

<b>Certificate No.</b>	<b>NESA-S061</b>	<b>Version No. 1.2</b>
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**Approval date** 30 October 2023

**Approved by** Head of Engineering Standards

*This certificate is issued to*

**Supplier** Powerbox Australia Pty Ltd  
4 Beaumont Rd, Mount Kuring Gai, NSW 2080

*In respect of*

**Manufacturer** Schäfer Elektronik GmbH  
Oststraße 17, 77855 Achern, Germany

**Product description** Schaefer Power Supply Equipment

**Item identification** See approved item list

**Application** ARTC Network wide

**Relevant Standards** EN61000-6-4 - Electromagnetic compatibility (EMC) - Part 6-4:  
Generic standards - Emission standard for industrial environments  
EN61000-6-2 - Electromagnetic compatibility (EMC) - Part 6-2:  
Generic standards - Immunity standard for industrial environments  
EN60950 - Information technology equipment - Safety Part 1: General requirements  
EN60529 - Degrees of Protection Provided by Enclosures (IP Code)  
ESS-09-02 – Signalling Power System  
ESS-09-01 – Solar Power Supply Systems  
SPS 02 – Environmental Condition  
ESA-09-05 – DC Power Supply Units and Battery Charger/Power Supplies for Signalling Equipment

**Conditions of Approval**

1. Installation to be in accordance with manufacturers requirements.
2. Derating shall be considered as part of new and modification works.
3. To be installed in locations with ambient temperature no greater than 75°C.
4. Selected items shall be cooled by convection only – no fans or assisted cooling are allowable.

## NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

5. Selection of the most appropriate unit to be undertaken in consultation with technical personnel from Powerbox Australia.
6. Where DC-DC converters are utilised for points power supplies, points shall be sequenced to limit overall loading of DC-DC converters.
7. For use in accordance with ARTC signalling standards.

*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** 30/10/2023

**Issued by**

**Manager Signalling Standards ARTC**

### Approved Item list:

Type	Item	Comments
DC-AC Inverter	Schaefer CI series 1606 DC/AC Inverter	Inclusive of required components to compliment unit such as control card, rack.
DC-DC Converter	Schaefer C3700D Series	
DC-DC Converter	Schaefer C3600D Series	
DC-DC Converter	Schaefer C3800D Series	
AC-DC Power Supply	C1500A Series	
AC-DC Power Supply	C2500A Series	
AC-DC Power Supply	C2600A Series	
AC-DC Power Supply	C3500A Series	
Battery Charger	B1500 Series	
Battery Charger	B2500 Series	
Battery Charger	B2600 Series	
Battery Charger	B3500 Series	