# **Design Change Notification**

December 29th, 2021

### To: Sanyo Denki America Cooling Distributors

Product: BLDC FAN MOTOR

Model: San Ace 40 (9GA) 40mm sq. x 20mm thick

(Please refer Attached Sheet for a complete part number list.)

# SANYO DENKI CO., LTD.

Approved	Checked	Designed
渡辺	中村	高桑
(21.12.08	'21.12.08	'21.12.08
道徳	俊之	宗仙

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 New-Japan-Radio.	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 October, 2022 production (Estimated). Please note that the changeover schedule to new IC may change according to the number of products in the inventory.

[MODEL LIST]

San Ace 40 (9GA) - 40mm x 20mm thick

MODEL	Change contents
9GA0424G6001	
9GA0424G6002	
9GA0424G6003	
9GA0424G6004	Attached Sheet 2
9GA0424G6D001	
9GA0424G6D003	
9GA0424H6001	
9GA0424H6002	
9GA0424H6003	
9GA0424H6004	Attached Sheet 3
9GA0424H6D001	
9GA0424H6D003	
9GA0424H6D004	
9GA0424F6001	
9GA0424F6002	Attached Sheet 4
9GA0424F6D001	
9GA0424P6G001	Attached Sheet 5
9GA0424P6H001	
9GA0424P6H004	
9GA0424P6H006	Attached Sheet 6
9GA0424P6H007	Allached Sheet 0
9GA0424P6H003	
9GA0424P6H004	
9GA0424P6F001	
9GA0424P6F003	Attached Sheet 7
9GA0424P6F004	
9GA0424P6FD001	

#### [MODEL]

9GA0424G6001, 9GA0424G6002, 9GA0424G6003, 9GA0424G6004, 9GA0424G6D001, 9GA0424G6D003

[Contents of change]

	Before Change	After Change
Motor drive IC	LV8860	NJW4320
	By On-semiconductor	By New-Japan-Radio
Operating voltage	No cha	nge
Electrical current	No cha	inge
Speed	No cha	nge
Operating temp.	No change	
Sound pressure level	No change	
Control terminal Non-applicable		icable
Air flow – static pressure character No change		inge
PWM duty cycle - Speed characteristic	Non-appl	icable
Sensor spec.	No cha	nge

[MODEL]

9GA0424H6001, 9GA0424H6002, 9GA0424H6003, 9GA0424H6004, 9GA0424H6D001, 9GA0424H6D003, 9GA0424H6D004

[Contents of change]

	Before Change	After Change
Motor drive IC	LV8860	NJW4320
	By On-semiconductor	By New-Japan-Radio
Operating voltage	No cha	nge
Electrical current	No cha	nge
Speed	No change	
Operating temp.	No change	
Sound pressure level	No change	
Control terminal Non-applicable		icable
Air flow – static pressure character	No change	
PWM duty cycle - Speed characteristic	Non-appl	icable
Sensor spec.	No cha	nge

## [MODEL]

## 9GA0424F6001, 9GA0424F6002, 9GA0424F6D001

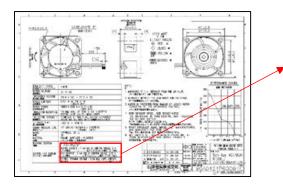
[Contents of change]

	Before Change	After Change	
Motor drive IC	LV8860	NJW4320	
	By On-semiconductor	By New-Japan-Radio	
Operating voltage	No cha	inge	
Electrical current	No cha	inge	
Speed	No cha	ange	
Operating temp.	No change		
Sound pressure level	No change		
Control terminal Non-applicable		licable	
Air flow – static pressure character No ch		inge	
PWM duty cycle - Speed characteristic	Non-app	licable	
Sensor spec.	No cha	inge	

## [MODEL] 9GA0424P6G001

## [Contents of change]

	Before Change	After Change
Motor drive IC	LV8860	NJW4320
	By On-semiconductor	By New-Japan-Radio
Operating voltage	No ch	hange
Electrical current	No ch	nange
Speed	No ch	nange
Operating temp.	No change	
Sound pressure level	No ch	nange
Control terminal	Source current: 1 mA MAX. Refer to below drawing	Source current: 2 mA MAX. Refer to below drawing
Air flow – static pressure character	No change	
PWM duty cycle - Speed characteristic	No change	
Sensor spec. No change		nange



