

Product Type Approval Certificate

Withdrawn

This certificate is issued to:

Supplier name and address:	Mitsubishi Electric Corporation 348 Victoria Road, Rydalmere NSW 2116.
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In respect of:

Manufacturer:	Mitsubishi Electric Corporation
Country of manufacture:	Japan
Product description:	<p>66kV GIS switchgear, 31.5kA for 1s, complete with</p> <ul style="list-style-type: none"> • 2,500A busbar • Circuit breakers, model 70-SFMT-40CJ (630A feeder & rectifier transformers, 1250A bus-tie) • SCADA controlled combined disconnecting and earthing switches (each side of ACCB's) • SCADA controlled fault making earth switches (feeder, rectifier transformers and busbar) • 66kV surge arresters (located on feeders) • 66kV voltage transformers (busbar) • Separate local control panels (LCP) <p>Separate protection and control panels (PCP)</p>
Use approved for:	Withdrawn.
Conditions of approval:	<p>The decision to use this switchgear at a substation depends on numerous factors including financial, operational and safety. Where a new substation is proposed the factors that need to be considered and assessed to determine the use of indoor GIS switchgear vs an outdoor high voltage yard include:</p> <p><i>Financial factors:</i></p> <ul style="list-style-type: none"> • Capital cost of equipment • Cost of land as there is a reduced overall substation

	<p>footprint required compared to traditional outdoor yard with exposed busbar arrangement</p> <ul style="list-style-type: none"> • Cost of larger substation building vs outdoor yard • Lifecycle maintenance costs <p><i>Safety factors:</i></p> <ul style="list-style-type: none"> • No exposed high voltage conductors • Interlocked earthing and integrated earthing switches <p><i>Operational factors:</i></p> <ul style="list-style-type: none"> • Negligible vandalism risk & hence increased operational reliability • Low risk of HV faults compared to exposed busbar. • Interlocked earthing and integrated earthing switches • Criticality of the location within the network • Exposure to lightning <p>With an existing substation that requires partial replacement of existing infrastructure the use of 66kV GIS switchgear would not normally be financially justifiable.</p> <p>However in unique circumstances operational and safety factors could drive the requirement for installation of 66kV GIS.</p>
Limitations:	This type approval has been withdrawn.

Evaluating rail transport operator

Name:	Lidija Dumbaloska
Position:	Director Energy Networks & Systems AMB, Transport for NSW
Signature:	<i>L. Dumbaloska</i>
Date:	28/08/2024

Product approval pack, objective reference number: qT529746