

Index by Model No./Safety Standards List - ACDC Fans **AC**

Models listed in the main section of this catalog	Frame size	Model	Rated voltage [V]	UL (cUL)	CSA (cUL)	TÜV	CE	PSE	Note	page
9AD0901H12	92×92×38 mm	San Ace 92AD	100 to 240	✓	✓	✓	✓	✓	Ribbed	458
9AD0901H121	92×92×38 mm	San Ace 92AD	100 to 240	✓	✓	✓	✓	✓	Ribless	458
9AD0901H1H	92×92×38 mm	San Ace 92AD	100 to 240	✓	✓	✓	✓	✓	Ribbed	458
9AD0901H1H1	92×92×38 mm	San Ace 92AD	100 to 240	✓	✓	✓	✓	✓	Ribless	458
9AD0901M12	92×92×38 mm	San Ace 92AD	100 to 240	✓	✓	✓	✓	✓	Ribbed	458
9AD0901M121	92×92×38 mm	San Ace 92AD	100 to 240	✓	✓	✓	✓	✓	Ribless	458
9AD0901M1H	92×92×38 mm	San Ace 92AD	100 to 240	✓	✓	✓	✓	✓	Ribbed	458
9AD0901M1H1	92×92×38 mm	San Ace 92AD	100 to 240	✓	✓	✓	✓	✓	Ribless	458
9AD1201H12	120×120×38 mm	San Ace 120AD	100 to 240	✓	✓	✓	✓	✓	Ribbed	461
9AD1201H121	120×120×38 mm	San Ace 120AD	100 to 240	✓	✓	✓	✓	✓	Ribless	461
9AD1201H1H	120×120×38 mm	San Ace 120AD	100 to 240	✓	✓	✓	✓	✓	Ribbed	461
9AD1201H1H1	120×120×38 mm	San Ace 120AD	100 to 240	✓	✓	✓	✓	✓	Ribless	461

Please contact your point of sale for pulse sensors and lock sensors.

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Models listed in the main section of this catalog	Frame size	Model	Rated voltage [V]	UL	CSA	TÜV	CE	PSE	Note	page
109-033UL	80×80×42 mm	San Ace 80	115	✓	✓	✓	✓	✓		476
109-040UL	80×80×42 mm	San Ace 80	100	✓	✓	✓	✓	✓		476
109-041UL	80×80×42 mm	San Ace 80	200	✓	✓	✓	✓	✓		476
109-043UL	80×80×42 mm	San Ace 80	115	✓	✓	✓	✓	✓		476
109-044UL	80×80×42 mm	San Ace 80	230	✓	✓	✓	✓	✓		476
109-047UL	80×80×42 mm	San Ace 80	100	✓	✓	✓	✓	✓		476
109-130	60×60×38 mm	San Ace 60	100	✓	—	✓	✓	—		468
109-133	60×60×38 mm	San Ace 60	115	✓	—	✓	✓	—		468
109-150	80×80×38 mm	San Ace 80	100	✓	✓	✓	✓	✓		474
109-151	80×80×38 mm	San Ace 80	200	✓	✓	✓	✓	✓		474
109-153	80×80×38 mm	San Ace 80	115	✓	✓	✓	✓	✓		474
109-154	80×80×38 mm	San Ace 80	230	✓	✓	✓	✓	✓		474
109-180	60×60×28 mm	San Ace 60	100	✓	—	✓	✓	—		466
109-183	60×60×28 mm	San Ace 60	115	✓	—	✓	✓	—		466
109-210	80×80×20 mm	San Ace 80	100	✓	✓	✓	✓	—		470
109-213	80×80×20 mm	San Ace 80	115	✓	✓	✓	✓	—		470
109-311	∅172×51 mm (Round type)	San Ace 172	100	✓	✓	✓	✓	✓		496
109-312	∅172×51 mm (Round type)	San Ace 172	200	✓	✓	✓	✓	✓		496
109-313	∅172×51 mm (Round type)	San Ace 172	230	✓	✓	✓	✓	✓		496
109-314	∅172×51 mm (Round type)	San Ace 172	115	✓	✓	✓	✓	✓		496
109-371	∅172×51 mm (with sensor)	San Ace 172	100	✓	—	✓	✓	✓		496
109-372	∅172×51 mm (with sensor)	San Ace 172	200	✓	—	✓	✓	✓		496
109-373	∅172×51 mm (with sensor)	San Ace 172	230	✓	—	✓	✓	✓		496
109-374	∅172×51 mm (with sensor)	San Ace 172	115	✓	—	✓	✓	✓		496
109-601	160×160×51 mm	San Ace 160	100	✓	✓	✓	✓	✓		491
109-602	160×160×51 mm	San Ace 160	200	✓	✓	✓	✓	✓		491
109-603	160×160×51 mm	San Ace 160	230	✓	✓	✓	✓	✓		491
109-604	160×160×51 mm	San Ace 160	115	✓	✓	✓	✓	✓		491
109-641	160×160×51 mm (with sensor)	San Ace 160	100	✓	—	✓	✓	✓		491
109-642	160×160×51 mm (with sensor)	San Ace 160	200	✓	—	✓	✓	✓		491
109-643	160×160×51 mm (with sensor)	San Ace 160	230	✓	—	✓	✓	✓		491
109-644	160×160×51 mm (with sensor)	San Ace 160	115	✓	—	✓	✓	✓		491
109S005	120×120×38 mm	San Ace 120	100	—	—	—	—	✓		486
109S005UL	120×120×38 mm	San Ace 120	100	✓	✓	✓	✓	✓		486
109S006	120×120×38 mm	San Ace 120	100	—	—	—	—	✓		486
109S006UL	120×120×38 mm	San Ace 120	100/115	✓	✓	✓	✓	✓		486
109S008	120×120×38 mm	San Ace 120	200	—	—	—	—	✓		486
109S008UL	120×120×38 mm	San Ace 120	200	✓	✓	✓	✓	✓		486
109S010	120×120×38 mm	San Ace 120	200	—	—	—	—	✓		486
109S010UL	120×120×38 mm	San Ace 120	200/240	✓	✓	✓	✓	✓		486
109S013	120×120×38 mm	San Ace 120	100	—	—	—	—	✓		486
109S013UL	120×120×38 mm	San Ace 120	100	✓	✓	✓	✓	✓		486
109S024	120×120×38 mm	San Ace 120	120	—	—	—	—	✓		486
109S024UL	120×120×38 mm	San Ace 120	115	✓	✓	✓	✓	✓		486
109S025	120×120×38 mm	San Ace 120	230	—	—	—	—	✓		486
109S025UL	120×120×38 mm	San Ace 120	230	✓	✓	✓	✓	✓		486
109S029UL	120×120×38 mm	San Ace 120	100	✓	✓	✓	✓	✓		486

