

bp pulse pro charger smart

Smart, seamless and sustainable fleet and workplace EV charging

Smart

- **AC Charging** – most convenient for locations where vehicles are parked for long periods of time. Charge times 0-100% typically 6-12hrs*
- **Smart charging enabled** – take control of your EV charging estate with our cloud-based Chargevision management platform for monitoring and reporting.
- **RFID** authenticated access control
- **4G/LTE, Wi-Fi** and **wired Ethernet** connectivity.
- **Scheduling +** – reduce charging costs and support net-zero carbon emissions in conjunction with off-peak or TOU (Time of Use) tariffs.
- **Load Management** - share available power across sockets on a site to optimise charging; install up to 3x the number of sockets without any costly infrastructure upgrades; and avoid demand penalty charges.
- **Over-The-Air (OTA) updateable** to enable new features and for security updates.
- **Demand Response ready †** – receive financial incentives for participation in DSR grid balancing services.
- **Plug and Charge (ISO15118) ready †** - simply connect charging cable and vehicle is securely and automatically charged.
- **Bi-directional Charging (ISO15118) ready †** – for Vehicle-to-Building (V2B) and Vehicle-to-Grid (V2G) bi-directional charging applications.

* actual charge times vary depending on vehicle.

+ to be released Q4 2022

† to be released 2023

Seamless

- Single RFID card provides access to depot/workplace and public bp pulse chargepoints.

Sustainable

- Cost-effective and enables a net-zero carbon EV charging solution for site and fleet managers.
- Helps support Corporate Social Responsibility (CSR) and public desire for increased supplier sustainability.



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Secure

- Protected – by advanced overload protection and electric current management software
- A complete service from design, manufacturing, installation to handover
- 24/7 customer support
- Expertly installed by professional, skilled electricians and engineers

Options available

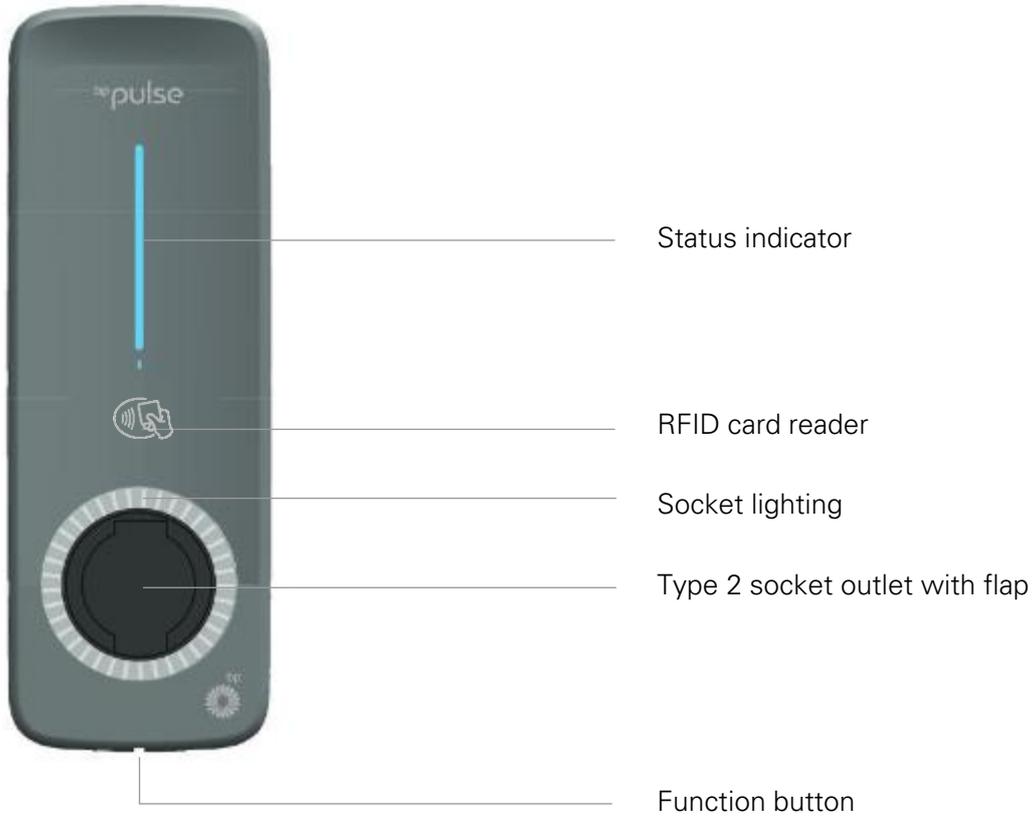
- Single Type 2 socket outlet
- Single phase AC
3.6kW to 7kW output
- Three phase AC
11kW to 22kW output
- Wall mountable
- Single or dual pole mountable

