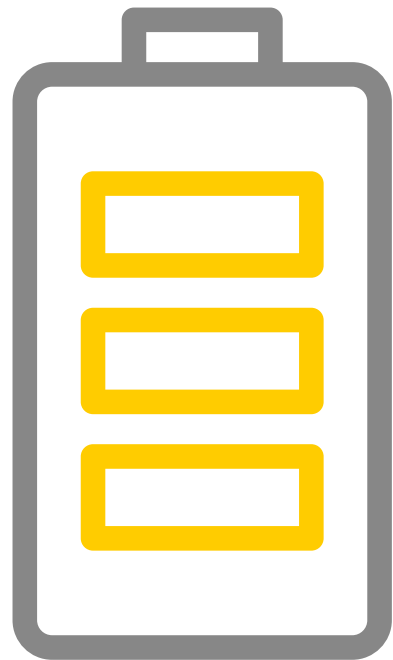


C&I STORAGE SYSTEMS



COMMERCIAL
INDUSTRIAL
UTILITY SCALE

Manufacturer

-AXITEC

Type of commercial storage system	AXIhycon 12 / 15 / 20 H + 29.9 / 40 / 50 H		
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption, Peak-Shaving ***, Dyn. Electricity tariffs, backup (<10ms), off-grid		
Connection of storage (WR type) / connection of other PV generators	AC + DC - Coupling (Hybrid-WR) / ext. PV-WR		
AC power (kW)	12 / 15 / 20 / 29.9 / 40 / 50		
Mains connection voltage level	400 V		
Number of cascadeable WR / max. Total power AC	Up to 6 WR / 300 kVA		
Installation location specification Inverter / Storage	Indoor + Outdoor / Indoor		
Manufacturer	-AXITEC		
Model Memory	AXIStorage Li SV1 10.1 to 23.6	AXIStorage Li SV2 6.7 to 16.9	AXIStorage Li SV39.7 to 34
Capacity 1 storage unit gross / net (kWh)	10.1 to 23.6 (net)	6.7 to 16.9 (net)	9.7 to 34.0 (net)
Number of storage units per system / Time window for extension	6 units per system / up to 5 years		2 to 5 (WR 5-10), to 6 (WR 12-20), to 7 (WR 29-50) / Up to 2 years
Charging cycles ***	-		
Cell Chemistry	LFP		
Backup function / ext. Switchgear	<input checked="" type="radio"/> / <input type="radio"/>		
Standardize	VDE 4105		
Standard Warranty System / Memory ***	10 years / 10 years		
External communication interfaces	WLAN, Ethernet		
Energy Management System / EZA Controller	Integrated (limited range of functions) / to be checked individually		
Monitoring	About Axitec Portal		
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	<input type="radio"/>		
Installer certification possible	<input type="radio"/>		
Options Commissioning Support	Regular support		
Weight components (WR, Bat unit) kg / Transport + unloading	WR 32,6-73, Bat total 119-259 / forklift	WR 32,6-73, Bat total 82,5-189 / forklift	WR 32,6-73, Bat total 92-287 / Forklift
System information	12,15, 20, 40,50 kW with 4 MPPT - 29.9 kW with 3 MPPT; integrated arc detection; storage up to 6-fold cascadeable; use hybrid as offgrid system (with / without generator) possible		12,15, 20, 40, 50 kW with 4 MPPT - 29.9 kW with 3 MPPT; integrated arc detection; Use hybrid as off-grid system (with / without generator) possible

* Release and compatibility according to manufacturer's specifications

** only possible through the use of external EMS

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Manufacturer

-AXITEC

Type of commercial storage system	AXIhycon 29.9 / 40 / 50 H			
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption, Peak-Shaving ***, Dyn. Electricity tariffs, backup (<10ms), off-grid			
Connection of storage (WR type) / connection of other PV generators	AC + DC - Coupling (Hybrid-WR) / ext. PV-WR			
AC power (kW)	29.9 / 40 / 50			
Mains connection voltage level	400 V			
Number of cascadeable WR / max. Total power AC	Up to 6 WR / 300 kVA			
Installation location specification Inverter / Storage	Indoor + Outdoor / Indoor	Indoor + Outdoor / Indoor*** + Outdoor	Indoor + Outdoor / Indoor	Indoor + Outdoor / Outdoor
Manufacturer	SUNWODA ENERGY			
Model Memory	Oasis Flex 25 - 60	Oasis 60	Oasis Rack Pro+ -100 / -120 / -160 / -200	Oasis A200 -120 / -160 / -200
Capacity 1 storage unit gross / net (kWh)	22.5 to 54.0 (net)	60.0 (net)	100.0 to 200.0 (net)	120.0 to 200.0 (net)
Number of storage units per system / Time window for extension	6 units per system / -	6 units per system / unlimited	6 units per system / -	1 / -
Charging cycles ***	6000	6000	9000	9000
Cell Chemistry	LFP	LFP	LFP	LFP
Backup function / ext. Switchgear	<input checked="" type="radio"/> / <input type="radio"/>			
Standardize	VDE 4105 / 4110 (announced)			
Standard Warranty System / Memory ***	10 years / 10 years			
External communication interfaces	WLAN, Ethernet			
Energy Management System / EZA Controller	Integrated (limited range of functions) / to be checked individually			
Monitoring	About Axitec Portal			
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	<input type="radio"/>			
Installer certification possible	<input type="radio"/>			
Options Commissioning Support	Regular support			
Weight components (WR, Bat unit) kg / Transport + unloading	WR 73, Rack + Bat 248-570 / Forklift	WR 73, Rack 207, Bat 600 / Forklift or crane	WR 73, Bat total up to 2100 / forklift	WR 73, Rack 650, Bat 690-1380 / Forklift or crane
System information	12,15, 20, 40, 50 kW with 4 MPPT - 29.9 kW with 3 MPPT; Integrated arc detection; observe air conditioning + fire protection specifications; use hybrid as off-grid system (with / without generator) possible			

