




BSI Kitemark™ for accessible electric vehicle charging (PAS 1899)

Make access a priority

Client Guidance

 Your partner
in progress

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1. Introduction

What is the BSI Kitemark for Accessible Ready Charger and Accessible Charging Bays?

Over 14 million disabled people live in the UK, and 2.35 million utilize the blue badge scheme, which offers on-street parking concessions for people with severe mobility problems. An estimated 1.35 million disabled individuals are reliant on public charge point infrastructure.

In October 2022, the Motability Foundation, an organization funding and supporting disabled people, and the UK Government Office for Zero Emissions Vehicles (OZEV) co-sponsored a publicly available specification (PAS) – PAS 1899, which sets a new standard for what accessible electric vehicle (EV) charging should look like. This standard includes accessibility requirements and guidance for designers, manufacturers, procurers, and operators of public charge points. It also includes best practice guidance that goes beyond minimum compliance requirements.

To help disabled consumers gain confidence in the new technology, BSI developed an assessment program that assesses the requirements of PAS 1899 relating to disabled EV charging parking spaces as well as EV charging equipment. By having parking space and equipment assessed by the third-party organization, users gain trust and confidence in the ability to charge their vehicles and ultimately to reach their destination.

Why you and your customers can trust the BSI Kitemark?

For over 120 years, the BSI Kitemark has been recognized as a symbol of outstanding quality, safety, and trust across a wide range of products and services. In the realm of accessible EV charger programs, it serves as a marker of exemplary accessibility compliance achievement.

Kitemark certification confirms that a product or installation's claims have undergone independent and repeated testing by experts. This means that you can place trust and confidence in products and installations that are Kitemark certified.



The BSI Kitemarks for accessible EV charging and accessible-ready equipment are designed to reassure consumers. Their presence indicates that the product or installation has been assessed against the PAS 1899 standard, as well as elements of electrical safety. Additionally, it signifies the installer's commitment to continuously maintaining the accessibility of parking spaces.

Gain peace of mind with independent certification

Independent and impartial certification is an effective method for demonstrating compliance with the requirements of PAS 1899 for both parking space installation and EV charging equipment. To be awarded a Kitemark for accessible EV charging and a Kitemark for accessible-ready EV charger, specific criteria outlined in the certification and defined by the standards must be met.

Certification specifics: explore the certification details

This document has been created to help you understand the specifics of this certification and to identify how BSI will assess your organization and achievements. It includes details of the checklists, which are based on existing standards, protocols, and good practice guidelines that we will utilize.

Additionally, we provide information on managing your ongoing Kitemark certification, along with details about tools available from BSI to assist you in communicating your success with both customers and consumers.

2. PAS 1899 Certification Specification

PAS 1899 is a document that outlines best practices for delivering inclusive and accessible public charge points for electric vehicles (EVs) for designers, procurers, and installers. With an increasing number of individuals transitioning to electric vehicles, it's crucial that charge points are accessible to all, including those with disabilities.

The specification addresses various aspects, including the physical environment surrounding fixed charge points (e.g., kerb height, ground type), the location and placement of charge points within the streetscape/public realm, information provision to users, and factors to consider in designing accessible charge points (e.g., height, cables, cable management systems, bollard spacing, screen colours, equipment weight, force required, and ease of use).

PAS 1899 aims to support the development of an inclusive EV charging infrastructure in the UK. Consequently, it assists designers, producers, and installers in:

- Anticipating and overcoming restrictions and barriers hindering any user from fully utilizing the charge point independently.
- Fostering innovative practices.
- Enhancing the efficiency of EV charge point deployment.
- Instilling confidence in the accessibility and inclusivity of EV infrastructure.
- Reinforcing risk management in EV projects.
- Key requirements of PAS 1899 include:

Additional recommendations for accessibility

While not integral to the core requirements of PAS 1899, several additional recommendations are vital for ensuring the accessibility of EV parking infrastructure. These encompass signage, lighting, security cameras, and provisions for voice and tactile information and assistance.

For comprehensive details on these recommendations, please refer to annexes A-D and F of PAS 1899:2022.

