C&I STORAGE SYSTEMS



COMMERCIAL INDUSTRIAL UTILITY SCALE



-A-X-ITEC

Type of commercial storage system	AXIhycon 12 / 15 / 20 H + 29.9 / 40 / 50 H			
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Self-consumption, Peak-Shaving ***, Dyn. Electricity tariffs, backup (<10ms)			
Connection of storage / connection of other PV generators	AC + DC - Coupling (Hy	brid-WR) / ext.PV-WR		
AC power (kW)	12/15/20/2	29.9/40/50		
Mains connection voltage level	400	0 V		
Number of cascadeable WR / max. Total power AC	Up to 6 WR	2 / 300 kVA		
Specified installation location Inverter / storage	Indoor + Outo	door / Indoor		
Manufacturer / Model Memory	Axitec AXIstorage Li SV1 10.1 to 23.6	Axitec AXIstorage Li SV2 6.7 to 16.9		
Capacity 1 storage unit gross / net (kWh)	10.1 to 23.6 (net)	6.7 to 16.9 (net)		
Number of storage units per system / Time window for extension	6 units per system / up to 5 years			
Charging cycles ***	-			
Cell chemistry	LFP			
Backup function / ext. Switching device	•/○			
Standardize	VDE 4105			
Standard Warranty System / Memory ***	10 years / 10 years			
Interfaces external commu- nication	WLAN, E	Ethernet		
Energy Management System / EZA Regulator	Integrated (limited range of funct	tions) / to be checked individually		
Monitoring	Via Axite	ec Portal		
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)				
Installers certification possible	0			
Options Commissioning Support	Regular support			
Weight components (WR, Bat unit) kg / Transport + loading	WR 32,6-73, Bat total 119-259 / Forklift WR 32,6-73, Bat total 82,5-189 / Forklift			
System information	12.15, 20, 40, 50 kW with 4 MPPT - 29.9 kW with 3 MPPT; integrated arc detection; storage can be cascaded up to 6 times			

 $^{^{\}ast}$ 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

-A-X-ITEC

Type of commercial storage system	AXIhycon 29.9 / 40 / 50 H				
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)		Self-consumption, Peak-	Shaving ***, Dyn. Electrici	ty tariffs, backup (<10ms)	
Connection of storage / connection of other PV generators		AC + DC -	Coupling (Hybrid-WR) / e	xt.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		
Specified installation location Inverter / storage	Indoor + Outdoor / Outdoor	Indoor + Outdoor / Indoor	Indoor + Outdoor / Indoor*** + Outdoor	Indoor + Outdoor / Indoor	Indoor + Outdoor / Outdoor
Manufacturer / Model Memory	BYD Battery-Max Lite 30 to 67.5 (Only AXIhy- con 29.9 - 50)	Sunwoda Oasis Flex 25 - 60	Sunwoda Oasis 60	SunwodaOasis Rack Pro -107/-125/-143/- 161/-179	Sunwoda Oasis A180 -107 / -125 / -143 / -161 /179
Capacity 1 storage unit gross / net (kWh)	30.0 to 67.5 (net)	22.5 to 54.0 (net)	60.0 (net)	107.25 to 179.2 (net)	107.25 to 179.2 (net)
Number of storage units per system / Time window for extension	4 to 9 per unit, up to 2 units / unlimited	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	LFP
Backup function / ext. Switching device			•,○		
Standardize		V	DE 4105 / 4110 (announce	d)	
Standard Warranty System / Memory ***			10 years / 10 years		
Interfaces external communication			WLAN, Ethernet		
Energy Management Sys- tem / EZA Regulator		Integrated (limited r	ange of functions) / to be	checked individually	
Monitoring			Via Axitec Portal		
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)			0		
Installers certification possible			\bigcirc		
Options Commissioning Support			Regular support		
Weight components (WR, Bat unit) kg / Transport + loading	WR 73, Rack 400, Bat 300-675 / forklift or crane	WR 73, Rack + Bat 248- 570 / Forklift	WR 73, Rack 207, Bat 600 / Forklift or crane	WR 73, Rack 600, Bat 690-1380 / 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; integra- ted arc detection; spo- keHe flexibly scalable with inserts	12,15, 20, 40, 50 kW with 4 MPPT - 29.9 kW with 3 MPPT; integrated arc recog- nition; memory flexibly scalable; specifications air conditioning + fire protection	12,15, 20, 40, 50 kW with 4 MPPT - 29.9 kW with 3 MPPT;Integrated arc detection; memory flexibly scalable; air- cooled	12,15, 20, 40, 50 kW with 4 MPPT - 29.9 kW with 3 MPPT; integrated arc recog- nition; memory flexibly scalable; specifications air conditioning + fire protection	12,15,20, 40, 50 kW with 4 MPPT - 29.9 kW with 3 MPPT; integrated arc recognition; memory internally flexible scalable; Air-cooled