# Before Change

SOURCE CURRENT: 1 mA MAX. AT CON	TROL VOLTAGE O V
ソース電流 : 以下(コント	ロール電圧 O V時)
SINK CURRENT : 1 mA MAX. AT CONT	ROL 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) 以下 (コントロール値子オープン時)

#### After Change

SOURCE CURRE ソース電流 :	INT : 2 mA M	MAX. AT CC 以下(コン	NTROL VO	)LTAGE	0 V V時)
SINK CURRENT シンク電流 :		X. AT CON			
CONTROL TERM 端子電圧 :		E : 5.25 V	MAX. (C		RCUIT)

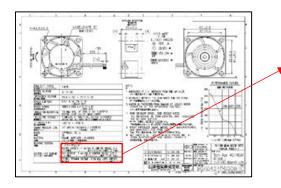
#### [MODEL]

# 9GA0424P6H001, 9GA0424P6H004, 9GA0424P6H006, 9GA0424P6H007,

# 9GA0424P6HD003, 9GA0424P6H004

## [Contents of change]

	Before Change	After Change	
Motor drive IC	LV8860	NJW4320	
	By On-semiconductor	By New-Japan-Radio	
Operating voltage	No ch	nange	
Electrical current	No cł	nange	
Speed	No ch	No change	
Operating temp.	No change		
Sound pressure level	No ch	No change	
Control terminal	Source current: 1 mA MAX.	Source current: 2 mA MAX.	
	Refer to below drawing	Refer to below drawing	
Air flow – static pressure character	No change		
PWM duty cycle - Speed characteristic	No change		
Sensor spec. No change		nange	



#### **Before Change**

SOURCE CU	RRENT : 1 mA MA	X. AT CONTR	COL VOLTAGE 0 \	/
ソース電流		AT (コントロ	レール電圧 0 V時	})
SINK CURRE	NT:1 mA MAX	AT CONTRO	)L VOLTAGE 5.2	5 V
シンク電流	: 以下		V電圧 5.25 V	時)
CONTROL TE 端子電圧 :		: 5.25 V MA	X. (OPEN CIRCL 〔コントロール属于オープ	JIT)

#### After Change

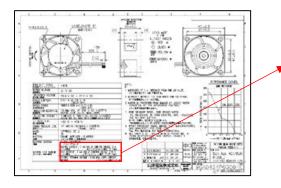
	CONTROL VOLTAGE O V ントロール電圧 O V時)
SINK CURRENT: 1 mA MAX. AT CO シンク電流 : 以下(コント	ONTROL VOLTAGE 5.25 V ロール電圧 5.25 V時)
CONTROL TERMINAL VOLTAGE : 5.25 端子電圧 :	

## [MODEL]

#### 9GA0424P6F001, 9GA0424P6F003, 9GA0424P6F004, 9GA0424P6FD001

[Contents of change]

	Before Change	After Change		
Motor drive IC	LV8860	NJW4320		
	By On-semiconductor	By New-Japan-Radio		
Operating voltage	No cł	nange		
Electrical current	No change			
Speed	No change			
Operating temp.	No change			
Sound pressure level	No change			
Control terminal	Source current: 1 mA MAX.	Source current: 2 mA MAX.		
	Refer to below drawing	Refer to below drawing		
Air flow – static pressure character	No change			
PWM duty cycle - Speed characteristic	No change			
Sensor spec.	No change			



#### **Before Change**

SINK	CUR 2 雷波	RENT	; 1	mA	MAX.	AT C	ONTRO	L VOLTA( )電圧 5.	GE 5.2	25 V (時)
CONTR 端子電	ROL 配圧	TERMI	NAL	VOLT	AGE :	5.25	V MAX	(. (OPE)	N CIRC	UIT) たい時)

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)
	VOLTAGE : 5.25 V MAX. (OPEN CIRCUIT) 以下 (コントロール編子オープン時)