Technical data sheet
VARTA element backup

VARTA Storage GmbH | DB178038DACHEN004

TYPE DESIGNATION	VKB NUMBER DE + AT	CH	BATTERY CAPACITY NOMINAL / USABLE	MAX. AC POWER CHARGE / DISCHARGE	WEIGHT
Type					
VARTA element backup 6	02709 858 341	02709 858 241	6.5 / 5.9 kWh [1]	2.2 / 1.8 kW	115 kg
VARTA element backup 12	02709 858 353	02709 858 253	13.0 / 11.7 kWh [1]	4.0 / 3.7 kW	165 kg
VARTA element backup 18	02709 858 365	02709 858 265	19.5 / 17.6 kWh [1]	4.0 / 4.0 kW	215 kg
Retrofit Kit					
VARTA element S5-6/12	37000 802 613	37000 802 613			
VARTA element S5-12/18	37000 802 614	37000 802 614			

FUNCTIONS

Energy management system	EMS VS-Pro 2
Smart home interfaces	XML, Modbus TCP (Sunspec)
Visualisation of production data [2]	PV-Sensor, Datenlogger, Modbus TCP (SunSpec) [3]
Dynamic PV export limitation	Modbus TCP (SunSpec) [3]
External relay control	Rutenbeck
Cascading	Up to five VARTA energy storage systems [4]
Operating strategy	Self-consumption optimization, PV yield optimization
Hardware interfaces	RJ45 (Ethernet), 2x RJ12 (current sensor and PV sensor)
Visualisation	VARTA Storage app for Android and iOS, web portal and internal web server
Backup system	Automatic switching, black start capability with VARTA backup box [5]

SYSTEM DATA

Dimensions (w x h x d) in mm	600 x 1,176 x 500
Electrochemistry	NMC
Rated current backup operation	5,8 A per phase
Overload backup operation	max. 12 A per phase
Switchover time backup operation	<90 seconds
Safety	Multi-level, hard- and software redundant cell monitoring
Mains connection / configuration	400 V AC, 3-phase, 50 Hz (TN- and TT-systems)
Country licenses	Germany, Austria, Switzerland
Protection class	IP 22
Cooling	Temperature-dependent fan control
Noise emission typical/max.	42 dBA / 49 dBA
Ambient conditions	+5 °C to +30 °C
System warranty	10-year warranty when taking out the online warranty. [6] Reduction of the warranty to 5 years for offline devices. A prerequisite for VARTA to grant the warranty is the warranty registration via the VARTA Portal. [6]
Warranty on batteries	10 years or 4,000 cycles [7]
Standards	CE-conformity, Low Voltage Directive (LVD) 2014/35/EU, EMC Directive 2014/30/EU, UN 38.3, DIN EN 62109-1:2011, VDE-AR-N 4105:2018-11, TOR Erzeuger Typ A V1.1

[1] Capacity measurement at 25 °C with 0,2 C charge to 58,8 V and 0,05 C cut-off current and discharge with 0,2 C to 42 V.
[2] Limitation of visualization to 32 kW.
[3] According to compatibility list (available at: www.varta-storage.com/service/downloads).
[4] Not for permanent off-grid operation. Check starting currents and loads.
[5] In cascade operation, only one storage system can provide an emergency power function.
[6] According to the respective „manufacturer's warranty for energy storage systems" (available at: www.varta-storage.com/service/downloads).
[7] Residual capacity: 80 %.