

FAST AND EFFECTIVE GRID INFRASTRUCTURE UPGRADES FOR MOTORWAY EV CHARGERS

EV_POWERSUB, THE FIRST COMPACT, PLUG AND PLAY 36KV SUBSTATION

Accelerating the drive to Net Zero

The creation of high capacity, ultra-rapid charging infrastructure across the UK's motorway network is a key enabler for the transition towards all-electric cars. The governments project rapid has identified over 100 strategic motorway locations that will need to provide high capacity and ultra rapid charging points by 2023.

In response to the significant grid infrastructure challenges that the electrification of transport is presenting, BRUSH Power Distribution has developed the first medium voltage containerised substation for high capacity rapid EV charging.

The EV_PowerSub is a compact, prefabricated substation solution with 36kV – 12 kV Switchgears in a container. Developed in conjunction with a major UK DNO, EV_PowerSub provides significant cost and deployment time savings helping network operators, contractors and motorway services areas (MSA's) to complete upgrade projects faster and more cost effectively.

At a glance

- Plug and play solution
- Designed by BRUSH - Expert in Switchgear and transformer technology
- Lower cost compared to conventional solutions
- Quick on site installation with prefabricated compact containerised solution
- Competitive lead times
- Single supply source and simplified project management
- Reduces risk of onsite failures due to human error and contingency cost
- Supported by BRUSH expert services teams

Fast charging motorway infrastructure is critical

£950m

Government committed over the next 5 years to support the rollout of ultra rapid charging

30 miles

Project Rapid is to ensure motorists are always within of an ultra rapid charging station over the strategic road

2023

Project Rapid targets six ultra rapid, open access charge points at motorway service areas by

110

sites across England's strategic road network part of Project Rapid

2500

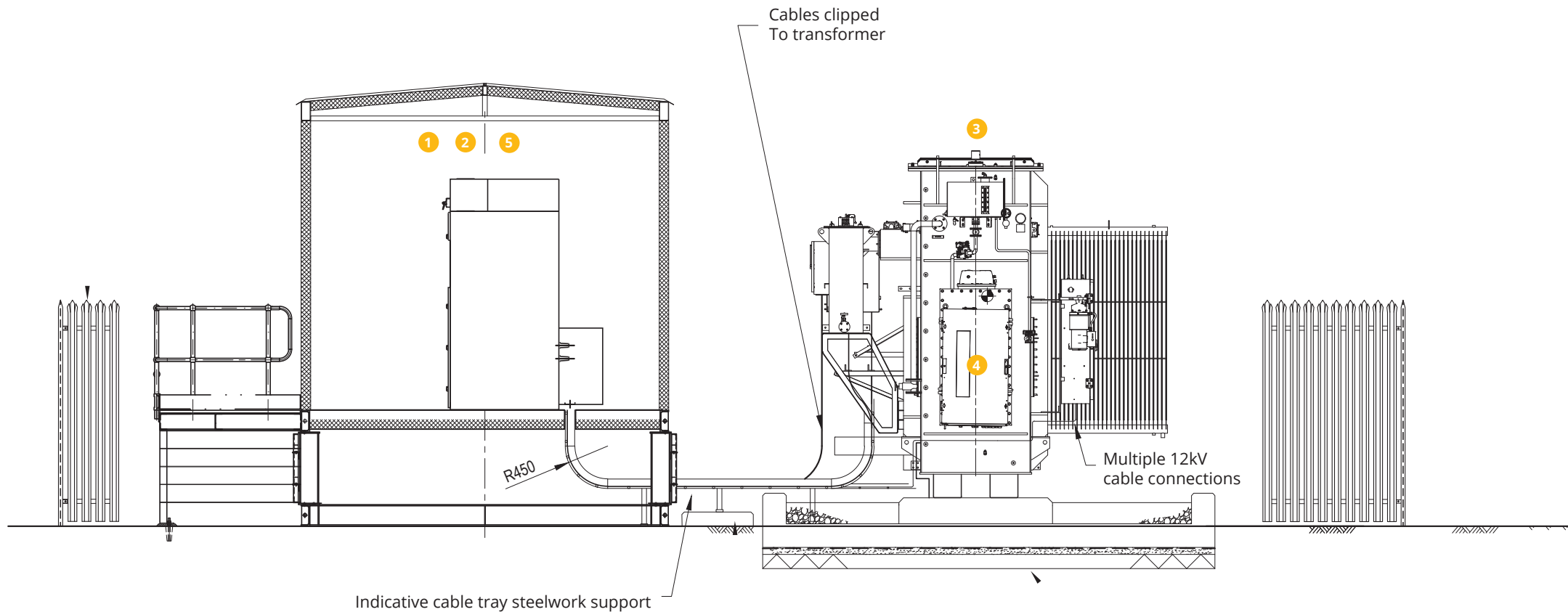
total number of charge points across the motorway network by 2028

