

### Certificate No. NESA-S050

**Approval date** 10/2/2020  
**Approved by** GM Technical Standards  
**Report no.** NESA-S050  
**Report date** 20/12/2019

*P.N. [Signature]*

### *This certificate is issued to*

**Supplier** Pivot Electronics Pty Ltd  
Unit 17, 3 Apollo Street, Warriewood  
NSW, Australia 2102

### *In respect of*

**Manufacturer** Pivot Electronics  
**Product description** Dual Redundancy Surge Reduction Filter  
**Item identification** Refer to Approved Item List  
**Application** ARTC Network Wide  
**Relevant Standards** SPS 02 Environmental Conditions  
SPS 05 Electrical & Electronic Components (Ratings & Construction Requirements)  
ESD-09-01 Signalling Power Systems  
SCP 04 Surge Protection Requirements

### **Conditions of Approval**

1. All labeling shall be permanently affixed, clearly legible, and of a material which will not fade due to weathering over time or repeated handling.
2. Input and Output terminals shall be labelled 'Line 1', 'Line 2', 'Equipment 1' and 'Equipment 2' respectively. The Earth terminal shall be labeled 'Signalling Earth'.
3. A local isolator will be required to be installed in tandem with the SRF unit. This will enable the incoming supply cable to be isolated to allow any maintenance or replacement of the SRD module to be performed.
4. The unit must be fitted with a readily visible label stating the Equipment Serial Number and/or Version Number as appropriate, along with the manufacturer's identification and date of manufacture.

## NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

5. For use in accordance with ARTC specification ESD-09-01 Signalling Power Systems and ARTC signals construction standards.
6. Cable termination suitable for the following sized cables only (to be specified with placing orders):
  - i. Smaller sized cables: 0.2-6mm<sup>2</sup>
  - ii. Standard sized cables: 10-50mm<sup>2</sup>
  - iii. Larger sized cables: 25-90mm<sup>2</sup>
7. The SRF consists of sacrificial units (cartridges) which are not repairable.

*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 updated certificate.*

### Note/Comments

Issue date

10/02/2020

Expiry date N/A

Issued by

Mayank Jain

Mayank Jain

ARTC Manager Signalling Standards

Approved Item List

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Pivot Electronics Part Number	Phase	Nominal Voltage	Rated Current	Cable Size	Conditions of Use
1451 SRF 018 5050	SINGLE PHASE	120V AC	20A	≤50mm EXT, ≤50mm INT	
1451 SRF 019 5050			32A	≤50mm EXT, ≤50mm INT	
1451 SRF 020 5050			63A	≤50mm EXT, ≤50mm INT	
1451 SRF 021 5050			100A	≤50mm EXT, ≤50mm INT	
1451 SRF 001 5050		240V AC	20A	≤50mm EXT, ≤50mm INT	
1451 SRF 002 5050			32A	≤50mm EXT, ≤50mm INT	
1451 SRF 003 5050			63A	≤50mm EXT, ≤50mm INT	
1451 SRF 004 5050			100A	≤50mm EXT, ≤50mm INT	
1451 SRF 005 5050		415V AC	32A	≤50mm EXT ≤ 50mm INT	
1451 SRF 006 5050			63A	≤50mm EXT ≤ 50mm INT	
1451 SRF 007 5050			100A	≤50mm EXT ≤ 50mm INT	
1451 SRF 009 5050		3-PHASE	415V AC	100A	≤50mm EXT, ≤50mm INT
1451 SRF 009 9550	100A			≤95mm EXT, ≤50mm INT	
1451 SRF 010 5050	160A			≤50mm EXT, ≤50mm INT	
1451 SRF 010 9550	160A			≤95mm EXT, ≤50mm INT	
1451 SRF 008 5050	63A			≤50mm EXT, ≤50mm INT	
1451 SRF 014 9595	250A			≤95mm EXT, ≤95mm INT	

Pivot Electronics Part Number	Description	Conditions of Use
<b>REPLACEMENT CASSETTES</b>		
<b>1451.SRF.013</b>	SRF Cassette Red 3-Phase 415V 160KA	
<b>1451.SRF.012</b>	SRF Cassette Black 1-Phase 240V 160KA	
<b>1451.SRF.025</b>	SRF Cassette Yellow 1-Phase 120V 160KA	
<b>1451.SRF.014</b>	SRF Cassette Blue 1-Phase 415V 160KA	