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, network expansion avoidance, backup)		Self-consumption, Peak-Shavin	g, Dyn. Electricity tariffs, backup	,			
Connection of storage / connection of other PV generators		AC + DC - Coupling (Hy	/brid-WR) / ext.PV-WR				
AC power (kW)		15 / 17,5 / 20	/ 25 / 30 / 33				
Mains connection voltage level		40	0 V				
Number of cascadeable WR / max. Total power AC		Not cascadable accordi	ng to the current status				
Specified installation location Inverter / storage		Indoor + Outdoor / Indoor		Indoor + Outdoor / Indoor + Outdoor***			
Manufacturer / Model Memory	BYD B-Box HVS 5.1 to 12.8	BYD B-Box HVM 11.0 to 22.1	BYD B-Box HVB 11.8 to 29.6	Fronius Reserve 6.3 / 9.5 / 12.6 / 15.8			
Capacity 1 storage unit gross / net (kWh)	5.1 to 12.8 (net)	5.1 to 12.8 (net) 11.0 to 22.1 (net) 11.88 to 26.69 (net)					
Number of storage units per system / Time window for extension	2 - 5 per eggNheit, up to 3 units parallel / unlimited	2 - 5 per unit, up to 4 units parallel / up to 2 years					
Charging cycles ***	-	-					
Cell chemistry		LFP					
Backup function / ext. Switching device	O / •						
Standardize	VDE 4105 / 4110 (only 25.0 to 33.0)						
Standard Warranty System / Memory ***		10 years <i>,</i>	/ 10 years				
Interfaces external communication		WLAN, E	Ethernet				
Energy Management System / EZA Regulator	Ir	ntegrated (limited range of func	tions) / to be checked individual	ly			
Monitoring Release control mains relay,		About Froi	nius Portal				
external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)							
Installers certification possible	0						
Options Commissioning Support		Regular	support				
Weight components (WR, Bat unit) kg / Transport + loading	WR 43, Bat total 91-205 / WR 43, Bat total 153-319 / WR 43, Bat total 124-287 / WR 43, Bat total 86 Forklift Forklift Forklift						
System information	Forklift Forklift Forklift Forklift Forklift Forklift 15, 17.5, 20, 25, 30, 33 kW with 3 MPPT; integrated Arc Guard arc detection; connection FRE via DI inputs						

 $^{^{\}ast}$ Release and compatibility according to manufacturer's specifications

