



## DATA SHEET

# INTILION scalebloc



## INTILION | scalebloc

- Standardised 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

### Designed for:

- ▶ **Behind-The-Meter application**
  - Peak Shaving
  - Load management
  - Self consumption
  - Precharging storage for the electro-mobility 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-E 2510-50
- **Intelligent climatisation concept** to increase the lifetime of the batterie packs
- Internal and external **protection against surge or lightning**



### Compatibility with existing energy management environments:

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.

### Our energy management environments:

#### Self-consumption optimisation:

INTILION has developed its own concept for the classic case of optimising selfconsumption. By use of an energy meter at the grid connection point, the energy flows are controlled by the INTILION | scalebloc 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 INTILION | 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 INTILION | 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 INTILION | 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 INTILION | 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 INTILION | scalebloc you can become independent of the public power supply.

We are also pleased to include your energy management environment in our partner program. Please contact us using the contact details below.

## Technical data

### Model versions:

INTILION   <b>scalebloc 0.5C</b>		INTILION   <b>scalebloc 1C*<sup>1</sup></b>	
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
Nominal current:	44 A	Nominal current:	88 A
C-rate:	0.5C	C-rate:	1C

### Battery module:

Cell type:	Lithium-ion (NMC), 94 Ah, prismatic
Cell configuration:	198S1P
Number of cycles:	8,000* <sup>2</sup>
Design life:	15 years

### 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
Ambient temperature range:	-30 °C to 55 °C
Scalability:	Up to 16 times connectable in parallel ( <i>also retrofitable</i> )
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):	2,030 mm x 1,618 mm x 1,026 mm
Weight:	~ 950 kg
EU Guidelines:	2014/53/EU   2014/30/EU   2014/35/EU
Norms & standards:	IEC 62619, EN 61000-6-2, EN 61000-6-4, EN 61439-1, EN 61439-2, EN 62477-1, EN 300 328 V2.1.1, UN 38.3, VDE-AR-E 2510-50 6.2.6 Propagation Test, VDE-AR-N 4105, VDE-AR-N 4110
Performance guarantee:	10 years or 4000 cycles on battery* <sup>3</sup> 5 years on the corrosion of the outdoor cabinet* <sup>4</sup>

\*<sup>1</sup> INTILION | scalebloc 1C available in Q2/2020

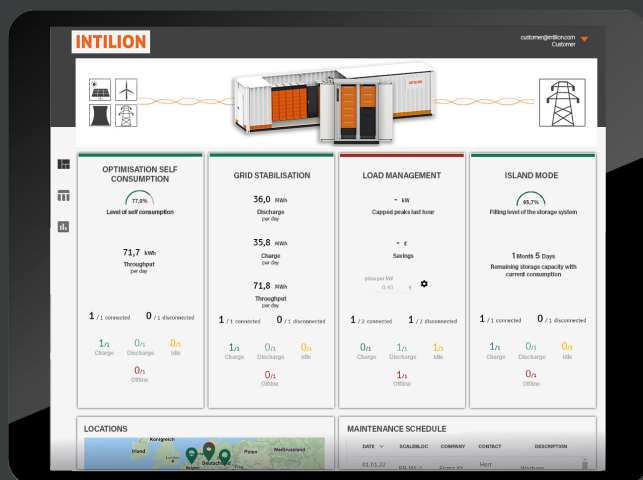
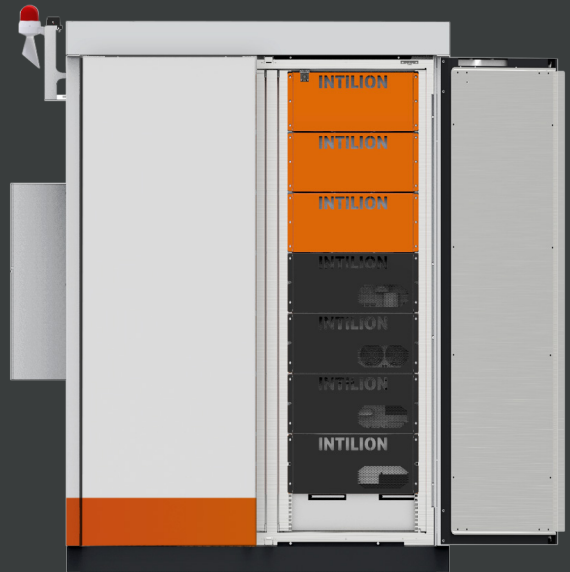
\*<sup>2</sup> Theoretical value by EOL: 70 % SoH, 10 years operating time, operating parameters: 0.5C, 23 °C, 90 % DoD

\*<sup>3</sup> The corresponding warranty conditions can be found on our website: [www.intilion.com](http://www.intilion.com).

\*<sup>4</sup> Corrosion caused by scratches, vandalism and similar occurrences is excluded from the performance guarantee.

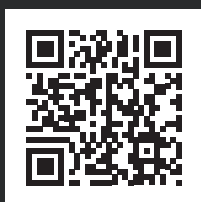
## Innovative system topology

- Optimised serviceability by 19" stacks (battery modules, BMS, inverter, ControlShield)
- All-embracing energy management system with an optional Ethernet connection for external setpoints and energy metering
- Full integration of common software architectures
- Separate UPS integrated to ensure safe operation and enable black start capability



## Multi-layer cloud solution

- Customer interface to control all system locations independently
- Service layer to carry out preventive maintenance and deep system analyses



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