Manufacturer



Type of commercial storage system	Verto Plus 15.0 / 17.5 / 20.0 / 25.0 / 30.0 / 33.0				
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption, Peak-Shaving, Dyn. Electricity tariffs, backup				
Connection of storage (WR type) / connection of other PV generators	AC + DC - Coupling (Hybrid-WR) / ext. PV-WR				
AC power (kW)	15 / 17.5 / 20 / 25 / 30 / 33				
Mains connection voltage level	400 V				
Number of cascadeable WR / max. Total power AC	Not cascadeable according to current status				
Installation location specification Inverter / Storage	Indoor + Outdoor / Indoor			Indoor + Outdoor / Indoor + Outdoor***	
Manufacturer					
Model Memory	B-Box HVS / + 5.1 to 12.8	B-Box HVM / + 11.0 to 22.1	B-Box HVB 11.8 to 29.6	Reserve 6.3 / 9.5 / 12.6 / 15.8	Reserve PRO 12.0 / 16.0 / 20.0 / 24.0 / 28.0 / 32.0
Capacity 1 storage unit gross / net (kWh)	5.1 to 12.8 (net)	11.0 to 22.1 (net)	11.88 to 26.69 (net)	6.3 to 15.8 (net)	6.3 to 15.8 (net)
Number of storage units per system / Time window for extension	2 - 5 per unit, up to 3 units parallel / unlimited	4 - 8 per unit, up to 3 units parallel / unlimited	4 - 10 per unit, up to 3 units parallel / unlimited	2 - 5 per unit, up to 4 units in parallel / up to 2 years	3 - 8 per unit, up to 4 units parallel / unlimited
Charging cycles ***	-	-	-	-	-
Cell Chemistry	LFP				
Backup function / ext. Switchgear	<input type="radio"/> / <input checked="" type="radio"/>				
Standardize	VDE 4105 / 4110 (only 25.0 to 33.0)				
Standard Warranty System / Memory ***	10 years / 10 years				
External communication interfaces	WLAN, Ethernet				
Energy Management System / EZA Controller	Integrated (limited range of functions) / to be checked individually				
Monitoring	About Fronius Portal				
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	<input type="radio"/>				
Installer certification possible	<input type="radio"/>				
Options Commissioning Support	Regular support				
Weight components (WR, Bat unit) kg / Transport + unloading	WR 43, Bat total 91-205 / forklift	WR 43, Bat total 153-319 / Forklift	WR 43, Bat total 124-287 / forklift	WR 43, Bat total 86,5-187 / forklift	WR 43, Bat total 126-306 / forklift
System information	15, 17.5, 20, 25, 30, 33 kW with 3 MPPT; integrated Arc Guard arc detection; connection FRE via DI inputs				



* Release and compatibility according to manufacturer's specifications

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Manufacturer

GOODWE

Type of commercial storage system	GW ET Hybrid 15K / 20K / 25K / 29.9K / 40K / 50K / 100K				
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption, Peak-Shaving, Backup (<10ms)				
Connection of storage (WR type) / connection of other PV generators	AC + DC coupling (hybrid-WR) * / ext.PV-WR *				
AC power (kW)	15 / 20 / 25 / 29,9 / 40 / 50 / 100				
Mains connection voltage level	400 V				
Number of cascadeable WR / max. Total power AC	3 x GW 29.9 ET / 99.7 kW 4 x GW 40+50 ET / up to 200 kW 15 x GW 100K-ET / up to 1000 kW				
Installation location specification Inverter / Storage	Indoor + Outdoor / Indoor		Indoor + Outdoor / Outdoor		Indoor + Outdoor / Outdoor
Manufacturer			GOODWE		
Model Memory	B-Box HVS / + 5.1 to 12.8 (Only GW ET 15K - 30K)	B-Box HVM / + 11.0 to 22.1 (Only GW ET 15K - 30K)	Lynx D 5.0 to 40.0 (Only GW ET 15K - 30K)	BAT-C 61.4 / 112.6 (61.4 not with ET 100K)	SIMPO HV Pro 72-9 (Only GW ET 40K + 50K)
Capacity 1 storage unit gross / net (kWh)	5.1 to 12.8 (net)	11.0 to 22.1 (net)	5.0 to 40.0 (net)	60.0 / 110.0 (net)	72.58 (net)
Number of storage units per system / Time window for extension	2 units per system / unlimited			1 to 4 units per system / unlimited only as a complete unit with WR	9 per unit, up to 16 units / unlimited
Charging cycles ***	-		-	6000	-
Cell Chemistry	LFP		LFP		
Backup function / ext. Switchgear	<input checked="" type="radio"/> / <input type="radio"/>				
Standardize	VDE 4105 / 4110 (only ET 40K / 50K / 100K)				
Standard Warranty System / Memory ***	10 years / 10 years		10 years / 10 years		10 years / 10 years
External communication interfaces	WLAN, Ethernet				
Energy Management System / EZA Controller	Integrated (limited range of functions) / to be checked individually				
Monitoring	About Goodwe Portal				
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	<input checked="" type="radio"/>				
Installer certification possible	<input type="radio"/>				
Options Commissioning Support	Remote Commercial Support				
Weight components (WR, Bat unit) kg / Transport + unloading	WR 48-65, Bat total 91-205 / forklift	WR 48-65, Bat total 153-319 / Forklift	WR 48-65, Bat total 52-416 / Forklift	WR 48-65, Rack 410, Bat 540-990 / forklift or crane	WR 48-65, Rack 360, Bat 585 / forklift or crane
System information	2 separate battery ports; ideal for small to medium commercial applications; connection FRE via DRM inputs; optional with AFCI				

