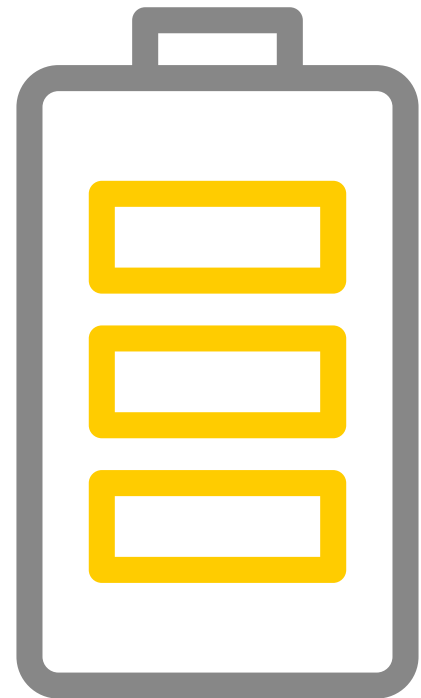


# RESIDENTIAL STORAGE SYSTEMS



RESIDENTIAL  
EMOBILITY  
MOUNTING

## Inverter manufacturer

**-AXITEC**

<b>Storage inverter type</b>		AXIhycon 5 / 6 / 8 / 10 H	AXIhycon 12 / 15 / 20 H	AXIhycon 29.9 / 40 / 50 H
<b>Max. PV system size (kWp)</b>		DC: 8.0 to 16.0 AC: without restriction	DC: 19.2 to 32.0 AC: without restriction	DC: up to 41.86 AC: without restriction
<b>AC phases</b>	1	○		
	3	●		
<b>Surge Protection Device DC / AC</b>		Type 2 / -		
<b>Bat.- coupling</b>	AC (Bat.-Inv)	●		
	DC (Hybrid)	●		
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		●		
<b>Manufacturer storage</b>		<b>-AXITEC</b>		
<b>Storage type</b>		AXIstorage Li SV1 10.1 to 23.6	AXIstorage Li SV3 9.7 to 34	AXIstorage Li SV3 9.7 to 34
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		3 - 7 / 6	2 to 7 / -	2 to 5 (WR 5-10), to 6 (WR 12-20), to 7 (WR 29-50) / -
<b>Max. charging power Sys- tem</b>		to be calculated depending on the set / table		
<b>Usable capacity (kWh) per unit</b>		10,1 to 23,6	9.7 to 34.0	9.7 to 34.0
<b>Time window for expansion from commissioning</b>		Up to 5 years		
<b>Emergency power (separate AC clamp)</b>		● backup connection		
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		● backup connection		
<b>Full battery backup (automatic transfer switch)</b>		○		
<b>Active PV-modules in backup mode</b>		●		
<b>Interfaces (Heat pump + FRE)</b>		Connection FRE and heat pump via DRM interfaces		
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limi- tation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs (FW update coming soon); Limitation by EVU (currently via ext.EMS, soon via integrated DRM contact)		
<b>System information</b>		3-phase DC coupled storage system; power classes up to 10kW with 2 MPPT - 12 / 15 / 20 / 40 / 50 kW with 4 MPPT - 29.9 kW with 3 MPPT; UPS functionality (<10ms); Integrated arc detection; peak shaving; up to 3 devices in parallel operation (only the same inverter power classes and battery sizes, EPS outputs only synchronized at 40/50H); use hybrid as off-grid system (with / without generator) possible; Control for external NA protection possible		

\*In Germany limited to 4.6 kW in single-phase operation (VDE-AR-N 4105) // \*\*With suitable PV inverter // \*\*\*Availability /Release according to manufacturer's specification // All information without guarantee and subject to reservation according to manufacturer's approval.

Please note the instructions at the end of the document.

Inverter manufacturer



<b>Storage inverter type</b>		Enphase Microinverter
<b>Max. PV system size (kWp)</b>		AC: without restriction
<b>AC phases</b>	1	<input checked="" type="radio"/>
	3	<input checked="" type="radio"/>
<b>Surge Protection Device DC / AC</b>		- / -
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>
	DC (Hybrid)	<input type="radio"/>
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input checked="" type="radio"/>
<b>Manufacturer storage</b>		
<b>Storage type</b>		Enphase Energy AC Storage System 5P-3P Flex Phase
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		1 / unlimited
<b>Max. charging power System</b>		to be calculated depending on the set / table
<b>Usable capacity (kWh) per unit</b>		5
<b>Time window for expansion from commissioning</b>		Unlimited
<b>Emergency power (separate AC clamp)</b>		<input type="radio"/>
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input type="radio"/>
<b>Full battery backup (automatic transfer switch)</b>		<input type="radio"/> (IQ7 series) <input checked="" type="radio"/> (IQ8 series)
<b>Active PV-modules in backup mode</b>		<input type="radio"/> (IQ7 series) <input checked="" type="radio"/> (IQ8 series)
<b>Interfaces (Heat pump + FRE)</b>		Connection FRE via Envoy-S Gateway
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs; Limitation by EVU (via contact at the gateway)
<b>System information</b>		Module inverter with 1/3-phase AC coupled storage system

## Inverter manufacturer



<b>Storage inverter type</b>		PRIMO GEN24 / PRIMO GEN24 Plus 3.0 / 3.6 / 4.0 / 4.6 / 5.0 (not DE) / 6.0 (not DE) / 8.0 (not DE) / 10.0 (not DE)		
<b>Max. PV system size (kWp)</b>		DC: 4.5 to 15.0 AC: without restriction		
<b>AC phases</b>	1	<input checked="" type="radio"/>		
	3	<input type="radio"/>		
<b>Surge Protection Device DC / AC</b>		Type 1+2 opt. /-		
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>		
	DC (Hybrid)	<input checked="" type="radio"/>		
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input checked="" type="radio"/>		
<b>Manufacturer storage</b>				
<b>Storage type</b>		B-Box HVS / + 5.1 to 7.7	B-Box HVM / + 11 to 19.3	Reserva 6.3 / 9.5
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		2 - 3 / up to 3	4 - 8 / up to 3	2 - 3 / up to 4
<b>Max. charging power System</b>		to be calculated depending on the set / table		to be calculated depending on the set / table
<b>Usable capacity (kWh) per unit</b>		5,1 to 7,7	11,0 to 19,3	6,3 to 9,5
<b>Time window for expansion from commissioning</b>		Unlimited	Unlimited	Up to 2 years
<b>Emergency power (separate AC clamp)</b>		<input checked="" type="radio"/> , 1-phase at PV-Point		
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input type="radio"/>		
<b>Full battery backup (automatic transfer switch)</b>		<input checked="" type="radio"/> , backup box must be assembled by yourself		
<b>Active PV-modules in backup mode</b>		<input checked="" type="radio"/>		
<b>Interfaces (Heat pump + FRE)</b>		Connection Heat pump Mpe and FRE via 6 x DI / DO contact		
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs (via Smart Meter IP + FW Update); Limitation by EVU (integr.Interface)		
<b>System information</b>		1-phaSiges hybrid device with additional PV inverter via AC coupling Version GEN24 Plus: the GEN24 Plus series is delivered, as usual, with an active battery connection as a hybrid; Version GEN24: the new GEN24 series is delivered with deactivated battery connection; This can be activated with an additional activation code At power classes 5.0 to 10.0 kW by selecting VDE-AR-N 4105 no limit to 4.6 kVA, therefore not usable in DE		



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Please note the instructions at the end of the document.