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Type of commercial storage system	GW ET Hybrid 15K / 20K / 25K / 29.9K / 40K / 50K				
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Ow	n consumption, peak shaving, backup (<10	ns)		
Connection of storage / connection of other PV generators	AC	+ DC - Coupling (Hybrid-WR) * / ext. PV-W	R *		
AC power (kW)		15 / 20 / 25 / 29,9 / 40 / 50			
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			
Specified installation location Inverter / storage		Indoor + Outdoor / Indoor			
Manufacturer / Model Memory	BYD B-Box HVS / + 5.1 to 12.8 (Only GW ET 15K - 30K)	BYD B-Box HVM / + 11.0 to 22.1 (Only GW ET 15K - 30K)	Goodwe Lynx D 5.0 to 40.0 (Only GW ET 15K - 30K)		
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)		
Number of storage units per system / Time window for extension	2 units per system / unlimited 1 to 8 units per system / unlimited				
Charging cycles ***		-	-		
Cell chemistry	LFP LFP				
Backup function / ext. Switching device	•/○				
Standardize	VDE 4105				
Standard Warranty System / Memory ***	10 years <i>,</i>	/ 10 years	10 years / 10 years		
Interfaces external communication		WLAN, Ethernet			
Energy Management Sys- tem / EZA Regulator	Integrated (limited range of functions) / to be checked	individually		
Monitoring		Via Goodwe Portal			
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)	•				
Installers certification possible	0				
Options Commissioning Support	Remote Commercial Support				
Weight components (WR, Bat unit) kg / Transport + loading	WR 48-65, Bat total 91-205 / Forklift	WR 48-65, Bat total 52-416 / Forklift			
System information	2 separate battery ports; ideal for small toMedium commercial applications; connection FRE via DRM inputs; optional with AFCI				

GOODHE

Type of commercial storage system	GW ET Hybrid 15K / 20K / 25K / 29.9K / 40K / 50K					
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)		Own consumption, peak	shaving, backup (<10ms)			
Connection of storage / connection of other PV generators		AC + DC - Coupling (Hy	/brid-WR) / ext.PV-WR			
AC power (kW)		15 / 20 / 25 /	29,9 / 40 / 50			
Mains connection voltage level		40	0 V			
Number of cascadeable WR / max. Total power AC		3 x GW 29.9 4 x GW 40+50 E				
Specified installation location Inverter / storage	Indoor + Outdoor / Outdoor	Indoor + Outdoor / Outdoor	Indoor + Outdoor / Outdoor	Indoor + Outdoor / Outdoor		
Manufacturer / Model Memory	Goodwe Lynx C 60K	Goodwe Lynx C LX C 101 / 120 / 138 / 156 (Only GW ET 40K + 50K)	BYD Battery-Max Lite 30 to 67.5 (Only GW ET 40K + 50K)	ZYC SIMPO HV Pro 72-6 to 72-9 (Only GW ET 40K + 50K)		
Capacity 1 storage unit gross / net (kWh)	60.0 / 60.0	101/119/138/156	30.0 to 67.5 (net)	48.38 to 72.58 (net)		
Number of storage units per system / Time window for extension	3 units / up to 6 months	3 units / up to 1 year	4 to 9 per unit, up to 2 units / unlimited	6 to 9 per unit, up to 16 units / unlimited		
Charging cycles ***	> 5000	-	-	-		
Cell chemistry		Lf	-p			
Backup function / ext. Switching device		•,	, O			
Standardize		VDE	4105			
Standard Warranty System / Memory ***		10 years /	/ 10 years			
Interfaces external communication		WLAN, E	Ethernet			
Energy Management Sys- tem / EZA Regulator	Ir	ntegrated (limited range of funct	tions) / to be checked individual	ly		
Monitoring		Via Good	we Portal			
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)						
Installers certification possible	0					
Options Commissioning Support	Remote Commercial Support					
Weight components (WR, Bat unit) kg / Transport + loading	Complete 1029,5 / Forklift + WR 48-65, Rack 240-290, Bat WR 48-65, Rack 400, Bat WR 48-65, Rack 360, Bat Crane 880-1360 / Forklift or Crane 300-675 / Forklift or Crane 390-585 / Forklift or Crane					
System information	2 separate battery ports; ideal for small toMedium commercial applications; connection FRE via DRM inputs; optional with AFCI					

