) - Voltage-dependent Reactive Power Characteristic - General

Option	Value	Unit
Q Offset Factor	0	
Initial Delay Time	0	s
Lock-In P-Dependent Production (% of Nominal Apparent Power)	0	%W
Lock-Out P-Dependent Production (% of Nominal Apparent Power)	0	%W
Lock-In P-Dependent Consumption (% of Nominal Apparent Power)	0	%W
Lock-Out P-Dependent Consumption (% of Nominal Apparent Power)	0	%W
Time Constant (τ)	5	s
Auto Adjusting Reference Voltage Mode	Aus	
Reference Voltage Uref	100	%V
Auto Adjusting Reference Voltage Time Constant (τref)	300	s
Power Reference (Y-RefType)	Apparent Power	

Einspeisebegrenzung

Einspeiselimit

Option	Value	Unit
Leistungsbegrenzung	on	
Leistungsreduktion	Limit Gesamtleistung	
Gesamte DC-Anlagenleistung	10000	W
Dynamische Einspeisebegrenzung (Soft Limit)	on	
Maximal erlaubte Einspeiseleistung des gesamten Systems (Soft Limit)	10000	W
Abschaltfunktion Einspeisebegrenzung (Hard Limit Trip)	off	
Maximal erlaubte Einspeiseleistung des gesamten Systems (Hard Limit Trip)	0	W

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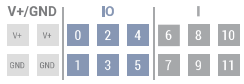
Option	Value	Unit
Wechselrichterleistung auf 0% reduzieren, wenn die Verbindung zum Smart Meter getrennt ist.	off	
Mehrere Wechselrichter limitieren (nur Soft Limit)	off	

Sicherheits- und Netzanforderungen
Länder-Setup
Einspeisebegrenzung
I/O-Leistungsmanagement
Autotest (CEI 0-21)

I/O Leistungsmanagement

Einstellen der I/O Ports.