Inverter manufacturer



<b>Storage inverter type</b>		SYMO GEN24 / SYMO GEN24 Plus 3.0 / 4.0 / 5.0		SYMO GEN24 / SYMO GEN24 Plus 6.0 / 8.0 / 10.0		Verto Plus 15.0 / 17.5 / 20.0 / 25.0 / 30.0 / 33.0	
<b>Max. PV system size (kWp)</b>		DC: 22.5 to 50.0 AC: without restriction				DC: 22.5 to 50.0 AC: without restriction	
<b>AC phases</b>	1	<input type="radio"/>					
	3	<input checked="" type="radio"/>					
<b>Surge Protection Device DC / AC</b>		Type 1+2 opt. / -				Type 1+2 / Type 2	
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>					
	DC (Hybrid)	<input checked="" type="radio"/>					
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input checked="" type="radio"/>					
<b>Manufacturer storage</b>							
<b>Storage type</b>		B-Box HVS / + 5.1 to 12.8	B-Box HVM / + 11.0 to 22.1	B-Box HVB 5.9 to 29.6 (Only Verto plus)	Reserve 6.3 / 9.5 / 12.6 / 15.8	Reserve PRO 12.0 / 16.0 / 20.0 / 24.0 / 28.0 / 32.0 (Only GEN24 plus + Verto plus)	
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		2 - 5 / to 3	4 - 8 / To 3 (19.3), 2 (22.1)	2 - 10 / 3	2 - 5 / to 4	3 - 8 / to 4	
<b>Max. charging power System</b>		To calculate depending on the set / Table to be taken			To calculate depending on the set / Table to be taken		
<b>Usable capacity (kWh) per unit</b>		5.1 to 12.8	11.0 to 22.1	5.94 to 29.69	6.3 to 15.8	11.9 to 31.9	
<b>Time window for expansion from commissioning</b>		Unlimited			Up to 2 years	Unlimited	
<b>Emergency power (separate AC clamp)</b>		<input checked="" type="radio"/> , 1-phase at PV-Point				<input type="radio"/>	
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input type="radio"/>					
<b>Full battery backup (automatic transfer switch)</b>		<input checked="" type="radio"/> , with Fronius Backup Switch + Controller					
<b>Active PV-modules in backup mode</b>		<input checked="" type="radio"/>					
<b>Interfaces (Heat pump + FRE)</b>		Connection heat pump and FRE via 6 x DI / DO contact					
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs (via Smart Meter IP + FW Update); Limitation by EVU (integrated interface)					
<b>System information</b>		3-phase hybrid device with high charging power and additional PV inverter via AC coupling; control for external NA protection possible; Version GEN24 (SC) Plus + Verto plus: these series are delivered, as usual, with active battery connection as a hybrid; Version GEN24 (SC): the GEN24 series is delivered with a deactivated battery port; this can be activated with an additional activation code					

<b>Storage inverter type</b>		GW ET plus + Hybrid 5KN / 6.5KN/8KN/10KN (16A) GW ET-20 G2 Hybrid 6000 / 8000 / 10K / 12K / 15K						
<b>Max. PV system size (kWp)</b>		DC: 6.5 to 13.0 AC: without restriction						
<b>AC phases</b>	1	○						
	3	●						
<b>Surge Protection Device DC / AC</b>		Type 2 / Type 2						
<b>Bat.-coupling</b>	AC (Bat.-Inv)	●						
	DC (Hybrid)	●						
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		●						
<b>Manufacturer storage</b>						<b>-AXITEC</b>		
<b>Storage type</b>		B-Box HVS /+ 5.1 to 12.8 (+ only ET-20 G2)	B-Box HVM /+ 11 to 22.1 (+ only ET-20 G2)	Force-H1 13.5 to 23.6	Force-H2 6.7 to 16.9	AXIstorage Li SV1 13.5 to 23.6	AXIstorage Li SV2 6.7 to 16.9	AXIstorage Li SV3 9.7 to 24.3
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		2 - 5 / to 3	4 - 8 / to 3	4 - 7 / 6	2 - 5 / 6	4 - 7 / 6	2 - 5 / 6	2 to 5 / -
<b>Max. charging power System</b>		To calculate depending on the set / Table to be taken		To calculate depending on the set / Table to be taken		To calculate depending on the set / Table to be taken		
<b>Usable capacity (kWh) per unit</b>		5.1 to 12.8	11.0 to 22.1	13.5 to 23.6	6.7 to 16.9	13.5 to 23.6	6.7 to 16.9	9.7 to 24.3
<b>Time window for expansion from commissioning</b>		Unlimited	Unlimited	Up to 2 years		Up to 5 years		
<b>Emergency power (separate AC clamp)</b>		●, backup connection						
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		●, backup connection						
<b>Full battery backup (automatic transfer switch)</b>		○						
<b>Active PV-modules in backup mode</b>		● (only ET plus +)						
<b>Interfaces (Heat pump + FRE)</b>		Connection heat pump via potential-free contact; Connection FRE via connection terminals						
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs (via Goodwe HEMS EzManager3000) Limitation by EVU (integr. interface / EzManager3000)						
<b>System information</b>		3-phase DC coupled storage system; Up to 10 devices in parallel operation (hybrid only) (SEC3000S Box necessary, DE+A: all EPS outputs active - not synchronized) ***						



\*In Germany limited to 4.6 kW in single-phase operation (VDE-AR-N 4105) // \*\*With suitable PV inverter // \*\*\*Availability /Release according to manufacturer's specification // All information without guarantee and subject to reservation according to manufacturer's approval.

Please note the instructions at the end of the document.

Inverter manufacturer

**GOODWE**

<b>Storage inverter type</b>		GW ET plus + Hybrid 5KN / 6.5KN/8KN/10KN (16A) GW ET-20 G2 Hybrid 6000 / 8000 / 10K / 12K / 15K	
<b>Max. PV system size (kWp)</b>		DC: 6.5 to 13.0 AC: without restriction	
<b>AC phases</b>	1	<input type="radio"/>	
	3	<input checked="" type="radio"/>	
<b>Surge Protection Device DC / AC</b>		Type 2 / Type 2	
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>	
	DC (Hybrid)	<input checked="" type="radio"/>	
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input checked="" type="radio"/>	
<b>Manufacturer storage</b>		<b>GOODWE</b>	<b>ZYC ENERGY</b>
<b>Storage type</b>		Lynx D 5.0 to 40.0	SIMPO HV 6.4 to 28.8
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		1 - 8 / -	2 - 9 / to 8
<b>Max. charging power System</b>		To calculate depending on the set / Table to be taken	Depending on the set to Calculate / Table to be taken
<b>Usable capacity (kWh) per unit</b>		5.0 to 40.0	6.4 to 28.8
<b>Time window for expansion from commissioning</b>		Unlimited	Unlimited
<b>Emergency power (separate AC clamp)</b>		<input checked="" type="radio"/> , backup connection	
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input checked="" type="radio"/> , backup connection	
<b>Full battery backup (automatic transfer switch)</b>		<input type="radio"/>	
<b>Active PV-modules in backup mode</b>		<input checked="" type="radio"/> (only ET plus +)	
<b>Interfaces (Heat pump + FRE)</b>		Connection heat pump via potential-free contact; Connection FRE via connection terminals	
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs (via Goodwe HEMS EzManager3000) Limitation by EVU (integr. interface / EzManager3000)	
<b>System information</b>		3-phase DC coupled storage system; Up to 10 devices in parallel operation (hybrid only) (SEC3000S Box necessary, DE+A: all EPS outputs active - not synchronized) ***	