Requirements for accessible EV equipment manufacturers and designers:

- Emphasis on the height and dimensions of components, force required to pull out the charger holder or socket, weight and manoeuvrability of the charging cable, interface tilt, and associated digital platforms. Basic requirements for electrical safety are referenced according to the BS EN IEC 61851 series of standards – electric vehicle conductive charging system. For comprehensive details, please refer to clause 5 and clause 8 of PAS 1899:2022.
- Coverage of both tethered and non-tethered charge points, along with those that can be attached to existing street furniture (e.g., lamp post charge points, bollard or pillar charge points), as well as wall-mounted and dual-socket charge points used in car parks or on-street locations.

Requirements for procurers of public charge points such as installers, landowners, leaseholders, and planners:

- Placement of charge points relative to individual parking bays, ensuring sufficient space surrounding the charge point and vehicle.
- Consideration of bollards and impact protection spacing and placement.
- Evaluation of the physical environment, including kerb height, location, and dropped kerb placement.
- Assessment of bay sizes.
- For detailed information, please refer to clauses 6, 7, and 8 of PAS 1899.
- Selection of a chargepoint that complies with clause 5.



3. Kitemark Certification Specification

Based on the requirements of PAS 1899, BSI developed an assessment certification to assist the industry in advancing and driving the adoption of new EV technology across the disabled users' community. The Kitemark certification offers a holistic approach to disabled parking bays, ensuring not only compliance with the bay itself but also with the electrical safety requirements outlined in PAS 1899. The BSI Kitemark certification has been endorsed by the Motability Foundation.

BSI Kitemark for Accessible Charging Bays

The Accessible Charging Bays Kitemark looks at the design of the parking bay. Users of a public charge point, including disabled users should be able to access the EV charger and its components such as the charging cable, the socket-outlet and payment screens without physical barriers or obstructions.

The Accessible Charging Bays Kitemark focuses on clauses 6 and 7 of PAS 1899. Clause 6 addresses the charge point placement and sets out guidelines for the space surrounding the charge point, ground surface and physical barriers such as bollards or impact protection barriers. Clause 7 considers the streetscape around the charge point.

The environment around the charger needs to be accessible to everyone including disabled users. Street furniture such as post boxes, street lights and pillars can present accessibility challenges to disabled people. Level access points and drop kerbs can also cause further barriers to the usability of charge points.

The Accessible Charging Bays Kitemark is primarily aimed at Charge Point Operators (CPO's) and will assess bay design, installation and ongoing maintenance of the sites.

The BSI Kitemark for Accessible Ready Chargers

The certification is aimed at EV charging equipment to ensure that these meet the requirements of the PAS 1899 for:

- Physical charge point design (clause 5)
- Digital platforms and information provision (clause 8)

Manufacturers and designers can apply for the accessible programme as a stand-alone product or as an add-on to the existing Kitemark certification for EV chargers.



3. Kitemark Certification Specification

Do you manufacture chargepoints?

The table below presents some information on the requirements that must be met to fulfill the compliance criteria of the standard. *Please note, this is not a comprehensive overview of the entire standard. It is intended to provoke thought regarding the standard.*

PAS 1899 Standard clause	Standard requirement	Considerations
Clause 5.2	The socket/handle height must be between 800mm and 950mm	<ul style="list-style-type: none"> • Where is the socket-outlet located on the charger? • Is it tethered or untethered? • Is it accessible from a standing or seated position?
Clause 5.2 Clause 5.5	The height of the bottom edge of the payment terminal must be between 800mm and 1 000mm	<ul style="list-style-type: none"> • Is the payment terminal accessible/visible from a standing or fully seated position? • Is the terminal adjustable? • Can the text be seen?
Clause 5.3	The free cable must be a maximum of 7.5m long unless supported by the cable management system. 60N force in hand requirements for charge point connector, and linear force with cable extended. The diameter of the gripping portion of a charge point connector grip or handle is between 19mm and 43mm.	Tethered chargers only: <ul style="list-style-type: none"> • Is cable length sufficient? • Is there a cable storage management system to prevent trip hazards when in use/not in use?
Clause 8	Requirements for suitable information and back-office support to be available for a range of users.	<ul style="list-style-type: none"> • Are digital platforms suitable for a range of users? • Do they provide sufficient information for the user?
Clause 8	Content must be accessible to a broad range of users, including font size, colours, contrast, and layout.	<ul style="list-style-type: none"> • Are payment systems and digital platforms associated with charge point accessible to a range of users?

