

Cooling Systems Division

Kikuo Miyahara

Cooling fans are used in wide variety of purpose in communication equipment, information processing equipment, industrial equipment, power supply devices, etc. The equipment has become more high-performance and high-function, in

addition for the cooling fans to have higher cooling performance and low SPL and vibration, lower power consumption and environmental compatibility are also required.

The following products introduce the main technical developments

for the Cooling Systems Division in 2009. Our company is moving forwards with development of new technologies and products based on market needs and trends to continually provide the best products to support various applications.

■ Centrifugal Fan Series

“San Ace C100” ϕ 100 mm, 25 mm thick
“San Ace C133” ϕ 133 mm, 91 mm thick
“San Ace C150” ϕ 150 mm, 35 mm thick
“San Ace C175” ϕ 175 mm, 69 mm thick

Above 4 models of centrifugal fan series were developed.

Along with the achievement of large air flow and high static pressure, low power consumption was succeeded.

For example, ϕ 175 mm, 69 mm thick model has achieved maximum air flow of 14 m³/min, maximum static pressure of

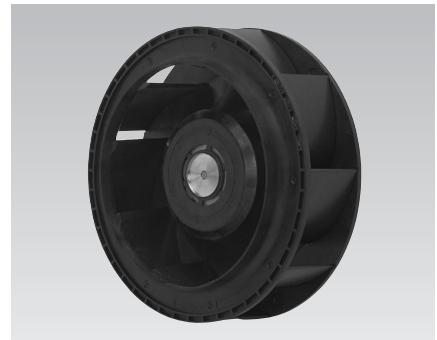
885 Pa, and power consumption of 93.6 W.

The “PWM control function” is added to control the speed from an external source.

Application: Servers, telecommunication equipment, heat exchangers, fan filter units, etc.

Details of the “San Ace C175” is described in the features in this Technical report.

Centrifugal Fan



■ “San Ace 172” Side-cut Model SG Type

Achieved top performance in the industry as ϕ 172 mm, 51 mm thick model.

Maximum air flow is increased 36% and static pressure is increased 45% compared with our conventional model, and at the same time, power consumption for equal air flow is reduced 13%.

The “PWM control function” is

added to control the rotating speed of the fan from an external source.

Application: Servers, storage systems, communication equipment and various type of industrial equipment.

DC Fan



■ “San Ace 92” GA Type

DC Fan

92 mm square, 25 mm thick and 38 mm thick low power consumption fans were developed.

Compared with our conventional models, it has achieved power consumption reduction of 46% for the 25 mm thick and 32% for the 38 mm thick models during equivalent cooling

performances.

The “PWM control function” is added to control the speed from an external source.

Application: Servers, storage systems, telecommunication equipment and various type of industrial equipment.



■ “San Ace 40” GA Type

DC Fan

40 mm square, 28 mm thick low power consumption fans were developed.

Compared with our conventional models, it has achieved power consumption reduction of 42% during equivalent cooling performances.

The “PWM control function” is added to control the speed from an

external source.

Applications: 1U servers, power supplies, telecommunication equipment, etc.



■ “San Ace 60” GA Type

DC Fan

60 mm square, 15 mm thick low power consumption fans was developed.

Compared with our conventional models, it has achieved power consumption reduction of 38% during equivalent cooling performances.

The “PWM control function” is added to control the rotating speed

from an external source.

Application: OA equipment, medical equipment and various type of control equipment.

Details are described in the feature in this Technical report.



■ “San Ace B97” BMB Type

Blower

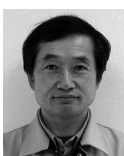
Achieved top performance in the industry as 97 mm square, 33 mm thick blower.

Maximum air flow is increased 17% and static pressure is increased 68% compared with the conventional model, and at the same time, power consumption for equal air flow is

reduced 16%.

The “PWM control function” is added to control the speed from an external source.

Application: OA equipment, servers and various type of industrial equipment.



Kikuo Miyahara

Joined Sanyo Denki in 1983.

Cooling Systems Division, Design Dept.

Worked on the development and design of cooling fans.