

## Design Change Notification

October 28<sup>th</sup>, 2022

To: Sanyo Denki America Cooling Distributors

Product: BLDC FAN MOTOR \_\_\_\_\_

Model: San Ace B76 76mm x 20mm 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 Nisshinbo-Micro-Devices.	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 February, 2023 production (Estimated). Please note that the changeover schedule to new IC may change according to the number of products in the inventory.

**No. A0053171 - Attached Sheet 1**

## [MODEL LIST]

San Ace B76 – 76mm x 20mm thick

MODEL	Change contents
9BD24HA6-1 9BD24HC6-1 9BD24HD6-1 9BD24FA6-1 9BD24FA6-20 9BD24FC6-1 9BD24FD6-1	Attached Sheet 2
9BD24P6S01 9BD24P6S04 9BD24P6S05 9BD24P6S06	Attached Sheet 3
9BD24SA6-1 9BD24SA6-2 9BD24SA6-3 9BD24SA6-21 9BD24SC6-1 9BD24SC6-20 9BD24SC6-21 9BD24SC6-22 9BD24SD6-1 9BD24SD6-20	Attached Sheet 4

**No. A0053171 - Attached Sheet 2**

[MODEL]

9BD24HA6-1, 9BD24HC6-1, 9BD24HD6-1,  
 9BD24FA6-1, 9BD24FA6-20, 9BD24FC6-1, 9BD24FD6-1

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LA6588	NJW4320
	Manufacture	On-semiconductor	Nisshinbo-Micro-Devices
Operating voltage		No change	
Rated 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	

**No. A0053171 - Attached Sheet 3**

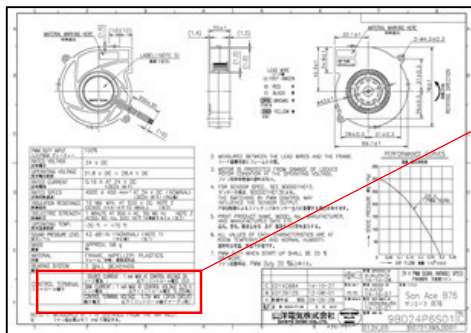
[MODEL]

9BD24P6S01, 9BD24P6S04, 9BD24P6S05, 9BD24P6S06

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LV8860	NJW4320
	Manufacture	On-semiconductor	Nisshinbo-Micro-Devices
Operating voltage		No change	
Rated electrical current		No change	
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		Source current : <b>1 mA MAX.</b> Refer to FIG.1	Source current : <b>2 mA MAX.</b> Refer to FIG.1
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		No change	
Sensor spec.		No change	

FIG.1



## Before Change

SOURCE CURRENT : **1 mA MAX.** AT CONTROL VOLTAGE 0 V  
 ソース電流 : 以下 (コントロール電圧 0 V時)

SINK CURRENT : 1 mA MAX. AT CONTROL VOLTAGE 5.25 V  
 シンク電流 : 以下 (コントロール電圧 5.25 V時)

CONTROL TERMINAL VOLTAGE : 5.25 V MAX. (OPEN CIRCUIT)  
 端子電圧 : 以下 (コントロール端子オープン時)

## After Change

SOURCE CURRENT : **2 mA MAX.** AT CONTROL VOLTAGE 0 V  
 ソース電流 : 以下 (コントロール電圧 0 V時)

SINK CURRENT : 1 mA MAX. AT CONTROL VOLTAGE 5.25 V  
 シンク電流 : 以下 (コントロール電圧 5.25 V時)

CONTROL TERMINAL VOLTAGE : 5.25 V MAX. (OPEN CIRCUIT)  
 端子電圧 : 以下 (コントロール端子オープン時)

**No. A0053171 - Attached Sheet 4**

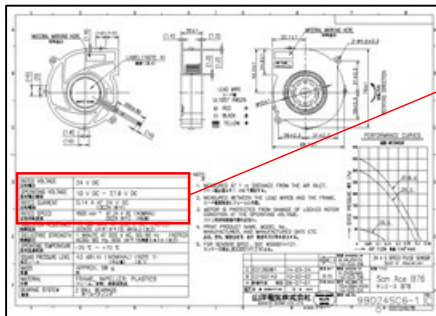
[MODEL]

9BD24SA6-1, 9BD24SA6-2, 9BD24SA6-3, 9BD24SA6-21,

9BD24SC6-1, 9BD24SC6-20, 9BD24SC6-21, 9BD24SC6-22, 9BD24SD6-1, 9BD24SD6-20

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LA6588	NJW4320
	Manufacture	On-semiconductor	Nisshinbo-Micro-Devices
Operating voltage		No change	
Rated electrical current		0.14[A] Refer to Fig.1	0.16[A] Refer to Fig.1
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	

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

RATED VOLTAGE 定格電圧	24 V DC
OPERATING VOLTAGE 使用電圧範囲	10 V DC ~ 27.6 V DC
RATED CURRENT 定格電流	0.14 A AT 24 V DC (DC24 Vにて)
RATED SPEED 定格回転速度	4500 min <sup>-1</sup> AT 24 V DC (NOMINAL) (DC24 Vにて) (中心値)

**After Change**

RATED VOLTAGE 定格電圧	24 V DC
OPERATING VOLTAGE 使用電圧範囲	10 V DC ~ 27.6 V DC
RATED CURRENT 定格電流	0.16 A AT 24 V DC (DC24 Vにて)
RATED SPEED 定格回転速度	4500 min <sup>-1</sup> AT 24 V DC (NOMINAL) (DC24 Vにて) (中心値)