INTILION

Product Sheet

INTILION | scalestac

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 Phosphat cells for high operational and fire safety
- INTILION | FLEPS available to maximize fire safety
- Fully comprehensive energy management system for monitoring all installed 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

*Involvement of an external Energy Management System necessary

Version: V5.9

INTILION

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 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 mm² - 2 x 5 x 240 mm²
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
Norms & Standards		

*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

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

INTILION | scalestac *power*

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)

INTILION