INTILION

INTILION
scalebloc

Technical data sheet

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The INTILION scalebloc

- Standardized and scalable battery storage system
- Plug & Play, all-in-one, AC-coupled solution
- 68,5 kWh nominal energy content
- One or two 30 kVA three-phase 4Q inverters of the latest generation
- Intelligent energy management system with cloud connection
- Air conditioned outdoor cabinet for rough environment

Use cases

Designed for

- Behind-the-Meter application
  - Peak shaving
  - Load management
  - Self consumption
  - Precharging storage for the electromobility infrastructure
- Off-grid application
  - Black start and island mode

Unique housing

- IP 55 outdoor cabinet
- Battery system installed in a fire protection housing according VDE-AR 2510-50
- Intelligent climatization concept to increase the lifetime of the batterie packs
- Internal and external protection against surge or lightning

INTILION scalebloc	
The energy management:	
	The INTILION scalebloc can be integrated into any existing energy management environment via the flexible design of the communication interfaces. In addition, the scalebloc is compatible with the leading energy management environments available on the market, which makes it even easier to realise your projects.
Compatibility with existing energy management environments:	The scalebloc can provide the additional flexibility you need for your entire solution. All applications can be covered, from peak shaving and optimisation of self-consumption to the provision of primary control power and support of the charging infrastructure for electric vehicles. The scalebloc can also be used for special applications such as stand-alone solutions, off-grid systems and black starts after a power blackout. *We are also happy to include your energy management environment in our partner program. Please contact us using the contact details below.*
Self-consumption optimization:	INTILION has developed its own concept for the classic case of optimizing self-consumption. By use of an energy meter at the grid connection point, the energy flows through the scalebloc are controlled in such a way that grid consumption is minimised and the own use of PV electricity is maximised.
Peak shaving & load management:	The peak shaving control defines a limit value of the power consumption, which is determined from historical load curve data of the past years. An energy meter at the grid connection point continuously monitors the current power consumption and counteracts this by discharging the scalebloc when the limit value is exceeded. This approach has a high potential to reduce grid fees, provided that the load curve does not differ significantly from the reference years.
Precharge storage:	If the maximum load of the system to be controlled remains the same or is known, as is the case with the charging infrastructure of electric vehicles, load management can also be used to relieve the load on the grid connection point. In this way, the scalebloc can provide the required but not available power for operating the planned charging stations and thus prevent the costly expansion of the infrastructure.
Off-grid & island grid:	The sophisticated inverter system enables the scalebloc to independently set up and manage an island grid or an off-grid system as a grid-forming element. The voltage and frequency are provided by the scalebloc in high quality so that both generation units, such as PV systems and wind turbines, and loads, such as household appliances or industrial machines, can be connected to the grid. With the scaleblocs you can become independent of the public power supply.

