

Product Type Approval Certificate

Restricted

This certificate is issued to:

Supplier name and address:	Schneider Electric Australia Pty. Ltd 78 Waterloo Road, Macquarie Park, New South Wales 2113
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In respect of:

Manufacturer:	Schneider Electric
Country of manufacture:	Germany
Product description:	<p>Switchgear model: GMAe</p> <p>11kV Gas Insulated Switchgear (GIS), insulated and screened single busbar, rated short time withstand current 31.5kA for 3 seconds, complete with:</p> <ul style="list-style-type: none"> • vacuum interrupters • 1250 A busbar • 1250 A bus-tie circuit breaker • 630 A circuit breakers (feeder, system transformer, harmonic filter) • AFLR internal arc classification (31.5 kA for 1 second) • Rated operating sequence: O - 3min - CO - 3min - CO • SCADA controlled switchgear • 11kV voltage transformers (busbar & system transformer) • Either protection installed on the low voltage cabinet switchgear panels or separate protection and control panels (PCP). Sydney Trains shall be consulted on the proposed configuration. <p>Manufactured to TfNSW standard <i>TS 03760:2.0 11kV AC Indoor Switchgear – SCADA Controlled</i></p>
Use approved for:	Use on the Sydney Trains 11 kV AC network

<p>Conditions of approval:</p>	<p>This is a restricted type approval, see the limitations section of this certificate.</p> <p>The protection requirements for a specific substation shall be in accordance with the approved protection concept.</p> <p>A typical set of drawings (Wolli Creek Junction Traction Substation) are as follows.</p> <p>These drawings represent the control circuitry and HV protection scheme implementation which is standardised for the Sydney Trains network.</p> <ul style="list-style-type: none"> • EL0794518 SCHNEIDER 11KV GMA SWITCHGEAR, GENERAL ARRANGEMENT • EL0794519 SCHNEIDER 11KV GMA SWITCHGEAR, SYMBOLS LEGEND • EL0794520 SCHNEIDER 11KV GMA SWITCHGEAR, FEEDER 689, PROTECTION AND CONTROL SCHEMATIC DIAGRAM • EL0794522 SCHNEIDER 11KV GMA SWITCHGEAR, 33/11KV TRANSFORMER, PROTECTION AND CONTROL SCHEMATIC DIAGRAM • EL0794524 SCHNEIDER 11KV GMA SWITCHGEAR, FEEDER 622, PROTECTION AND CONTROL SCHEMATIC DIAGRAM • EL0794526 SCHNEIDER 11KV GMA SWITCHGEAR, BUS-TIE 1-2, PROTECTION AND CONTROL SCHEMATIC DIAGRAM • EL0794528 SCHNEIDER 11KV GMA SWITCHGEAR, BUS-TIE 2-1, PROTECTION AND CONTROL SCHEMATIC DIAGRAM • EL0794530 SCHNEIDER 11KV GMA SWITCHGEAR, FEEDER 688, PROTECTION AND CONTROL SCHEMATIC DIAGRAM • EL0794532 SCHNEIDER 11KV GMA SWITCHGEAR, FEEDER SPARE, PROTECTION AND CONTROL SCHEMATIC DIAGRAM • EL0794534 SCHNEIDER 11KV GMA SWITCHGEAR, FEEDER 690, PROTECTION AND CONTROL SCHEMATIC DIAGRAM • EL0794536 SCHNEIDER 11KV GMA SWITCHGEAR, INTERPANEL WIRING DIAGRAM • EL0794537 SCHNEIDER 11KV GMA SWITCHGEAR, COMMUNICATIONS WIRING DIAGRAM • EL0794538 SCHNEIDER 11KV GMA SWITCHGEAR COMPONENT LIST <p>The type approved 11 kV cable screened separable connectors are the Raychem RSTI series and the associated RSTI screened</p>
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	coupling connectors where multiple cables are required on one bushing.
Limitations:	<p>The following restrictions are in place:</p> <ol style="list-style-type: none"> 1. The requirements of <i>TS 03760:2.0 11kV AC Indoor Switchgear – SCADA Controlled</i>, section 8 regarding the use of switchgear with SF₆ shall be complied with. 2. Compliance with the above requirement and approval from the Director Energy Networks & Systems, AMB is required prior to procurement.

Evaluating rail transport operator

Name:	Lidija Dumbaloska
Position:	Director Energy Networks & Systems AMB, Transport for NSW
Signature:	<i>L. Dumbaloska</i>
Date:	15/08/2024

Product approval pack, objective reference number: qT700879