Save money

- UK Government OZEV WCS approved
- 3-year warranty as standard (extended 5 year warranty option)



Main features



ChargeVision Portal



Free access to ChargeVision, our advanced online usage monitoring and reporting system

bp pulse network



Seamlessly access the UK's largest public charging network from bp pulse and your private depot / workplace chargepoints with the same RFID card



General specifications

	Single Phase				Three Phase			
Product code	BCW7S2		BCG7S2		BCW22S2		BCG22S2	
Connectivity	Wi-Fi, Ethernet		4G, Wi-Fi, Ethernet		Wi-Fi, Ethernet		4G, Wi-Fi, Ethernet	
Input:	220-240V AC 50/60Hz				400V AC 50/60Hz			
Rated Current	1P + N + E 32A max				3P + N + E 32A max			
	16A 3.6kW	32A 7.3kW	16A 3.6kW	32A 7.3kW	16A 11kW	32 A 22kW	16A 11kW	32 A 22kW
Electrical output to vehicle:	220-240V AC 50/60Hz				400V AC 50/60Hz			
Dimensions (W x H x D)	176 x 495 x 161mm							
Shipping weight	Typically 4.6kg							
Warranty	Comprehensive three years parts and labour warranty. Optional five years extended warranty.							

Technical specifications

Output connector socket (Single and Three Phase)	Type 2
Operating temperature range	-30°C to +50°C
Operating humidity range	5% to 95% non-condensing
Ethernet	10/100BaseTX
4G/LTE operating frequency band, subject to network connectivity	E-GSM 900, DCS 1800, UMTS Band I, UMTS Band VIII, LTE Band 1, LTE Band 3, LTE Band 7, LTE Band 8, LTE Band 20, GPS L1/GLONASS G1/BDS/Galileo E1
Maximum power transmission	Tx power +15.1dBm
Wi-Fi Operating frequency bands, subject to network connectivity	Wi-Fi frequency 802.11 b/g 2.4GHz
RFID system	ISO 14443A 13.56MHz
Communication protocol	OCPP 1.6J; OCPP 2.0.1 on release
Mechanical impact protection rating	IK08
Ingress protection rating	IP54
Nature of short circuit protection devices	External over-current protection
Measures for protection against electric shock	External 30mA AC current leakage protection and over-current protection, built-in 6mA DC current leakage protection and PEN Fault protection





Technical specifications cont.

Rated voltage of a circuit of the assembly	216V AC to 253V AC (1ph) 376V AC to 440V AC (3ph)	
Rated insulation voltage of a circuit of the assembly	216V AC to 253V AC (1ph) 376V AC to 440V AC (3ph)	
Rated impulse withstand voltage of the assembly	2kV Line-to-Neutral 4kV Line-To-Earth	
Rated current of a circuit	32A	
Rated peak withstand current	1500A	
Rated short-time withstand current of a circuit of an assembly	N/A	
Rated conditional short-circuit current of an assembly	1,000A 1ms, 3 times	
Rated diversity factor (Taking into account differences in 61349-7)	1	
Additional requirements	Type A RCD, over-current protection	
Pollution degree	3	
Type of earthing system intended for the installation	TN-C-S (with built-in PEN Fault protection) and TT	TN-C-S
Intended for use by ordinary persons or skilled persons?	Ordinary	
EMC classification	Class B	
Special service conditions	LTE, Ethernet, Wi-Fi	



Technical specifications cont.

<p>UK Electromagnetic Compatibility Regulations 2016</p>	<p>Designated Standards: IEC 61851-21-2: 2017 EMC requirements for off board electric vehicle charging systems IEC / EN 61000-4-2: Electrostatic discharge IEC / EN 61000-4-3: Radiated RF immunity IEC / EN 61000-4-4: Electrical Fast transient burst immunity IEC / EN 61000-4-5: Surge immunity IEC / EN 61000-4-6: Conducted RF immunity IEC / EN 61000-4-8: Power frequency magnetic field immunity IEC / EN 61000-4-11: Voltage dips, short interruptions and voltage variation immunity CISPR 32 / EN 55032: Conducted emissions CISPR 11 / EN 55011: Radiated emissions CISPR 16 / EN 55016 :Radio disturbance and immunity IEC / EN 61000-3-11: Voltage fluctuations and flicker IEC / EN 61000-3-12: Harmonic current emissions</p>
<p>UK Electrical Equipment (Safety) Regulations 2016</p>	<p>Designated Standards: IEC 61851-1: 2017 BS EN 61851-1: 2019</p>
<p>UK Radio Equipment Regulations 2017</p>	<p>Designated Standards: EN 301 489-1 Radio EMC EN 301 489-3 Radio EMC EN 301 489-17 Radio EMC EN 301 489-52 Radio EMC EN 300 330 Radio Spectrum EN 300 328 Radio Spectrum EN 301 908-1 Radio Spectrum EN 301 511 Radio Spectrum EN 50364 Radio RF Safety</p>
<p>EU Radio Equipment Regulations</p>	<p>Radio Equipment Directive (RED) 2014/53/EU</p>
<p>RoHS Regulations</p>	<p>UK RoHS Regulations 2012 EU RoHS Directive 2011/65/EU</p>
<p>Certification Markings</p>	