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Type of commercial storage system	SUN2000 12/15/	17/20/25 K MB0	LUNA2000 215-2510
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Own consumption; Dynamic electricity ta	ıriffs (EMMA), backup (only single-phase)	Own consumption**, peak-shaving**
Connection of storage / connection of other PV generators	AC + DC - Coupling (Hy	brid-WR) / ext.PV-WR	AC coupling (memory WR) / Ext. PV-WR
AC power (kW)	12/15/1	7/20/25	108
Mains connection voltage level		400 V	
Number of cascadeable WR / max. Total power AC	Up to 3 W	R / 75 kVA	Up to 20 WR / 2160 kVA
Specified installation location Inverter / storage	Indoor + Out	door / Indoor	Compl. Outdoor
Manufacturer / Model Memory	Huawei SUN2000 LUNA 5 / 10 / 15-S0	Huawei SUN2000 LUNA 7 / 14 / 21-51	Huawei LUNA 2000 -215 kWh (Liquid cooled)
Capacity 1 storage unit gross / net (kWh)	5.0 / 10.0 / 15.0 (Gross = net)	7.0 / 14.0 / 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			
Backup function / ext. Switching device	, with Backup Box /	- with Smart Guard Box	0
Standardize			
Standard Warranty System / Memory ***	10 years <i>,</i>	/ 10 years	10 years / 5 years
Interfaces external communication	Ethe	rnet	Ethernet, fiber optic
Energy Management Sys- tem / EZA Regulator	**Via t	third-party providers / to be checked indivi	dually
Monitoring		Via Huawei Portal	
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)	•		0
Installers certification possible			
Options Commissioning Support	Regular	On-site support	
Weight components (WR, Bat unit) kg / Transport + loading	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 cascadeable; 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

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			new energy.	
Type of commercial storage system	Blueplanet grid	save 92.0 TL3-S	Blueplanet gridsave 110 TL3-S	Blueplanet gridsave 137 TL3-S
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Own consumption	**, peak-shaving**	Own consumption**, peak-shaving**	
Connection of storage / connection of other PV generators	AC - Coupling (Memo	ory WR) / Ext. PV-WR	AC - Coupling (Memory WR) / Ext. PV-WR	
AC power (kW)	g	2	110	137
Mains connection voltage level	40	0 V	400V/480V	600 V
Number of cascadeable WR / max. Total power AC	Up to 3 WF	R / 276 kVA	Up to 3 WF	R / 411 kVA
Specified installation location Inverter / storage	Indoor + Outdoor / Outdoor	Indoor + Outdoor / Outdoor	Indoor + Outdo	oor / Outdoor
Manufacturer / Model Memory	Sunwoda Oasis L215	Sunwoda Oasis L344	Sunwoda C	Dasis 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 with WR / unlimited		Always as a complete unit with WR / unlimited	
Charging cycles ***	-	-	-	
Cell chemistry	Li	-P	LFP	
Backup function / ext. Switching device	0.	, O	0,0	
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	
Interfaces external communication	Ethe	ernet	Ethernet	
Energy Management Sys- tem / EZA Regulator	· ·	to be checked individually via y providers	**Connectica to implement / to be checked individually v third-party providers	
Monitoring		co Portal	About Ka	·
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)	(C	
Installers certification possible	())
Options Commissioning Support	Regular support		Regular	support
Weight components (WR, Bat unit) kg / Transport + loading	WR 80, Bat total 2520 / Fork- lift or crane	WR 80, Bat total 3480 / Fork- lift or crane	WR 80, Bat total 348	0 / Forklift or crane
System information	AC-coupled high-voltage storage system for connection to		AC-coupled high-voltage stor large systems; system with liq lev	uid cooling; special AC voltage