3. Kitemark Certification Specification

Are you involved in designing accessible parking spaces?

The following should be considered in your site design. Each design and site are unique; therefore it is crucial that care and attention is given to all relevant clauses of PAS 1899:2022.

Standard	Standard refined	Considerations
Clause 6.2	A minimum space of 1200mm shall be provided in front of the points of access to all charge point components enabling access space for straight line movement in front of and passed the points of access.	<ul style="list-style-type: none">• Components include the socket-outlet, charging cable/connector, screen/visual interface and payment terminal.• Is the parking bay off street or on-street?
Clause 6.4	All charge point components shall be at a reach distance not exceeding 220 with any low level obstacles.	<ul style="list-style-type: none">• Are there any low level obstacles near the site you intend to install the charge i.e. manhole covers, wheels stops, impact protection barriers?
Clause 7.2	Where public charge points are installed in a row in car parks or in the same bank of on street parking, bays a minimum space of 1200mm shall be provided between charge points.	<ul style="list-style-type: none">• If there are several charge points placed in a row, is there sufficient space between them?



4. Assessments

Locations and testing regimen

In the application process, BSI will determine audit locations as a representative sample, along with product or location assessment requirements. All selected locations within the Kitemark scope will undergo visits within a three-year period.

Stage 1

During a stage 1 review, BSI will conduct an evidence-gathering assessment to ensure compliance with the requirements of this certification, including relevant clauses of PAS 1899, depending on the program. This stage aims to confirm that the organization comprehends the standards' requirements and has adequately implemented them to advance to stage 2.

Stage 2

Stage 2 confirms that your management system is fully aligned with the standard and operational within your organization. We will assess the implementation and effectiveness, and provide a recommendation for your formal certification. Stage 2 comprises two parts:

Quality Management System (QMS) Audit:

- On-site review and completion of any missing data sections.
- Demonstration of clear monitoring, measuring, reporting, and reviewing of your system against key performance objectives.
- Review of quality management systems, internal audit, and document control.

Site audits

- A sample of EV charging sites will be audited to ensure conformity to the standard.

Technical Review

After completing the assessment activities and BSI producing the assessment report, an independent technical review shall be conducted by BSI before issuing a Kitemark certificate. The purpose of this technical review is to assess whether:

- Sufficient and appropriate evidence has been gathered to issue the Kitemark certificate.
- Verification activities have been completed in accordance with the contract and criteria of the program.
- BSI procedures have been followed according to the program requirements.

Annual Surveillance

A continuous annual visit (CAV) is a requirement of this certification program. The objective of CAV is to ensure continued compliance with the requirements of this program, both through annual audit of QMS system and ongoing audits of EV charging sites.

NCR Close-out Visits:

If a major non-conformity is raised during a stage 2 or surveillance assessment, an additional close-out visit will be required. During this close-out visit, the effective implementation of corrective actions will be reviewed.

Following a major non-conformity, the next surveillance assessment will be an unannounced visit and will take place within six months of the previous surveillance assessment. If no major non-conformities are raised, then the program will continue as scheduled.



5. Certification

Following a successful initial assessment, the organization will be awarded the Kitemark certificate, enabling them to display the Kitemark. It's recommended that organizations achieving Kitemark certification prominently display the BSI Kitemark lozenge along with an accompanying QR code or web link on their product / installation and online listing to showcase their achievement. Customers can verify the validity of this certification through the BSI certification and verification online directory.

Furthermore, organizations that achieve certification will gain access to a marketing tool kit from BSI to help promote their accomplishment. Additionally, they will receive access to the BSI Portal, providing a convenient way to interact with BSI as their certification body.

With 24/7 access to essential information such as the next 12 months of visit dates (unless they are unannounced), audit reports, and certificates, the portal offers excellent support for effectively managing BSI assessments.