Order codes

Chargers

Configuration	SKU	Description
Single	BCW7S2	pro smart WiFi 7kW Socket Type 2 RFID
	BCW22S2	pro smart WiFi 22kW Socket Type 2 RFID
	BCG7S2	pro smart WiFi+4G 7kW Socket Type 2 RFID
	BCG22S2	pro smart WiFi+4G 22kW Socket Type 2 RFID
Single + post mount	BCW7S2SQ1	pro smart WiFi 7kW S2 RFID w/post
	BCW22S2SQ1	pro smart WiFi 22kW S2 RFID w/post
	BCG7S2SQ1	pro smart WiFi+4G 7kW S2 RFID w/post
	BCG22S2SQ1	pro smart WiFi+4G 22kW S2 RFID w/post
Dual + post mount	BCW7S2SQ2	2x pro smart WiFi 7kW S2 RFID w/post
	BCW22S2SQ2	2x pro smart WiFi 22kW S2 RFID w/post
	BCG7S2SQ2	2x pro smart WiFi+4G 7kW S2 RFID w/post
	BCG22S2SQ2	2x pro smart WiFi+4G 22kW S2 RFID w/post

Accessories

Post mount	ACCPPOSTSQ2	bp pulse home / pro smart post mount
Cables	4MT2T1	Type 2 to Type 1 Cable – 4m – 1-Phase
	4MT2T2-1	Type 2 to Type 2 Cable – 4m – 1-Phase
	7MT2T1	Type 2 to Type 1 Cable – 7.5m – 1-Phase
	7MT2T2-1	Type 2 to Type 2 Cable – 7.5m – 1-Phase
	4MT2T2	Type 2 to Type 2 Cable – 4m – 3-Phase
	7MT2T2	Type 2 to Type 2 Cable – 7.5m – 3-Phase

Spares

Spares	BCFASCIA	Outer fascia
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Further descriptions

Single Phase (7kW)

230V AC, 16A (3kW), 32A (7kW)

Three Phase (22kW)

400V AC, 16A (11kW), 32A (22kW)

Type 2 socket

EV manufacturers typically support Type 1 or Type 2 connectors.

Cables allow connections between the Type 2 charger socket and either Type 1 or Type 2 vehicle sockets. Choice of cable lengths (4m and 7.5m options); Requires storing and plugging in both ends

Internet connected via Wi-Fi, wired LAN ethernet or 4G/LTE

Provides required connectivity between EVSE and the Charge Point Management System (CPMS)

LED status indication

Status of the charger is indicated on the front of the charger with multi-function LEDs (visible when powered): Blue indicates idle, the unit is ready to deliver a charge. Green indicates that a charge is being delivered. White indicates that the unit is disabled a connected EV will not charge without being enabled by an authorised user (via the app or portal). Red indicates that a fault may be present.

Socket location lighting

Locating the front facing socket is eased with white lighting. An ambient light sensor is used to increase the brightness level of the socket location lighting when the ambient light is low and progressively less bright the lighter the ambient light in the vicinity.

Chargevision portal

Site and fleet managers can access our cloud-based management platform via a web portal for live monitoring and reporting and historical usage reporting.

Over-The-Air updates

Users can upgrade and keep up-to-date with new product enhancements. This capability includes: new features, bug fixes, security updates and critical configuration updates. Users will receive notifications to acknowledge and accept updates.

Load Management

This feature automatically distributes available power evenly across sockets within a defined cluster of up to 100 chargers on a site whilst maintaining a minimum charge current of 10A (2.3kW).. This allows up to 3x the number of sockets to be installed without the cluster ever exceeding its supply limit, avoiding the need for costly infrastructure upgrades. Furthermore the feature helps avoid costly demand penalty charges.