<b>Storage inverter type</b>		GW ET Hybrid 15K / 20K / 25K / 29.9K			GW ESA, All-in-One 8K / 10K / 15K / 20K / 25K / 29.9K	
<b>Max. PV system size (kWp)</b>		DC: 22.5 to 44.85 AC: without restriction			DC: 16.0 to 60.0 AC: without restriction	
<b>AC phases</b>	1	○			○	
	3	●			●	
<b>Surge Protection Device DC / AC</b>		Type 2 / -			Type 2 / Type 2 Type 1+2 / Type 1+2 (25+29.9K)	
<b>Bat.-coupling</b>	AC (Bat.-Inv)	●			In clarification	
	DC (Hybrid)	●			●	
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		●			●	
<b>Manufacturer storage</b>				<b>GOODWE</b>	<b>GOODWE</b>	
<b>Storage type</b>		B-Box HVS / + 5.1 to 12.8	B-Box HVM / + 11.0 to 22.1	SIMPO HV 6.4 to 28.8	Lynx D 5.0 to 40.0	BAT-D 5.0 to 9.0
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		2 - 5 / -	4 - 8 / -	2 - 9 / to 8	1 - 8 / -	1 - 12 / -
<b>Max. charging power System</b>		To calculate depending on the set / Table to be taken		depending on set / Table	depending on set / Table	To calculate depending on the set / Table to be taken
<b>Usable capacity (kWh) per unit</b>		5.1 to 12.8	11.0 to 22.1	6.4 to 28.8	5.0 to 40.0	5.0 to 108.0
<b>Time window for expansion from commissioning</b>		Unlimited		Unlimited	Unlimited	Unlimited
<b>Emergency power (separate AC clamp)</b>		●, backup connection			●, backup connection	
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		●, backup connection with UPS functionality			●, backup connection with UPS functionality	
<b>Full battery backup (automatic transfer switch)</b>		○			○	
<b>Active PV-modules in backup mode</b>		●			●	
<b>Interfaces (Heat pump + FRE)</b>		Connection heat pump via SG-Ready contact; Connection FRE via DRM connection			Fixed charging times; Dynamic electricity tariffs + limitation by EVU (via Goodwe EZmanager)	
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs + limitation by EVU (via Goodwe EZmanager)			Fixed charging times; Dynamic electricity tariffs + limitation by EVU (via Goodwe EZmanager)	
<b>System information</b>		3-phase DC coupled storage system; 3-fold cascadeable; no logger connection of PV-WR possible; UPS functionality (<10ms); peak-shaving; version 15K + 20K with 2 MPPT and 1 x battery; 25K + 29.9K with 3 MPPT and 2 x battery connector; High DC input currents with 15A / string; high charging currents with up to 2 x 50 A (Version 25K + 29.9K); optional with AFCI			3-phase DC coupled storage system; 4 capacity sizes of memory modules can be freely combined; UPS functionality (<10ms); version 5K - 8K with 2 MPPT; 10K - 30.0K with 3 MPPT;	

\*In Germany limited to 4.6 kW in single-phase operation (VDE-AR-N 4105) // \*\*With suitable PV inverter // \*\*\*Availability / Release according to manufacturer's specification // All information without guarantee and subject to reservation according to manufacturer's approval.


Please note the instructions at the end of the document.

Inverter manufacturer



<b>Storage inverter type</b>		SUN2000-2 / 3 / 3.68 / 4 / 4.6 / 5* / 6* KT-L1		SUN2000-2/3/3.68 / 4 / 4.6 / 5* / 6* K-LB0	
<b>Max. PV system size (kWp)</b>		DC: 3,0 to 9,0 AC: without restriction		DC: 4.5 to 9.0 AC: without restriction	
<b>AC phases</b>	1	<input checked="" type="radio"/>		<input checked="" type="radio"/>	
	3	<input type="radio"/>		<input type="radio"/>	
<b>Surge Protection Device DC / AC</b>		Type 2 / Type 2		Type 2 / Type 2	
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>		<input checked="" type="radio"/>	
	DC (Hybrid)	<input checked="" type="radio"/>		<input checked="" type="radio"/>	
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input checked="" type="radio"/>		<input checked="" type="radio"/>	
<b>Manufacturer storage</b>		HUAWEI		HUAWEI	
<b>Storage type</b>		LUNA2000-5 / 10 / 15-S0	LUNA2000-5/-7/-10/-14/-15/-21-S1	LUNA2000-5 / 10 / 15-S0	LUNA2000-5/-7/-10/-14/-15/-21-S1
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		1 - 3 / up to 2	1 - 3 / to 2	1 - 3 / to 2	1 - 3 / to 2
<b>Max. charging power System</b>		to be calculated depending on the set / table		To calculate depending on the set / Table to be taken	
<b>Usable capacity (kWh) per unit</b>		5,0 to 15,0	5.0 to 21.0	5.0 to 15.0	5.0 to 21.0
<b>Time window for expansion from commissioning</b>		Unlimited		Unlimited	
<b>Emergency power (separate AC clamp)</b>		<input checked="" type="radio"/> , 1-phase with Huawei Backup Box-B0		<input checked="" type="radio"/> 1-phase with Smart Guard-63A-S0	
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input checked="" type="radio"/> , 1-phase with Huawei Backup Box-B0		<input checked="" type="radio"/> 1-phase with Smart Guard-63A-S0	
<b>Full battery backup (automatic transfer switch)</b>		<input type="radio"/>		<input checked="" type="radio"/> 1-phase with Smart Guard-63A-S0	
<b>Active PV-modules in backup mode</b>		<input checked="" type="radio"/>		<input checked="" type="radio"/> 1-phase with Smart Guard-63A-S0	
<b>Interfaces (Heat pump + FRE)</b>		Connection heat pump (with SmartAssistant) + FRE via Huawei Smart Logger			
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs (with SmartAssistant); Limitation by EVU			
<b>System information</b>		1-phase hybrid device with additional PV inverter via AC coupling; optionalE use of the Huawei Optimizer possible		1-phase hybrid device with additional PV inverter via AC coupling; optionalE use of the Huawei Optimizer possible	

## Inverter manufacturer

<b>Storage inverter type</b>		SUN2000-3 / 4 / 5 / 6 / 8 / 10 KTL-M1		SUN2000-12 / 15 / 17 / 20 / 25K-MB0	
		SUN2000 5 / 6 / 8 / 10 / 12 K MAP0			
<b>Max. PV system size (kWp)</b>		DC: 4,5 to 22,0 AC: without restriction		DC: 18,0 to 37,5 AC: without restriction	
<b>AC phases</b>	1	●			
	3	●		●	
<b>Surge Protection Device DC / AC</b>		Type 2 / Type 2		Type 2 / Type 2	
<b>Bat.-coupling</b>	AC (Bat.-Inv)	●		●	
	DC (Hybrid)	●		●	
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		●		●	
<b>Manufacturer storage</b>		 HUAWEI		 HUAWEI	
<b>Storage type</b>		LUNA2000-5 / 10 / 15-S0	LUNA2000-5/-7/-10/-14/-15/-21-S1	LUNA2000-5 / 10 / 15-S0	LUNA2000-5/-7/-10/-14/-15/-21-S1
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		1 - 3 / up to 2	1 - 3 / up to 2	1 - 3 / 2 per Input	1 - 3 / 2 per Input
<b>Max. charging power System</b>		to be calculated depending on the set / table		to be calculated depending on the set / table	
<b>Usable capacity (kWh) per unit</b>		5,0 to 15,0	5.0 to 21.0	5,0 to 15,0	5.0 to 21.0
<b>Time window for expansion from commissioning</b>		Unlimited		Unlimited	
<b>Emergency power (separate AC clamp)</b>		●, M1 with Backup Box-B1 (1-ph)MAP0 with Smart Guard-63A-T0 (3-ph)		●, With Smart Guard-63A-T0 (1-ph)	
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		●, M1 with Backup Box-B1 (1-ph)MAP0 with Smart Guard-63A-T0 (3-ph)		●, With Smart Guard-63A-T0 (1-ph)	
<b>Full battery backup (automatic transfer switch)</b>		●, Only MAP0 with Smart Guard-63A-T0 (3-ph)		●, With Smart Guard-63A-T0 (1-ph)	
<b>Active PV-modules in backup mode</b>		●		●	
<b>Interfaces (Heat pump + FRE)</b>		Connection heat pump (with SmartAssistant) + FRE via Huawei Smart Logger			
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs (with SmartAssistant); Limitation by EVU			
<b>System information</b>		1-phase hybrid device with additional PV inverter via AC coupling; optional use of the Huawei Optimizer possible; use as off-grid system without mains connection possible		3-phase DC coupled system; Optional use of the Huawei Optimizer possible; Up to 3 devices in parallel operation ***; Replacement power operation M1 series only 1-phase with backup box-B1; Replacement power operation MAP0 series 3-phase with Smart Guard-63A-T0 Box	

