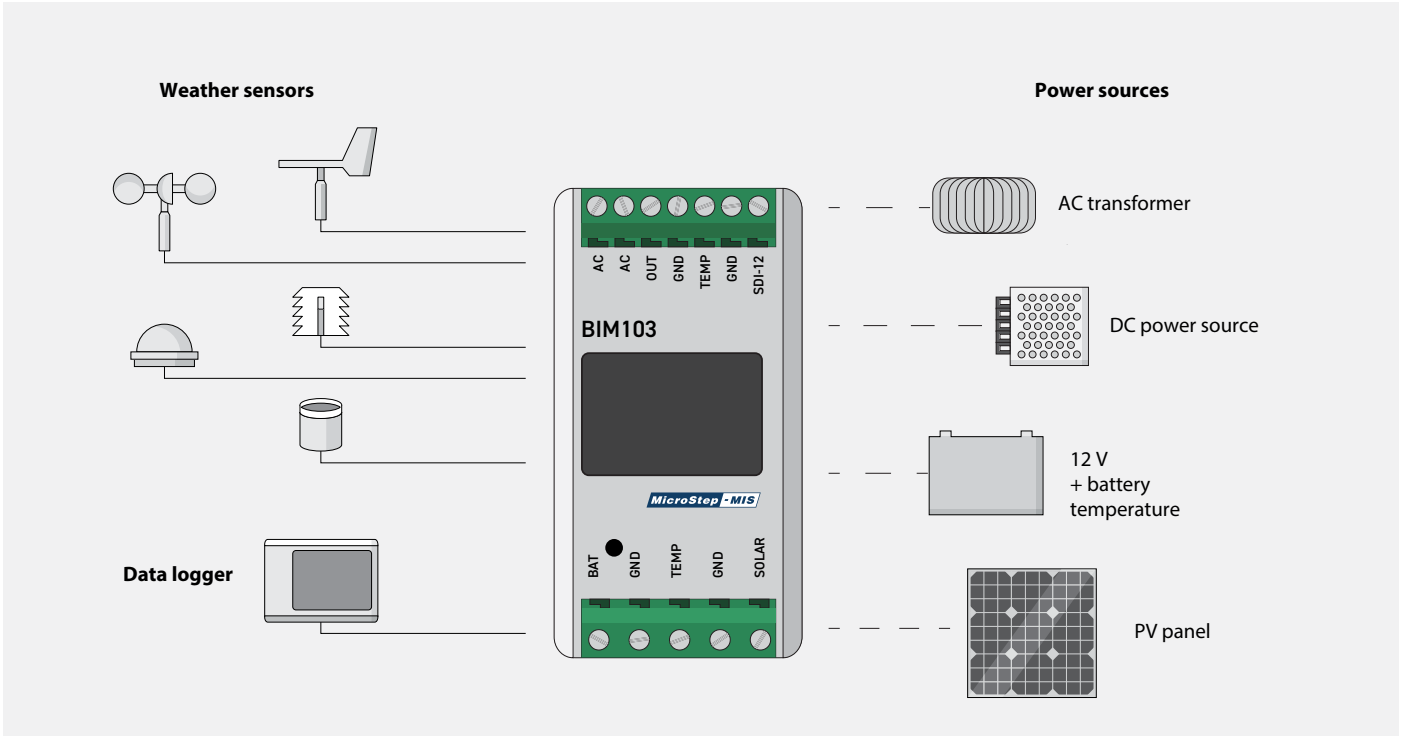

Electrical specification

	BIM103	BIM163
Number of lead-acid cells	6 (nom. 12 V)	6 (nom. 12 V)
Charging current from solar panel	up to 10 A	up to 16 A
Charging current from AC/DC power source	up to 3 A (adjustable)	up to 3 A (adjustable)
Output current	up to 2 A	up to 2.5 A
PV panel input voltage range	12 to 28 V	12 to 28 V
AC/DC power source input voltage range	±20 to ±30 VDC 15 to 25 VAC	±20 to ±30 VDC 15 to 25 VAC
Output voltage range	10.5 to 16 V	10.5 to 16 V
Load disconnection voltage	10.5 V	10.5 V
End charge voltage	13.8 V to 14.7 V (adjustable) reg. error < 0.7 % (@14.1 V)	13.8 V to 14.7 V (adjustable) reg. error < 0.7 % (@14.1 V)
Temperature compensation	-3 mV/°C/CELL	-3 mV/°C/CELL

Environmental specification

	BIM103	BIM163
Heat dissipation	passive	passive
Operating temperature range	-50 °C to +60 °C	-50 °C to +60 °C
Storage temperature range	-60 °C to +80 °C	-60 °C to +80 °C
Humidity (non-condensing)	0 to 100 %RH	0 to 100 %RH

Mechanical specification

	BIM103	BIM163
Housing classification	IP20	IP20
Housing material	aluminium	aluminium
Type of connection	terminal block 16 A	terminal block 16 A
Dimensions (h x w x d)	92 x 47 x 118 mm	92 x 47 x 118 mm

BIM comparison table	SBIM	BIM103	BIM163	BIM205
12 V operation	•	•	•	•
24 V operation	•	-	-	•
PV panel input voltage	15 to 50 V	12 to 28 V	12 to 28 V	14 to 50 V
Charging from PV panel	up to 16 A	up to 10 A	up to 16 A	up to 20 A
Supplying from PV panel	-	-	-	•
MPPT algorithm	-	-	-	•
PV panel stealing detection	•	-	-	•
AC power source input voltage	-	15 to 25 V AC	15 to 25 V AC	15 to 40 V AC
DC power source input voltage	-	±20 to ±30 V DC	±20 to ±30 V DC	±14 to ±50 V DC
Charging from AC or DC power source	-	up to 3 A	up to 3 A	up to 10 A
Supplying from AC or DC power source	-	•	•	•
Power output	up to 5 A	up to 2 A	up to 2.5 A	up to 5 A
Battery temperature compensation	•	•	•	•
SDI-12 communication interface	•	•	•	•
RS-232 communication interface	-	-	-	• (opt)
Power consumption	0.7 mA (@12 V)	1.1 mA (@12 V)	1.1 mA (@12 V)	1.3 mA (@12 V)