Kontakt EVU Rückmeldung
Nicht verwendet

Regeln

Regel 1

Wirkleistung *
0

Leistungsfaktor (cos φ) *
1

Impedanzverhalten
Induktiv

EVU Rückmeldung

Regel 2

Regel 3

Regel 4

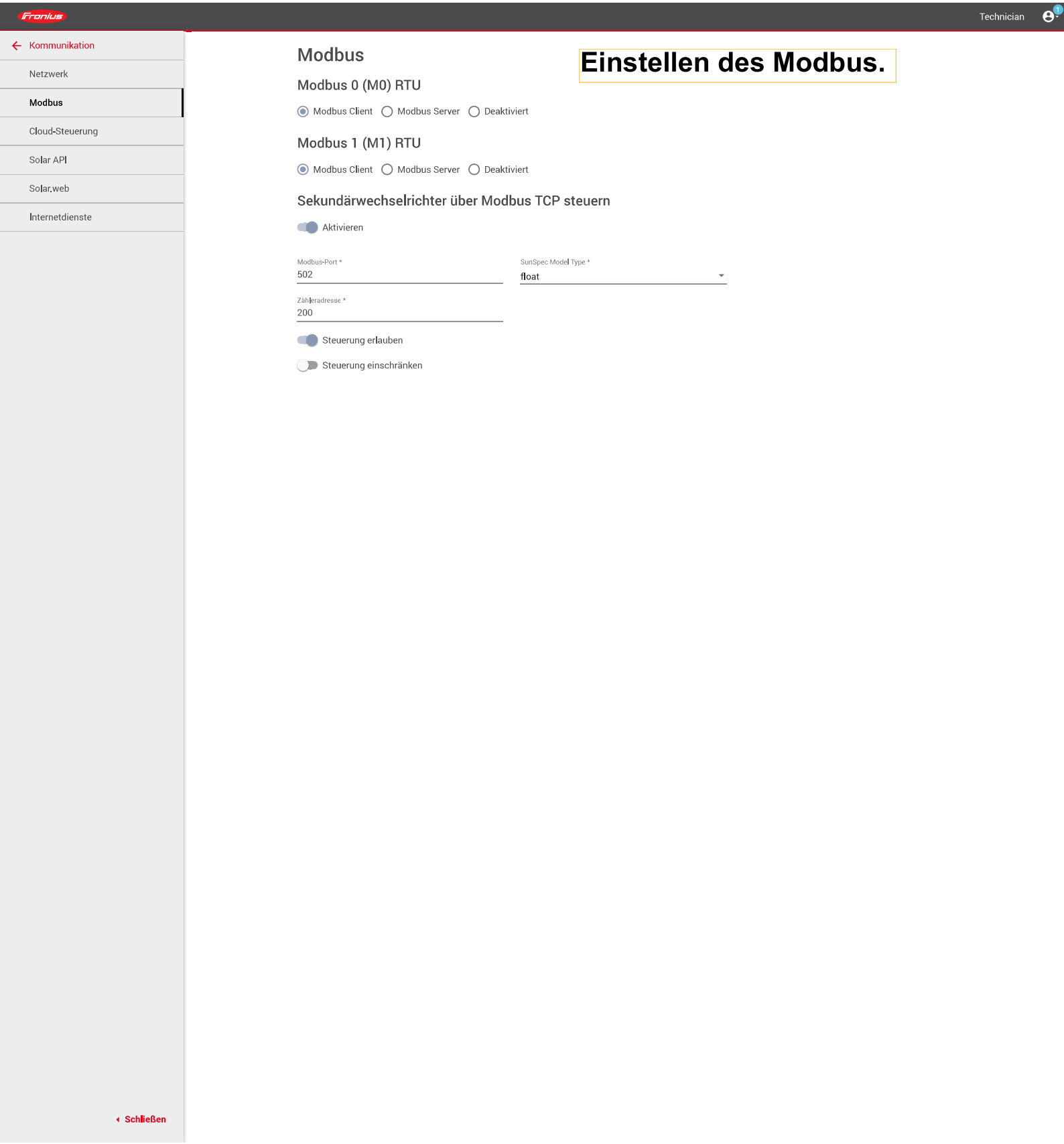
Import | Export

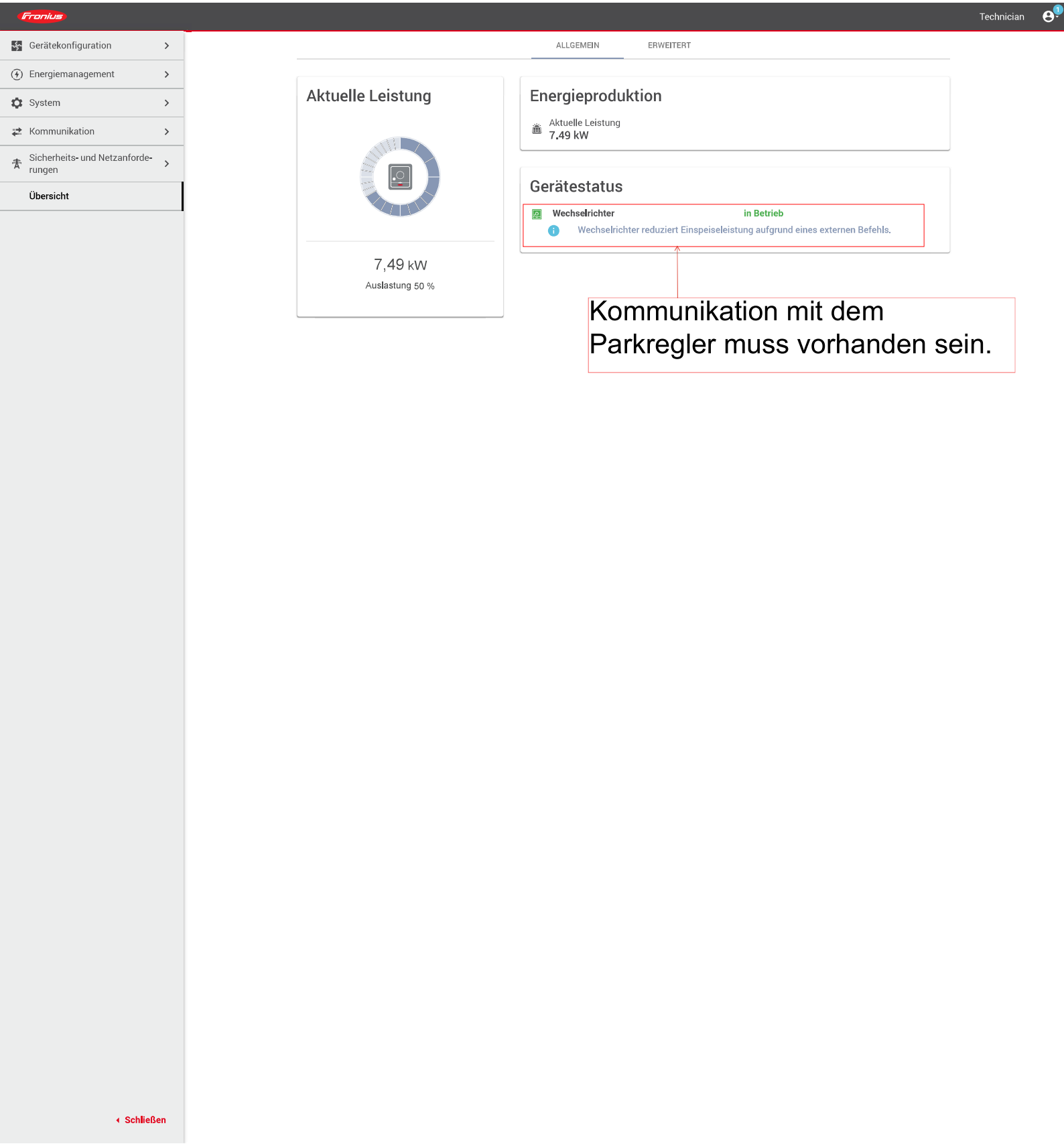
0 *Frei*
1 *Frei*
2 *Frei*
3 *Frei*
4 *Frei*
5 *Frei*
6 *Frei*
7 *Frei*
8 *Frei*
9 *Frei*
10 *Frei*
11 *Frei*

Steuerungsprioritäten

1. Modbus Steuerung
2. IO Leistungsmanagement
3. Einspeisebegrenzung

Schließen


Technician
Kommunikation
Netzwerk
Modbus
Cloud-Steuerung
Solar API
Solar.web
Internetdienste
Schließen
Modbus
Einstellen des Modbus.
Modbus 0 (M0) RTU
Modbus Client
Modbus Server
Deaktiviert
Modbus 1 (M1) RTU
Modbus Client
Modbus Server
Deaktiviert
Sekundärwechselrichter über Modbus TCP steuern
Aktivieren
Modbus-Port *
502
SunSpec Model Type *
float
Zähleradresse *
200
Steuerung erlauben
Steuerung einschränken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Gerätekonfiguration
Energiemanagement
System
Kommunikation
Sicherheits- und Netzanforderungen
Übersicht
Schließen
ALLGEMEIN
ERWEITERT
Aktuelle Leistung
7,49 kW
Auslastung 50 %
Energieproduktion
Aktuelle Leistung
7.49 kW
Gerätestatus
Wechselrichter
in Betrieb
Wechselrichter reduziert Einspeiseleistung aufgrund eines externen Befehls.
Kommunikation mit dem Parkregler muss vorhanden sein.