

# ASTA TYPE CERTIFICATE

## VERIFICATION OF TEST

**Project No:** G104454579LCS002 **Certificate No:** ASTA-TYPE-0001325

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

**Apparatus:** 2320 A to 2820 A, 415 V ( $U_n = U_e$ ), 50 Hz, IP30 / IP55, Form 2b, Natural / Active Cooling, Low Voltage Power Switchgear and Controlgear Assembly (PSC-assembly) comprising three-phase busbars, earth bar and distribution busbars, one 3200A incoming ACB circuit, outgoing: one 1600 A ACB, twelve 160A MCCBs and one 63A, one 40A, one 25A, one 20A, one 16A and one 10A MCB and a protective circuit.  
 1000V / 12kV ( $U_i / U_{imp}$ ) for the ACBs and busbars.  
 800V / 8kV ( $U_i / U_{imp}$ ) for the MCCB circuits.  
 500 V / 6 kV ( $U_i / U_{imp}$ ) for the MCB circuits.  
 500 V / 6 kV ( $U_i / U_{imp}$ ) for the 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\_002

**Designation:** PrismaSeT P active 3200A

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

*B J McGill*  
.....  
Certification Officer

10th September 2021  
.....  
Date

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**Authenticity:**

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/<br>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:<br>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 on metallic enclosure)  |
|          | 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 / IP55<br>Form 2b applying IP 2X criteria<br>Verified   |
| <b>3</b> | <b>Clearances</b>  | <b>10.4</b>          | Verified for<br>$U_{imp} = 12$ kV for the ACB circuits and busbars<br>$U_{imp} = 8$ kV for the MCCB circuits<br>$U_{imp} = 6$ kV for the MCB circuits  |
| <b>4</b> | <b>Creepage distances</b>  | <b>10.4</b>          | Material Group: IIIa<br>Pollution degree: 3<br>Verified for:<br>$U_i = 1000$ V for the ACB circuits and busbars<br>$U_i = 800$ V for the MCCB circuits<br>$U_i = 500$ 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/<br>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<br>1b x 50mm x 5 mm bare copper bar and 1600 A Linergy Busbar section<br><br>3200 A ACB unit<br><br>Outgoing circuits:<br>1600 A ACB unit<br><br>160 A MCCB units<br><br>25 A MCB unit | 10.5.3               | $I_{cw} = 51$ kA rms for 0.5 second,<br>$I_{pk} = 112.2$ kA peak<br><br>$I_{cc} = 51$ kA rms at 240 V, pf = 0.2<br><br>$I_{cc} = 39.6$ kA rms at 240 V, pf = 0.25<br><br>$I_{cc} = 42$ kA rms at 240 V, pf = 0.25<br><br>$I_{cc} = 6$ kA rms at 240 V, pf = 0.5  |
| 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:<br>$U_e = 415$ V a.c. , 50Hz<br><br>1000 V / 12kV ( $U_i / U_{imp}$ ) for the ACB circuits and busbars.<br>800 V / 8kV ( $U_i / U_{imp}$ ) for the MCCB circuits.<br>500 V / 6 kV ( $U_i / U_{imp}$ ) for the MCB circuits.<br>500 V / 6 kV ( $U_i / U_{imp}$ ) for the 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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|----|--|----------------------|----------------------------|
| 10 | Temperature rise   | 10.10                |                            |
|    | IP 30 Configuration  | 10.10.2.3.5          | Natural Cooling            |
|    | The rated current of the assembly is based upon a mean/maximum ambient temperature of: |                      | 30°C / 35°C                |
|    | Rated current of the assembly  |                      | $I_{nA} = 2820 \text{ A}$  |
|    | Group rated current:<br>Incoming circuit and connections with 3200 A ACB unit (Q0)     |                      | $I_{ng} = 2820 \text{ A}$  |
|    | Outgoing circuit 1600 A ACB (Q1)   |                      | $I_{ng} = 1480 \text{ A}$  |
|    | Outgoing circuit 160 A MCCB (Q2)   |                      | $I_{ng} = 135 \text{ A}$   |
|    | Outgoing circuit 160 A MCCB (Q3)   |                      | $I_{ng} = 135 \text{ A}$   |
|    | Outgoing circuit 40 A MCB (Q4)   |                      | $I_{ng} = 32 \text{ A}$    |
|    | Outgoing circuit 10 A MCB (Q5)   |                      | $I_{ng} = 7 \text{ A}$     |
|    | Outgoing circuit 25 A MCB (Q6)   |                      | $I_{ng} = 20 \text{ A}$    |
|    | Outgoing circuit 20 A MCB (Q7)   |                      | $I_{ng} = 15 \text{ A}$    |
|    | Outgoing circuit 16 A MCB (Q8)   |                      | $I_{ng} = 12 \text{ A}$    |
|    | Outgoing circuit 63 A MCB (Q9)   |                      | $I_{ng} = 49 \text{ A}$    |
|    | Outgoing circuits 160 A MCCB (Q10/Q11/Q12/Q13)   |                      | $I_{ng} = 120 \text{ A}$   |
|    | Outgoing circuit 160 A MCCB (Q14)  |                      | $I_{ng} = 65 \text{ A}$    |
|    | Outgoing circuit 160 A MCCB (Q15/Q16/Q17/Q18/Q19)                                      |                      | $I_{ng} = 105 \text{ A}$   |

