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AC WALL LED/DISPLAY SOCKET/PLUG

Datasheet

Document ID	Bitron AC WALL Family – Datasheet - rev07.docx
Date	27/08/2026
Approved by	M. Zarro - Bitron

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1 Revisions history

File name	Revision	Date	Author	Note
Bitron Wallbox AC Premium – Datasheet	0	19/02/2024	M. Zarro	First emission
Bitron Wallbox AC Premium – Datasheet	1	03/02/2025	M. Zarro	Updated info
Bitron Wallbox AC Premium – Datasheet	2	04/02/2025	M. Zarro	Updated info
Bitron Wallbox AC Premium – Datasheet	3	28/03/2025	M. Zarro	Added External Meter Chapter
Bitron Wallbox AC Premium – Datasheet	4	21/05/2025	M. Zarro	Updated Commercial Names
Bitron AC WALL Family Datasheet	5	08/09/2025	M. Zarro	Added AC WALL LED PLUG and AC WALL DISPLAY PLUG
Bitron AC WALL Family Datasheet	6	13/10/2025	M. Zarro	Updated cable length, Added current sensors PNs for Gavazzi meters
Bitron AC WALL Family Datasheet	7	27/08/2026	F. Cipriano	Added note for RS-485 lines: they must be shorter than 30m

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2 Introduction

The scope of the document is to describe main characteristics of AC WALL DISPLAY/LED SOCKET/PLUG families.



Figure 1: Reference picture of the product AC WALL DISPLAY SOCKET

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Figure 2: Reference picture of the product AC WALL LED SOCKET

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Figure 3: Reference picture of the product AC WALL DISPLAY PLUG

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Figure 4: Reference picture of the product AC WALL LED PLUG

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3 Specifications

ELECTRICAL SPECIFICATIONS	
Charger	AC
Charging Mode	Mode 3 – Case B (IEC 61851-1)
Connector Standard / Versions	IEC 62196-2 Type 2 / Socket with shutters or Tethered with cable length 5m/7.5m
Output power	Up to 7.4 kW Single Phase Up to 22 kW Three Phase
Input voltage	PH + N + PE, 32A, 230V / 50-60Hz [Single Phase] 3PH + N + PE, 32A, 400V / 50-60Hz [Three Phase]
Grid connection	TT, TN
Maximum current	32 A
Maximum input power cable size	10 mm ² (flexible)
Metering (AC side)	Built-in (Not MID)
Overvoltage Category	CAT III
Residual Current Device	Built-in 6mA DC Not present 30mA AC [Required external RCCB, see installation manual]
Other Protections	Shunt trip coil (For tethered versions only)
Ground Presence Detection	Yes (Configurable by App)
Antitamper	Yes
Other	VDE4100 Compliant (PhaseUnbalance, FallbackCurrent) * (Extra certification is required) Smart Charging UK according to «Complying with the Electric Vehicles (Smart Charge Points) Regulations 2021"

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MECHANICAL SPECIFICATIONS	
Dimensions [H x W x D]	427 x 265 x 135 mm
Weight	3.5 kg
Operating temperature	-25 to +50 °C
Operating humidity	<95% (non condensing)
Altitude	≤ 2000 m
IP degree	55
IK degree	08
Charging cable length	5m/7.5m for tethered versions
Installation	fixation points by screws
Installation Environment	Indoor or Outdoor
Housing Material	Polycarbonate

SETUP SPECIFICATIONS		
Virtual Rotary Switch		Supported three phase configurations:
	Supported mono phase configuration: • 3.7kW 1ph • 4.6kW 1ph • 5.1kW 1ph • 5.8kW 1ph • 6.0kW 1ph • 7.4kW 1ph	• 4.3kW 3ph • 6.9kW 3ph • 9.0kW 3ph • 11.0kW 3ph • 13.1kW 3ph • 15.2kW 3ph • 17.3kW 3ph • 19.3kW 3ph • 20.7kW 3ph • 22.1kW 3ph

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COMMUNICATION SPECIFICATIONS	
Communication protocols to EV	61851-1
User interface	Display version: HMI on TFT display 3.5" with touch [Diagnostics, Settings, Recharge Info] LED version: 2 vertical LED strips
Mobile APP	Bitron's App Bicharge for mobile, mandatory for the installation: - Android: https://play.google.com/store/apps/details?id=com.bitron.BiCharge - iOS: https://apps.apple.com/hr/app/bicharge/id6575385773
Communication interfaces	Ethernet 10,100Mbps – RJ45 WiFi 2.4 GHz 802.11 b/g/n [simultaneously with BLE] 4G LTE CAT 1 (10 Mbps Download / 5 Mbps Upload) EMEA Bluetooth 5 Low Energy [simultaneously with Wifi] RFID (compliant with ISO 14443) for authentication USB [Hardware Ready for maintenance: Diagnostics, Software Update] RS-485 dual lines: - Master/Slave or HEMS - DPM and/or MID meters Note: The RS-485 communication line length must not exceed 30 m. If the installation requires longer distances, a signal repeater must be used.
External Energy Meter Interface	RS-485 Modbus for: - Dynamic Power Management - MID functionalities
Master/Slave Configuration	RS-485 Modbus
HEMS (Home Energy Management System)	RS-485 Modbus
OCPP Protocol	1.6 Json. Supported Features: - Core - Firmware Management

