

# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20150928-4786796460-  
**Report Reference** 20150928\_4786796460\_FSCER  
**Issue Date** 2015-September-28

**Issued to:** TDE MACNO SpA |  
Via Della Oreficeria 41  
Vicenza, Vi 36100, Italy |

**This is to certify that  
representative samples of**

Power Drive Systems Safety Related: |  
OPDE CASE 2: OPDE 175A, OPDE 220A, OPDE 250A  
and OPDE CASE 3 series: OPDE 310A, OPDE 370A,  
OPDE 460A, OPDE 570A |

Have been investigated by UL in accordance with the  
Standards indicated on this Certificate.

**Standard(s) for Safety:**

IEC 61800-5-2: 2007, "Adjustable Speed Electrical Power  
Drive Systems - Part 5-2: Safety Requirements -  
Functional", 1st Edition

IEC 61508: 2010, "Functional safety of  
electrical/electronic/programmable electronic safety-related  
systems", 2nd Edition

ISO 13849: 2006/2009, "Safety of machinery - Safety-  
related parts of control systems", 2nd Edition

IEC 62061:2012, "Safety of machinery – Functional safety  
of safety-related electrical, electronic and programmable  
electronic control systems" – 1st Edition |

Bruce A. Mahrenholz, CPO Director, North American Certification Programs  
UL LLC

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**Additional Information:** Safety function «Safe Torque Off (STO)» as defined by IEC 61800-5-2, complies with the requirements for the following functional safety ratings:

- SIL Capability 3, as defined by IEC 61800-5-2:2007
- SIL 3, as defined by IEC 61508:2010
- PL e, Category 3 as defined by ISO 13849-1:2006
- SIL Claim Limit 3 as defined by IEC 62061

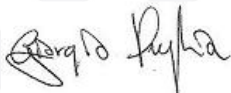
Further safety-related data :

- PFH (as defined in IEC 61508:2010) : 4.45e-9/h
- MTTF<sub>d</sub> (as defined in ISO 13849 :2006) : 769 years

The product must be installed, operated, and maintained, in accordance with the instructions for use.

Please note that the Functional Safety Certificate (in accordance with UL's product category FSCO) will not imply that UL has Listed, Classified or Recognized the product nor will the attached Report authorize the use of Listing, Classification, or Recognition Marks or other references to UL, on these products.

Reviewed by:



Giorgio Puglia  
Senior Project Engineer



Thomas Maier  
Principal Engineer

Bruce A. Mahrenholz, CPO Director, North American Certification Programs  
UL LLC

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