

Product Certifications

The Turntide Smart Motor System, along with each product within Turntide’s HVAC retrofit solution, is designed and tested to meet a wide range of important safety certifications and industry standards from UL, CSA and IEC.

Certifications by Product

V01 / V02 / V03 Motors





UL
1004-7



CSA
C22.2#77



IEC
60034-1
60204-1

P06 / SL121 Motor Controllers





UL
61800-5-1
61800-5-2
60335-2-40*
*Clause 30 (pending)



CSA
C22.2#74
C22.2#61800-5-2



IEC
61800-5-1*
61800-5-2*
61800-3*
*pending

Certifications List

UL-CSA Standards

- UL 60335-2-40 Clause 30 Household and Similar Electrical Appliances - Safety - Part 2-40: Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers
- UL 61800-5-1 Adjustable Speed Electrical Power Drive Systems - Part 5-1: Safety Requirements - Electrical, Thermal and Energy
- UL 61800-5-2 Adjustable Speed Electrical Power Drive Systems - Part 5-2: Safety Requirements - Functional
- CSA C22.2#274:2017 Ed.2 Adjustable Speed Drivers
- CSA C22.2#61800-5-2:2021 Ed.1 Adjustable Speed Electrical Power Drive Systems - Part 5-2: Safety Requirements - Functional

IEC

- IEC 61800-5-1 Adjustable Speed Electrical Power Drive Systems - Part 5-1: Safety Requirements - Electrical, Thermal and Energy
- IEC 61800-5-2 Adjustable Speed Electrical Power Drive Systems - Part 5-2: Safety Requirements - Functional
- IEC 61800-3 Adjustable speed electrical power drive systems - Part 3: EMC requirements and specific test methods



Turntide works with Intertek, which provides third-party validation with testing and certification.

An ETL mark can be found on all Turntide products to indicate compliance with the listed standards.

Overall System Standards

- UL 1004-1 Rotating Electrical Machines
- UL 1004-7 Electronically Protected Motors
- UL 1004-8 Inverter Duty Motors
- CSA C22.2 Motors and Generators
- CSA C22.2#77 Motors with Inherent Overheating Protection
- IEC 60034-1: 2017 (Ed.13.0) Rotating Machines Rating and Performance (Motors)
- IEC 60204-1: 2016 (Ed. 6.0) Rotating Machine Basic Safety (Motors)

Conformance

- Motor controller suitable for use in other environmental air handling spaces (plenums) in accordance with Section 300.22 (C) Other Spaces Used for Environmental Air (Plenums) of the National Electrical Code
- Required: Breaker rating 4xxVAC, 30A for
- Required: Fuse rating 6xxVAC, 30A, Class RK5
- Breakers must be UL489 SH3 listed