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Type of commercial storage system	Powershaper2	Powershaper XL		
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Self-consumption, peak-shaving**			
Connection of storage / connection of other PV generators	AC coupling (memor	ry WR) / ext. PV-WR		
AC power (kW)	50	60		
Mains connection voltage level	40	0 V		
Number of cascadeable WR / max. Total power AC	Up to 20 WR (with 1 x Master Gateway, multiple	gateways with ext.EMS adjustable) / 1200 kVA		
Specified installation location Inverter / storage	Depending on the version Indoor (act	tive fans) + Outdoor (air-conditioned)		
Manufacturer / Model Memory	Pixii LFP	Pixii LFP		
Capacity 1 storage unit gross / net (kWh)	Each 50 / 40.0	201.6 / 181.44		
Number of storage units per system / Time window for extension	Always as a complete unit / unlimited			
Charging cycles ***	4000	7200		
Cell chemistry	LFP	LFP		
Backup function / ext. Switching device	0			
Standardize	VDE 4105/4110			
Standard Warranty System / Memory ***	5 years			
Interfaces external commu- nication	Ethernet, Wifi, 4G, Modl	bus RTU*, TCP/IP, MQTT		
Energy Management Sys- tem / EZA Regulator	Integrated (limited range of funct	tions) / to be checked individually		
Monitoring	Via integrated F	Pixii web server		
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)				
Installers certification possible				
Options Commissioning Support	On-site / Rer	note Support		
Weight components (WR, Bat unit) kg / Transport + loading	WR 30, Rack 220, Bat 450/ Forklift or crane WR 36, Rack 250, Bat 1680 / Forklift or crane			
System information	Modular cabinet system, power parts (Pixii boxes) Hot-plug capable, LFP and NMC cell chemistry to choose from, version rack with / without fan, resp. Air conditioning	Modular cabinet system, power parts (Pixii boxes) hotplug capable, LFP cell chemistry; version rack with fan / air conditioning		



Type of commercial storage system	CSS-OD	
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Self-consumption; Peak-Shaving; Announced: Trading; Dynamic electricity tariffs	
Connection of storage / connection of other PV generators	AC coupling (memory WR) / ext. PV-WR	
AC power (kW)	50	
Mains connection voltage level	400 V	
Number of cascadeable WR / max. Total power AC	Up to 10 WR / 500 KVA (announced)	
Specified installation location Inverter / storage	Compl. Outdoor or indoor	
Manufacturer / Model Memory	SolarEdge CSS-OU-20 Battery Cabinet	
Capacity 1 storage unit gross / net (kWh)	102.4 / 97.3	
Number of storage units per system / Time window for extension	Up to 2 / - , only complete units	
Charging cycles ***	6000	
Cell chemistry	LFP	
Backup function / ext. Switching device	\circ	
Standardize	VDE 4105/4110	
Standard Warranty System / Memory ***	10 years	
Interfaces external commu- nication	Ethernet, RS485, CAN, Modbus TCP + RTU	
Energy Management Sys- tem / EZA Regulator	* / to be checked individually	
Monitoring	Via SolarEdge Portal	
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)		
Installers certification possible	(mandatory for first installation)	
Options Commissioning Support	On-site support (included at no extra charge)	
Weight components (WR, Bat unit) kg / Transport + loading	WR 68, Cabinet complete 1433 / Forklift or crane	
System information	Up to 1 MWh scalable (announced), air conditioning	

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 $^{^{\}star\star}$ only possible through the use of external EMS

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Type of commercial storage system	Sunny Island X 30-20				Sunny Island X 50	-20	
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Self-cons	Self-consumption; Peak-Shaving; Multi-use; Off-grid (additional 3rd party components required)					
Connection of storage / connection of other PV generators		AC co	upling (memory	WR) / ext. PV-	WR		
AC power (kW)		30			50		
Mains connection voltage level			400	V			
Number of cascadeable WR / max. Total power AC		U	p to 50 WR / 150	00 - 2500 kVA			
Specified installation location Inverter / storage	Indoor + Outdoor / Indoor	Indoor + Outdoor / Indoor*** + Outdoor	Indoor + Outo	loor / Indoor	Indoor + Outdoor / Outdoor	Indoor + Outdoor / Outdoor	
Manufacturer / Model Memory	Sunwoda Oasis Flex 25 - 60	Sunwoda Oasis 60	Sunwoda0a: -107/-125/-14		Sunwoda Oasis A180 -107 / -125 / -143 / -161 /179	Sunwoda Oasis L215	
Capacity 1 storage unit gross / net (kWh)	22.5 to 54.0 (net)	60.0 (net)	107.25 to 1	79.2 (net)	107.25 to 179.2 (net)	215.0 (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/-	Always as a com- plete unit with WR / unlimited	
Charging cycles ***	6000	7000 (0.5C)	900	00	9000	6000 (0.5C)	
Cell chemistry		LFP					
Backup function / ext. Switching device	Announced / O						
Standardize	VDE 4105 / 4110						
Standard Warranty System / Memory ***		2Years	(by registration	ı 10 years) / 5 y	ears		
Interfaces external communication			Etherr	net			
Energy Management Sys- tem / EZA Regulator	Integrated 9	БМА system manager (up	to 5 devices) /	with SMA Data	Manager EDMM-20 (up	to 50 WR)	
Monitoring			Via SMA enne	xOS Portal			
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)	(with I/O module)						
Installers certification possible			0				
Options Commissioning Support			Regular s	upport			
Weight components (WR, Bat unit) kg /	WR 104, Bat 248-570 / Forklift	WR 104, Rack 207, Bat 600 / Forklift or crane			WR 73, Rack 650, Bat 690-1380 / Forklift	WR 104, Bat total 2520 / Forklift or	
Transport + loading System information	Forklift 600 / Forklift or crane 1380 / Forklift 099-1380 / Forklift 2520 / Forklift or crane Crane				stem manager up to 11		