Inverter manufacturer



<b>Storage inverter type</b>		Hybrid NH3 M3 8.0 / 10.0 / 12.0					
<b>Max. PV system size (kWp)</b>		DC: 16,0 to 24,0 kWp AC: without restriction					
<b>AC phases</b>	1	○					
	3	●					
<b>Surge Protection Device DC / AC</b>		Type 2 / -					
<b>Bat.-coupling</b>	AC (Bat.-Inv)	●					
	DC (Hybrid)	●					
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		●					
<b>Manufacturer storage</b>				<b>-AXITEC</b>			
<b>Storage type</b>		B-Box HVS 5.1 to 12.8	B-Box HVM 8.3 to 22.1	AXIstorage Li SV1 10.1 to 23.6	AXIstorage Li SV2 6.7 to 16.9	Force-H1 10.1 to 23.6	Force-H2 6.7 to 16.9
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		2 - 5 / up to 3	3 - 8 / up to 3	3 - 7 / 6	2 - 5 / 6	3 - 7 / 6	2 - 5 / 6
<b>Max. charging power System</b>		to be calculated depending on the set / table		to be calculated depending on the set / table		to be calculated depending on the set / table	
<b>Usable capacity (kWh) per unit</b>		5,1 to 12,8	8,3 to 22,1	10,1 to 23,6	6,7 to 16,9	10,1 to 23,6	6,7 to 16,9
<b>Time window for expansion from commissioning</b>		Unlimited		Up to 5 years		Up to 2 years	
<b>Emergency power (separate AC clamp)</b>		●, backup connection					
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		●, backup connection					
<b>Full battery backup (automatic transfer switch)</b>		●, with Kaco replacement power box					
<b>Active PV-modules in backup mode</b>		●					
<b>Interfaces (Heat pump + FRE)</b>		Connection FRE via connection terminals					
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs (via Kaco Leaflet HEMS); Limitation by EVU (via Kaco Leaflet HEMS)					
<b>System information</b>		3-phase DC-coupled hybrid device with additional PV inverter via AC coupling; 3 independent MPP trackers; can also be used as a pure memory WR; Up to 3 devices in parallel operation (only the same inverter power classes and battery sizes, EPS outputs not synchronized)					

## Inverter manufacturer



<b>Storage inverter type</b>		Plenticore Plus G2 3.0 / 4.2 / 5.5 / 7.0 / 8.5 / 10 (Plenticore Plus 3.0 with BYD HVM only 11.0)		Plenticore MP G3 S/M (Performance depending on version and activation level)		Plenticore G3S / M / L (Power depending on version and activation level of 4.0 - 20.0 kW)	
<b>Max. PV system size (kWp)</b>		DC: 4.5 to 15.0 AC: without restriction		DC: 4,5 to 10,5 (depending on activation level) AC: without restriction		DC: 6,0 to 30,0 (depending on activation level) AC: without restriction	
<b>AC phases</b>	1	<input type="radio"/>		<input checked="" type="radio"/>		<input type="radio"/>	
	3	<input checked="" type="radio"/>		<input type="radio"/>		<input checked="" type="radio"/>	
<b>Surge Protection Device DC / AC</b>		- / -		Type 2 (opt.) / -		Type 2 (opt.) / -	
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>		<input checked="" type="radio"/> (act. storage connection)		<input checked="" type="radio"/> (with activated storage connection)	
	DC (Hybrid)	<input checked="" type="radio"/>		<input checked="" type="radio"/> (act. storage connection)		<input checked="" type="radio"/> (with activated storage connection)	
<b>Bat. charging via separate PV inverter (AC-coupling)</b>				<input type="radio"/>			
<b>Manufacturer storage</b>		<b>-AXITEC</b>			<b>PYLONTECH</b>		
<b>Storage type</b>		AXIstorage Li SV1 10.1 to 23.6		AXIstorage Li SV2 6.7 to 16.9		Force-H1 10.1 to 23.6	
						Force-H2 6.7 to 16.9	
						Force-H39.7 to 34	
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		3 - 7 / 6		2 - 5 / 6		3 - 7 / 6	
						2 - 5 / 6	
						2 - 7 / 6	
<b>Max. charging power System</b>		to be calculated depending on the set / table				to be calculated depending on the set / table	
<b>Usable capacity (kWh) per unit</b>		10,1 to 23,6		6,7 to 16,9		10,1 to 23,6	
						6,7 to 16,9	
						9,69 to 34,01	
<b>Time window for expansion from commissioning</b>		Up to 5 years				Up to 2 years	
<b>Emergency power (separate AC clamp)</b>		<input type="radio"/>				<input type="radio"/>	
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input type="radio"/>				<input type="radio"/>	
<b>Full battery backup (automatic transfer switch)</b>		<input type="radio"/>				<input checked="" type="radio"/> , manually with Kostal Backup Switch	
<b>Active PV-modules in backup mode</b>		<input type="radio"/>				<input checked="" type="radio"/>	
<b>Interfaces (Heat pump + FRE)</b>		Connection heat pump via SG Ready contact; Connection FRE via connection terminals		Connection heat pump via SG Ready contact; Connection FRE via connection terminals			
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; Dynamic electricity tariffs; Limitation by EVU (via KSEM G2)		Fixed charging times; Dynamic electricity tariffs; Limitation by EVU (via KSEM G2)			
<b>System information</b>		3-phase PV / hybrid / storage inverter with additional PV inverter via AC coupling; Battery connection must be activated via activation code;		1-phase AC / DC coupled storage system (hybrid / storage-WR) 2 versions (S / M) with up to 2 additional power levels; FrActivation via activation code (Plenti-Coins);		3-phase AC / DC coupled storage system (hybrid / memory-WR) Plenticore G3: 3 versions (S / M / L) with 2 additional performance levels each; activation via activation code (Plenti-Coins); 3-phase PV / hybrid / storage inverter with additional PV inverter via AC coupling; Battery connection must be activated via activation code;	





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Please note the instructions at the end of the document.