Manufacturer

GOODWE

Type of commercial storage system	GW ESA All-in-One 125 / 261
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Own consumption, peak-shaving, backup (only with STS 500 Box)
Connection of storage (WR type) / connection of other PV generators	AC Coupling
AC power (kW)	125
Mains connection voltage level	400 V
Number of cascadeable WR / max. Total power AC	Up to 15 WR / 1875 kVA
Installation location specification Inverter / Storage	Outdoor
Manufacturer	GOODWE
Model Memory	ESA 261
Capacity 1 storage unit gross / net (kWh)	261.25 (net)
Number of storage units per system / Time window for extension	Always as a complete unit / unlimited
Charging cycles ***	-
Cell Chemistry	LFP
Backup function / ext. Switchgear	<input checked="" type="radio"/> / <input type="radio"/> (Only with STS 500 box)
Standardize	VDE 4105 / 4110 + 4120 announced
Standard Warranty System / Memory ***	5 years
External communication interfaces	WLAN, Ethernet
Energy Management System / EZA Controller	**Through third-party providers / -
Monitoring	About Goodwe Portal
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	<input type="radio"/>
Installer certification possible	<input type="radio"/>
Options Commissioning Support	Remote Commercial Support
Weight components (WR, Bat unit) kg / Transport + unloading	Complete 2580 / forklift or crane
System information	Compact commercial storage system; liquid cooling; optional backup with STS 500 Box

* Release and compatibility according to manufacturer's specifications

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Manufacturer



Type of commercial storage system	SUN2000 12 / 15 / 17 / 20 / 25 K MBO		LUNA2000 215-2510
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption; Dynamic electricity tariffs (EMMA), backup (only 1-phase)		Own consumption**, peak-shaving**
Connection of storage (WR type) / connection of other PV generators	AC + DC - Coupling (Hybrid-WR) / ext. PV-WR		AC - Coupling (Memory WR) / Ext. PV-WR
AC power (kW)	12/15/17/20/25		108
Mains connection voltage level	400 V		
Number of cascadeable WR / max. Total power AC	Up to 3 WR / 75 kVA		Up to 20 WR / 2160 kVA
Installation location specification Inverter / Storage	Indoor + Outdoor / Indoor		Complete Outdoor
Manufacturer			
Model Memory	SUN2000 LUNA 5 / 10 / 15-S0	SUN2000 LUNA5/7/10/14/15/21-S1	LUNA 2000 -215 kWh (Liquid cooled)
Capacity 1 storage unit gross / net (kWh)	5.0 / 10.0 / 15.0 (Gross = net)	5.0/7.0/10.0/14.0/15.0 /21.0 (gross = net)	215,0 (Gross = net)
Number of storage units per system / Time window for extension	Up to 2 / unlimited		Always as a complete unit / unlimited
Charging cycles ***	-		7300
Cell Chemistry	LFP		
Backup function / ext. Switchgear	<input checked="" type="radio"/> , with Backup Box / <input checked="" type="radio"/> - with Smart Guard Box		<input type="radio"/>
Standardize	VDE 4105/4110		
Standard Warranty System / Memory ***	10 years / 10 years		10 years / 5 years
External communication interfaces	Ethernet		Ethernet, LWL
Energy Management System / EZA Controller	**Via third-party providers / to be checked individually		
Monitoring	About Huawei Portal		
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	<input checked="" type="radio"/>		<input type="radio"/>
Installer certification possible	<input type="radio"/>		
Options Commissioning Support	Regular support		On-site support
Weight components (WR, Bat unit) kg / Transport + unloading	WR 21, Bat 63,8-163.8 / Forklift	WR 21, Bat 80-252 / Forklift	Complete 2800 / Forklift or crane
System information	Up to 3 systems can be cascaded;2 separate battery ports; ideal for small to medium commercial applications; connection FRE via Huawei Smart Logger		AC-coupled high-voltage storage system for connection to large systems; system with liquid cooling; 20 systems can be cascaded

Manufacturer



new energy.

Type of commercial storage system	Blueplanet gridsave 92.0 TL3-S		Blueplanet gridsave 110 TL3-S	Blueplanet gridsave 137 TL3-S
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Own consumption**, peak-shaving**		Own consumption**, peak-shaving**	
Connection of storage (WR type) / connection of other PV generators	AC - Coupling (Memory WR) /Ext. PV-WR		AC - Coupling (Memory WR) /Ext. PV-WR	
AC power (kW)	92		110	137
Mains connection voltage level	400 V		400V/480V	600 V
Number of cascadeable WR / max. Total power AC	Up to 3 WR / 276 kVA		Up to 3 WR / 411 kVA	
Installation location specification Inverter / Storage	Indoor + Outdoor / Outdoor	Indoor + Outdoor / Outdoor	Indoor + Outdoor / Outdoor	
Manufacturer	SUNWODA ENERGY		SUNWODA ENERGY	
Model Memory	Oasis L215	Oasis L344	Oasis L344	
Capacity 1 storage unit gross / net (kWh)	215.0 (net)	344.0 (net)	344.0 (net)	
Number of storage units per system / Time window for extension	Always as a complete unit with WR / unlimited	Always as a complete unit with WR / unlimited	Always as a complete unit with WR / unlimited	
Charging cycles ***	-	-	-	
Cell Chemistry	LFP		LFP	
Backup function / ext. Switchgear	○/○		○/○	
Standardize	VDE 4105 / 4110 + 4120		VDE 4105 / 4110 + 4120	
Standard Warranty System / Memory ***	5 years / 10 years	5 years / 5 years	5 years / 5 years	
External communication interfaces	Ethernet		Ethernet	
Energy Management System / EZA Controller	**Connectica to implement / to be checked individually via third-party providers		**Connectica to implement / to be checked individually via third-party providers	
Monitoring	About Kaco Portal		About Kaco Portal	
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	○		○	
Installer certification possible	○		○	
Options Commissioning Support	Regular support		Regular support	
Weight components (WR, Bat unit) kg / Transport + unloading	WR 80, Bat total 2520 / Forklift or crane	WR 80, Bat total 3480/ Forklift or crane	WR 80, Bat total 3480/ Forklift or crane	
System information	AC-coupled high-voltage storage system for connection to large systems		AC-coupled high-voltage storage system for connection to large systems; system with liquid cooling; special AC voltage level	