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|-----------|--|----------------------|----------------------------|---------------------------|---------------------------|
| <b>10</b> | <b>Temperature rise (continued)</b>  | <b>10.10</b>         |                            |                           |                           |
|           | IP 55 Configuration  | 10.10.2.3.5          | Natural Cooling            | Natural Cooling           | Active Cooling            |
|           | The rated current of the assembly is based upon a mean/maximum ambient temperature of: |                      | 30°C / 35°C                | 50°C / 55°C               | 50°C / 55°C               |
|           | Rated current of the assembly  |                      | $I_{nA} = 2530 \text{ A}$  | $I_{nA} = 2320 \text{ A}$ | $I_{nA} = 2680 \text{ A}$ |
|           | Group rated current:<br>Incoming circuit and connections with 3200 A ACB unit (Q0)     |                      | $I_{ng} = 2530 \text{ A}$  | $I_{ng} = 2320 \text{ A}$ | $I_{ng} = 2680 \text{ A}$ |
|           | Outgoing circuit 1600 A ACB unit (Q1)  |                      | $I_{ng} = 1380 \text{ A}$  | $I_{ng} = 1320 \text{ A}$ | $I_{ng} = 1420 \text{ A}$ |
|           | Outgoing circuit 160 A MCCB unit (Q2)  |                      | $I_{ng} = 120 \text{ A}$   | $I_{ng} = 105 \text{ A}$  | $I_{ng} = 120 \text{ A}$  |
|           | Outgoing circuit 160 A MCCB unit (Q3)  |                      | $I_{ng} = 133 \text{ A}$   | $I_{ng} = 110 \text{ A}$  | $I_{ng} = 120 \text{ A}$  |
|           | Outgoing circuit 40 A MCB unit (Q4)  |                      | $I_{ng} = 32 \text{ A}$    | $I_{ng} = 30 \text{ A}$   | $I_{ng} = 27 \text{ A}$   |
|           | Outgoing circuit 10 A MCB unit (Q5)  |                      | $I_{ng} = 7 \text{ A}$     | $I_{ng} = 7 \text{ A}$    | $I_{ng} = 5 \text{ A}$    |
|           | Outgoing circuit 25 A MCB unit (Q6)  |                      | $I_{ng} = 20 \text{ A}$    | $I_{ng} = 18 \text{ A}$   | $I_{ng} = 18 \text{ A}$   |
|           | Outgoing circuit 20 A MCB unit (Q7)  |                      | $I_{ng} = 15 \text{ A}$    | /                         | $I_{ng} = 15 \text{ A}$   |
|           | Outgoing circuit 16 A MCB unit (Q8)  |                      | $I_{ng} = 12 \text{ A}$    | $I_{ng} = 10 \text{ A}$   | $I_{ng} = 10 \text{ A}$   |
|           | Outgoing circuit 63 A MCB unit (Q9)  |                      | $I_{ng} = 47 \text{ A}$    | $I_{ng} = 45 \text{ A}$   | $I_{ng} = 45 \text{ A}$   |
|           | Outgoing circuit 160 A MCCB unit (Q10/Q11/Q12/Q13)                                     |                      | $I_{ng} = 120 \text{ A}$   | $I_{ng} = 115 \text{ A}$  | $I_{ng} = 120 \text{ A}$  |
|           | Outgoing circuit 160 A MCCB unit (Q14)   |                      | /                          | $I_{ng} = 115 \text{ A}$  | $I_{ng} = 120 \text{ A}$  |
|           | Outgoing circuit 160 A MCCB unit (Q15/Q16)   |                      | $I_{ng} = 120 \text{ A}$   | $I_{ng} = 105 \text{ A}$  | $I_{ng} = 120 \text{ A}$  |
|           | Outgoing circuit 160 A MCCB unit (Q17)   |                      | $I_{ng} = 120 \text{ A}$   | /                         | $I_{ng} = 120 \text{ A}$  |
|           | Outgoing circuit 160 A MCCB unit (Q18)   |                      | $I_{ng} = 57 \text{ A}$    | /                         | $I_{ng} = 60 \text{ A}$   |