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	• LocalAuth List Management • Smart Charging It supports the following Security Profiles: • No security profile • Unsecured Transport with HTTP Basic Authentication • TLS with HTTP Basic Authentication
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REFERENCE STANDARD	
Product standard	IEC61851-1; IEC61851-21; IEC62196-2;
Certification	CE 2025
ETSI	ETSI EN 301 489; ETSI EN 300 328 V2.2.2.; ETSI 300 330-2; ETSI EN 301 908-13 (For BLE, Wi-Fi, RFID, LTE)
Cybersecurity	UNI CEI EN 18031-1:2025

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4 External Meters

The following list of external meters can be used as **DPM** (Dynamic Power Management) via RS485:

Gavazzi:

- EM330DINAV53HS1X
 - Required one of the following external Current Transformers:
 - CTA5X100A5A
 - CTA5X150A5A
 - CTA5X200A5A
 - Transformer Ratio KI and KV should be configured
- EM111DINAV51XS1X
 - Required one of the following external Current Transformers:
 - CTA5X100A5A
 - CTA5X150A5A
 - CTA5X200A5A
 - Transformer Ratio KI should be configured
- EM340DINAV23XS1PFB
- EM111DINAV81XS1PFB
- EM111DINMV51XS1X
 - Required one of the following external Current Transformers:
 - CTV1X60A333MV
 - CTV2X100A333MV
 - CTV3X200A333MV
 - Transformer Ratio KI should be configured
- EM112DINAV01XS1PFB

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Finder:

- 7M.38.8.400.0212
- 7M.24.8.230.0210

ACREL:

- ADL200 (1ph)
- ADL400-D (3ph)

Eastron:

- SDM630Modbus-V3 MID

The following list of external meters can be used for **MID** functionality via RS485:

Gavazzi:

- EM340DINAV23XS1PFB,
- EM111DINAV81XS1PFB,
- EM112DINAV01XS1PFB

Finder:

- 7M.38.8.400.0212,
- 7M.24.8.230.0210

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5 Mechanic details



Figure 5: Exploded View

6 Architecture

The following picture shows the overall architecture of the AC WALL Family.

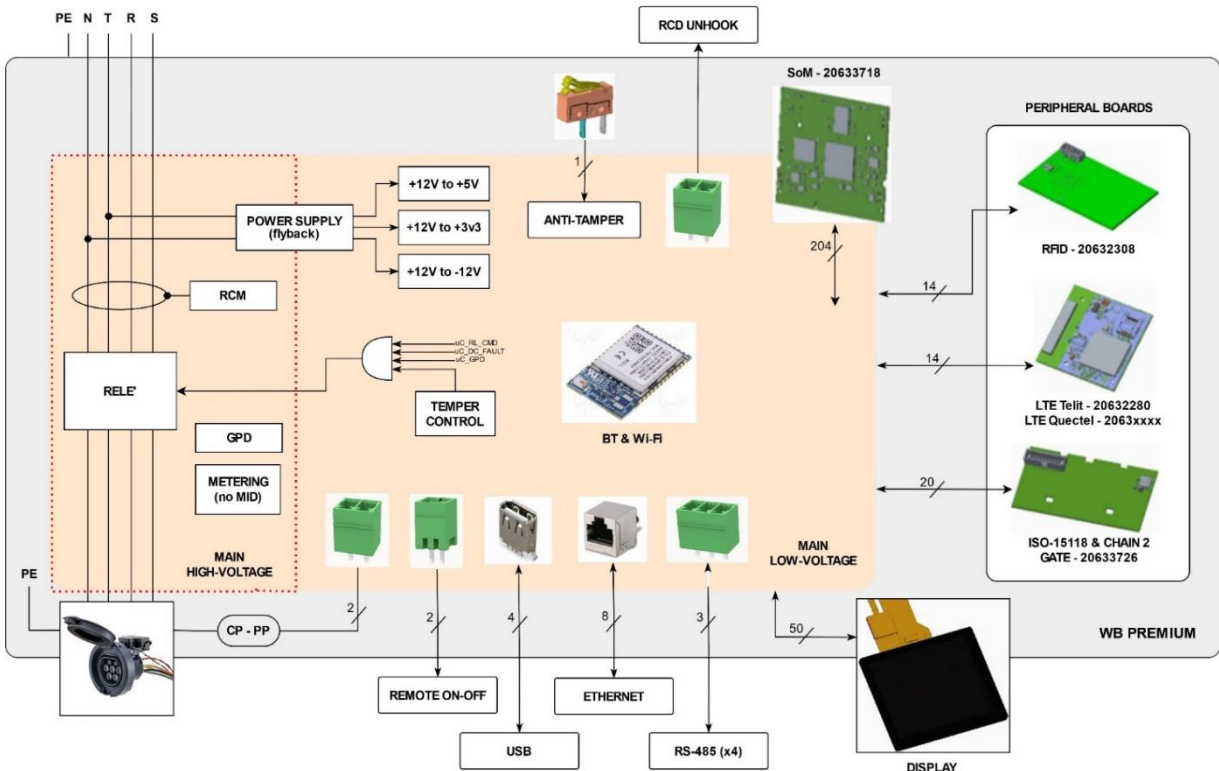


Figure 6: Physical Block Diagram