* Release and compatibility according to manufacturer's specifications

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Manufacturer



Type of commercial storage system	CSS-00	
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption; Peak-Shaving; Trading; Dynamic electricity tariffs	
Connection of storage (WR type) / connection of other PV generators	AC - Coupling (Memory-WR) / ext.PV-WR	
AC power (kW)	50	50 / 2 x 50
Mains connection voltage level	400 V	
Number of cascadeable WR / max. Total power AC	Up to 20 WR / 1000 KVA	
Installation location specification Inverter / Storage	*Complete Outdoor or indoor	
Manufacturer	solar edge	
Model Memory	CSS-0U-20 Battery Cabinet	CSS-0U-197 Battery Cabinet
Capacity 1 storage unit gross / net (kWh)	102.4 / 97.3	197.12 / 187.15
Number of storage units per system / Time window for extension	Up to 2 / -, complete units only	1 / -, complete units only
Charging cycles ***	6000	7000
Cell Chemistry	LFP	LFP
Backup function / ext. Switchgear	<input type="radio"/>	
Standardize	VDE 4105/4110	
Standard Warranty System / Memory ***	10 years	
External communication interfaces	Ethernet, RS485, CAN, Modbus TCP + RTU	
Energy Management System / EZA Controller	<input checked="" type="radio"/> * / to be checked individually	
Monitoring	About SolarEdge Portal	
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	<input type="radio"/>	
Installer certification possible	<input checked="" type="radio"/> (obligation for initial installation)	
Options Commissioning Support	On-site support (included at no extra charge)	
Weight components (WR, Bat unit) kg / Transport + unloading	WR 68, Cabinet complete 1433 / Forklift or crane	WR 68, Cabinet complete 2360 / Forklift or crane
System information	Up to 1 MWh scalable, air conditioning	Up to 1 MWh scalable, 2 WR per storage cabinet possible, air conditioning

Manufacturer



Type of commercial storage system	STP Storage X 30-20	STP Storage X 50-20
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption; Peak-Shaving; Multi-use;	
Connection of storage (WR type) / connection of other PV generators	AC - Coupling (Memory-WR) / ext.PV-WR	
AC power (kW)	30	50
Mains connection voltage level	400 V	
Number of cascadeable WR / max. Total power AC	Up to 50 WR / 1500 - 2500 kVA	
Installation location specification Inverter / Storage	Indoor + Outdoor / Indoor	Indoor + Outdoor / Outdoor
Manufacturer		
Model Memory	Storage XL 89 / 197 - Indoor (May System combinations See shop)	Storage XL 107 / 197 - Outdoor (May System combinations See shop)
Capacity 1 storage unit gross / net (kWh)	89.0 / 197.0 (net)	107.0 / 197.0 (net)
Number of storage units per system / Time window for extension	Up to 4 units per system / -	Up to 4 units per system / -
Charging cycles ***	12000	12000
Cell Chemistry	LFP	
Backup function / ext. Switchgear	○	
Standardize	VDE 4105/4110	
Standard Warranty System / Memory ***	2 years (by registration 10 years) / 5 years	
External communication interfaces	Ethernet	
Energy Management System / EZA Controller	Integrated SMA System Manager (bls 5 devices), with SMA Data Manager EDMM-20 (up to 50 WR)	
Monitoring	Via SMA ennexOS Portal	
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	● (with I/O module)	
Installer certification possible	●	
Options Commissioning Support	Full-service / remote support (only for certified installers)	
Weight components (WR, Bat unit) kg / Transport + unloading	WR 104, Bat 914-1797 / Forklift or crane	WR 104, Bat 1515-2200 / Forklift or crane
System information	On-grid applications; SMA system manager up to 10 devices integrated in WR; 2 storage variants for indoor / outdoor; Air-cooled	

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Manufacturer



Type of commercial storage system	Sunny Island X 30-20		Sunny Island X 50-20	
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption; Peak-Shaving; Multi-use; Off-grid (additional 3rd party components required)			
Connection of storage (WR type) / connection of other PV generators	AC - Coupling (Memory-WR) / ext.PV-WR			
AC power (kW)	30		50	
Mains connection voltage level	400 V			
Number of cascadeable WR / max. Total power AC	Up to 50 WR / 1500 - 2500 kVA			
Installation location specification Inverter / Storage	Indoor + Outdoor / Indoor	Indoor + Outdoor / Indoor*** + Outdoor	Indoor + Outdoor / Indoor	Indoor + Outdoor / Outdoor
Manufacturer	SUNWODDA ENERGY			
Model Memory	Oasis Flex 25 - 60	Oasis 60	Oasis Rack Pro+ -100 / -120 / -160 / -200	Oasis A200 -120 / -160 / -200
Capacity 1 storage unit gross / net (kWh)	22.5 to 54.0 (net)	60.0 (net)	100.0 to 200.0 (net)	120.0 to 200.0 (net)
Number of storage units per system / Time window for extension	6 units per system / -	6 units per system / unlimited	12 units per system / -	1 / -
Charging cycles ***	6000	7000 (0.5C)	9000	9000
Cell Chemistry	LFP			
Backup function / ext. Switchgear	Announced / Announced			
Standardize	VDE 4105/4110			
Standard Warranty System / Memory ***	2 years (by registration 10 years) / 5 years			
External communication interfaces	Ethernet			
Energy Management System / EZA Controller	Integrated SMA System Manager (bls 5 devices), with SMA Data Manager EDMM-20 (up to 50 WR)			
Monitoring	Via SMA ennexOS Portal			
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	● (with I/O module)			
Installer certification possible	○			
Options Commissioning Support	Regular support			
Weight components (WR, Bat unit) kg / Transport + unloading	WR 104, Bat 248-570 / Forklift	WR 104, Rack 207, Bat 600 / Forklift or crane	WR 73, Rack 600, Bat total to 2100 / Forklift	WR 73, Bat total to 2300 / forklift or crane
System information	On- and off-grid applications; SMA system manager up to 10 devices integrated in WR; Memory flexibly scalable; Air-cooled			

