

## Design verification as per IEC/EN 61439

|  |                |    |  |
|--|----------------|----|--|
| Technical data for design verification   |                |    |  |
| Heat dissipation, at an ambient temperature of 35°C, delta T: 20 degrees, calculated as per IEC 60890                  |                |    |  |
| Individual enclosure for wall mounting   | P <sub>V</sub> | CO | 35   |
| Starting enclosure for wall mounting   | P <sub>V</sub> | CO | 33   |
| Middle enclosure for wall mounting   | P <sub>V</sub> | CO | 31   |
| Heat dissipation, at an ambient temperature of 35°C, delta T: 35 degrees, calculated as per IEC 60890                  |                |    |  |
| Individual enclosure for wall mounting   | P <sub>V</sub> | CO | 71   |
| Starting enclosure for wall mounting   | P <sub>V</sub> | CO | 66   |
| Middle enclosure for wall mounting   | P <sub>V</sub> | CO | 61   |
| IEC/EN 61439 design verification   |                |    |  |
| 10.2 Strength of materials and parts   |                |    |  |
| 10.2.2 Corrosion resistance  |                |    | Meets the product standard's requirements.   |
| 10.2.3.1 Verification of thermal stability of enclosures   |                |    | Meets the product standard's requirements.   |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat   |                |    | Meets the product standard's requirements.   |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects |                |    | Meets the product standard's requirements.   |
| 10.2.4 Resistance to ultra-violet (UV) radiation   |                |    | Not relevant to indoor installations.  |
| 10.2.5 Lifting   |                |    | Does not apply to enclosures without lifting aids.   |
| 10.2.6 Mechanical impact   |                |    | IK08   |
| 10.2.7 Inscriptions  |                |    | Meets the product standard's requirements.   |
| 10.3 Degree of protection of ASSEMBLIES  |                |    | IP30   |
| 10.4 Clearances and creepage distances   |                |    | Is the panel builder's responsibility.   |
| 10.5 Protection against electric shock   |                |    | < 0.1 Ω; meets the product standard's requirements.  |
| 10.6 Incorporation of switching devices and components   |                |    | Is the panel builder's responsibility.   |
| 10.7 Internal electrical circuits and connections  |                |    | Is the panel builder's responsibility.   |
| 10.8 Connections for external conductors   |                |    | Is the panel builder's responsibility.   |
| 10.9 Insulation properties   |                |    |  |
| 10.9.2 Power-frequency electric strength   |                |    | U <sub>i</sub> = 400 V AC  |
| 10.9.3 Impulse withstand voltage   |                |    | 2.5 kV   |
| 10.9.4 Testing of enclosures made of insulating material   |                |    | Does not apply to metal enclosures.  |
| 10.10 Temperature rise   |                |    | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating   |                |    | Is the panel builder's responsibility.   |
| 10.12 Electromagnetic compatibility  |                |    | Is the panel builder's responsibility.   |
| 10.13 Mechanical function  |                |    | Meets the product standard's requirements.   |