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Secure. Scalable. Economical.



An overview of all highlights

- ▶ Modular and flexibly expandable battery storage system at the power and capacity level
- ▶ Plug & Play, all-in-one, AC-coupled solution
- ▶ 154 kWh nominal energy capacity per rack
- ▶ Individual design with 25 kVA three-phase 4Q inverters of the latest generation
- ▶ Maximum battery cell life
- ▶ Lithium Ferrum Phosphate cells for high operational and fire safety
- ▶ INTILION | FLEPS available to maximize fire safety
- ▶ Fully comprehensive energy management system for monitoring all installed systems and reliable remote maintenance service
- ▶ Improved maintainability through plug-in modules (battery modules, battery management system, inverter)
- ▶ Additional UPS system for safe operation during a power outage
- ▶ Integrated NA protection/uncoupling protection according to VDE AR-N 4105/4110 incl. test terminal strip

Fields of application:

- ▶ Electromobility
- ▶ Agriculture
- ▶ Industry
- ▶ Quarters

Possible ways of use:

- ▶ Peak shaving
- ▶ Self-consumption optimisation
- ▶ Control via external EMS

Technical data sheet INTILION | scalestac

Technical data		
System type	AC-coupled battery energy storage system (BESS) in IP 11 control cabinets for indoor installation	
Operating mode	Grid-connected operation (GCO), grid-forming operation (GFO)	
Applications	Setpoint specification, self-consumption optimisation, peak shaving	
Communication standards	Modbus TCP/IP, cloud connection*1	
Application areas	Peak shaving, self-consumption optimisation, pre-charge storage electromobility, control via external EMS, emergency power systems	
Electrotechnical data		
Energy content per rack, nominal	154 kWh	
Energy content per rack, usable	138.6 kWh (90 % DoD)	
Voltage, nominal	400 V AC (3L, N, PE), 50 Hz	
Grid type*2	TN-S, TN-C-S and TT	
Power, nominal	up to 400 kVA (with up to 16 Inv.)	
Current, nominal	per Inv. 37 A	
Initial short-circuit AC current I _k " (GCO)	per Inv. 45.6 A	
Max. short circuit current (GFO)	300 % of P _{nom}	
Overload capacity (GFO)*3	150 % up to 275 kVA 125 % from 300 kVA	
Asymmetrical load (GFO)	25 % of P _{nom}	
Battery data		
Cell type	Lithium-ion (LFP), prismatic, 105 Ah	
Cell arrangement per rack	2P240S	
Voltage, nominal	768 V DC	
Design data		
Optimal ambient temperature	+22 °C to +28 °C	
Installation height	Max. 2000 m NN*4	
Weight control cabinets	AC control cabinet: ~400 kg, DC control cabinet: ~250 kg, AC/DC control cabinet: 250-650 kg (depending on power).	
Dimensions control cabinets (HxWxD)	2310 mm x 2000 mm (2600 mm*5) x 800 mm (200 mm distance to wall required)	
Battery rack incl. FLEPS	Weight	2157 kg
	Dimensions (HxWxD)	2217 mm x 1018 mm x 1167 mm*6
Battery rack standard	Weight	1848.5 kg
	Dimensions (HxWxD)	2200 mm x 1000 mm x 938 mm*7
Connection cross-section	1 x 5 x 50 mm ² - 2 x 5 x 240 mm ²	
Performance		
Expected energy throughput per rack*8 :	> 830.000 kWh (@90 % DoD)	
Design Life	15 years	
Performance Guarantee per rack	10 years or energy throughput of 600.000 kWh on the battery*9	
Norms & Standards		
EU Directives	2014/53/EU (RED), 2014/30/EU (EMC), 2014/35/EU (LVD), 2006/66/EG (BAT Directive)	
Norms & Standards	EN 61000-6-2, EN 61000-6-4, EN 62040-2, EN 61439-1, EN 61439-2, EN 62109-1, EN 62619, UN 38.3, VDE-AR-N 4105, VDE-AR-N 4110, EN 50549-1, TOR producer type A, TOR producer type B, UNE 217002:2020, UNE 206007-1:2013, UNE 206006:2011	

*1 Internet access is to be provided by the customer

*2 Other net shapes on request

*3 For dynamic load/generator connection < 1 min at nominal voltage 230 V AC and maximum 150 kVA per battery cabinet (rack)

*4 Higher installation sites on request

*5 For power >200 kVA

*6 Tolerance of +/- 10 mm per battery rack

*7 Tolerance of +/- 10 mm per battery rack

*8 Theoretical value at EOL: up to 70 % SoH, 10 years' operating time; operating parameters: 23 °C

*9 Depending on which occurs first

Configuration options

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Technical data				
Energy (kWh) / Power (kVA)	1 154 kWh	2 308 kWh	3 462 kWh	4 616 kWh
25 kVA	0.16 C	0.08 C	0.05 C	0.04 C
50 kVA	0.32 C	0.16 C	0.11 C	0.08 C
75 kVA	0.49 C	0.24 C	0.16 C	0.12 C
100 kVA	0.65 C	0.32 C	0.22 C	0.16 C
125 kVA	0.81 C	0.41 C	0.27 C	0.20 C
150 kVA	0.97 C	0.49 C	0.32 C	0.24 C
175 kVA	N.A.	0.57 C	0.38 C	0.28 C
200 kVA	N.A.	0.65 C	0.43 C	0.32 C
225 kVA	N.A.	0.73 C	0.49 C	0.37 C
250 kVA	N.A.	0.81 C	0.54 C	0.41 C
275 kVA	N.A.	0.89 C	0.60 C	0.45 C
300 kVA	N.A.	0.97 C	0.65 C	0.49 C
325 kVA	N.A.	N.A.	0.70 C	0.53 C
350 kVA	N.A.	N.A.	0.76 C	0.57 C
375 kVA	N.A.	N.A.	0.81 C	0.61 C
400 kVA	N.A.	N.A.	0.87 C	0.65 C

Attention:

- Systems < 0.50 C > 1 cycle a day must be equipped with FLEPS
- **Systems > 0.50 C** must be equipped with FLEPS (Number of max. cycles a day depending individual load profile)



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