## Inverter manufacturer

# KOSTAL

Solar Electric

<b>Storage inverter type</b>		Plenticore Plus G2 3.0 / 4.2 / 5.5 / 7.0 / 8.5 / 10 (Plenticore Plus 3.0 with BYD HVM only 11.0) Plenticore BI 5.5 / 26 and 10 / 26 - G2		Plenticore MP G3 S/M (Performance depending on version and activation level)	Plenticore G3S / M / L (Power depending on version and activation level of 4.0 - 20.0 kW)	
<b>Max. PV system size (kWp)</b>		DC: 4,5 to 15,0 (only Hybrid) AC: without restriction		DC: 4,5 to 10,5 (depending on activation level) AC: without restriction	DC: 6,0 to 30,0 (depending on activation level) AC: without restriction	
<b>AC phases</b>	1	<input type="radio"/>		<input checked="" type="radio"/>	<input type="radio"/>	
	3	<input checked="" type="radio"/>		<input type="radio"/>	<input checked="" type="radio"/>	
<b>Surge Protection Device DC / AC</b>		- / -		Type 2 (opt.) / -	Type 2 (opt.) / -	
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/> (only BI)		<input checked="" type="radio"/> (act. storage connection)	<input checked="" type="radio"/> (with activated storage connection)	
	DC (Hybrid)	<input checked="" type="radio"/> (only Hybrid)		<input checked="" type="radio"/> (act. storage connection)	<input checked="" type="radio"/> (with activated storage connection)	
<b>Bat. charging via separate PV inverter (AC-coupling)</b>				<input type="radio"/>		
<b>Manufacturer storage</b>						
<b>Storage type</b>	B-Box HVS /+ 5.1 to 12.8	B-Box HVM /+ 11.0 to 22.1	B-Box HVB 5.9 to 29.6	SIMPO HV 6.4 to 28.8	HELIVOR HV 6.4 to 28.8	VARTA.wall 10.0 / 15.0 / 20.0
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>	2 - 5 / to 3	4 - 8 / to 3	2 - 10 / 3	2 - 9 / -	2 - 9 / -	2 - 4 / -
<b>Max. charging power System</b>	to be calculated depending on the set / table					
<b>Usable capacity (kWh) per unit</b>	5.1 to 12.8	11.0 to 22.1	5.94 to 29.69	6.4 to 28.8	6.4 to 28.8	10.0 to 20.0
<b>Time window for expansion from commissioning</b>	Unlimited				Unlimited	Up to 1.5 years
<b>Emergency power (separate AC clamp)</b>	<input type="radio"/>		<input type="radio"/>			
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>	<input type="radio"/>		<input type="radio"/>			
<b>Full battery backup (automatic transfer switch)</b>	<input type="radio"/>		<input checked="" type="radio"/> , manually with Kostal Backup Switch			
<b>Active PV-modules in backup mode</b>	<input type="radio"/>		<input checked="" type="radio"/>			
<b>Interfaces (Heat pump + FRE)</b>	Connection heat pump via SG Ready contact; Connection FRE via connection terminals			Connection heat pump via SG Ready contact; Connection FRE via connection terminals		
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>	Fixed charging times;Dynamic electricity tariffs; Limitation by EVU (via KSEM G2)			Fixed charging times;Dynamic electricity tariffs; Limitation by EVU (via KSEM G2)		
<b>System information</b>	3-phase AC / DC coupled storage system (hybrid / memory-WR) Plenticore Plus G2: 3-phase PV / hybrid / storage inverter with PV inverter via AC coupling; Battery connection must be activated via activation code;			1-phase AC / DC coupled storage system (hybrid / storage-WR) 2 versions (S / M) with up to 2 additional power levels; FrActivation via activation code (Plenti-Coins); 3-phase AC / DC coupled storage system (hybrid / memory-WR) Plenticore G3: 3 versions (S / M / L) with 2 additional performance levels each; activation via activation code (Plenti-Coins);3-phase PV / hybrid / storage inverter with additional PV inverter via AC coupling; Battery connection must be activated via activation code;		

## Inverter manufacturer



<b>Storage inverter type</b>		Sunny Island 6.0H / 8.0H	
<b>Max. PV system size (kWp)</b>		AC: without restriction **	
<b>AC phases</b>	1	<input checked="" type="radio"/>	
	3	<input checked="" type="radio"/>	
<b>Surge Protection Device DC / AC</b>		/	
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>	
	DC (Hybrid)	<input type="radio"/>	
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input checked="" type="radio"/>	
<b>Manufacturer storage</b>			
<b>Storage type</b>		B-Box LVS 4.0 to 24.0	B-Box LVL 15.4
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		1 - 6 / up to 16 (16.0)	1 / up to 64
<b>Max. charging power System</b>		to be calculated depending on the set / table	
<b>Usable capacity (kWh) per unit</b>		4,0 to 24,0	15,4
<b>Time window for expansion from commissioning</b>		Unlimited	
<b>Emergency power (separate AC clamp)</b>		<input type="radio"/>	
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input type="radio"/>	
<b>Full battery backup (automatic transfer switch)</b>		<input checked="" type="radio"/> , with Enwitec Backup Box (1-/3-phase, 1-phase with phase coupling)	
<b>Active PV-modules in backup mode</b>		<input checked="" type="radio"/> **	
<b>Interfaces (Heat pump + FRE)</b>		Connection FRE depends on the PV-WR	
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times Limitation by EVU (via Home Manager)	
<b>System information</b>		1/3-phase AC coupled storage system with suitable PV inverter; use as a pure offgrid system (PV + generator) possible;	

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Please note the instructions at the end of the document.

## Inverter manufacturer



<b>Storage inverter type</b>		Sunny Boy Smart Energy 3.6 / 4.0 / 5.0* / 6.0*		
<b>Max. PV system size (kWp)</b>		DC: 7,2 to 12,0 AC: without restriction		
<b>AC phases</b>	1	●		
	3			
<b>Surge Protection Device DC / AC</b>		/		
<b>Bat.-coupling</b>	AC (Bat.-Inv)	●		
	DC (Hybrid)	●		
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		●		
<b>Manufacturer storage</b>				
<b>Storage type</b>		B-Box HVS 5.1 to 10.2 ***	B-Box HVM 8.3 to 22.1 ***	Home Storage 3.2 to 13.1
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		2 - 4 / up to 3	3 - 8 / up to 3	1 - 4 / -
<b>Max. charging power System</b>		to be calculated depending on the set / table		to be calculated depending on the set / table
<b>Usable capacity (kWh) per unit</b>		5,1 to 10,2	8,3 to 22,1	3,28 to 13,12
<b>Time window for expansion from commissioning</b>		Unlimited		
<b>Emergency power (separate AC clamp)</b>		●, PLC / Backup connection		
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		●, backup connection (Release is currently still pending)		
<b>Full battery backup (automatic transfer switch)</b>		○		
<b>Active PV-modules in backup mode</b>		●		
<b>Interfaces (Heat pump + FRE)</b>		WP via SG Ready Contact		
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; Dynamic electricity tariffs (via Home Manager 2.0); Limitation by EVU (via Home Manager)		
<b>System information</b>		1-phase DC-coupled hybrid unit with additional PV inverter via AC coupling; 3 MPPT with low input voltage; AFCI integrated; ShadeFix shadow management		

## Inverter manufacturer




<b>Storage inverter type</b>		Sunny Tripower 5.0 / 6.0 / 8.0 / 10.0 Smart Energy			
<b>Max. PV system size (kWp)</b>		DC: 7,5 to 15,0 AC: without restriction			
<b>AC phases</b>	1	<input type="radio"/>			
	3	<input checked="" type="radio"/>			
<b>Surge Protection Device DC / AC</b>		Type 2 / Type 2			
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>			
	DC (Hybrid)	<input checked="" type="radio"/>			
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input checked="" type="radio"/>			
<b>Manufacturer storage</b>					
<b>Storage type</b>		B-Box HVS 5.1 to 12.8 ***	B-Box HVM 11 to 22.1 ***	Home Storage 6.5 to 16.4	VARTA.wall 10.0 / 15.0 / 20.0
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		2 - 5 / up to 3	4 - 8 / up to 3	2 - 5 / -	2 - 4 / -
<b>Max. charging power System</b>		to be calculated depending on the set / table		depending on the set / table	To calculate depending on the set / Table to be taken
<b>Usable capacity (kWh) per unit</b>		5,1 to 12,8	11,0 to 22,1	6,56 to 16,4	10.0 to 20.0
<b>Time window for expansion from commissioning</b>		Unlimited			Up to 1.5 years
<b>Emergency power (separate AC clamp)</b>		<input type="radio"/>			
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input checked="" type="radio"/> , backup connection			
<b>Full battery backup (automatic transfer switch)</b>		<input type="radio"/>			
<b>Active PV-modules in backup mode</b>		<input checked="" type="radio"/>			
<b>Interfaces (Heat pump + FRE)</b>		WP via SG Ready contact; Connection FRE via 5 x DI contact			
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; Dynamic electricity tariffs (via Home Manager 2.0); Limitation by EVU (via Home Manager)			
<b>System information</b>		3-phaseDC-coupled hybrid device with additional PV inverter via AC coupling; ShadeFix shadow management			

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Please note the instructions at the end of the document.

