

DC Fan Motors

CPU coolers

□ **44.5 × 44.5 mm**



SAN ACE MC note



Integral with a heat sink and best suited for notebook PCs

General specifications

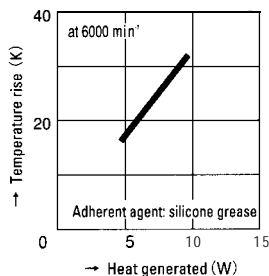
- Life expectancy 25,000 hours
(survival rate: 90% at 60°C, rated voltage, and continuously run in a free air state)
- Motor protection system Current cut system (with reverse-connection protection)
- Dielectric strength 50/60 Hz, 500 VAC, 1 minute
(between input terminal and frame)
- Operating thermally range - 10°C to + 60°C (non-condensing)
- Heat resistance As per Sanyo Denki's measurement method

10mm thick

Specifications

Model No.	Rated voltage (V)	Operating voltage range (V)	Rated current (A)	Rated input (W)	Rated rotating speed (min ⁻¹)	Thermal resistance (K/W)	Noise (dB(A))	Mass (g)
109P4405H9026	5	4.5 to 5.5	0.14	0.7	6,000	3.2	27	25

Typical cooling characteristics

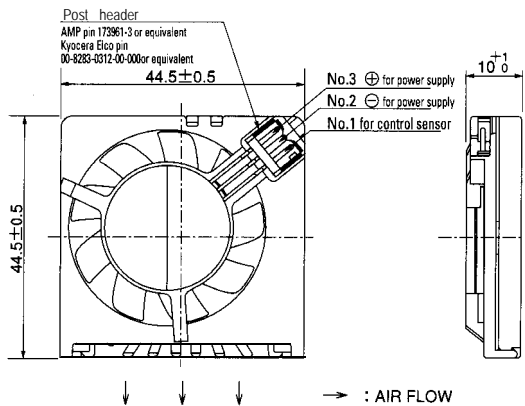


109P4405H9026

CPU Cooler

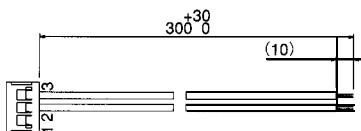
□ 44.5 × 44.5 mm

Dimensions (unit: mm)

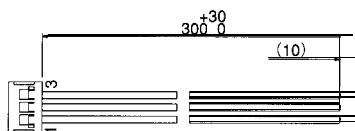


Relay harness

489-689



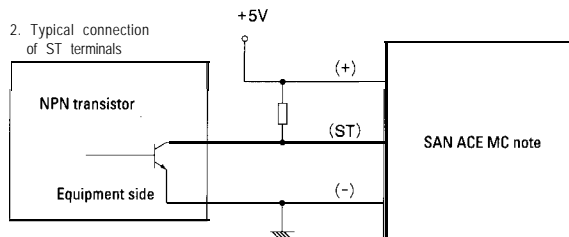
489-702 (with sensor)



Fan control specifications

1. Specifications

ST terminal	Rotation status
Hi level	Fan stopped
Lo level	Fan rotating
Hi impedance	Fan rotating



How to read the model number

General fans

109

Represents a fan motor.

R

Additional number: Used to classify the remodeling performed or for other purposes.

P : Mold frame type
R : Mold frame type
E : Aluminum frame
L : Long Life Fan
W : Splash Proof Fan

12

Frame dimensions code

04 : 40 x 40mm
05 : 52 x 52mm
06 : 60 x 60mm
08 : 80 x 80mm
09 : 92 x 92mm
12 : 119 x 119mm
14 : 140 x 140mm
17 : 172mm dia
57 : 172mm dia,
51 mm wide,
side cut

12

Voltage code
05 : 5v
12 : 12V
21 : 21V
24 : 24V
48 : 48V

H

Speed code

S : Super-speed
H : **High speed**
F : Medium speed between H and M
M : Middle speed
L : Low speed
W : Wide range
MH: Two speeds, H and M

1

Sensor and specific specification code

01 : With pulse sensor
02 : Sensor-less
D01 : With lock sensor
H01:With low-speed sensor

Frame thickness code

1 : 38mm thick
2 : 32mm thick
3 : 28mm thick
4 : 25mm thick
5 : 51mmthick
6 : 20mm thick
7 : 15mm thick

1

Ribless 1
Ribbed

Thermally speed controlled fans

109

Represents a fan motor.