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Type of commercial storage system	Self-consumption, peak shaving (only 20 KTL), backup (<10ms)					
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)		Own	consumption, backup (<10	Dms)		
Connection of storage / connection of other PV generators		AC + DC -	Coupling (Hybrid-WR) / ex	xt.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			
Specified installation location Inverter / storage			Indoor + Outdoor / Indoor			
Manufacturer / Model Memory	Pylontech Force H1 13.5 to 23.6	Pylontech Force H2 10.1 to 16.9	Sofar BTS-D5 E5 to E20	Axitec AXIstorage Li SV113.5 to 23.6	Axitec 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 syste	m / up to 2 years	2 units per system / unlimited	6 units per syste	m / up to 5 years	
Charging cycles ***			-			
Cell chemistry			LFP			
Backup function / ext. Switching device		/ , manual switching device				
Standardize		VDE 4105 (HYD 10 + 15) / 4110 (HYD 20 + Power Magic)				
Standard Warranty System / Memory ***		5 years / 10 years				
Interfaces external communication			Ethernet			
Energy Management Sys- tem / EZA Regulator	Integrated (li	mited range of functions,	with ext.Sofar EMS Box ex	kpandable) / to be checke	d individually	
Monitoring			About Sofar Portal			
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)	•					
Installers certification possible	•					
Options Commissioning Support	Regular support (optional)					
Weight components (WR,	WR 37, Bat total 154-	WR 37, Bat total 118-	WR 37, Bat total 57,5-	WR 37, Bat total 154-	WR 37, Bat total 118-	
Bat unit) kg / Transport + loading	259 / Forklift	189 / Forklift	207,5 / Forklift	259 / Forklift	189 / Forklift	
System information	Up to 10 systems can be cascaded; 2 separate battery ports; ideal for small to medium-sized commercial applications; connection FRE integrated					

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SCFAR

Type of commercial storage system	Power Magic			
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Self-consumption, peak-shaving**			
Connection of storage / connection of other PV generators	AC coupling (memor	ry WR) / ext. PV-WR		
AC power (kW)	12	25		
Mains connection voltage level	40	0 V		
Number of cascadeable WR / max. Total power AC	Up to 12 WF	R / 1500 kVA		
Specified installation location Inverter / storage	Compl. (Outdoor		
Manufacturer / Model Memory	Sofar LFP/280Ah (6 Pack)	Sofar 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, entire systems unlimited			
Charging cycles ***	70	00		
Cell chemistry	LFP			
Backup function / ext. Switching device	Announced / announced			
Standardize	VDE 4105 (HYD 10 + 15) / 4110 (HYD 20 + Power Magic)			
Standard Warranty System / Memory ***	5 years / 10 years			
Interfaces external communication	Ethe	ernet		
Energy Management Sys- tem / EZA Regulator	Integrated (limited range of functions, with ext.Sofa	ar EMS Box expandable) / to be checked individually		
Monitoring	About So	far Portal		
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)				
Installers certification possible	Announced			
Options Commissioning Support	On-site support (mandatory)			
Weight components (WR, Bat unit) kg / Transport + loading	Complete 2500 / Forklift or Crane Complete 2800 / Forklift or Crane			
System information	Modular large storage;Parallel operation AC up to 12 systems; Liquid cooling; Fire Protection System			