The certificate may be suspended immediately under the following circumstances:

- If a major non-conformity is raised during a surveillance visit. The certificate can be reinstated upon closure of the major non-conformity through a corrective action plan (CAP) and a non-conformity review (NCR) close-out visit.
- If changes are made to the product or bay design without BSI approval.
- If the contract is breached.



Endorsed by the Motability Foundation

Barry Le Grys, Chief Executive of the Motability Foundation, expressed:

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After an extensive application process, we're delighted to award BSI with our endorsement for their accessible EV charging assessment program. We know from our engagement with industry that providers and manufacturers, in particular, are keen to have a way of checking if their charge points conform with the PAS 1899 standard. These Motability Foundation endorsed programs will provide that service, and we know that both AccessAble and BSI Assurance have the expertise and knowledge to provide a robust and fair assessment process.

Engaging with an assessment program will allow providers of public EV charging to demonstrate their commitment to accessibility. It will also help to increase the number of accessible charge points, supporting disabled people with the transition to EVs."



6. Opportunities with the Kitemark™

Demonstrated Commitment to Accessibility:

Certification with BSI showcases your organization's dedication to ensuring accessibility for all individuals, including those with disabilities. It demonstrates to customers and stakeholders that you prioritize inclusivity in your products and services.

Enhanced Credibility and Trust:

BSI certification adds credibility to your accessible charging solutions. It signifies that your products and bays meet internationally recognized standards for accessibility, instilling trust among customers, partners, and regulatory bodies.

Compliance with Industry Standards:

BSI certification ensures that your accessible chargers and charging bays comply with industry standards, including PAS 1899. This helps you stay ahead of regulatory requirements and demonstrates compliance with best practices in the field.

Competitive Advantage:

Certification with BSI gives you a competitive edge in the market. By prominently displaying the BSI Kitemark, you differentiate your products and services from competitors, attracting customers who prioritize accessibility and quality.



Access to Marketing Support and Resources:

Upon certification, you gain access to marketing support and resources from BSI. This includes promotional materials, use of the BSI Kitemark logo, and inclusion in BSI's online directories, helping you effectively communicate your commitment to accessibility to a wider audience.

Maximizing your investment:

Implementing best practices from the start makes it easier to upgrade and expand EV infrastructure as technology evolves. This forward-thinking approach can maximize the return on investment and keep your business competitive in the long term.



7. Why partner with BSI?

For over 100 years, we have driven best practice in business around the world. With more than 90 offices in 30 countries we reach over 86,000 clients, supporting them to develop a resilient organization.

We bring together the collective wisdom of over 11,000 experts to generate best practice for business. And using this knowledge and experience we ensure our assessors are trained to deliver leading certification services to you. We assess whether your processes, procedures and products meet recognized international standards, many of which we have helped develop.

Assessment services with BSI provide reassurance that you're robust and focused on continual improvement. Our assurance marks demonstrate to your stakeholders that you are committed to best practice and delivering value to them.

We will continue to visit you on a regular basis to assess whether you continue to conform and are still working to the best practice frameworks outlined by the standard or scheme. Your planned visit dates, close out actions from your assessments and previous reports can be viewed and accessed via our BSI Connect Portal.

Plus the latest assurance marks and marketing guidance is also available to help you promote your success and show your commitment to business improvement.

You'll feel reassured selecting BSI as your provider, as we are also independently evaluated for our competence and performance capability to ensure we deliver the best for our clients.

The benefits of BSI certification

- We carefully match our assessors' industry experience to your particular needs, so they have the right in-depth knowledge to understand your challenges.
- You'll get access to our BSI Connect Portal – giving you 24/7 access to your essential BSI assessment information.
- You will be guided through the assessment process – our advisors will support you and engage with our technical specialists for any complex queries that arise.



Matt Page, Managing Director UK and Ireland, Assurance at BSI, emphasized:




Encouraging a greater uptake of electric vehicles by ensuring they are accessible to all is key to helping to drive the transition to a net-zero economy. BSI is delighted to partner with Motability and for them to endorse the accessible EV charging assessment program. Building on the introduction of last year's specification, this offers the opportunity to ensure that charging point providers and manufacturers continue to improve accessibility for all.

This can help guarantee the transition to an electric vehicle society is one that is just and inclusive, and ultimately accelerates progress towards a sustainable world."



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