



Thunder Bolt 460W / 920W Plug-in Solar Kit Datasheet

One- or two-panel rigid solar kit delivering 460Wp or 920Wp of solar capacity. Its 800VA dual-MPPT microinverter feeds solar power directly into your home, making Bolt a simple solution for gardens, sheds, flat roofs and other compact spaces.

Features

1

ENEA Plug-in Listed

3

MCS-Certified

2

23% TOPCon Cells

4

Battery Ready

Bolt Solar Kit

Bolt 460W | Bolt 920W · Technical Datasheet



System Configuration

Parameter	Bolt 460W	Bolt 920W
PV Capacity (DC)	460 Wp	920 Wp
Solar Modules	1 x Bolt 460W	2 x Bolt 460W
Microinverter	1 x Bolt 800 VA, dual MPPT	1 x Bolt 800 VA, dual MPPT
MPPT Inputs Used	1 of 2	2 of 2 (one module per MPPT)
Max. AC Output	800 VA	800 VA
ENA Connect Direct Reference	THUNE/21203/V1	THUNE/21204/V1

Solar Module · Electrical Data

Electrical Characteristics (STC)

Parameter	Value
Cell Type	N-type i-TOPCon Monocrystalline
Peak Power (Pmax)	460 Wp
Module Efficiency	23.0%
Power Tolerance	0 / +5 W
Open Circuit Voltage (Voc)	53.8 V
Max. Power Voltage (Vmp)	45.4 V
Short Circuit Current (Isc)	10.81 A
Max. Power Current (Imp)	10.14 A
Cell Configuration	144 half-cut cells

STC: 1000 W/m², cell temp. 25 °C, AM 1.5

NOCT Performance Values

Parameter	Value
Peak Power (Pmax)	352 W
Open Circuit Voltage (Voc)	51.0 V
Max. Power Voltage (Vmp)	42.7 V
Short Circuit Current (Isc)	8.71 A
Max. Power Current (Imp)	8.25 A
NOCT	43 °C ±2 °C

NOCT: 800 W/m², ambient 20 °C, wind 1 m/s

Solar Module · Temperature Coefficients and Warranty

Temperature Coefficients

Parameter	Value
Pmax	-0.29%/°C
Voc	-0.24%/°C
Isc	+0.04%/°C

Warranty

Parameter	Value
Product Workmanship	25 years
Performance Warranty	30 years
First Year Degradation	1.0% max.
Annual Degradation (yr 2-30)	0.4% max.
Output at Year 30	87.4% min.
Microinverter Warranty	10 years