Manufacturer



Type of commercial storage system	Sunny Island X 30-20		Sunny Island X 50-20	
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption; Peak-Shaving; Multi-use; Off-grid (additional 3rd party components required)			
Connection of storage (WR type) / connection of other PV generators	AC - Coupling (Memory-WR) / ext.PV-WR			
AC power (kW)	30		50	
Mains connection voltage level	400 V			
Number of cascadeable WR / max. Total power AC	Up to 50 WR / 1500 - 2500 kVA			
Installation location specification Inverter / Storage	Indoor + Outdoor / Outdoor	Indoor + Outdoor / Indoor	Indoor + Outdoor / Outdoor	
Manufacturer				
Model Memory	Oasis L215	Storage XL 89 / 197 - Indoor (May System combinations See shop)	Storage XL 107 / 197 - Outdoor (May System combinations See shop)	
Capacity 1 storage unit gross / net (kWh)	215.0 (net)	89.0 / 197.0 (net)	107.0 / 197.0 (net)	
Number of storage units per system / Time window for extension	Always as a complete unit with WR / unlimited	Up to 4 units per system / -	Up to 4 units per system / -	
Charging cycles ***	6000 (0.5C)	12000	12000	
Cell Chemistry	LFP			
Backup function / ext. Switchgear	Announced / Announced			
Standardize	VDE 4105/4110			
Standard Warranty System / Memory ***	2 years (by registration 10 years) / 5 years			
External communication interfaces	Ethernet			
Energy Management System / EZA Controller	Integrated SMA System Manager (bls 5 devices), with SMA Data Manager EDMM-20 (up to 50 WR)			
Monitoring	Via SMA ennexOS Portal			
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	<input checked="" type="radio"/> (with I/O module)			
Installer certification possible	<input type="radio"/>			
Options Commissioning Support	Regular support			
Weight components (WR, Bat unit) kg / Transport + unloading	WR 104, Bat total 2520 / Forklift or crane	WR 104, Bat 914-1797 / Forklift or crane	WR 104, Bat 1515-2200 / Forklift or crane	
System information	On- and off-grid applications; SMA system manager up to 10 devices integrated in WR; storage with liquid cooling	On- and off-grid applications; SMA system manager up to 10 devices integrated in WR; indoor only; no air conditioning		




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Manufacturer

SCFAR

Type of commercial storage system	HYD 10 / 15 / 20 KTL				
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption, Peak-Shaving (only 20 KTL), Backup (<10ms)				
Connection of storage (WR type) / connection of other PV generators	AC + DC - Coupling (Hybrid-WR) / ext. PV-WR				
AC power (kW)	10 / 15 / 20				
Mains connection voltage level	400 V				
Number of cascadeable WR / max. Total power AC	Up to 10 WR / 200 kVA				
Installation location specification Inverter / Storage	Indoor + Outdoor / Indoor				
Manufacturer					
Model Memory	Force H1 13.5 to 23.6	Force H2 10.1 to 16.9	BTS-D5 E5 to E20	AXIstorage Li SV1 13.5 to 23.6	AXIstorage Li SV2 10.1 to 16.9
Capacity 1 storage unit gross / net (kWh)	13.5 to 23.6 (net)	10.1 to 16.9 (net)	4.75 to 19.0 (net)	13.5 to 23.6 (net)	10.1 to 16.9 (net)
Number of storage units per system / Time window for extension	6 units per system / up to 2 years		2 units per system / unlimited	6 units per system / up to 5 years	
Charging cycles ***	-				
Cell Chemistry	LFP				
Backup function / ext. Switchgear	● / ●, manual changeover device				
Standardize	VDE 4105 (HYD 10 + 15) / 4110 (HYD 20 + Power Magic)				
Standard Warranty System / Memory ***	5 years / 10 years				
External communication interfaces	Ethernet				
Energy Management System / EZA Controller	Integrated (limited range of functions, with ext. Sofar EMS Box expandable) / to be individually checked				
Monitoring	About Sofar Portal				
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	●				
Installer certification possible	●				
Options Commissioning Support	Regular support (optional)				
Weight components (WR, Bat unit) kg / Transport + unloading	WR 37, Bat total 154-259 / Forklift	WR 37, Bat total 118-189 / Forklift	WR 37, Bat total 57.5-207.5 / forklift	WR 37, Bat total 154-259 / Forklift	WR 37, Bat total 118-189 / Forklift
System information	Up to 10 systems can be cascaded; 2 separate battery ports; ideal for small to medium commercial applications; connection FRE integrated				

