

## GRITEC

# Stainless Steel Enclosure designed for Siemens 8DJH 12/24 kV Switchgear



### 1. Introduction

HV Power and GRITEC have designed a new stainless steel outdoor enclosure for New Zealand and Australian customers. It is manufactured in Germany and type-tested with Siemens 8DJH 12/24 kV switchgear for safe arc-fault performance.

### 2. Experience

Founded in 1963, GRITEC has been a pioneering force in infrastructure and technical building manufacturing for over 63 years. They specialise in serving sectors such as electricity, gas, water, renewable energies, rail, e-mobility and industry.

GRITEC excels in the development, production and distribution of technical buildings, spanning from compact, enclosed switchgear/transformer substations to expansive, accessible structures assembled from multiple modular units.

Their workforce comprises roughly 1100 employees stationed across multiple sites in Germany and other locations.

### 3. The enclosure

To ensure longevity, the outdoor enclosure is crafted from stainless steel, then coated in network equipment green (RAL6020) to reduce glare. The doors boast a double-point locking system for added durability, and standard padlocks can be attached for security. Smaller enclosures feature double doors for convenient access to the Siemens switchgear, while larger enclosures feature three doors.

### 4. The concrete base

Pre-cast concrete bases feature four lifting eyes, enabling seamless transportation and installation of the entire unit in a single lift.

### 5. Cable penetrations

The concrete base enables cables to emerge beneath the switchgear with gland plates at the enclosure's base to reduce the ingress of foreign objects or vermin and to uphold the IEC-tested safety venting.

### 6. Standards and testing

IEC 62271-202 delineates the operational conditions, rated specifications, general structural prerequisites, and testing procedure for cable-connected prefabricated substations (including walk-in and non-walk-in variants) intended for outdoor installation in locations accessible to the public, necessitating personnel protection.

The HV Power is type tested with Siemens 8DJH 12/24kV to this standard with the classification of IAC-AB 20kA/1s.

The AB classification ensures the protection of individuals in the event of an internal arc as:

- Type A = Safety precautions for the operator
- Type B = Safety measures for the public

The IAC B specification is vital for all publicly accessible network switching assets, particularly in scenarios involving remote or autonomous switching operations.

This compliance is ensured by integrated baffles within the enclosure, eliminating the necessity for designated belowground voids or chambers to meet compliance standards. This feature makes it particularly suitable for sites prone to groundwater fluctuations, as it eliminates concerns of the venting space being compromised by water.

### 7. Ordering

HV Power provides enclosure designs for most typical Siemens 8DJH 11/22kV switchgear combinations. Contact HV Power for personalised assistance with your application.



### HV

### **Technical Data**

### 8. Designs already requested

Manufacturer: Electrical Data: Type of switchgear: Switchgear height: Degree of protection: Standard: IAC-Classification: Material:

Coating: Colour: Doors:

GRITEC 24 kV SIEMENS 8DJH, 24kV RMU max. 1400 mm IP34D IFC 62271-202 IAC-AB 20 kA-1s Enclosure: Stainless steel: DIN 1.4301 Interior covers / Partition walls: Steel sheet, zinc-plated Powder Coating RAL 6020 Chrome Green Swing-handles for DIN profile half cylinder with self-locking door stoppers Door opening angle: 95 deg.





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esignation	MCS-1019-20F et	quipped with 8DJH RI	UR			
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	Rated peak with	stand current	lp	50	kA	
	Rated short-time	withstand current	lk	20	kA	
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### 9. Types

MCS1019-20F New Zealand Size-1 1950 mm height (not including concrete pad) 1918 mm width 1100 mm door width 1000 mm depth Configuration – RRL-006511 RRT-006501 -1400 mm high Max. RMU width possible: 1050 mm Pad: SSP2170B Halo: 5 Basement

### MCS1028-20F New Zealand Size-2

1950 mm height (not including concrete pad) 2780 mm\* width 1910 mm\* door width 1000 mm depth Example configuration – LRRRL-006511 RRTL-006511 LRRRL-006511 -1400 mm high Max. RMU width possible: 1910 mm Pad: SSP2800B Halo: 7 Basement

### MCS1032-20F New Zealand Size-3

1950 mm Height (not including concrete pad) 3210 mm\* width 2350 mm\* door width 1000 mm depth Example configuration – LRRRRL-006511 RRLLL-006511 -1400 mm high

Max. RMU width possible: 2340 mm Pad: SSP3570B Halo: 9 Basement

### MCS1041-20F New Zealand Size-4

1950 mm height (not including concrete pad) 4070 \*mm width 3200 \*mm door width 1000 mm depth Example configuration – RRTTTTTT-006511 – 1400 mm high Max. RMU width possible: 3200 mm Pad: SSP4270B Halo: 11 Basement

### MCS1045-20F\* New Zealand Size-5

1950 mm height (not including concrete pad) 4500 mm\* width 3630 mm\* door width 1000 mm depth Example configuration – LV pull-out draw with LRTTTLL-M66711 -1400 mm high Max. RMU width possible: 3630 mm Pad: SSP 4700B Halo: 13 Basement

Values marked \* are dependent on final configuration, to be confirmed at time of order.

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