## Inverter manufacturer

## SCFAR

<b>Storage inverter type</b>		HYD 5 / 6 / 8 KTL			HYD 10 / 15 / 20 KTL			
<b>Max. PV system size (kWp)</b>		DC: 7,5 to 12,0 AC: without restriction			DC: 15,0 to 30,0 AC: without restriction			
<b>AC phases</b>	1	○						
	3	●						
<b>Surge Protection Device DC / AC</b>		Type 2 / Type 2						
<b>Bat.-coupling</b>	AC (Bat.-Inv)	●						
	DC (Hybrid)	●						
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		●						
<b>Manufacturer storage</b>		 PYLONTECH			<b>SCFAR</b>		<b>-AXITEC</b>	
<b>Storage type</b>		Force-H1 13.5 to 23.6	Force-H2 10.1 to 16.9	Force-H39.7 to 34	BTS-D5 E5 to E20	AXIstorage Li SV1 13.5 to 23.6	AXIstorage Li SV2 6.7 to 16.9	
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		4 - 7 / 6	2 - 5 / 6	2 - 7 / 6	1 - 4 / up to 2 (only HYD 10-20)	4 - 7 / 6	2 - 5 / 6	
<b>Max. charging power System</b>		to be calculated depending on the set / table						
<b>Usable capacity (kWh) per unit</b>		13,5 to 23,6	6,7 to 16,9	9,69 to 34,01	4,75 to 19,0	13,5 to 23,6	6,7 to 16,9	
<b>Time window for expansion from commissioning</b>		Up to 2 years			Unlimited		Up to 5 years	
<b>Emergency power (separate AC clamp)</b>		● backup connection						
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		● backup connection						
<b>Full battery backup (automatic transfer switch)</b>		○						
<b>Active PV-modules in backup mode</b>		●						
<b>Interfaces (Heat pump + FRE)</b>		Control heat pump possible			Control of heat pump possible; Connection FRE via connection terminals			
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; Dynamic electricity tariffs (via Sofar EMS Box);Limitation by EVU			Fixed charging times; Dynamic electricity tariffs (via Sofar EMS Box);Limitation by EVU			
<b>System information</b>		3-phase DC or AC coupled hybrid device with additional PV inverter via AC coupling; 1 battery connection; up to 10 GerPossible in grid-coupled parallel operation (VDE 4110 is available); in backup mode only 6 devices are possible in parallel; use of hybrid as off-grid system (with / without generator) possible; control for external NA protection possible						

## Inverter manufacturer



<b>Storage inverter type</b>		RWB Home Hub Inverter*** SE3000H / SE3680H / SE4000H / SE5000H* / SE6000H*		RWS StorEdge Hybrid 5 / 7 / 8 / 10	
<b>Max. PV system size (kWp)</b>		DC: 10,0 to 15,0 AC: without restriction		DC: 6.5 to 13.5 AC: no limitations	
<b>AC phases</b>	1	<input type="radio"/>		<input type="radio"/>	
	3	<input checked="" type="radio"/>		<input checked="" type="radio"/>	
<b>Surge Protection Device DC / AC</b>		- / -		- / -	
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>		<input checked="" type="radio"/>	
	DC (Hybrid)	<input checked="" type="radio"/>		<input checked="" type="radio"/>	
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input checked="" type="radio"/>		<input checked="" type="radio"/>	
<b>Manufacturer storage</b>					
<b>Storage type</b>		Home Battery HV		B-Box LVS 4.0 to 24.0	
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		1 / up to 3		1 - 6 / -	
<b>Max. charging power System</b>		To calculate depending on the set / Table to be taken		To calculate depending on the set / Table to be taken	
<b>Usable capacity (kWh) per unit</b>		9,7		4.0 to 24.0	
<b>Time window for expansion from commissioning</b>		Unlimited		Unlimited, only 1 tower	
<b>Emergency power (separate AC clamp)</b>		<input type="radio"/>		<input type="radio"/>	
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input type="radio"/>		<input type="radio"/>	
<b>Full battery backup (automatic transfer switch)</b>		<input checked="" type="radio"/> with Home Backup Interface 1P***		<input type="radio"/>	
<b>Active PV-modules in backup mode</b>		<input checked="" type="radio"/>		<input type="radio"/>	
<b>Interfaces (Heat pump + FRE)</b>		Connection of heat pump via SE Smart Home components;			
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs (with SolarEdge ONE); Limitation by EVU (with the SolarEdge ONE Controller)			
<b>System information</b>		1-phase DC or AC-coupled hybrid device with additional PV inverter via AC coupling; Backup application only possible in 1P networks		1-phase DC or AC-coupled hybrid device with additional PV inverter via AC coupling; Backup application only possible in 1P networks	

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Please note the instructions at the end of the document.

## Inverter manufacturer



<b>Storage inverter type</b>		RWB48 Home Hub Inverter 5 / 8 / 10		Nexis NX20K (Multi-range 8-20 kW)	
<b>Max. PV system size (kWp)</b>		DC: 10.0 to 15.0 AC: without restriction		DC: 16.0 to 40.0 AC: without restriction	
<b>AC phases</b>	1	<input type="radio"/>		<input type="radio"/>	
	3	<input checked="" type="radio"/>		<input checked="" type="radio"/>	
<b>Surge Protection Device DC / AC</b>		- / -		- / -	
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>		In clarification	
	DC (Hybrid)	<input checked="" type="radio"/>		<input checked="" type="radio"/>	
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input checked="" type="radio"/>		In clarification	
<b>Manufacturer storage</b>		solar edge		solar edge	
<b>Storage type</b>		Home Battery LV 4.6 to 23.0	Home Battery LV (W) 4.85 to 23.25 ***	Nexis Battery Stack 5 to 20	
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		1 - 5 / -	1 - 4 / -	1 - 4 / 1 - 4***	
<b>Max. charging power System</b>		to be calculated depending on the set / table			
<b>Usable capacity (kWh) per unit</b>		4,85 to 24,25	4.85 to 19.4	4.65 to 18.6	
<b>Time window for expansion from commissioning</b>		Unlimited		Unlimited	
<b>Emergency power (separate AC clamp)</b>		<input type="radio"/>		<input type="radio"/>	
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input type="radio"/>		<input checked="" type="radio"/>	
<b>Full battery backup (automatic transfer switch)</b>		<input checked="" type="radio"/> with Home Backup Interface 3P		<input checked="" type="radio"/> , optionally also with Home Backup Interface 3P	
<b>Active PV-modules in backup mode</b>		<input checked="" type="radio"/>		<input checked="" type="radio"/>	
<b>Interfaces (Heat pump + FRE)</b>		Connection of heat pump via SE Smart Home components; Connection FRE via RPI connections inverter			
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs (with SolarEdge ONE); Limitation by EVU (with the SolarEdge ONE Controller)			
<b>System information</b>		3-phase DC or AC coupled hybrid device; Up to 3 devices in parallel operation (master change only)Self-richter active in emergency mode)***		3-phase DC or AC coupled hybrid device; variable power class from 8 to 20 kW; integrated backup connection	