Models listed in the main section of this catalog	Frame size	Model	Rated voltage [V]	UL	CSA	TÜV	CE	PSE	Note	page
109S030	80×80×25 mm	San Ace 80	100	✓	✓	✓	✓	✓		472
109S031	80×80×25 mm	San Ace 80	200	✓	✓	✓	✓	✓		472
109S033	80×80×25 mm	San Ace 80	115	✓	✓	✓	✓	✓		472
109S034	80×80×25 mm	San Ace 80	230	✓	✓	✓	✓	✓		472
109S050	80×80×25 mm	San Ace 80	100	✓	✓	✓	✓	✓		472
109S051	80×80×25 mm	San Ace 80	200	✓	✓	✓	✓	✓		472
109S053	80×80×25 mm	San Ace 80	115	✓	✓	✓	✓	✓		472
109S054	80×80×25 mm	San Ace 80	230	✓	✓	✓	✓	✓		472
109S072UL	120×120×38 mm	San Ace 120	230	✓	✓	✓	✓	✓		486
109S074UL	120×120×38 mm	San Ace 120	115	✓	✓	✓	✓	✓		486
109S075UL	120×120×38 mm	San Ace 120	100	✓	✓	✓	✓	✓		486
109S078UL	120×120×38 mm	San Ace 120	200	✓	✓	✓	✓	✓		486
109S081	120×120×25 mm	San Ace 120	100	✓	✓	✓	✓	✓		482
109S082	120×120×25 mm	San Ace 120	200	✓	✓	✓	✓	✓		482
109S083	120×120×25 mm	San Ace 120	115	✓	✓	✓	✓	✓		482
109S084	120×120×25 mm	San Ace 120	115	✓	✓	✓	✓	✓		482
109S085	120×120×25 mm	San Ace 120	100	✓	✓	✓	✓	✓		482
109S086	120×120×25 mm	San Ace 120	100	✓	✓	✓	✓	✓		482
109S087	120×120×25 mm	San Ace 120	230	✓	✓	✓	✓	✓		482
109S088	120×120×25 mm	San Ace 120	200	✓	✓	✓	✓	✓		482
109S089	120×120×25 mm	San Ace 120	230	✓	✓	✓	✓	✓		482
109S091	92×92×25 mm	San Ace 92	100	✓	✓	✓	✓	✓		478
109S092	92×92×25 mm	San Ace 92	200	✓	✓	✓	✓	✓		478
109S093	92×92×25 mm	San Ace 92	115	✓	✓	✓	✓	✓		478
109S094	92×92×25 mm	San Ace 92	230	✓	✓	✓	✓	✓		478
109S095	92×92×25 mm	San Ace 92	100	✓	✓	✓	✓	✓		478
109S096	92×92×25 mm	San Ace 92	100	✓	✓	✓	✓	✓		478
109S192	92×92×25 mm	San Ace 92	200	✓	✓	✓	✓	✓		478
109S193	92×92×25 mm	San Ace 92	115	✓	✓	✓	✓	✓		478
109S194	92×92×25 mm	San Ace 92	230	✓	✓	✓	✓	✓		478
109S301	∅172×150×51 mm (Sidecut type)	San Ace 172	100	✓	✓	✓	✓	✓		494
109S302	∅172×150×51 mm (Sidecut type)	San Ace 172	200	✓	✓	✓	✓	✓		494
109S303	∅172×150×51 mm (Sidecut type)	San Ace 172	230	✓	✓	✓	✓	✓		494
109S304	∅172×150×51 mm (Sidecut type)	San Ace 172	115	✓	✓	✓	✓	✓		494
109S405UL	120×120×38 mm (with sensor)	San Ace 120	100	✓	—	✓	✓	✓		487
109S406UL	120×120×38 mm (with sensor)	San Ace 120	100	✓	—	✓	✓	✓		487
109S408UL	120×120×38 mm (with sensor)	San Ace 120	200	✓	—	✓	✓	✓		487
109S424UL	120×120×38 mm (with sensor)	San Ace 120	115	✓	—	✓	✓	✓		487
109S425UL	120×120×38 mm (with sensor)	San Ace 120	230	✓	—	✓	✓	✓		487
109S429UL	120×120×38 mm (with sensor)	San Ace 120	100	✓	—	✓	✓	✓		487
109S472UL	120×120×38 mm (with sensor)	San Ace 120	230	✓	—	✓	✓	✓		487