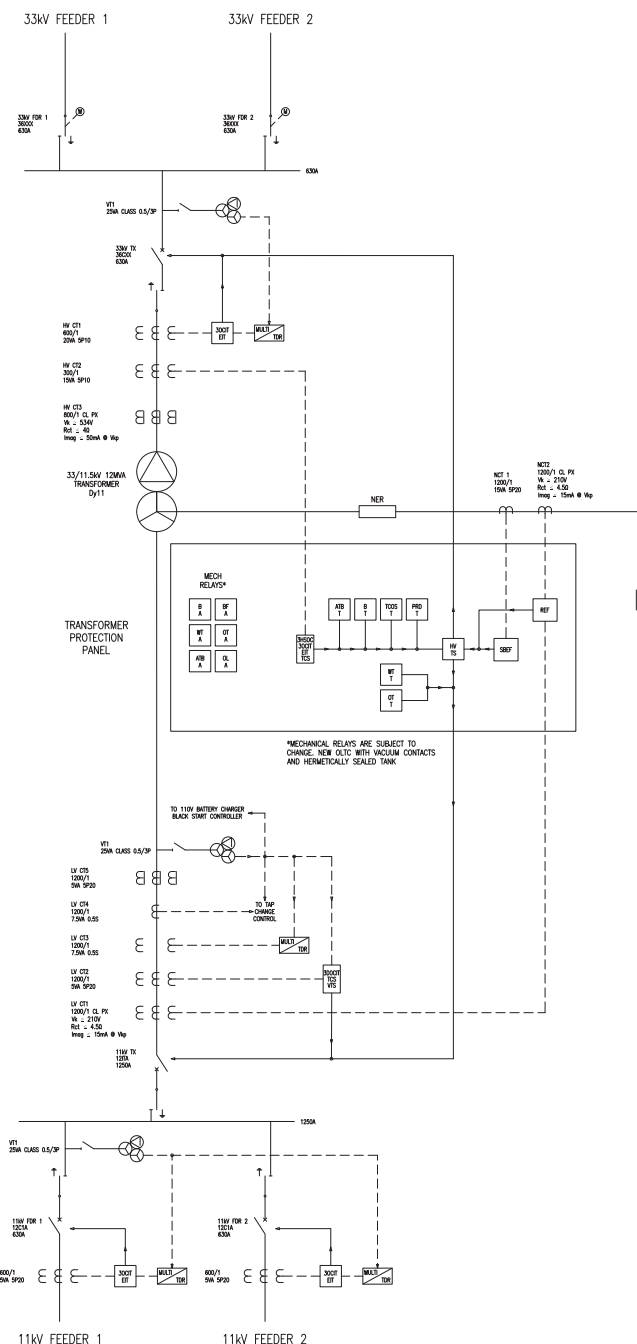
6000

total number of charge points across the motorway network by 2035

Technical Features:

- 1 36kV 630A Switchgear : 3 Panels/ RMU
- 2 2 x 630A and 1x 1250A, 12kV Quantum/ Eclipse Switchgear
- 3 36/12kV, 7.5MVA to 20 MVA Midel filled transformer
- 4 VBO: On load Vacuum tap changer
- 5 Protection, control, and condition monitoring panel





Why choose BRUSH?

Quality:

BRUSH are accredited to ISO9001, ISO14001 & ISO45001, Quality & HSE standards are adhered throughout all BRUSH integrated processes. We are also compliant with RISQS and Achilles for peace of mind.

Safety:

All switchgears are internal arc rated in accordance with IEC 62271-200

Type Test:

All Switchgears and Transformers are type tested to IEC standard

Approvals:

All Switchgears and Transformers are ENA accessed and approved by UK DNO's

Testing and pre commissioning:

The complete solution is extensively tested at BRUSH facilities to ensure the site related risk are reduced to a minimum.

Onsite installation services:

Just in time delivery and onsite installation service by BRUSH's highly skilled services team

Contact us to see how we can help you achieve your target of becoming Net Zero faster.

sales@brush.eu

"With the clock ticking on the UK's race to hit net zero carbon emissions, we cannot afford to delay in building a clean energy infrastructure that will help power our transport emissions-free"

Jonathan Brealey
Chief Executive
Ofgem