Type of commercial storage system	X3-Ultra 15K / 19.9K / 20K / 25K / 30K		Aelio P50B100/P50B200/P60B100/P60B200	
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Own consumption, peak shaving, backup (<10ms)		Self-consumption, Peak-Shaving, Backup (<10ms), Off-Grid	
Connection of storage / 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 / 2	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	
Specified installation location Inverter / storage	Indoor + Outdoor / Indoor		Compl. Outdoor (recommended) or indoor	
Manufacturer / Model Memory	Solax T-BAT HV-S 2.5 (7.6 to 33.2)	Solax T-BAT HV-S 5.1 (15.3 to 66.5)	Solax Aelio B100 / B200	Solax T-BAT HV-S 5.1 (15.3 bis 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 (netto)	125,6 bis 66,5 / 23,0 bis 59,8
Number of storage units per system / Time window for extension	2 units per system / unlimited		Compact system / unlimited (only whole systems)	2 Einheiten pro System / unbegrenzt
Charging cycles ***	>6000	6000	8000	6000
Cell chemistry	Lf	-P	LFP	LFP
Backup function / ext. Switching device	/ , with Solax EPS Parallel Box		•/○	
Standardize	VDE 4105		VDE 4105	
Standard Warranty System / Memory ***	10 years / 10 years		10 years / 10 years	
Interfaces external communication	Ethernet		Ethernet	
Energy Management Sys- tem / EZA Regulator	Integrated / to be checked individually		Yes, to check individually with EMS1000 Pro /	
Monitoring		Via Sola	ax Portal	
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)	•		•	
Installers certification possible	0		•	
Options Commissioning Support	Regular support		ReRegular support (on-site support for first project)	
Weight components (WR, Bat unit) kg / Transport + loading	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; connec- tion FRE via DI inputs		Up to 10 systems can be cascaded; 6 MPPT; 2 separate battery ports; ideal for small to medium commercial applications;FRE connection via integrated EMS1000 Pro logger; 4-stage fire protection concept	

 $^{^{\}ast}$ 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



Type of commercial storage system	Trene P100B215I (Air cooling)	Trene P125B261L-E (Liquid cooling)	
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Self-consumption, peak-shaving, Off-grid*	Self-consumption, peak-shaving, Off-grid*	
Connection of storage / connection of other PV generators	AC coupling (memory WR) / Ext. PV-WR	AC coupling (memory WR) / Ext. PV-WR	
AC power (kW)	100	125	
Mains connection voltage level	400 V	400 V	
Number of cascadeable WR / max. Total power AC	Open / open	Open / open	
Specified installation location Inverter / storage	Compl. Outdoor	Compl. Outdoor	
Manufacturer / Model Memory	Solax Trene B215I	Solax Trene B215I	
Capacity 1 storage unit gross / net (kWh)	193.5 (net)	234.9 (net)	
Number of storage units per system / Time window for extension	Compact system / unlimited (only whole systems)	Compact system / unlimited (only whole systems)	
Charging cycles ***	8000	8000	
Cell chemistry	LFP	LFP	
Backup function / ext. Switching device	0,0	0,0	
Standardize	VDE 4105/4110	VDE 4105/4110	
Standard Warranty System / Memory ***	10 years / 10 years	10 years / 10 years	
Interfaces external communication	Ethernet	Ethernet	
Energy Management Sys- tem / EZA Regulator	Yes, to check individually with EMS1000 Pro /		
Monitoring Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)	Via Solax Portal		
Installers certification possible	•		
Options Commissioning Support	ReRegular support (on-site support for first project)		
Weight components (WR, Bat unit) kg / Transport + loading	Complete 2800 / Forklift or Crane	Complete 2810 /Forklift or Crane	
System information	Cascadeable; ideal for medium to large commercial applications; FRE connection via integrated EMS1000 Pro logger; 4-sta fire protection concept; KliMatization with air or liquid cooling;		