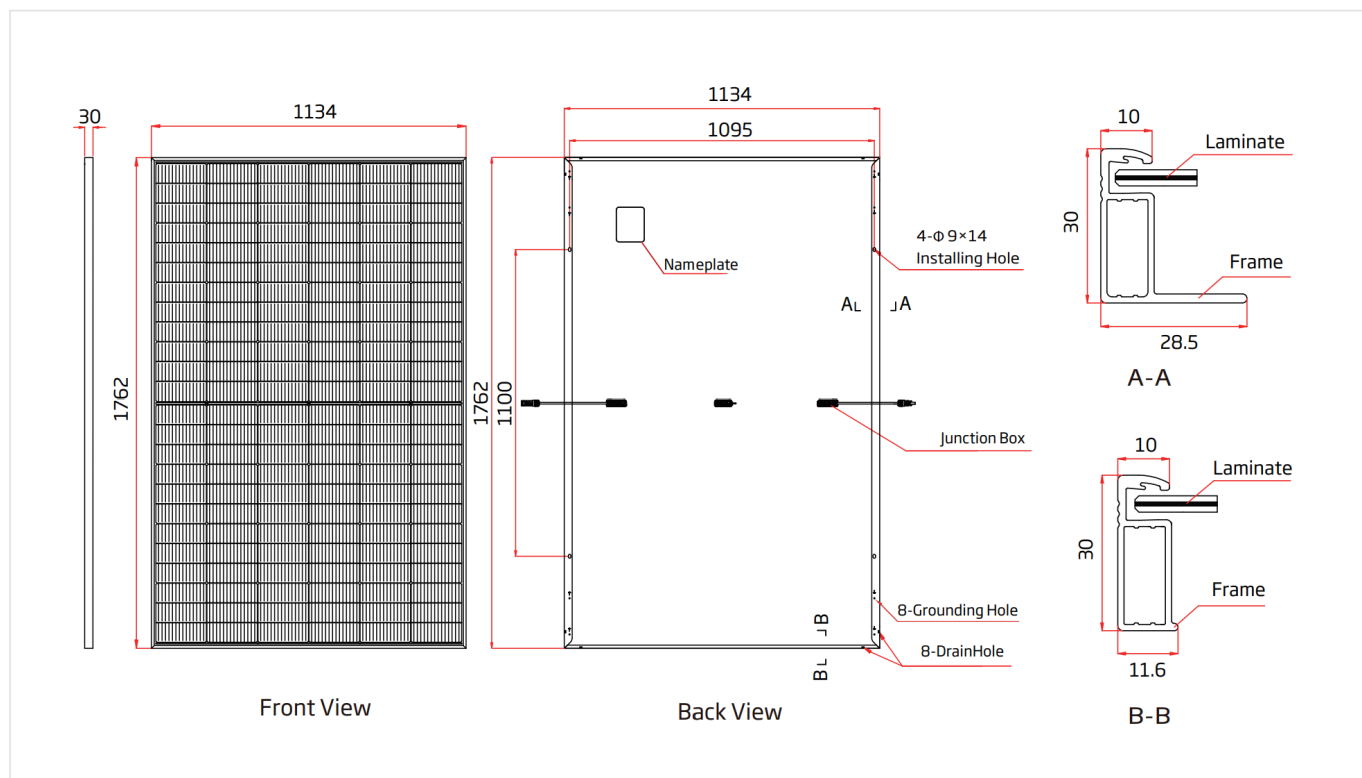
Bolt Solar Kit

Solar Module · Mechanical Data and Drawing

Solar Module · Mechanical Data

Parameter	Value
Dimensions (L x W x D)	1762 x 1134 x 30 mm
Weight	21.0 kg
Construction	Dual glass, 1.6 mm front / 1.6 mm rear
Frame	30 mm anodised aluminium, black
Junction Box	IP68
Cable	4.0 mm ² , 1100 / 1100 mm
Connector	MC4 compatible
Max. Series Fuse Rating	25 A
Max. System Voltage	1500 V DC
Design Load	5400 Pa snow / 4000 Pa wind
Operating Temperature	-40 to +85 °C

Mechanical Drawing



All dimensions in mm. Drawing not to scale.

Bolt Solar Kit

Microinverter, Kit Contents and Compliance



Microinverter · 800 VA Dual MPPT

Input Data (DC)

Parameter	Value
Recommended Module Power	320 - 540 W+ per input
Max. Input Voltage	65 V
MPPT Voltage Range	16 - 60 V
Min. / Max. Start Voltage	22 / 60 V
Max. Input Current	2 x 14 A
Max. Short Circuit Current	2 x 25 A
Number of MPPTs	2
Inputs per MPPT	1

Mechanical Data

Parameter	Value
Dimensions (W x H x D)	261 x 180 x 35.1 mm
Weight	3.2 kg
Enclosure Rating	IP67 (outdoor)
Cooling	Natural convection, fanless
Operating Temperature	-40 to +65 °C

Output Data (AC)

Parameter	Value
Rated Output Power	800 VA
Rated Output Current	3.48 A
Output Voltage / Range	230 V / 180 - 275 V
Output Frequency / Range	50 Hz / 45 - 55 Hz
Power Factor	> 0.99 (adjustable)
Total Harmonic Distortion	< 3%
Peak Efficiency	96.70%
MPPT Efficiency	99.80%

Features

Parameter	Value
Communication	2.4 GHz Wi-Fi and Bluetooth
Topology	Galvanically isolated HF transformer
Safety	Rapid shutdown
Night Consumption	< 50 mW

Kit Contents

Component	Bolt 460W	Bolt 920W	Notes
Bolt 460W Solar Module	1	2	460 Wp each, dual glass
Bolt 800 VA Microinverter	1	1	Dual MPPT, Wi-Fi and Bluetooth
AC Connection Cable	1	1	5 m
Mounting Bracket Set	1	2	One set per module
DC Extension Cables	2	4	Module to microinverter
Protective DC Caps	2	-	Unused DC input
Disconnect Tools (A & B)	2	2	Maintenance
Installation Guide	1	1	Step-by-step instructions

Compliance

Item	Standard
Plug-in Solar	Listed on the ENA Connect Direct register as a compliant Plug-in Solar device (THUNE/21203/V1, THUNE/21204/V1)
Microinverter	EN 50549-1:2019, IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 61000-3-2/-3
Solar Module	IEC 61215, IEC 61730, IEC 61701, IEC 62716

- Maximum AC output is limited to 800 VA regardless of the installed DC capacity.
- DNO notification under the applicable G98 process still applies.