

Certificate of Conformity to IEC 61508 Safety Integrity Level (SIL) 2

Functional Safety of Safety-Related Programmable Electronic Systems

The **SPUC01R2** board of project : **SMART POWER UNIT - H2020-779020** , has been assessed and is considered capable for use in a high demand **Safety Function up to SIL 2** with regard to systematic failure rate and architectural constrain type A.

Manufacturer : Hydronit Srl
20814 Varedo (MB)
Via Pastrengo n°62
Italy

The assessment was based on the assumptions, data provided and recommendations given in :

- **1016_00_Determining Safety Integrity Level in High Demand SIL _rev0.1**
- **1016_00_Determining Safe Failure Fraction (SFF) _rev0.1**
- **1016_00_Determining -Hardware Fault Tolerance _rev0.1**

The product was assessed against the following failure modes:

- Failure to respond (executive output) channel 1 ;
- Failure to respond (executive output) channel 2 ;

The assessment was carried out to determine compliance with IEC 61508 with regards to:

- Hardware Failure with Predicted PFH < 10 E-6
- Architectural Constraint (Type A, SFF >60%, <90%);
- Hardware fault tolerance (HFT) IEC 61508-2 (2010 Edition)



Managing Director : Ing Mauro Crepaldi
Registration n° NO01781I00261- Eng. Bureau :n°1781
Original Assessment Date: September 2020
Renewal Date: valid to September 2025
Certificate: 1016_HW-1016_ rev.0