Type of commercial storage system	SH 15 / 20 / 25 T		Power Stack	Power Stack 455kWh-110kW
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Self-consumption, Peak-Shaving*, Backup (<10ms)		Self-consumption, peak-sha- ving**	Self-consumption, peak-shaving**
Connection of storage / 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 / 2	0 / 25	110	110
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 / 2750 kVA
Specified installation location Inverter / storage	Indoor + Outdoor / Indoor		Compl. Outdoor	Compl. Outdoor
Manufacturer / Model Memory	Sungrow SBR 12.8 to 25.6 (only 1 tower)	Sungrow SBH 150 to 400 (2 towers)	Sungrow ST225kWh	Sungrow ST455kWh
Capacity 1 storage unit gross / net (kWh)	12.8 to 25.6 (net)	Each 15.0 to 40.0 (net)	229.0 / 225.0	229.0 / 225.0
Number of storage units per system / Time window for extension	Up to 2 / 1 year *	Up to 2 / 1 year *	Compact system / unlimited (only whole systems)	Compact system / unlimited (only whole systems)
Charging cycles ***	-	-	6500	6500
Cell chemistry	u	-p	LFP	LFP
Backup function / ext. Switching device	•/○		0,0	0,0
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
Interfaces external communication	Ethernet, Wi-Fi		Ethernet	Ethernet
Energy Management Sys- tem / EZA Regulator	Integrated / to be o	Integrated / to be checked individually		With EMS300CP / to be individual- ly checked
Monitoring	About Sungrow Portal		About Sungrow Portal	About Sungrow Portal
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)	-		0	0
Installers certification possible	0		0	0
Options Commissioning Support	Regular	Regular support		On-site support
Weight components (WR, Bat unit) kg / Transport + loading	WR 38, Bat total 147-279 / Forklift	WR 38, Bat total 151-376 / Forklift	Complete 3100 / 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 the same inverter power classes possible);Connection FRE via DI inputs		Can be cascaded up to 25 times in parallel with mains; Off-grid up to 10 times; ideal for medium to large commercial applications; Liquid cooling; 3-stage fire pro- tection concept; FRE connection via suitable loggers	Can be cascaded up to 25 times in parallel with mains; off-grid up to 10 times; ideal for medium to large commercial applications; liquid cooling; 3-stage fire protection concept; FRE connection via suitable logger

^{*} 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



Type of commercial storage system	Oasis A180 All-in-One		
Application - Scenario (Self- consumption, peak shaving, network expansion avoidance, backup)	Self-consumption, peak-shaving**		
Connection of storage / 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 20 systems / 2500 kVA		
Specified installation location Inverter / storage	Compl. Outdoor		
Manufacturer / Model Memory	Sunwoda CIESS-A-179		
Capacity 1 storage unit gross / net (kWh)	179.2 (net)		
Number of storage units per system / Time window for extension	Compact system / unlimited (only whole systems)		
Charging cycles ***	9000		
Cell chemistry	LFP		
Backup function / ext. Switching device	0,0		
Standardize	VDE 4105/4110/4120		
Standard Warranty System / Memory ***	5 years / 5 years		
Interfaces external communication	Ethernet, Wifi		
Energy Management Sys- tem / EZA Regulator	Integrated / to be checked individually		
Monitoring	About Sunwoda Portal		
Release control mains relay, external NA protection, (VDE-AR-N 4105, up to 135 / 270 kVA)			
Installers certification possible	0		
Options Commissioning Support	On-site support		
Weight components (WR, Bat unit) kg / Transport + loading	Complete 2400 / Forklift or crane		
System information	Can be cascaded parallel to the mains up to 20 times; ideal for medium to large commercial applications; air cooling; multi-le- vel fire protection concept; FRE connection via suitable logger		

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 (NMC).		
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 Sys- tem / EZA Regulator	Does the device include its own energy managementNt system, alternatively performed in a superordinate manner?		
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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