

**Certificate No. NESA-S059**

**Version No. 1.1**

**Approval date** 14/12/2020

**Approved by** GM Technical Standards

*This certificate is issued to*

**Supplier** Victron Energy

*In respect of*

**Manufacturer** Victron Energy

**Product description** Victron Energy SmartSolar Charge Controller and Smart Charger

**Item identification** See Approved Item List

**Application** ARTC Network wide

**Relevant Standards** ESD-09-01 – Signalling Power System  
SPS 02 – Environmental Condition  
SPS 22 - Power Supply Units for Signalling Equipment – General Requirement

**Conditions of Approval**

- a) For use in accordance with ARTC signalling standards and applicable Australian Standards.
- b) Project to ensure that solar power system solution has been agreed with local signal engineers and business unit.
- c) Project to ensure that reliability, availability and maintainability of the proposed application is similar or better than the existing power supply arrangement.
- d) Designer to ensure that solar power design and calculation are as per Australian standards.
- e) Designer should minimise the single point of failure in the design and ensure no new risks are being introduced which may result in train delays or safety of train operations.
- f) Installation, commissioning and servicing shall be carried out as per manufacturer recommendation defined in the technical manual and applicable ARTC and Australian standard.
- g) Project to arrange the training for ARTC signalling maintenance staff.
- h) SmartSolar Charge Controller installed within type B4 equipment housing as defined within SPS02 to have additional shading structures provided to limit solar heating affects.
- i) Victron Blue Smart Charger installed within type B2, B3 and B4 equipment housing as defined within SPS02 to have additional shading structures provided to limit solar heating affects.
- j) The SmartSolar Charge Controller MPPT must be mounted vertically to ensure passive cooling is affective.

## NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

- k) Equipment must be housed in suitable enclosures to ensure protection from liquids (rain).
- l) Only items listed in approved items list shall be utilised.

*A general condition of approval is that the supplier remains accredited to ISO 9001 specifically for these products and ARTC is advised on a 12 monthly basis that accreditation is current. ARTC reserves the right to conduct its own audit of the manufacture and supply of these components to AS 19011.*

*Any subsequent change to the design, materials or manufacturing process is not covered by this approval. The manufacturer should notify ARTC of any modification or changes in order to obtain a valid certificate.*

**Note/Comments**

**NIL**

**Issue date**

14/12/2020

**Issued by**

**Mayank Jain**

**Manager Signalling Standards ARTC**

List of Items
Victron SmartSolar Charge Controller 150/100 VE.Can
Victron SmartSolar Charge Controller MPPT 150/45
Victron SmartSolar Charge Controller MPPT 150/60
Victron SmartSolar Charge Controller MPPT 150/70
Victron SmartSolar Charge Controller MPPT 150/85
Victron SmartSolar Charge Controller MPPT 150/100
Victron Blue Smart IP22 Charger