109S474UL	120×120×38 mm (with sensor)	San Ace 120	115	✓	—	✓	✓	✓		487
109S475UL	120×120×38 mm (with sensor)	San Ace 120	100	✓	—	✓	✓	✓		487
109S478UL	120×120×38 mm (with sensor)	San Ace 120	200	✓	—	✓	✓	✓		487
109S484	120×120×25 mm (with sensor)	San Ace 120	115	✓	—	✓	✓	✓		482
109S485	120×120×25 mm (with sensor)	San Ace 120	100	✓	—	✓	✓	✓		482
109S486	120×120×25 mm (with sensor)	San Ace 120	100	✓	—	✓	✓	✓		482
109S487	120×120×25 mm (with sensor)	San Ace 120	230	✓	—	✓	✓	✓		482
109S488	120×120×25 mm (with sensor)	San Ace 120	200	✓	—	✓	✓	✓		482
109S491	92×92×25 mm (with sensor)	San Ace 92	100	✓	—	✓	✓	✓		478
109S492	92×92×25 mm (with sensor)	San Ace 92	200	✓	—	✓	✓	✓		478
109S493	92×92×25 mm (with sensor)	San Ace 92	115	✓	—	✓	✓	✓		478
109S494	92×92×25 mm (with sensor)	San Ace 92	230	✓	—	✓	✓	✓		478
109S495	92×92×25 mm (with sensor)	San Ace 92	100	✓	—	✓	✓	✓		478
109S496	92×92×25 mm (with sensor)	San Ace 92	100	✓	—	✓	✓	✓		478

Safety Standards

List of safety standards acquired → refer to the index (pp. 542 to 565)

Description of safety standards

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 C-UL 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 C-UL Mark can be displayed or a combination U.S. and Canadian mark (bottom left). Our products 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 as satisfying all TÜV Rheinland EN60950 requirements.

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 and compulsory timing 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.

JIS: Japanese Industrial Standards

Japan's national standards related to mining and manufacturing industries

IEC : International Electrotechnical Commission

This is an international commission on electrical standardization. This commission promotes the unification and cooperation of international standards related to electric and electronics engineering and issues IEC standards in order eventually to allow different countries to conform to the international standards.

DIN : Deutsches Institut für Normung e.V.

This is a German standards institute. The institute uses a wide-range set of standards covering many industrial sectors. The set of standards includes basic standards.

VDE : Verband Deutscher Elektrotechniker e.V.

It is a German association of electric engineers. VDE establishes safety standards related to electrical engineering and issues them as DIN-VDE standards.