R

Additional number: Used to classify the remodeling performed or for other purposes.

P : Mold frame type
R : Mold frame type

12

Frame dimensions code

05 : 52 x 52mm
06 : 60 x 60mm
08 : 80 x 80mm
09 : 92 x 92mm
12 : 119 x 119mm

12

Voltage code
12 : 12V

T

Represents a thermally speed controlled fan.

1

Frame thickness code

1 : 38mm thick
4 : 25mm thick
6 : 20mm thick
7 : 15mm thick

H

Speed code

H : High speed

11

Sensor and specific specification code

10 : With lock sensor
11 : **With** pulse sensor
12 : Sensor-less

2

External view code

Nil:Ribbed frame product with an external thermistor
1:Ribless frame product with an external thermistor
2 : Ribbed frame product with a built-in thermistor
3 : Ribless frame product with a built-in thermistor

CPU cooler

109

Represents a fan motor.

P

Additional number: Used to classify the remodeling performed or for other purposes.

P : Mold frame type

44

Heat sink dimensions code

44 : 45 x 45mm or 44.5 x **44.5mm**
54 : 54 x 54mm or 50.8 x **50.8mm**
66 : 66 x 62mm

05

Voltage code
05 : 5V
12 : 12V

H

Speed code,
H : High speed
M : Middle speed

8

Frame thickness code

2 : 30mm thick
8 : **18mm** thick
9 : 10mm thick

D01

Sensor and specific specification code

01 : With pulse sensor
02 : Sensor-less
D01 : With lock sensor

6

External view code

6 : Terminal type

Sirocco fan

109

Represents a fan motor.

B

Additional number: Used to classify the remodeling performed or for other purposes.

B : Represents a sirocco fan.

F

Frame dimensions code
F : 120 x 120mm

12

Voltage code
12 : 12V
24 : 24V

H

Speed code
H : High speed
M : Middle speed

A

Sensor specification code

A : Sensor-less
C : With a pulse sensor
D : With a lock sensor

2

Frame thickness code
2 : 32mm thick

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SANYO DENKI CO LTD
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 812-3 SHIMONOGOU
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 NAGANO-KEN 386-1211 JAPAN

RE: Project Number(s) - 99SC40484

Your most recent listing is shown below. Please review this information and report any inaccuracies to the UL Engineering staff member who handled your project.

For information on placing an order for UL Listing Cards in a 3 x 5 inch format, please refer to the enclosed ordering information.

