



AUSTRALIAN RAIL TRACK CORPORATION

Certificate No.: **S 05-09-05-089**

NEW EQUIPMENT & SYSTEM APPROVAL CERTIFICATE

Approval date: 25 November 2014

Approved by: Review Panel

Report no.: TAR-05-09-05-089b

Report date: 18 November 2014

This certificate is issued to:

Supplier: **Exelectronics**

In respect of:

Manufacturer: **Enatel**
PO BOX 22-333,
Christchurch,
New Zealand

Product description: **ENATEL RW300-RW700 SERIES WALL MOUNT RECTIFIER POWER SUPPLY & BATTERY CHARGER**

Item identification: **SEE APPROVED ITEM LIST**

Application: Power Supply & Battery Charger

Relevant Standards: SPS 02 - 'Environmental Conditions'
SPS 22 - 'Power Supply Units for Signalling Equipment - General Requirements'
SPS 34 - 'Lightning/Surge Protection - Inductor/Varistor Panel'
SPS 37 - 'Lightning/Surge Protection - Power Inductors'
SDS 25 - 'Signalling Circuit Design Standards'

Conditions of Approval:

1. For installation only in equipment housings having active or passive mechanical ventilation and/or climate control designed to keep the ambient temperature below manufacturer's stated maxima.
2. Any input or output connections to circuitry which runs external to the equipment housing must be protected by adequate surge filters including series inductors (as per ARTC specification SPS 37) and triggered spark gaps from line to earth.
3. May only be used for charging batteries supplying road level crossing protection where all road warning lamp units are of the LED variety and battery voltage is restricted to 12V (sic. boom barrier mechanism spec.).
4. Signalling bus loads must be supplied via the output terminals designated 'Load' on the side of the rectifier unit.
5. Battery charging loads must be supplied via the output terminals designated 'Battery' on the side of the rectifier unit.
6. Plug connectors for mains input and battery output terminations shall utilise screw terminal technology suitable for conductors up to 2.5mm².
7. For use in accordance with ARTC specification SDS 25 and standard typical circuits only modified as required to ensure surge protection (see ii above) and to take advantage of the dual channel capabilities where required.
8. Only components from the accompanying list may be utilised.
9. For use only in locations with a stable primary AC power supply source. The installation should be protected by PSU conditioners or UPS in territories where SWER or a similarly unstable power source is utilised

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 shall notify ARTC of any modification or changes in order to obtain a valid certificate.


Note/Comments: None

Issue date: 25 November 2014

Expiry date: N/A

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Issued by:



John Furness
ARTC Manager Standards

NEW EQUIPMENT & SYSTEM APPROVAL - APPROVED ITEM LIST

Product description: **ENATEL RW300-RW700 SERIES WALL MOUNT RECTIFIER
POWER SUPPLY & BATTERY CHARGER**

Certificate No: **S 05-09-05-089**

The following lists the individual types (by catalogue number) of RW300 – RW700 Rectifiers manufactured by Enatel which are type approved for use in signalling circuits on ARTC infrastructure under Type Approval Certificate **S-05-09-05-089** subject only to any conditions shown on that Certificate and the Conditions of Use shown against individual types.

Model No.	ARTC (& SRA) Identity	Description	Conditions of Use
RW312U-20	DC802 (Store 74)	12V, 20A	♣ Maximum Voltage 15V
RW348-U-20	DC805 (Store 96)	50V, 6A	¶ Maximum Voltage 60V
RW512U-20	DC803 (Store 74 – 30 A)	12V, 35A	♣ Maximum Voltage 15V
RW624U-20	DC804 (Store 86)	24V, 22A	Maximum Voltage 30V (1.5V per cell, 20 cell NiCad battery)
SM11	N/A	Supervisory Monitor Panel	An individual panel may only monitor rectifiers feeding a single battery or busbar.
ACA-TC2U	N/A	Temperature Compensation cable 2m	
ACA-TC7U	N/A	Temperature Compensation cable 7m	
ACS-S150	N/A	Current Sensor shunt assembly	

♣ Suitable only for batteries of up to 10 NiCad (1.2V) cells, not suitable for chargers at Level Crossings where extra cells are used.

¶ Nominal voltage 48V, adjustment required to match '50V busbar' and installed battery voltage.