

GRP Cubicle for a Trackside Location, Double-sided and Equipped

We have recently been involved in a rail project where an outdoor cubicle was required to house (i) a 100A rated DNO service head, (ii) a 1:1 ratio, 20kVA isolation transformer to provide separation between the DNO and traction supplies and (iii) switchgear, including a Network Rail approved DC Immune RCD, to supply various loads including a TP Hut and Level Crossing Lights. There was also the requirement for the outer enclosure to be made from GRP. A GA drawing of the complete assembly is shown on page 2.

The outer enclosure is constructed in accordance with Network Rail requirements and incorporates two fully segregated compartments: the rear compartment is supplied unequipped, apart from a thermostatically controlled heater, light and a marine plywood backboard, on which the DNO service head, CT chamber and meter are to be mounted.

The front compartment is equipped by us with switchgear, fusegear, a bus bar chamber and Network Rail approved transformer. Tails are incorporated for connection to the rear DNO section (connection by others). The tails are terminated in the front section in a 100A DC Immune variable RCD. The RCD supplies a 1:1 ratio 20kVA transformer, which in turn feeds a number of outgoing switch fuses, via a bus bar chamber. A small power distribution board is also incorporated to supply thermostatically controlled heaters and lights within both sections. See page 2 for a schematic diagram.

Our heavy duty, GRP cubicles are designed for permanent outdoor installation in a hostile environment, where the non-conductive, insulated construction brings benefits of corrosion resistance and avoids the risk of any dangerous touch voltages in electrified areas. Enclosures are constructed from glass fibre encapsulated plywood with timber strengtheners. They are designed to withstand wind loading to BS6399: part 2 and snow loading (on the roof) of 2.5kn/m² (254kg per m²). They meet the requirements of BS476: part 7 class 1 (surface spread of flame and retention of stability and integrity). Ingress protection is to IP54 (excluding vents). The interior is finished in an off white resin wash and external surfaces are finished in a matt non-reflective paint, shade Goose Grey.

Each compartment is fitted with outward opening double doors with 3 point locking mechanisms and a padlockable handle. Door stays hold doors open at 90° or 180°. Hinges are stainless steel with tamper proof screws.

If you have a possible requirement for a GRP cubicle, whether equipped or unequipped, for a Rail Project or for any other application, please contact our Projects Team who will be pleased to assist.

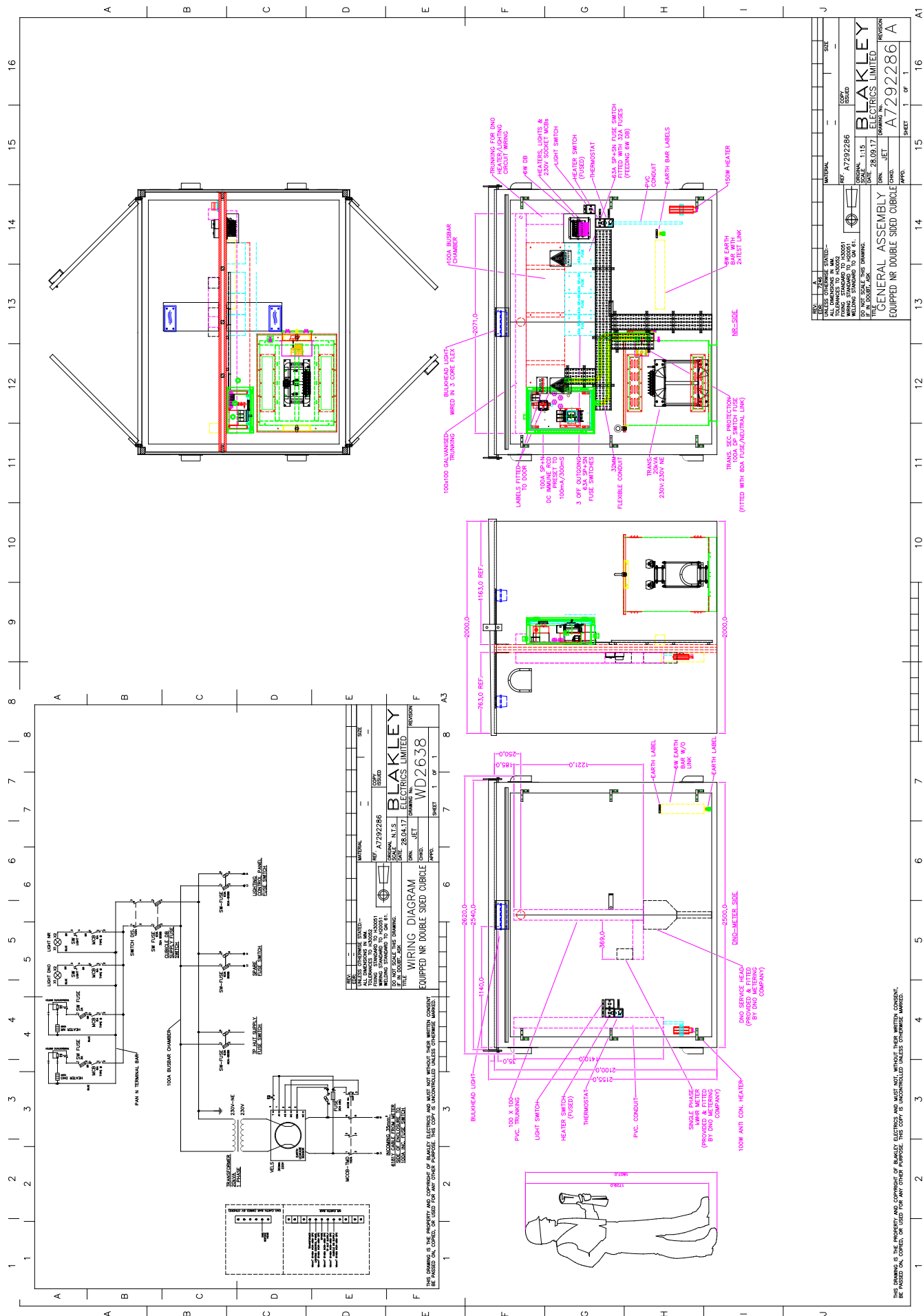


Equipped, double-sided cubicle, part no. A7292286



Images above and below show the front compartment with 1:1 ratio transformer, DC Immune RCD, bus bar chamber and outgoing switchgear. Tails are incorporated for connection to the DNO supply located in the rear.





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