## Inverter manufacturer



<b>Storage inverter type</b>		X3-HYBRID G4.2 (Version D) 5.0-D / 6.0-D / 8.0-D / 10.0-D / 12.0-D / 15.0-D X3-Hybrid-G4 PRO 5.0-P / 6.0-P / 8.0-P / 10.0-P / 12.0-P / 15.0-P		
<b>Max. PV system size (kWp)</b>		DC: 8,0 to 30,0 AC: without restriction		
<b>AC phases</b>	1	○		
	3	●		
<b>Surge Protection Device DC / AC</b>		Type 2 / Type 2 (only PRO Version)		
<b>Bat.-coupling</b>	AC (Bat.-Inv)	●		
	DC (Hybrid)	●		
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		●		
<b>Manufacturer storage</b>				
<b>Storage type</b>		T-BAT HV-S 2.5 7.5 bis 32.5	T-BAT HV-S 3.6 7.2 to 46.8	T-BAT-HV-S 5.1 15.3 to 66.5
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		3 - 13 (Pro-Series) / 3 4 - 13 (D-Series) / 3	3 - 13 (Pro-Series) / 3 4 - 13 (D-Series) / 3	3 - 13 (Pro-Series) / 3 4 - 13 (D-Series) / 3
<b>Max. charging power System</b>		to be calculated depending on the set / table		
<b>Usable capacity (kWh) per unit</b>		6.9 to 29.9	6.5 to 43.1	13,7 to 59,8
<b>Time window for expansion from commissioning</b>		Unlimited		
<b>Emergency power (separate AC clamp)</b>		●		
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		●		
<b>Full battery backup (automatic transfer switch)</b>		● With Solax X3-Mate-Box G2 Cascade with X3 EPS parallel box		
<b>Active PV-modules in backup mode</b>		●		
<b>Interfaces (Heat pump + FRE)</b>		Connection HeatPump (via Solax adapter box G2); Connection FRE via Solax Datahub1000		
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs; Limitation by EVU (Integrated terminals / data hub)		
<b>System information</b>		X3-Hybrid: each 2 MPPT + 1 Bat connection; X3-Hybrid-G4 Pro: depending on the performance class, up to 3 MPPT + 2 Bat connections; 3-phase DC or AC-coupled storage system with additional PV inverter via AC coupling; Use of hybrid as offgrid system (with / without generator) possible; Hybrid up to 10 devices in parallel mode (for backup operation X3-EPS Parallel Box notwendig, only same inverter power classes and battery sizes, EPS outputs synchronized)		

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Please note the instructions at the end of the document.

## Inverter manufacturer





<b>Storage inverter type</b>		X3-IES compact system 5K 7 6K / 8LK / 10K / 12K / 12K			X3-Ultra Hybrid 15K / 19.9K / 20K / 25K / 30K	
<b>Max. PV system size (kWp)</b>		DC: 10.0 to 30.0 AC: without restriction			DC: 30,0 to 60,0 kWp AC: without restriction	
<b>AC phases</b>	1	<input type="radio"/>			<input type="radio"/>	
	3	<input checked="" type="radio"/>			<input checked="" type="radio"/>	
<b>Surge Protection Device DC / AC</b>		Type 2 / Type 2				
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>			<input checked="" type="radio"/>	
	DC (Hybrid)	<input checked="" type="radio"/>			<input checked="" type="radio"/>	
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input checked="" type="radio"/>			<input checked="" type="radio"/>	
<b>Manufacturer storage</b>						
<b>Storage type</b>		T-BAT HV-S 2.5 7.5 to 32.5	T-BAT-HS50E 10.2 to 30.6	T-BAT HV-S 2.5 7.5 to 32.5	T-BAT HV-S 3.6 7.2 to 46.8	T-BAT-HV-S 5.1 15.3 to 66.5
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		3 - 13 / 3	3 - 6 / -	3 - 13 / 2	2 - 13 / -	3 - 13 / 2
<b>Max. charging power System</b>		To be calculated depending on the set / Table			to be calculated depending on the set / table	
<b>Usable capacity (kWh) per unit</b>		6.9 to 29.9	9.2 to 27.6	6.9 to 29.9	6.5 to 43.1	13,7 to 59,8
<b>Time window for expansion from commissioning</b>		Unlimited			Unlimited	
<b>Emergency power (separate AC clamp)</b>		<input checked="" type="radio"/>			<input checked="" type="radio"/>	
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input checked="" type="radio"/>			<input checked="" type="radio"/>	
<b>Full battery backup (automatic transfer switch)</b>		<input checked="" type="radio"/> , with Solax X3-Matebox G2			<input checked="" type="radio"/> , with Solax X3-EPS Parallel Box	
<b>Active PV-modules in backup mode</b>		<input checked="" type="radio"/>			<input checked="" type="radio"/>	
<b>Interfaces (Heat pump + FRE)</b>		Connection WP (via Solax Adapterbox G2); Connection FRE via 5 x DI			Connection WP (via Solax Adapterbox G2); Connection FRE via 5 x DI	
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times; dynamic electricity tariffs; Limitation by EVU (Integrated clamps / Solax Xhub)			Fixed charging times; dynamic electricity tariffs; Limitation by EVU (Integrated clamps / Solax Xhub)	
<b>System information</b>		3-Phase DC coupled storage system; Use of hybrid as offgrid system (with / without generator) possible; devices in parallel operation;			3-phase DC coupled storage system in compact design; ;Up to 10 devices in parallel operation; Version 15K - 20K With 2 MPPT and 2 x battery; 25K + 30K with 3 MPPT and 2 x battery connector; When using both battery connections the sameE Capacity (tower height) mandatory!	

## Inverter manufacturer

**SUNGROW**

Clean power for all

<b>Storage inverter type</b>		SH 5.0 / 6.0 / 8.0 / 10.0 RT-20			
<b>Max. PV system size (kWp)</b>		DC: 5,0 to 15,0 AC: without restriction			
<b>AC phases</b>	1	○			
	3	●			
<b>Surge Protection Device DC / AC</b>		Type 2 / Type 2			
<b>Bat.-coupling</b>	AC (Bat.-Inv)	●			
	DC (Hybrid)	●			
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		●			
<b>Manufacturer storage</b>					
<b>Storage type</b>		B-Box HVS 5.1 to 12.8	B-Box HVM 11.0 to 22.1	Force-H1 13.5 to 23.6	Force-H2 6.7 to 16.9
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		2 - 5 / up to 3	4 - 8 / up to 3	4 - 7 / 6	2 - 5 / 6
<b>Max. charging power System</b>		to be calculated depending on the set / table			
<b>Usable capacity (kWh) per unit</b>		5,1 to 12,8	11,0 to 22,1	13,5 to 23,6	6,7 to 16,9
<b>Time window for expansion from commissioning</b>		Unlimited		Up to 2 years	
<b>Emergency power (separate AC clamp)</b>		● backup connection (can only be used separately per device in parallel operation)			
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		● backup connection (can only be used separately per device in parallel operation)			
<b>Full battery backup (automatic transfer switch)</b>		○			
<b>Active PV-modules in backup mode</b>		●			
<b>Interfaces (Heat pump + FRE)</b>		Connection heat pump via D0 contact; Connection FRE via 4 x DI contact			
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times, dynamic Electricity tariffs (via iHomeManager) Limitation by EVU (via integrated control contact)			
<b>System information</b>		3-phase DC-coupled storage system with additional Hem PV inverter via AC coupling; Up to 2 devices in parallel operation; (observe the requirements for FRE connection and network and system protection in DE; Only the same inverter performance classes possible)			

