

## Design Change Notification

April 28th, 2023

To: Sanyo Denki America Cooling Distributors

Product: BLDC FAN MOTOR

Model: San Ace 172 (9E) Phi 172mm x 25mm thick  
(Please refer Attached Sheet for a complete part number list.)

SANYO DENKI CO.,LTD.  
Design Dept., Cooling Systems Div.

Approved	Checked	Designed
		

SANYO DENKI America, Inc.  
Cooling Systems Division

No.	Contents	Before Change	After Change	Description
1	Motor drive IC, electronic parts, Motor Windings and PWB	Use motor drive IC manufactured by ON-Semiconductor.	Use motor drive IC manufactured by Microchip.	Change to the motor drive IC due to discontinuation of production by the semiconductor manufacturer. Also change to some electric parts except IC, Motor windings and PWB due to the change of the motor drive IC.
2	Specifications	See the Attached Sheet.	See the Attached Sheet.	
3	Implementation Date			Implementation Date: From April, 2024 production (Estimated). Please note that the changeover schedule to new IC may change according to the number of products in the inventory.

**No. A0053408 - Attached Sheet 1****[MODEL LIST]**

San Ace 172 (9E) – 172mm x 25mm thick

MODEL	Change contents
109E4712M401 109E4712M402 109E4712L401 109E4712L402 1032-107383 1032-107384 1032-107385	Attached Sheet 2
109E4712M4D01 109E4712L4D01	Attached Sheet 3
109E4724H401 109E4724H402 109E4724H405 109E4724H4J01 109E4724F401 109E4724F402 109E4724F403 109E4724M401 109E4724M402 109E4724M404 109E4724L401 109E4724L402 109E4724L4J03 1032-106204 1032-107386 1032-107387 1032-107389	Attached Sheet 4
109E4724H4D01 109E4724H4D03 109E4724F4D01 109E4724M4D01 109E4724L4D01 109E4724L4D03 1032-107388	Attached Sheet 5

**No. A0053408 - Attached Sheet 2**

[MODEL]

109E4712M401, 109E4712M402,  
 109E4712L401, 109E4712L402,  
 1032-107383, 1032-107384, 1032-107385

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB11967V	PIC16F1823
	Manufacture	On-semiconductor	Microchip
Operating voltage		No change	
Electrical current		No change	
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		Non-applicable	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		Non-applicable	
Sensor spec.		No change	
Life Expectancy		No change	

**No. A0053408 - Attached Sheet 3**

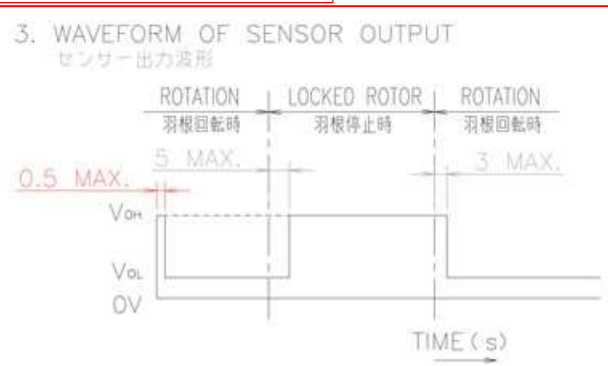
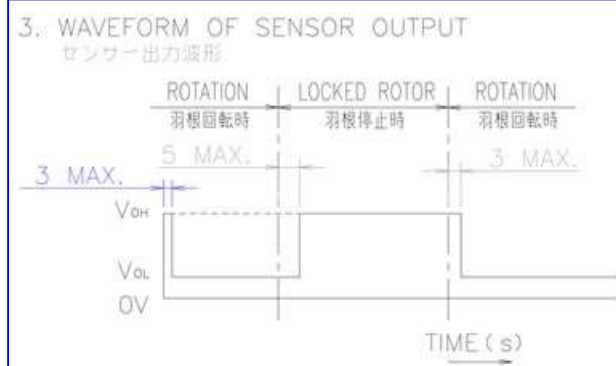
[MODEL]

109E4712M4D01,

109E4712L4D01

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB11967V	PIC16F1823
	Manufacture	On-semiconductor	Microchip
Operating voltage		No change	
Electrical current		No change	
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		Non-applicable	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		Non-applicable	
Sensor spec.		Refer to Fig.1	
Life Expectancy		No change	

**FIG.1****Before Change****After Change**

**No. A0053408 - Attached Sheet 4**

[MODEL]

109E4724H401, 109E4724H402, 109E4724H405, 109E4724H4J01,  
 109E4724F401, 109E4724F402, 109E4724F403,  
 109E4724M401, 109E4724M402, 109E4724M404,  
 109E4724L401, 109E4724L402, 109E4724L4J03,  
 1032-106204, 1032-107386, 1032-107387, 1032-107389

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB11967V	PIC16F1823
	Manufacture	On-semiconductor	Microchip
Operating voltage		No change	
Electrical current		No change	
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		Non-applicable	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		Non-applicable	
Sensor spec.		No change	
Life Expectancy		No change	

**No. A0053408 - Attached Sheet 5**

[MODEL]

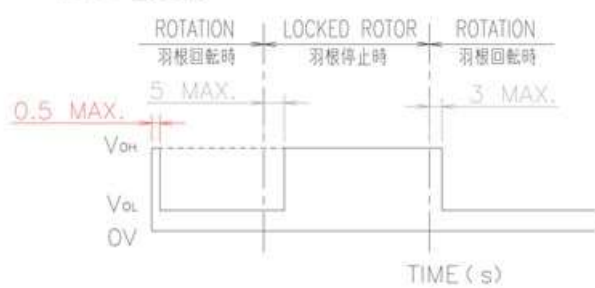
109E4724H4D01, 109E4724H4D03, 109E4724F4D01, 109E4724M4D01, 109E4724L4D01, 109E4724L4D03,  
1032-107388

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB11967V	PIC16F1823
	Manufacture	On-semiconductor	Microchip
Operating voltage		No change	
Electrical current		No change	
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		Non-applicable	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		Non-applicable	
Sensor spec.		Refer to Fig.1	
Life Expectancy		No change	

**FIG.1****Before Change****3. WAVEFORM OF SENSOR OUTPUT**

センサー出力波形

**After Change****3. WAVEFORM OF SENSOR OUTPUT**

センサー出力波形

