

# ASTA TYPE CERTIFICATE

## VERIFICATION OF TEST

**Project No:** G104454579LCS001 **Certificate No:** ASTA-TYPE-000686

**Applicant:** Schneider Electric SEI, 35 rue Joseph Monier, 92500 Rueil Malmaison – France

**Apparatus:** 400 A, 415 V ( $U_n = U_e$ ), 50 Hz, IP30/43, Low voltage Power Switchgear and Controlgear assembly (PSC-Assembly) comprising three-phase vertical bare copper busbars, earth bar, one 400 A incoming MCCB circuit, outgoing: three 160 A MCCB circuits, two 63A, two 40 A, two 25 A, two 20 A, two 16 A and two 10 A MCB circuits and a protective circuit.  
800V / 8kV ( $U_i / U_{imp}$ ) for the MCCB circuits and main busbar.  
500 V / 6 kV ( $U_i / U_{imp}$ ) for the MCB circuits.  
500 V / 6 kV ( $U_i / U_{imp}$ ) for assembly, (limited by lowest  $U_i$  of incorporated devices).  
The PSC-Assembly is suitable for indoor use and has a metallic enclosure.

**Manufactured By:** Schneider Electric SEI, 35 rue Joseph Monier, 92500 Rueil Malmaison – France

**Test Report No:** 202006571\_001

**Designation:** PrismaSeT G 400A

The apparatus which is representative of the designation, supplied drawings and photographs has been evaluated in accordance with:

### IEC 61439-2: Edition 3.0 2020-07

Verifications with reference to the tests listed in Annex D of IEC 61439-1; Edition 3.0 2020-05

1: Strength of material and parts	6/7/8: No verification by testing required
2: Degree of protection of enclosures	9: Dielectric properties
3: Clearances	10: Temperature-rise limits
4: Creepage distances	11: Short-circuit withstand strength
5: Protection against electric shock and integrity of protective circuits	12: Electromagnetic compatibility (EMC)

The results are shown in the record of tests attached hereto. The values obtained and the general performance is considered to comply with the above Standard(s) and to justify the ratings assigned by the manufacturer as stated on the ratings page(s) of this Certificate. This Certificate applies only to the apparatus tested. Responsibility for conformity of any apparatus having the same or other designations rests with the Manufacturer.



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*[Signature]*

Certification Engineer

*[Signature]*

Certification Officer

10th September 2021

Date

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Authenticity of any ASTA document can be confirmed by contacting the Intertek ASTA Certification Office at the following address:

Intertek Testing & Certification Ltd., Centre Court, Meridian Business Park, Leicester, LE19 1WD,  
United Kingdom. Email: [asta@intertek.com](mailto:asta@intertek.com)

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Verification of a PSC-Assembly

No	Characteristic Verified	Clause/ Subclause	Verified Tests and Ratings
<b>1</b>	<b>Strength of material and parts</b>	<b>10.2</b>	-
	Resistance to corrosion	10.2.2.1	Severity test A for metallic indoor enclosure: Verified
	Properties of insulating materials	10.2.3	-
	Thermal stability	10.2.3.1	Not applicable to metallic enclosures
	Resistance to abnormal heat and fire due to internal electric effects	10.2.3.2	Verified
	Resistance to ultra-violet (UV) radiation	10.2.4	Not applicable to assemblies for indoor use
	Lifting	10.2.5	Verified
	Mechanical impact	10.2.6	Verified (IK10)
	Marking	10.2.7	Verified
	Mechanical operation	10.2.8	Verified
<b>2</b>	<b>Degree of protection of enclosures</b>	<b>10.3</b>	External enclosure: IP30 / IP43 Form 2b applying IP 2X criteria Verified
<b>3</b>	<b>Clearances</b>	<b>10.4</b>	Verified for $U_{imp} = 8 \text{ kV}$ for the MCCB circuits and busbar $U_{imp} = 6 \text{ kV}$ for the MCB circuits
<b>4</b>	Creepage distances	10.4	Material Group: IIIa Pollution degree: 3 Verified for: $U_i = 800\text{V}$ for the MCCB circuits and busbars $U_i = 500 \text{ V}$ for the MCB circuits
<b>5</b>	<b>Protection against electric shock and integrity of protective circuits:</b>	<b>10.5</b>	Verified
	Effective earth continuity between the exposed-conductive-parts of the class I assembly and the protective circuit	10.5.2	Verified

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No	Characteristic Verified	Clause/ Subclause	Verified Tests and Ratings
5	<b>Protection against electric shock and integrity of protective circuits (continued)</b>	10.5	Verified
	Short-circuit withstand strength of the protective circuit 1b x 15mm x 5 mm bare copper bar  Outgoing circuits: 400 A MCCB unit  160 A MCCB unit	10.5.3	$I_{cw} = 12 \text{ kA rms for 0.5 second,}$ $I_{pk} = 24 \text{ kA peak}$  $I_{cc} = 30 \text{ kA rms at 240 V, pf} = 0.25$  $I_{cc} = 30 \text{ kA rms at 240 v, pf} = 0.25$
6	<b>Incorporation of switching devices and components</b>	10.6	Verified by Manufacturer's declaration
7	<b>Internal electrical circuits and connections</b>	10.7	Verified by Manufacturer's declaration
8	<b>Terminals for external conductors</b>	10.8	Verified by Manufacturer's declaration
9	<b>Dielectric Properties</b>	10.9	Rated voltages: $U_e = 415 \text{ V a.c. ; 50Hz}$  800V / 8kV ( $U_i / U_{imp}$ ) for the MCCB circuits and main busbar. 500 V / 6 kV ( $U_i / U_{imp}$ ) for the MCB circuits. 500 V / 6 kV ( $U_i / U_{imp}$ ) for assembly, (limited by lowest $U_i$ of incorporated devices).
	Power-frequency withstand voltage	10.9.2	Verified
	Impulse withstand voltage	10.9.3	Verified
	Enclosures of insulating material	10.9.4	Not applicable for metallic enclosures
	Handles of insulating materials	10.9.5	Verified
	Conductors covered by insulating material to provide protection against electric shock	10.9.6	Not applicable