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## Inverter manufacturer

**SUNGROW**  
 Clean power for all

<b>Storage inverter type</b>		SH 5.0 / 6.0 / 8.0 / 10.0 RT		SH 15 / 20 / 25 T		
<b>Max. PV system size (kWp)</b>		DC: 5,0 to 15,0 AC: without restriction		DC: 30,0 to 50,0 AC: without restriction		
<b>AC phases</b>	1	○				
	3	●				
<b>Surge Protection Device DC / AC</b>		Type 2 / Type 2				
<b>Bat.-coupling</b>	AC (Bat.-Inv)	●				
	DC (Hybrid)	●				
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		●				
<b>Manufacturer storage</b>		<b>-AXITEC</b>		<b>SUNGROW</b> Clean power for all		
<b>Storage type</b>		AXIstorage Li SV1 13.5 to 23.6	AXIstorage Li SV2 6.7 to 13.5	SBR (with RT Serie) 064*** / 096 / 128 / 160 / 192 / 224 / 256	SBH (RT + T Serie) 100 / 150 / 200 / 250 / 300 / 350 / 400	SBR (with T Serie) 128 / 160 / 192 / 224 / 256
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		4 - 7 / 6	2 - 5 / 6	2 - 8 / -	2 - 8 / bis 2	4 - 8 / -
<b>Max. charging power System</b>		to be calculated depending on the set / table		depending on the set / table	to be calculated depending on the set / table	
<b>Usable capacity (kWh) per unit</b>		13,5 to 23,6	6,7 to 16,9	6,4 to 25,6	10,0 to 40,0	12,8 to 25,6
<b>Time window for expansion from commissioning</b>		Up to 5 years		Unlimited	Unlimited	Unlimited
<b>Emergency power (separate AC clamp)</b>		● backup connection (can only be used separately per device in parallel operation)				
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		● backup connection (can only be used separately per device in parallel operation)		● backup connection (Compl. Domestic load up to 43 kW)		
<b>Full battery backup (automatic transfer switch)</b>		○				
<b>Active PV-modules in backup mode</b>		●				
<b>Interfaces (Heat pump + FRE)</b>		Connection heat pump via D0 contact; Connection FRE via 4 x DI contact		Connection heat pump via D0 contact; Connection FRE via 4 x DI contact		
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times, dynamic Electricity tariffs (via iHomeManager) Limitation by EVU (via integrated control contact)		Fixed charging times, dynamic electricity tariffs (Via iHomeManager); Limitation by EVU (Via integrated control contact)		
<b>System information</b>		3-phase DC-coupled storage system with additional Hem PV inverter via AC coupling; Up to 2 devices in parallel operation; (observe the requirements for FRE connection and network and system protection in DE; Only the same inverter performance classes possible)		3-phase DC-coupled storage system with to Additional PV inverters via AC coupling (up to 5 WR of the CX series); Up to 4 devices in parallel operation; (Observe the requirements for FRE connection and network and system protection in DE; Only the same inverter performance classes possible)		

## Inverter manufacturer

**SUNWODA**  
ENERGY

<b>Storage inverter type</b>		SunESS SW 8 / 10 / 12 / 15 KH3UT
<b>Max. PV system size (kWp)</b>		DC: 12.0 to 22.5 AC: without restriction
<b>AC phases</b>	1	<input type="radio"/>
	3	<input checked="" type="radio"/>
<b>Surge Protection Device DC / AC</b>		Type 2 / Type 2
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input type="radio"/>
	DC (Hybrid)	<input checked="" type="radio"/>
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input type="radio"/>
<b>Manufacturer storage</b>		<b>SUNWODA</b> ENERGY
<b>Storage type</b>		SunESS 5.0 / 10.0 / 15.0 / 20.0 / 25.0 / 30.0 / 35.0 / 40.0
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		1 - 8 / -
<b>Max. charging power System</b>		to be calculated depending on the set / table
<b>Usable capacity (kWh) per unit</b>		5,0 to 40,0
<b>Time window for expansion from commissioning</b>		Unlimited
<b>Emergency power (separate AC clamp)</b>		<input checked="" type="radio"/>
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input checked="" type="radio"/>
<b>Full battery backup (automatic transfer switch)</b>		<input type="radio"/>
<b>Active PV-modules in backup mode</b>		<input checked="" type="radio"/>
<b>Interfaces (Heat pump + FRE)</b>		Heat pump connection via DRM contact; FRE connection via 4 x DRM contacts
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		k.A.
<b>System information</b>		3-phase hybrid device with additional PV inverter via AC coupling; must always be installed as a complete system including storage; currently no cascading approved

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Please note the instructions at the end of the document.

Inverter manufacturer




<b>Storage inverter type</b>		Pulse neo 6	Element Backup
<b>Max. PV system size (kWp)</b>		AC: without restriction	
<b>AC phases</b>	1	<input checked="" type="radio"/>	<input type="radio"/>
	3	<input type="radio"/>	<input checked="" type="radio"/>
<b>Surge Protection Device DC / AC</b>		-/-	
<b>Bat.-coupling</b>	AC (Bat.-Inv)	<input checked="" type="radio"/>	
	DC (Hybrid)	<input type="radio"/>	
<b>Bat. charging via separate PV inverter (AC-coupling)</b>		<input checked="" type="radio"/>	
<b>Manufacturer storage</b>			
<b>Storage type</b>		Pulse neo	Element 6 / 12 /18
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>		1 / -	1 - 3 / -
<b>Max. charging power System</b>		To be calculated depending on the set / Table to be found	
<b>Usable capacity (kWh) per unit</b>		5,9	5,9 / 11.7 / 17.7
<b>Time window for expansion from commissioning</b>		-	Unlimited
<b>Emergency power (separate AC clamp)</b>		<input type="radio"/>	<input checked="" type="radio"/> , backup connection / box (only active on the master device)
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>		<input type="radio"/>	<input checked="" type="radio"/> , backup connection / box (only active on the master device)
<b>Full battery backup (automatic transfer switch)</b>		<input type="radio"/>	<input type="radio"/>
<b>Active PV-modules in backup mode</b>		<input type="radio"/>	
<b>Interfaces (Heat pump + FRE)</b>		Connection heat pump (via Varta IQ Link); FRE via external relay control	
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>		Fixed charging times;Dynamic electricity tariffs + limitation by EVU (via Varta IQ Link)	
<b>System information</b>		1-/3-phase AC-coupled storage system; Ideal for storage retrofitting in existing systems; Up to 5 devices can be cascaded with Varta Link	

**Explanation of  
The specifications**
**Description**

<b>Storage inverter type</b>	Name inverter series and power classes	
<b>Max. PV system size (kWp)</b>	DC System size according to manufacturer's specifications *	
<b>AC phases</b>	<b>1</b>	1-phase grid connection
	<b>3</b>	3-phase grid connection
<b>Surge Protection Device DC / AC</b>	Specification of integrated overvoltage protection, if applicable also as an additional option	
<b>Bat.-coupling</b>	<b>AC (Bat.-Inv)</b>	Definition of battery coupling via AC: Inverter is designed as pure AC-coupled device (e.g. SMA Sunny Island) or can also be used as hybrid inverter without connection of PV modules as bat inverter.
	<b>DC (Hybrid)</b>	Definition of battery coupling via DC: The inverter is designed as a hybrid device and can charge the battery via DC coupling from the directly connected PV modules.
<b>Bat. charging via separate PV inverter (AC-coupling)</b>	Use of a second inverter (same or different manufacturer) for charging the battery storage via AC coupling	
<b>Manufacturer storage</b>	Manufacturer storage	
<b>Storage type</b>	Name storage types (Compatible variants) Battery sets compatible with this storage system	
<b>Number of storages per unit (tower) / Max. Units (towers) parallel</b>	Number of battery modules in individual setups / max. parallel setups Setups	
<b>Max. charging power System</b>	maximum charge / discharge power in the respective unit combination *	
<b>Usable capacity (kWh) per unit</b>	Usable capacity according to storage manufacturer *	
<b>Time window for expansion from commissioning</b>	Possibility of a battery expansion as well as the time window for this from the time of commissioning	
<b>Emergency power (separate AC clamp)</b>	Definition: Separate clamp at inverter for external socket(s), which is fed from battery and if possible by solar power.	
<b>Battery backup light (backup connection inverter, i.n. transfer switch)</b>	Definition: direct supply of few defined circuits via backup connection at the inverter, if necessary also with switching by backup box (no complete house load)	
<b>Full battery backup (automatic transfer switch)</b>	Definition: by means of automatic transfer switch in central main line (according to local regulations) supply of all/defined circuits takes place	
<b>Active PV-modules in backup mode</b>	Recharge option in case of grid failure	
<b>Interfaces (Heat pump + FRE)</b>	Information on interfaces for heat pumps and FRE cell chemistry	
<b>SMART Charging Features Dynamic electricity tariffs, fixed charging times, Limitation by EVU according to EnWG §14a</b>	Additional charging modes of the storage system (in addition to PV surplus) with fixed charging times or via external control based on stock market prices, energy supply company specifications, etc.	
<b>System information</b>	Additional information on the products	

\* The respective columns for the appliance series contain different performance classes, therefore all information refers to the smallest and largest appliance in each case, as well as a storage tower/unit. Detailed information can be found in the data sheet.





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