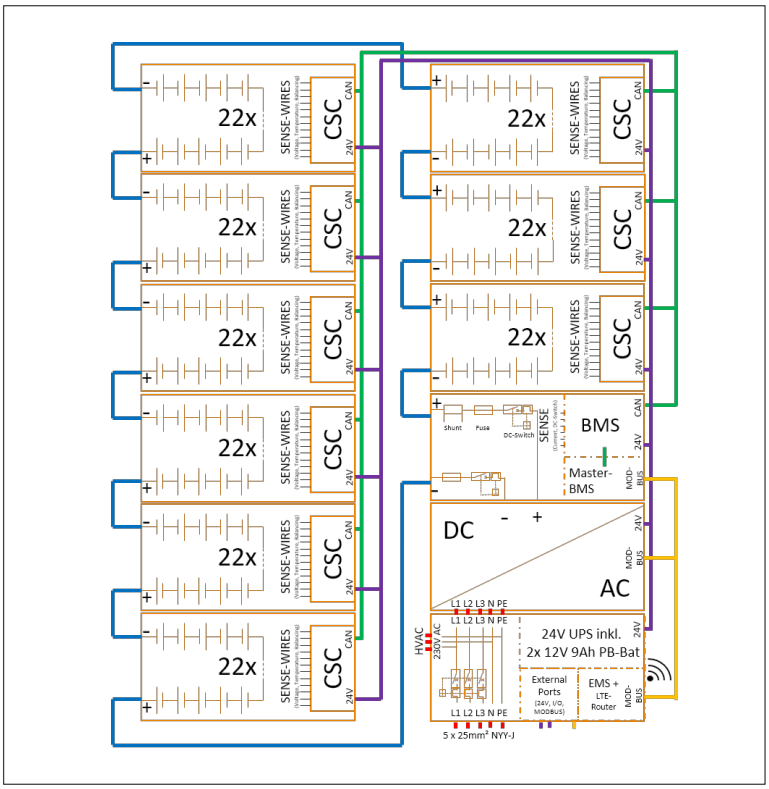
Technical data

INTILION scalebloc			
Model Versions			
scalebloc 0.5C		**scalebloc 1C**	
Nominal energy content:	68,5 kWh	**Nominal energy content:**	68,5 kWh
Usable energy content:	61,65 kWh (90% DoD)	**Usable energy content:**	61,65 kWh (90% DoD)
Constant power:	30 kW	**Constant power:**	60 kW
C-rate:	0,5 C	**C-rate:**	1 C
Battery Module			
Cell type:	NMC, 94 Ah, prismatic		
Cell configuration:	198S1P		
Expected cycles at 90% DoD & 70% remaining capacity:	9000		
Expected lifetime[1]:	15 years		
C-rate:	1 C		
General data			
Manufacturer:	INTILION GmbH		
AC voltage:	400 V AC 3-phase		
Nominal DC voltage:	725 V		
Type of system:	Fully integrated AC solution in an IP 55-cabinet		
Electrical power of the air conditioner:	Max. 900 W		
Scalability:	Up to 16 times connectable in parallel (also retrofitable)		
Operation modes:	Grid connected, black start capability, island mode		
Energy Management System (EMS):	Own EMS, compatible with common energy management environments		
Communication:	Modbus via Ethernet, Cloud connection via LTE (MQTT)		
Lightning protection class:	Class 1 & 2		
Dimensions (H x W x D):	2030 mm x 1618 mm x 1026 mm		
Weight:	~ 950 kg		
Norms & standards:	VDE-AR 2510-50, IEC 62619, IEC 61000-1/-3, IEC 62485, 2014/35/EU, UN 38.3, DIN VDE 0185-305, DIN VDE 0100-443, DIN VDE 0100-534, VDE-AR-N 4105		
Performance:	10 years / 4000 full cycles performance guarantee		

[1] Information according to own laboratory tests

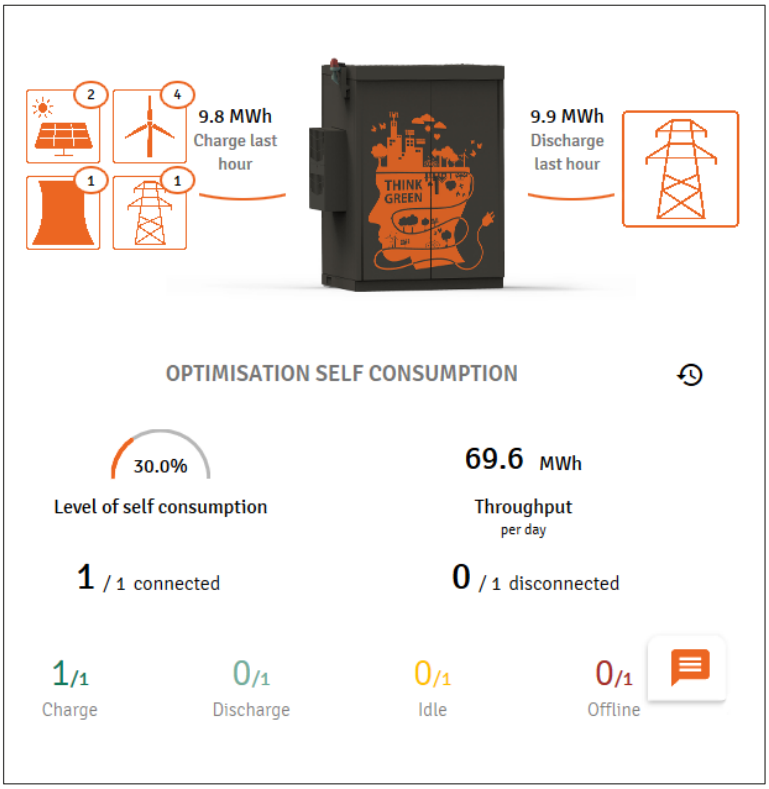
Innovative system topology

- Optimized serviceability by 19" stacks (battery modules, BMS, inverter, control shield)
- All-embracing energy management system with an optional Ethernet connection for external setpoints and energy metering
- Separate UPS integrated to ensure safe operation and enable black start capability



Multi-layer cloud solution

- Free of charge for 5 years
- Customer interface to control all system locations independently
- Service layer to carry out preventive maintenance and deep system analyses



Technical Drawing