GPWV2
 Fans, Electric - Component

March 15, 1999

SANYO DENKI CO LTD
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E46810

San Ace Series, Models 109-075D, -008UL, -075UL, -105UL, -108UL, -070ULD, -071ULD; Models 109H072UL, -074UL, -075UL, -078UL, -472UL, -474UL, -475UL, -478UL; Models 109S005UL, -006UL, -008UL, -010UL, -013UL, -024UL, -025UL, -029UL, -072UL, -073UL, -074UL, -075UL, -078UL, -405UL, -406UL, -408UL, -410UL, -424UL, -425UL, -429UL, -470UL, -472UL, -474UL, -475UL, -477UL, -478UL
 Mini Ace Series, Models 109-033UL, -040UL, -041UL, -043UL, -044UL, -047UL.
 San Ace 25 Series, Models 109-085, 109S014, -015, -016, -017, 109S081 through -089, 109S414, -415, -481, -482, -483, 109S484 through -489.
 Mini Ace 25 Series, Model 109-492; Models 109S091, -092, -093, -094, -095, -096, -192, -193, -194, -490, -491, -492, -493, -494, -495, -496, -497.
 Petit Ace 20 Series, Models 109-210 and 109-213.
 Dyna Ace, Models 109E1712H5XX, 109E1712M5XX, 109E1724M5XX, 109E1724H5XX, 109E5712H5XX, 109E5712H5JXX, 109E5712M5XX, 109E5724H5XX, 109E5724M5XX.
 Mini Ace 25 (E Series), Models 109E0912F4XX, 109E0912H4XX, 109E0912L4XX, 109E0912M4XX, 109E0912W4XX, 109E0924F4XX, 109E0924H4XX, 109E0924L4XX, 109E0924M4XX, 109E0924W4XX, 109E0948H4XX, where XX represents 01 thru 99.
 Mini Ace 25 (P Series), Model 109P09, followed by 12, 24 or 48, followed by H, E, M L or W, followed by 4, may be followed by D, followed by XX, may be followed by 1; Models 109P0912S4XX1, 109P0912T4HXXY, where XX represents 01 thru 99 and Y represents blank, 0, 1 or 2.
 Pico Ace 25 (P Series), Models 109P0612F4XX, 109P0612H4XX, 109P0612L4XX, 109P0612M4XX, 109P0612W4XX, 109P0624F4XX, 109P0624H4XX, 109P0624M4XX, 109P0624W4XX, where XX represents 01 thru 99.
 Dyna Ace BLDC, Models 109L1712H5XX, 109L1712M5XX, 109L1724H5XX, 109L1724M5XX, 109L1748H5XX, 109L1748M5XX, 109L1712H5DXX, 109L1712M5DXX, 109L1724H5DXX, 109L1724M5DXX, 109L1748H5DXX, 109L1748M5DXX, 109L5712H5XX, 109L5712M5XX, 109L5724H5XX, 109L5724M5XX, 109L5748H5XX, 109L5748M5XX, 109L5712H5DXX, 109L5712M5DXX, 109L5724H5DXX, 109L5724M5DXX, 109L5748H5DXX, 109L5748M5DXX.
 Petit Ace Series, Models 109-050, -051, -052, -053, -054, -055, -057.
 Pico Ace 38 Series, Models 109-130, -133.
 Petit Ace 25 Series, Models 109S030, 109S031, 109S032, 109S033, 109S034, 109S037, 109S050, 109S051, 109S053, 109S054.
 Petit Ace 38 Series, Models 109-150, -151, -153, -154.
 Petit Ace 28 Series, Models 109-180, -183.
 Dyna Ace Series, Models 109-311, -312, -313, -314, -353, -361, -362, -371, -372, -373, -374, -383, -S383, 109H301, -H302, -H303, -H304, -H311, -H312, -H313, -H314, 109S301, -S302, -S303, -S304.
 High Ace Series, Models 109-601, -602, -603, -604, -641, -642, -643 and -644.
 Pico Ace 25 (P Series), Models 109P01612H4XX, 109P0612F4XX, 109P0612M4XX, 109P0612L4XX, 109P0612W4XX, 109P0624H4XX, 109P0624F4XX, 109P0624M4XX, 109P0624W4XX.
 San Ace (E Series), Models 109E1212H1A02, 109E1212H1XX, 109E1212M1X, 109E1212A1DX, 109E1224H1XX, 109E1224M1XX, 109E1224A1XX, 109E1248H1JXX.
 San Ace (P or P1 Series), Models 109P1212H1XX(1), 109P1212M1XX(1), 109P1224H1XX(1), 109P1242M1XX(1).
 San Ace 25 (P or P1 Series), Models 109E1212H4AAX, 109E1212F4AAX, 109E1212M4AAX, 109E1224H4AAX, 109E1224F4AAX, 109E1224M4AAX, 109E1212H4EXX(1), 109E1212M4EXX(1), 109E1224H4EXX(1), 109E1224M4EXX(1), 109P1212L4EXX(1), 109P1224H4EXX(1), 109P1224F4EXX(1), 109P1224M4EXX(1), where XX represent 01 - 99, XX may be replaced by letter DXX; Model 109P1212T4HXXY, where XXY is represented by digits.