SOFAR

MMMMMMMMMMMM

Type of commercial storage system	Power Magic	
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption, peak-shaving**	
Connection of storage (WR type) / connection of other PV generators	AC - Coupling (Memory-WR) / ext.PV-WR	
AC power (kW)	125	
Mains connection voltage level	400 V	
Number of cascadeable WR / max. Total power AC	Up to 12 WR / 1500 kVA	
Installation location specification Inverter / Storage	Complete Outdoor	
Manufacturer	SOFAR	
Model Memory	LFP/280Ah (6 Pack)	LFP/280Ah (5 Pack)
Capacity 1 storage unit gross / net (kWh)	258,0	215,0
Number of storage units per system / Time window for extension	3 racks per system / bat rack only at the same time, whole systems unlimited	
Charging cycles ***	7000	
Cell Chemistry	LFP	
Backup function / ext. Switchgear	Announced / announced	
Standardize	VDE 4105 (HYD 10 + 15) / 4110 (HYD 20 + Power Magic)	
Standard Warranty System / Memory ***	5 years / 10 years	
External communication interfaces	Ethernet	
Energy Management System / EZA Controller	Integrated (limited range of functions, with ext. Sofar EMS Box expandable) / to be individually checked	
Monitoring	About Sofar Portal	
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	●	
Installer certification possible	Announced	
Options Commissioning Support	On-site support (mandatory)	
Weight components (WR, Bat unit) kg / Transport + unloading	Complete 2500 / Forklift or crane	Complete 2800 / Forklift or crane
System information	Modular large-scale storage; Parallel operation AC up to 12 systems; Liquid cooling; Fire Protection System	

* Release and compatibility according to manufacturer's specifications

** only possible through the use of external EMS

*** Requirements and assumptions for this information can be found in the manufacturer's documentation and guarantees

Manufacturer



Type of commercial storage system	X3-Ultra 15K / 19.9K / 20K / 25K / 30K		Aelio P50B100/P50B200/P60B100/P60B200	
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption, Peak-Shaving, Backup (<10ms)		Self-consumption, peak-shaving, Backup (<10ms), off-grid	
Connection of storage (WR type) / connection of other PV generators	AC + DC - Coupling (Hybrid-WR) / ext. PV-WR		AC + DC - Coupling (Hybrid-WR) / ext. PV-WR	
AC power (kW)	15 / 19.9 / 20 / 25 / 30		50/60	
Mains connection voltage level	400 V		400 V	
Number of cascadeable WR / max. Total power AC	Up to 10 WR / 300 kVA		Up to 10 WR / up to 600 kVA	
Installation location specification Inverter / Storage	Indoor + Outdoor / Indoor		Complete Outdoor or Indoor***	
Manufacturer				
Model Memory	T-BAT HV-S 2.5 (7.6 to 33.2)	T-BAT HV-S 5.1 (15.3 to 66.5)	Aelio B100 / B200	T-BAT HV-S 5.1 (15.3 to 66.5)
Capacity 1 storage unit gross / net (kWh)	7.6 to 33.2 / 6.9 to 29.9	15.3 to 66.5 / 13.7 to 59.8	90.0 / 180.0 (net)	125.6 to 66.5 / 23.0 to 59.8
Number of storage units per system / Time window for extension	2 units per system / unlimited		Compact system / unlimited (whole systems only)	2 units per system / unlimited
Charging cycles ***	>6000	6000	8000	6000
Cell Chemistry	LFP		LFP	LFP
Backup function / ext. Switchgear	● / ●, with Solax EPS Parallel Box		● / ○	
Standardize	VDE 4105		VDE 4105/4110	
Standard Warranty System / Memory ***	10 years / 10 years		10 years / 10 years	
External communication interfaces	Ethernet		Ethernet	
Energy Management System / EZA Controller	Integrated / individually to be tested		Yes, with EMS1000 Pro / to check individually	
Monitoring	About Solax Portal		About Solax Portal	
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	●		●	
Installer certification possible	○		●	
Options Commissioning Support	Regular support		Regular support (on-site support for first project)	
Weight components (WR, Bat unit) kg / Transport + unloading	WR 47, Bat total 94-262 / Forklift	WR 47, Bat total 156.5-616.5 / Forklift	WR 105, Rack + Bat 1500-2700 / Forklift or crane	WR 105, Bat total 248,5-616,5 / Forklift or crane
System information	Up to 10 systems can be cascaded; 2 separate battery ports; ideal for small to medium commercial applications; connection FRE via DI inputs		Up to 10 systems can be cascaded; 6 MPPT; 2 separate battery ports; ideal for small to medium commercial applications; connection FRE via integrated EMS1000 Pro Logger; 4-stage fire protection concept	

Manufacturer



Type of commercial storage system	Trene P100B215I (Air cooling)	Trene P125B261L-E (Liquid cooling)	Trene P500B1044L-2H (Liquid cooling)
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption, peak-shaving, Off-grid*, Backup (With Nexus Zero Cabinet)	Self-consumption, peak-shaving, Off-grid*, Backup (With Nexus Zero Cabinet)	Self-consumption, peak-shaving, Off-grid*, Backup (With Nexus Zero Cabinet)
Connection of storage (WR type) / connection of other PV generators	AC - Coupling (Memory WR) /Ext. PV-WR	AC - Coupling (Memory WR) /Ext. PV-WR	AC - Coupling (Memory WR) /Ext. PV-WR
AC power (kW)	100	125	249 / 250 / 260 / 319 / 399 / 499 / 500
Mains connection voltage level	400 V	400 V	400 V
Number of cascadeable WR / max. Total power AC	Open / open	Open / open	Open / open
Installation location specification Inverter / Storage	Complete Outdoor	Complete Outdoor	Complete Outdoor
Manufacturer			
Model Memory	Trene B215I	Trene B261I	Trene B1044L
Capacity 1 storage unit gross / net (kWh)	193.5 (net)	234.9 (net)	1040.0 (net)
Number of storage units per system / Time window for extension	Compact system / unlimited (whole systems only)	Compact system / unlimited (whole systems only)	Compact system / unlimited (whole systems only)
Charging cycles ***	8000	8000	-
Cell Chemistry	LFP	LFP	LFP
Backup function / ext. Switchgear	○/○	○/○	○/○
Standardize	VDE 4105/4110	VDE 4105/4110	VDE 4105/4110
Standard Warranty System / Memory ***	10 years / 10 years	10 years / 10 years	10 years / 10 years
External communication interfaces	Ethernet	Ethernet	Ethernet
Energy Management System / EZA Controller	Yes, with EMS1000 Pro / to check individually		
Monitoring	About Solax Portal		
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	○		
Installer certification possible	●		
Options Commissioning Support	Regular support (on-site support for first project)		
Weight components (WR, Bat unit) kg / Transport + unloading	Complete 2800 / Forklift or crane	Complete 2810 / Forklift or crane	Complete 13000 / Crane
System information	Can be cascaded many times; ideal for Medium to large commercial applications; connection FRE via integrated EMS1000 Pro Logger; 4-stage fire protection concept; air conditioning with air or liquid cooling;		Can be cascaded; ideal for medium to large commercial applications; Connection FRE via integrated EMS1000 Pro logger; 4-stage fire protection concept; liquid cooling;

