

Technical data sheet INTILION | scalestac

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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 setting, self-consumption optimization	
Communication standards	Modbus TCP/IP, cloud connection* ¹	
Application areas	Peak shaving, self-consumption optimization, 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 WR)	
Current, nominal	per WR 37 A	
Initial short-circuit AC current I _k " (GCO)	per WR 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, 100 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 (2600mm* ⁵) x 800 mm (200mm 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 :	> 693.000 kWh (@90 % DoD), > 900.000 kWh (@70 % DoD), > 1.100.000 kWh (@50 % DoD)	
Design Life	15 years	
Performance Guarantee per rack	10 years or energy throughput of 470.000 kWh on the battery*. ⁹	

*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 +/- 10mm per battery rack

*⁷ Tolerance of +/- 10mm 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

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

Configuration options

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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 (max. energy throughput a day depending individual load profile)