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|--|--|----------------------|--|
| <b>11</b>  | <b>Short-circuit withstand strength*</b>   | <b>10.11</b>         |  |
|  | Outgoing circuits:<br>Three-phase:<br>1600 A Q1 ACB unit<br><br>160 A Q2, Q3 and Q10 to Q19 MCCB units<br><br>25 A Q6, 40A Q4, 10A Q5, 20A Q7, 16A Q8 and 63A Q9 MCB units | 10.11.5.3.2          | $I_{CC} = 66 \text{ kA rms at } 415 \text{ V, pf} = 0.2$<br><br>$I_{CC} = 70 \text{ kA rms at } 415 \text{ V, pf} = 0.2$<br><br>$I_{CC} = 10 \text{ kA rms at } 415 \text{ V, pf} = 0.5$   |
|  | Incoming circuit and main busbars<br>Three-phase:<br>Linergy 3200 busbar<br><br>Incoming 3200A Q1 ACB unit and its connection phase busbars                                | 10.11.5.3.3          | $I_{CW} = 85 \text{ kA rms for } 1 \text{ second}$<br>$I_{pk} = 187 \text{ kA}$<br><br>$I_{CW} = 85 \text{ kA rms for } 1 \text{ second}$<br>$I_{pk} = 187 \text{ kA}$<br><br>$I_{CC} = 85 \text{ kA rms at } 415 \text{ V, pf} = 0.2$ |
|  | 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          | No Neutral Circuit   |
| <b>12</b>  | <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. |  |                      |  |

**Project No:** G104454579LCS002 **Certificate No:** ASTA-TYPE-0001325**Certificate Contents:**

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

| <b>Documents:</b>   | <b>Number of pages</b> |
|---|------------------------|
| Test report no: 202006571_002 dated 10 <sup>th</sup> September 2021 | 187                    |
| Drawings:   | 7                      |

**Certificate Revision Amendment Table**

| <b>Certificate Number</b> | <b>Issue Date</b> | <b>Amendment</b> |
|---------------------------|-------------------|------------------|
| ASTA-TYPE-0001325         | See page 1        | Initial issue    |