

Cooling Systems Division

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In our current world, amid a gradual transition to 5G, the next-generation of communication systems, the internet is an essential pillar, supporting our lives and public infrastructure, and has transformed our lifestyles and company activities dramatically.

Against this backdrop, more and more equipment today uses IoT that enables remote control and monitoring via the internet.

Naturally, there has been a demand for IoT-ready products that allow easy remote control and monitoring of fans used in equipment to secure stable operation.

Also, as today's ICT equipment and digital signage used outdoors have higher performance and are becoming denser, fans are also required to offer high airflow, high static pressure and environmental durability. Meanwhile, fans used

in industrial equipment and flat, thin form-factor equipment are required to be more compact while also achieving higher cooling performance.

To meet these market demands, we developed and launched an industry-first IoT product and fans with industry-leading performance and reliability.

Below are overviews of the products we developed in 2019.

■ IoT-ready Fan Controller

• *San Ace Controller*

Customers demanded products that can control fan speed in line with the operational status of their equipment to achieve higher energy saving, lower noise, and preventive equipment maintenance through remote fan status monitoring.

To meet such demands, we developed and launched *San Ace Controller*, the industry's first IoT-ready fan controller that can connect to a network and be remotely operated and monitored from an external terminal device.



■ Splash Proof Centrifugal Fan

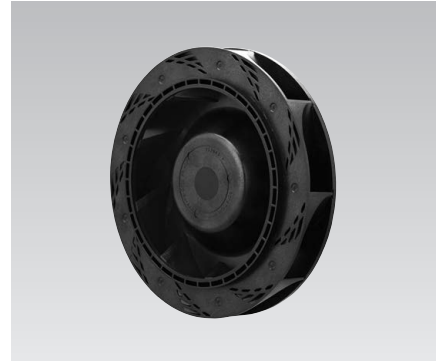
DC Fan

- $\phi 150 \times 35$ mm *San Ace 150W 9W2T* type

In the quick EV charger, communication cabinet, and digital signage markets, where equipment is often installed outdoors, centrifugal fans are required to have higher splashproof performance.

To meet such market demands, we developed and launched the *San Ace 150W 9W2T* type $\phi 150 \times 35$ mm Splash Proof Centrifugal Fan which offers the industry's highest⁽¹⁾ airflow and static pressure.

(1) Based on our own research as of March 12, 2019, conducted among equally-sized industrial splashproof centrifugal fans on the market.



■ Splash Proof Blower

DC Fan

- $\phi 97 \times 33$ mm *San Ace 97W 9W1B* type

In recent years, there has been an increasing demand for blowers that can be used in the high static pressure range for products such as battery packs, ventilation systems, commercial kitchen equipment, and digital signage. This equipment is often used outdoors or in other harsh environments.

To meet such market demands, we developed and launched the *San Ace 97W 9W1B* type Splash Proof Blower that offers the industry's highest⁽²⁾ airflow and static pressure among IP68-rated, equally-sized splashproof blowers on the market.

(2) Based on our own research as of March 26, 2019, conducted among equally-sized splashproof blowers on the market.



Oil Proof Fan

DC Fan

- 40 × 40 × 20 mm *San Ace 40WF 9WFA* type
- 60 × 60 × 20 mm *San Ace 60WF 9WFA* type
- 80 × 80 × 20 mm *San Ace 80WF 9WFA* type
- 92 × 92 × 32 mm *San Ace 92WF 9WFA* type
- 92 × 92 × 25 mm *San Ace 92WF 9WFA* type

The market of servo amplifiers and controllers, which are becoming increasingly high performance, primarily uses oil-proof fans. Therefore, the fans are also required to

have higher cooling performance than before. Furthermore, such applications often require fans ranging in size from 40 × 40 mm to 92 × 92 mm.

In response to such demands, we

developed and launched five models of 9WFA type Oil Proof Fans which offer the industry's highest⁽³⁾ airflow and static pressure.

(3) Based on our own research at the time of product release, conducted among equally-sized oil-proof fans on the market.



Centrifugal Fan

DC fan

- $\phi 70 \times 20$ mm *San Ace C70 9TD* type

With increased performance of compact or thin form-factor devices embedded in equipment such as graphics cards, cooling fans with higher cooling performance are demanded.

Also, customers want centrifugal fans to be compact so that they can

effectively make use of the limited space inside equipment.

In response to such market demands, we developed and launched the *San Ace C70 9TD* type $\phi 70 \times 20$ mm Centrifugal Fan which offers the industry's highest⁽⁴⁾ airflow and static pressure.



(4) Based on our own research as of October 29, 2019, among equally-sized industrial centrifugal fans on the market.

Author

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