

Design Change Notification

August 2nd, 2022

To: Sanyo Denki America Cooling Distributors

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

Product: BLDC FAN MOTOR _____

Model: San Ace B76 76mm sq. x 20mm thick _____

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

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 Toshiba.	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. A0052841 - Attached Sheet 1

[MODEL LIST]

San Ace B76 – 76mm x 20mm thick

MODEL	Change contents
9BD12SA6-1 9BD12SA6-21 9BD12SA6X20 9BD12SC6-1 9BD12SC6-20 9BD12SC6-23 9BD12SC6-24 9BD12SC6-25 9BD12SC6X22 9BD12SD6-1 9BD12SD6-20 9BD12SD6-21	Attached Sheet 2
9BD12HA6-1 9BD12HC6-1 9BD12HC6-2 9BD12HC6-21 9BD12HD6-1	Attached Sheet 3
9BD12FA6-1 9BD12FC6-1 9BD12FC6-20 9BD12FC6-21 9BD12FD6-1 9BD12FD6-20	Attached Sheet 4
9BD12P6S01 9BD12P6S03 9BD12P6S04 9BD12P6S05 9BD12P6S06 9BD12P6S09 9BD12P6S10 9BD12P6S11 9BD12P6S12	Attached Sheet 5

No. A0052841 - Attached Sheet 2

[MODEL]

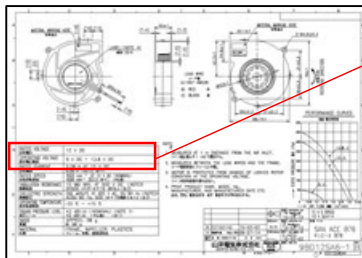
9BD12SA6-1, 9BD12SA6-21, 9BD12SA6X20,

9BD12SC6-1, 9BD12SC6-20, 9BD12SC6-23, 9BD12SC6-24, 9BD12SC6-25, 9BD12SC6X22,

9BD12SD6-1, 9BD12SD6-20, 9BD12SD6-21

[Contents of change]

		Before Change	After Change
Motor drive IC	Pulse sensor Or sensor-less type	LB11660FV	TC78B002
	Lock sensor type	LB11660RV	
	Manufacture	On-semiconductor	Toshiba
Operating voltage		5 VDC to 13.8 VDC Refer to FIG.1	7 VDC to 13.8 VDC Refer to FIG.1
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	

FIG.1**Before Change**

RATED VOLTAGE 定格電圧	12 V DC
OPERATING VOLTAGE 使用電圧範囲	5 V DC ~ 13.8 V DC

**After Change**

RATED VOLTAGE 定格電圧	12 V DC
OPERATING VOLTAGE 使用電圧範囲	7 V DC ~ 13.8 V DC

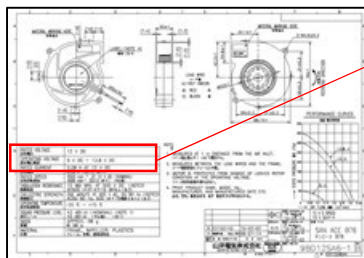
No. A0052841 - Attached Sheet 3

[MODEL]

9BD12HA6-1,
 9BD12HC6-1, 9BD12HC6-2, 9BD12HC6-21,
 9BD12HD6-1

[Contents of change]

		Before Change	After Change
Motor drive IC	Pulse sensor Or sensor-less type	LB11660FV	TC78B002
	Lock sensor type	LB11660RV	
	Manufacture	On-semiconductor	Toshiba
Operating voltage		5.5 VDC to 13.8 VDC Refer to FIG.1	7 VDC to 13.8 VDC Refer to FIG.1
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	

FIG.1**Before Change**

RATED VOLTAGE 定格電圧	12 V DC
OPERATING VOLTAGE 使用電圧範囲	5.5 V DC ~ 13.8 V DC

**After Change**

RATED VOLTAGE 定格電圧	12 V DC
OPERATING VOLTAGE 使用電圧範囲	7 V DC ~ 13.8 V DC

No. A0052841 - Attached Sheet 4

[MODEL]

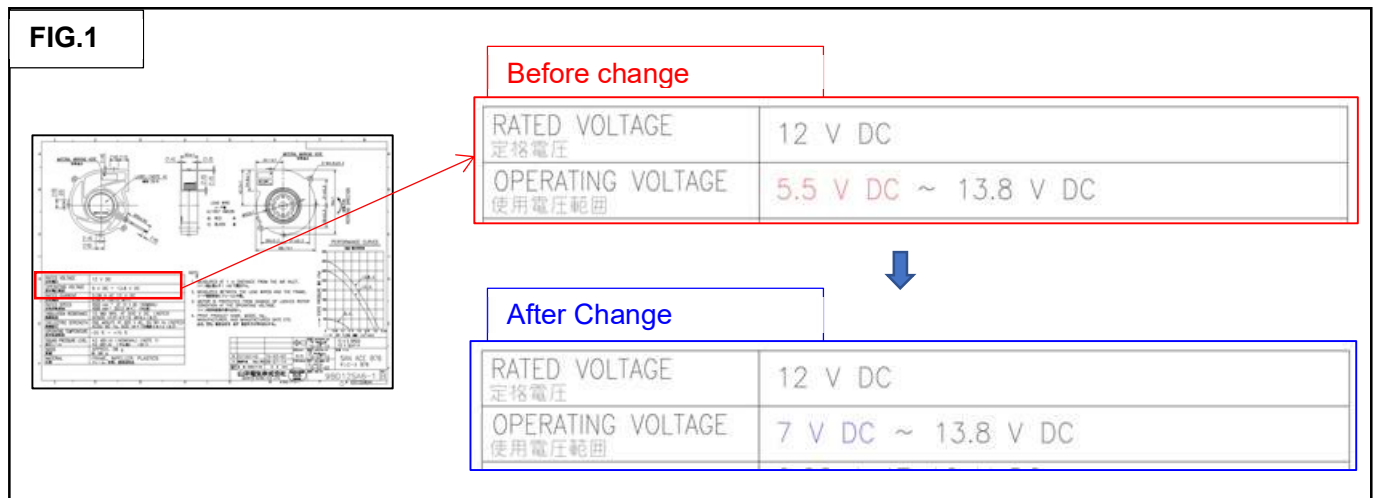
9BD12FA6-1,

9BD12FC6-1, 9BD12FC6-20, 9BD12FC6-21,

9BD12FD6-1, 9BD12FD6-20

[Contents of change]

		Before Change	After Change
Motor drive IC	Pulse sensor Or sensor-less type	LB11660FV	TC78B002
	Lock sensor type	LB11660RV	
	Manufacture	On-semiconductor	Toshiba
Operating voltage		5.5 VDC to 13.8 VDC Refer to FIG.1	7 VDC to 13.8 VDC Refer to FIG.1
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. A0052841 - Attached Sheet 5

[MODEL]

9BD12P6S01, 9BD12P6S03, 9BD12P6S04, 9BD12P6S05, 9BD12P6S06, 9BD12P6S09, 9BD12P6S10,
9BD12P6S11, 9BD12P6S12

[Contents of change]

		Before Change	After Change
Motor drive IC	Type name	LB11660FV	TC78B002
	Manufacture	On-semiconductor	Toshiba
Operating voltage		No change	
Electrical current		No change	
Speed		No change	
Operating temp.		No change	
Sound pressure level		No change	
Control terminal		No change	
Air flow – static pressure character		No change	
PWM duty cycle - Speed characteristic		No change	
Sensor spec.		No change	