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No	Characteristic Verified	Clause/ Subclause	Verified Tests and Ratings	
10	Temperature rise	10.10		
		10.10.2.3.5	IP 30 Configuration	IP 43 Configuration
	The rated current of the assembly is based upon a mean/maximum ambient temperature of:		30°C / 35°C	30°C / 35°C
	Rated current of the assembly		$I_{nA} = 400 \text{ A}$	$I_{nA} = 374 \text{ A}$
	Group rated current: Incoming circuit and connections with 400 A MCCB unit Q0		$I_{ng} = 400 \text{ A}$	$I_{ng} = 374 \text{ A}$
	Outgoing circuit 160 A MCCB unit Q1		$I_{ng} = 111 \text{ A}$	$I_{ng} = 97 \text{ A}$
	Outgoing circuit 40 A MCB unit Q2		$I_{ng} = 5 \text{ A}$	$I_{ng} = 28 \text{ A}$
	Outgoing circuit 10 A MCB unit Q3		$I_{ng} = 8 \text{ A}$	$I_{ng} = 8 \text{ A}$
	Outgoing circuit 25 A MCB unit Q4 and Q11		$I_{ng} = 20 \text{ A}$	$I_{ng} = 18 \text{ A}$
	Outgoing circuit 20 A MCB unit Q5 and Q12		$I_{ng} = 16 \text{ A}$	$I_{ng} = 13 \text{ A}$
	Outgoing circuit 16 A MCB unit Q6 and Q13		$I_{ng} = 12 \text{ A}$	$I_{ng} = 12 \text{ A}$
	Outgoing circuit 63 A MCB unit Q7		$I_{ng} = 50 \text{ A}$	$I_{ng} = 18 \text{ A}$
	Outgoing circuit 160 A MCCB unit Q8		$I_{ng} = 141 \text{ A}$	$I_{ng} = 129 \text{ A}$
	Outgoing circuit 40 A MCB unit Q9		$I_{ng} = 32 \text{ A}$	$I_{ng} = 30 \text{ A}$
	Outgoing circuit 10 A MCB unit Q10		$I_{ng} = 8 \text{ A}$	$I_{ng} = 6 \text{ A}$
	Outgoing circuit 63 A MCB unit Q14		$I_{ng} = 53 \text{ A}$	$I_{ng} = 50 \text{ A}$
	Outgoing circuit 160 A MCCB unit Q15		$I_{ng} = 148 \text{ A}$	$I_{ng} = 148 \text{ A}$

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No	Characteristic Verified	Clause/ Subclause	Verified Tests and Ratings
11	<b>Short-circuit withstand strength*</b>	<b>10.11</b>	
	Outgoing circuits: Three-phase: 160 A Q15 MCCB unit  10 A Q3, 16 A Q13, 40 A Q2, 63A Q14 MCB units  160 A Q8 MCB unit  160 A Q1, 25 A Q4, 20 A Q5, 16 A Q6, 63 A Q7, 40 A Q9, 10 A Q10, 25 A Q11, 20 A Q12 MCB units	10.11.5.3.2	$I_{CC} = 50 \text{ kA rms at } 415 \text{ V, pf} = 0.25$  $I_{CC} = 10 \text{ kA rms at } 415 \text{ V, pf} = 0.5$  $I_{CC} = 50 \text{ kA rms at } 415 \text{ V, pf} = 0.25$  $I_{CC} = 10 \text{ kA rms at } 415 \text{ V, pf} = 0.5$
	Incoming circuit and main busbars Three-phase Linergy BW busbar  Incoming 400A Q0 MCCB unit and its connection phase busbars	10.11.5.3.3	$I_{CW} = 20 \text{ kA rms for } 1 \text{ second}$ $I_{pk} = 52.5 \text{ kA}$  $I_{CC} = 50 \text{ kA rms at } 415 \text{ V, pf} = 0.25$
	Connections to the supply side of outgoing units	10.11.5.3.4	Conditions for no testing verified
	Neutral busbar circuit	10.11.5.3.5	$I_{CW} = 12 \text{ kA rms for } 1 \text{ second}$ $I_{pk} = 24 \text{ kA peak}$
12	<b>Electromagnetic compatibility (EMC)</b>	<b>10.12</b>	Conditions for no testing (J.9.4.2): Verified
*Single-phase tests were not performed on the switching devices.			

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The following documents are attached to and form part of this certificate:

<b>Documents:</b>	<b>Number of pages</b>
Test report no: 202006571_001 dated 9 <sup>th</sup> September 2021	123
Drawings: NNZ3055202	3

**Certificate Revision Amendment Table**

<b>Certificate Number</b>	<b>Issue Date</b>	<b>Amendment</b>
ASTA-TYPE-000686	See page 1	Initial issue