* Release and compatibility according to manufacturer's specifications

** only possible through the use of external EMS


*** Requirements and assumptions for this information can be found in the manufacturer's documentation and guarantees

Manufacturer

SUNGROW

Clean power for all

Type of commercial storage system	SH 15 / 20 / 25 T		Power Stack 255kWh-125kW	Power Stack 510kWh-125kW
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption, Peak-Shaving*, Backup (<10ms)		Self-consumption, peak-shaving**	Self-consumption, peak-shaving**
Connection of storage (WR type) / connection of other PV generators	AC + DC - Coupling (Hybrid-WR) / ext. PV-WR		AC - Coupling (Memory-WR) / ext.PV-WR	AC - Coupling (Memory-WR) / ext.PV-WR
AC power (kW)	15 / 20 / 25		125	125
Mains connection voltage level	400 V		400 V	400 V
Number of cascadeable WR / max. Total power AC	Up to 4 WR / 100 kVA		Up to 25 WR / 2750 kVA	Up to 25 WR / 3125 kVA
Installation location specification Inverter / Storage	Indoor + Outdoor / Indoor		Complete Outdoor	Complete Outdoor
Manufacturer	SUNGROW Clean power for all			
Model Memory	SBR 12.8 to 25.6 (only 1 tower)	SBH 150 to 400 (2 towers)	ST255kWh	ST510kWh
Capacity 1 storage unit gross / net (kWh)	12.8 to 25.6 (net)	Each 15.0 to 40.0 (net)	257.0 / 257.0	514,0
Number of storage units per system / Time window for extension	Up to 2 / 1 year *	Up to 2 / 1 year *	Compact system / unlimited (whole systems only)	Compact system / unlimited (whole systems only)
Charging cycles ***	-	-	8760	8760
Cell Chemistry	LFP		LFP	LFP
Backup function / ext. Switchgear	● / ○		○ / ○	○ / ○
Standardize	VDE 4105		VDE 4105/4110	VDE 4105/4110
Standard Warranty System / Memory ***	10 years / 10 years		5 years / 5 years	5 years / 5 years
External communication interfaces	Ethernet, WLAN		Ethernet	Ethernet
Energy Management System / EZA Controller	Integrated / individually to be tested		With EMS300CP / to check individually	With EMS300CP / to check individually
Monitoring	Via Sungrow Portal		Via Sungrow Portal	Via Sungrow Portal
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	-		○	○
Installer certification possible	○		○	○
Options Commissioning Support	Regular support		On-site support	On-site support
Weight components (WR, Bat unit) kg / Transport + unloading	WR 38, Bat total 147-279 / Forklift	WR 38, Bat total 151-376 / Forklift	Complete 3200 / Forklift or crane	Complete 5300 / Forklift or crane
System information	Backup connection up to 63 A loadable; up to 4 devices in parallel operation; additional PV inverters via AC coupling (up to 5 WR of the CX series);(Only same inverter power classes possible); connection FRE via DI inputs		Cascaded up to 25 times parallel to the grid; off-grid up to 10 times; ideal for medium to large commercial applications; liquid cooling; 3-stage fire protection concept; 2 versions: with integrated / separate auxiliary circuit	Cascadeable up to 25 times parallel to the network;Off-grid up to 10 times; ideal for medium to large commercial applications; liquid cooling; 3-stage fire protection concept; connection FRE via suitable logger

Type of commercial storage system	Oasis A200 All-in-One	Oasis L261 All-in-One	Oasis L261 All-in-One Backup
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption, peak-shaving**		Self-consumption, Peak-Shaving**, Backup
Connection of storage (WR type) / connection of other PV generators	AC - Coupling (Memory-WR) / ext.PV-WR		
AC power (kW)	125	125	125
Mains connection voltage level	400 V		
Number of cascadeable WR / max. Total power AC	Up to 20 systems / 2500 kVA	Up to MWh range (on request)	Up to MWh range (on request)
Installation location specification Inverter / Storage	Complete Outdoor		
Manufacturer			
Model Memory	CISS-A-200	CISS-261	
Capacity 1 storage unit gross / net (kWh)	180.0 (net)	261.0 (net)	
Number of storage units per system / Time window for extension	Compact system / unlimited (whole systems only)		
Charging cycles ***	9000	9000	
Cell Chemistry	LFP		
Backup function / ext. Switchgear	○ / ○		● / ● (integrated)
Standardize	VDE 4105/4110/4120		
Standard Warranty System / Memory ***	5 years / 5 years		
External communication interfaces	Ethernet, Wifi		
Energy Management System / EZA Controller	Integrated / individually to be tested		
Monitoring	About Sunwoda Portal		
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	○		
Installer certification possible	○		
Options Commissioning Support	On-site support		
Weight components (WR, Bat unit) kg / Transport + unloading	Complete 2400 / Forklift or crane	Complete 2300 / Forklift or crane	Complete 2400 / Forklift or crane
System information	Can be cascaded up to 20 times parallel to the network; ideal for medium to large commercial applications; Air-cooling; multi-level fire protection concept; connection FRE via suitable logger	Ideal for medium to large commercial applications; liquid cooling; multi-stage fire protection concept; connection FRE via suitable logger	Integrated network switching device; ideal for medium to large commercial applications; liquid cooling; multi-stage fire protection concept; connection FRE via suitable logger

