

Safety Standards

Our products conform to these directives and safety standards. For compliance with standards, see individual product pages. Safety standard registration numbers are as follows.

Standard name	UL	CSA	TÜV
Certification number	E46810	172248	Varies by model

1. UL ratings (USA)



Underwriters Laboratories Inc. was established by the American Union of Fire Insurance Underwriters. The purpose of UL is to ensure safety of machines, equipment, and materials and protect human lives and property from fire and other accidents. To that end, UL has conducted numerous tests and extensive research and, as a result, set up UL ratings. Any seller of products in any of the majority of the states of the USA must produce their products according to the UL ratings, have them pass UL-specified safety inspections, and have them listed in UL's registration book. Therefore, to export and sell any product in the United States, one must in most cases apply for UL-listing. Additionally, UL is accredited by The Standards Council of Canada (SCC) as both a Certification Organization (CO) and a Testing Organization (TO) and is officially recognized in all provinces and territories throughout Canada. Accordingly, our products can be tested by UL for compliance with Canadian safety standards. Certified products are entitled to display the cUL Mark, which authorizes their use and sale in Canada. If products are deemed to be compliant with both U.S. and Canadian standards, then both the UL Mark and cUL Mark can be displayed or a combination U.S. and Canadian mark (bottom left). Our fans are certified as satisfying all UL 507 requirements.

2. CSA standards (Canada)



The Canadian Standards Association (CSA) was set up in response to the advice of the Canadian government. In Canada, the law prohibits the use and sale of any product other than those approved under CSA in terms of safety. CSA has set up CSA standards as inspection procedures and other requirements to ensure product safety. Our products are certified as satisfying the CSA standard C22.2 No. 113.

3. EN standards (EU members)



In the EU territory, the harmonization of industrial standards and safety standards of different countries is under way. The unified standards are called Harmonized Standards. Each of these standards is marked EN above the standard number. EN standards offer the grounds in design and manufacture when one exports a product to the EU territory. In order for a product to receive a safety marking, the product must be found to conform to TÜV, VDE, or other relevant standard. Our products are certified by TÜV Rheinland to meet the requirements of EN 60950-1/EN 62368-1. (San Ace Controller complies with EN 60730-1)

4. Electrical appliance and material safety law



As of April 1, 2001, the Electrical Appliance and Material Control Law has been revised and reenacted as the Electrical Appliance and Material Safety Law. AC fans are classified as 'Blowers' under 'Electric motor-operated appliances'. They are categorized as electrical products other than specific electrical appliances (with the exception of some models) and are required to be labeled to indicate PSE certification.

5. CE marking



To distribute their equipment in the EU territory, manufacturers are obligated to give a CE marking as proof that the equipment conforms to related EC directives. Manufacturers use EN standards as criteria of judgment as to whether the equipment satisfies the requirements of specific directives or, in the absence of applicable EN standards, they use IEC standards. Manufacturers then prepare a self-declaration to indicate that the equipment conforms to related directives and apply a CE marking. (Depending on the degree of risk of the equipment, some kinds of equipment are required to receive type tests conducted by certified authorities and, after a type test certificate is obtained, manufacturers make a self-declaration.)

Scope of application of major EC directives

Machine directives

These directives apply to equipment that has a moving part that may injure humans. The directives generally apply to a wide range of machine tools and other industrial machines.

EMC directives

They apply to equipment which may be affected by electromagnetic interference (EMI) or has electromagnetic susceptibility (EMS).

Low-voltage directive

This directive applies to equipment that is used in an AC range between 50 and 1000 V and in a DC range between 75 and 1500 V.

ErP Directive

Energy related Products Directive aims to protect the environment and requires eco-design.

RoHS Directive

This directive restricts of the use of certain hazardous substances contained in electrical and electronic equipment.

Radio Equipment Directive

This directive sets requirements that radio and communications equipment should meet.

6. Technical Standard Conformity Certification



The Technical Standard Conformity Certification mark, set by Japanese Ministry of Internal Affairs and Communications, indicates that the product is certified as either or both of the following: specific radio equipment defined in the Radio Act and terminal equipment defined in the Telecommunications Business Act. Our San Ace Controller has built-in Technical Standard Conformity-certified specific radio equipment defined in the Radio Act in Japan. It is also a certified terminal equipment based on the Telecommunications Business Act in Japan.

7. VCCI



VCCI is a membership organization in Japan that aims to suppress electromagnetic interference generated from information technology equipment by industry self-regulation. It sets standards for noise, which affects other communications equipment, generated from data-processing equipment. VCCI categorizes information technology equipment in two classes: Class A equipment is used in commercial and industrial areas and Class B equipment is used in residential and adjacent areas. Our San Ace Controller is categorized as Class B information technology equipment.

8. FCC



Federal Communications Commission (FCC) is an independent U.S. government agency responsible for implementing and enforcing U.S. communications law and regulations. Obtaining an FCC certification is required to sell communications equipment including radio equipment in the U.S. Our San Ace Controller complies with FCC Part 15 Class B.

RoHS Directive Compliance

All products listed in this catalog conform to the RoHS Directive (2011/65/EU). These Directives restrict the following ten hazardous substances: cadmium, lead, mercury, hexavalent chromium, PBB, PBDE, DEHP, BBP, DBP, and DIBP. Implementation schedule is as follows:

Products	Implementation date
Fans, PWM Controller, San Ace Controller	From January 2019 production onwards
Plug cords	From October 2018 shipment onwards
Finger guards, filter kits	From January 2018 shipment onwards
Airflow Tester	From July 2019 production onwards