

## Verification methods according to AS/NZS 61439.1:2016

### ITEM NO.1 – STRENGTH OF MATERIAL AND PARTS

#### RESISTANCE TO CORROSION – Clause 10.2.2

##### Resistance to Corrosion Test in accordance with:

AS/NZS 61439.1:2016

IEC 62262:2002; IEC 60068-2-75:2014; IEC60068-2-30:2005;

IEC60068-2-11:1981

**Item:** Complete Assembly

**Test type:** Damp, heat and salt mist, cyclic;  
Severity A-1 cycle of damp, heat and salt mist

**Damp heat cycle:** 6 x 24 cycles

**Salt mist cycle:** 2 x 24 cycles, constant spray +35°C;  
5% NaCl concentration by weight

**Duration:** 8 days

##### NEUTRAL SALT SPRAY TEST (NSS):

##### Door Hinges and Swing Handles

190Hrs test, October 2019 as per AS2331.3.1

Parameters: 35°C ±2°C

**Collection Rate:** 1 ml/h to 2 ml/h; NaCl concentration – 50 ±10 g/L

**Results:** Maintained functionality.



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#### MECHANICAL IMPACT – Clause 10.2.6



##### IK07 & IK10 TEST IN ACCORDANCE WITH IEC62262:

##### Mechanical Impact test in accordance with:

IEC 62262:2001 and IEC60068-2-75:2014.

Test item was mounted vertically to a flat panel to replicate real life installation. Impact were applied to the front, top, bottom and side (2) faces at (5) locations on each face.

- IK7:**
- > Test type: Spring Hammer,
  - > Impact Energy: 2J (Front, top, bottom and side (2) faces).
  - > 5 impacts per accessible face.

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- IK10:**
- > Test type: Pendulum Hammer,
  - > Impact Energy: 20J (Front, top, bottom and side (2) faces).
  - > 5 impacts per accessible face.

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## Verification methods according to AS/NZS 61439.1:2016

### ITEM NO.1 – STRENGTH OF MATERIAL AND PARTS

#### LIFTING – Clause 10.2.5

##### LIFTING TEST AS/NZS 61439.1:2016

This procedure applies to the safe work practices that must be followed when performing crane lifting of a Switchboard.

##### Procedure:

1. Each section of Switchboard to be lifted shall be equipped with components or weights to achieve a weight of 1.25 times its maximum shipping weight.
2. Lifted with doors closed.
3. From standstill position, the ASSEMBLY shall be raised smoothly to a height of  $(1\pm 0.1)$  m without any movement.
4. Lower the switchboard down.
5. Repeat the previous test two times after which the ASSEMBLY is raised and suspended for 30 minutes at a height of  $(1\pm 0.1)$  m without any movement.
6. Lower the switchboard down.
7. The ASSEMBLY shall be raised from a standstill position to a height of  $(1\pm 0.1)$  m and moved  $(10\pm 0.5)$  m horizontally, then lowered to standstill position. This sequence shall be carried out three times, each shall be carried out within 1 minute.

After Test, with the weights in place, the ASSEMBLY shall show no cracks or permanent distortions visible to normal vision, which could impair any of its characteristics.

**Test Report: QM F84**

**Switchboard weight = 350kg**

**Additional weight = 125kg** (1.35 times switchboard weight exceeding test criteria)