Manufacturer



Type of commercial storage system	Flex Storage E	Flex Storage E Backup
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Self-consumption, Peak-Shaving	Self-consumption, Peak-Shaving, Backup
Connection of storage (WR type) / connection of other PV generators	AC - Coupling (Memory-WR) / ext.PV-WR	
AC power (kW)	36 / 80 / 120	
Mains connection voltage level	400 V	
Number of cascadeable WR / max. Total power AC	Up to 5 systems / 600 kVA	
Installation location specification Inverter / Storage	Indoor	
Manufacturer		
Model Memory	Storage E	
Capacity 1 storage unit gross / net (kWh)	67.5 to 337.5 (net)	
Number of storage units per system / Time window for extension	Up to 5 units / unlimited	
Charging cycles ***	>4000	
Cell Chemistry	NMC	
Backup function / ext. Switchgear	<input checked="" type="radio"/> / <input type="radio"/>	
Standardize	VDE 4105/4110	
Standard Warranty System / Memory ***	5 years / 10 years (time value replacement)	
External communication interfaces	Ethernet, Modbus TCP	
Energy Management System / EZA Controller	Varta EMS integrated / optional	
Monitoring	About Varta Portal	
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	<input checked="" type="radio"/>	
Installer certification possible	<input type="radio"/> (must be done by manufacturer service)	
Options Commissioning Support	On-site support for every storage included	
Weight components (WR, Bat unit) kg / Transport + unloading	Power Unit 285, each Storage Unit 707 / Forklift or crane	
System information	5-fold cascadeable; ideal for small to medium commercial applications	5-fold cascadeable; iDeal for small to medium commercial applications; Integrated network switching device, Backup PV / Load = AC charging power

Manufacturer

Manufacturer's name

Type of commercial storage system	Model / Series
Application Scenario (Self-consumption, peak-shaving, expansion avoidance, backup)	Area of application of the system
Connection of storage (WR type) / connection of other PV generators	Is the memory DC-coupled (Hybrid-WR) or AC-coupled (memory-WR) usable? How can other WR be connected?
AC power (kW)	AC power of the inverter
Mains connection voltage level	Voltage of the mains connection
Number of cascadeable WR / max. Total power AC	How many inverters can be connected in parallel / resulting total power AC
Installation location specification Inverter / Storage	Requirements for installation location inverter / memory
Manufacturer	Manufacturer of the storage system
Model Memory	Model of the storage system
Capacity 1 storage unit gross / net (kWh)	Energy quantity of a storage unit gross / actually usable
Number of storage units per system / Time window for extension	How large is a memory unit expandable? / In what time frame?
Charging cycles ***	A full cycle corresponds to a complete loading and unloading. Gives conclusions about the service life / performance.
Cell Chemistry	Material combination of the battery cells. Mostly lithium-iron phosphate (LFP) or lithium-nickel-manganese cobalt (NMC).
Backup function / ext. Switchgear	Is replacement power possible with this system? / How is the switching device, if any?
Standardize	Certification of the system.
Standard Warranty System / Memory ***	Guarantees from the manufacturer.
External communication interfaces	Integrated interfaces for portal, EVU control, etc.
Energy Management System / EZA Controller	Does the device include its own energy management system, alternatively performed in a superordinate manner?
Monitoring	Which portal can be used to monitor the system?
Release of control of mains relay, ext. NA protection (VDE-AR-N 4105, up to 135/270 kVA)	Can the system of aBe controlled by external, central network monitor?
Installer certification possible	Is a certification for the installer required by the manufacturer?
Options Commissioning Support	What types of support are possible? Personally on site, only online, etc.
Weight components (WR, Bat unit) kg / Transport + unloading	Weight of individual components / approved by the manufacturer options for unloading + transport
System information	Additional information about the system, cascading capability, technical features, etc.

Manufacturer

Manufacturer's name

Type of commercial storage system	Model / Series
Application - Scenario (Self-consumption, peak shaving, network expansion avoidance, backup)	Area of application of the system
Connection of storage / connection of other PV generators	Is the memory DC-coupled (Hybrid-WR) or AC-coupled (memory-WR) usable? How can other WR be connected?
AC power (kW)	AC power of the inverter
Mains connection voltage level	Voltage of the mains connection
Number of cascadeable WR / max. Total power AC	How many inverters can be connected in parallel / resulting total power AC
Specified installation location Inverter / storage	Requirements for installation location inverter / memory
Manufacturer / Model Memory	Manufacturer and model of the storage system
Capacity 1 storage unit gross / net (kWh)	Energy quantity of a storage unit gross / actually usable
Number of storage units per system / Time window for extension	How large is a memory unit expandable? / In what time frame?
Charging cycles ***	A full cycle corresponds to a complete loading and unloading. Gives conclusions about the service life / performance
Cell chemistry	Material combination of the battery cells. Mostly lithium-iron phosphate (LFP) or lithium-nickel-manganese cobalt
Backup function / ext. Switching device	Is replacement power possible with this system? / How is the switching device, if any?
Standardize	Certification of the system.
Standard Warranty System / Memory ***	Guarantees from the manufacturer.
Interfaces external communication	Integrated interfaces for portal, EVU control, etc.
Energy Management System / EZA Regulator	Does the device include its own energy management system, alternatively performed in a superordinate management system?
Monitoring	Which portal can be used to monitor the system?
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)	Can the system of aBe controlled by external, central network monitor?
Installers certification possible	Is a certification for the installer required by the manufacturer?
Options Commissioning Support	What types of support are possible? Personally on site, only online, etc.
Weight components (WR, Bat unit) kg / Transport + loading	Weight of individual components / approved by the manufacturer options for unloading + transport
System information	Additional information about the system, cascading capability, technical features, etc.

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