

Design Change Notification

December 29th, 2021

To: Sanyo Denki America Cooling Distributors

Product: BLDC FAN MOTOR _____

Model: San Ace 80 (9GA) 80mm sq. x 15mm 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 Toshiba or 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 December, 2022 production (Estimated). Please note that the changeover schedule to new IC may change according to the number of products in the inventory.

No. A0052669 - Attached Sheet 1

[MODEL LIST]

San Ace 80 (9GA) – 80mm x 15mm thick

MODEL	Change contents
9GA0812G7001 9GA0812G7002 9GA0812G7003 9GA0812G7005 9GA0812G7006	Attached Sheet 2
9GA0812H7001 9GA0812H7002 9GA0812H7003 9GA0812H7004 9GA0812H7005 9GA0812H7006 9GA0812H7007 9GA0812H7D001 9GA0812H7D003 9GA0812H7D004 9GA0812H7D005	Attached Sheet 3
9GA0812P7G001 9GA0812P7G004 9GA0812P7G005 9GA0812P7G006 9GA0812P7G007 9GA0812P7G008	Attached Sheet 4
9GA0812P7S001 9GA0812P7S003 9GA0812P7S004 9GA0812P7S005 9GA0812P7S006 9GA0812P7S007	Attached Sheet 5

MODEL	Change contents
9GA0824G7002 9GA0824G7004 9GA0824G7005 9GA0824S7002 9GA0824S7003	Attached Sheet 6
9GA0824H7001 9GA0824H7002 9GA0824H7D001	Attached Sheet 7
9GA0824P7G001 9GA0824P7G003 9GA0824P7G004 9GA0824P7G008 9GA0824P7S001 9GA0824P7S004 9GA0824P7S005 9GA0824P7S006	Attached Sheet 8

No. A0052669 - Attached Sheet 2

[MODEL]

9GA0812G7001, 9GA0812G7002, 9GA0812G7003, 9GA0812G7005, 9GA0812G7006

[Contents of change]

	Before Change	After Change
Motor drive IC	LB11970 By On-semiconductor	TC78B002 By Toshiba
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	

No. A0052669 - Attached Sheet 3

[MODEL]

9GA0812H7001, 9GA0812H7002, 9GA0812H7003, 9GA0812H7004, 9GA0812H7005, 9GA0812H7006,
 9GA0812H7007,
 9GA0812H7D001, 9GA0812H7D003, 9GA0812H7D004, 9GA0812H7D005

[Contents of change]

	Before Change	After Change
Motor drive IC	LA6583 By On-semiconductor	TC78B002 By Toshiba
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	

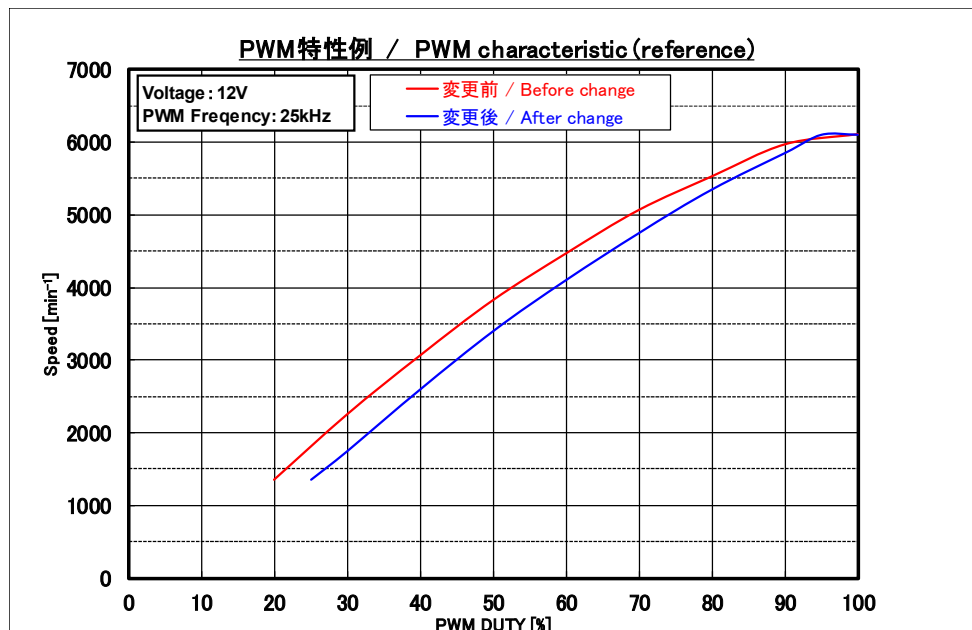
No. A0052669 - Attached Sheet 4

[MODEL]

9GA0812P7G001, 9GA0812P7G004, 9GA0812P7G005, 9GA0812P7G006, 9GA0812P7G007,
9GA0812P7G008

[Contents of change]

	Before Change	After Change
Motor drive IC	LB11970 By On-semiconductor	TC78B002 By 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	1350 min ⁻¹ @ 20% PWM duty Refer to below for characteristic	1350 min ⁻¹ @ 25% PWM duty Refer to below for characteristic
Sensor spec.	No change	



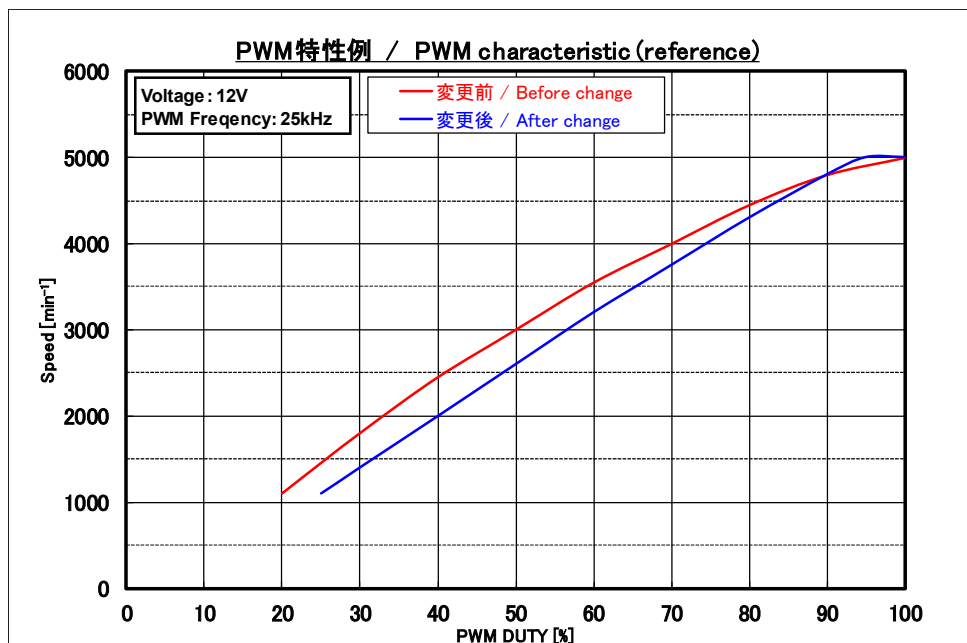
No. A0052669 - Attached Sheet 5

[MODEL]

9GA0812P7S001, 9GA0812P7S003, 9GA0812P7S004, 9GA0812P7S005, 9GA0812P7S006, 9GA0812P7S007

[Contents of change]

	Before Change	After Change
Motor drive IC	LB11970 By On-semiconductor	TC78B002 By 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	1100 min ⁻¹ @ 20% PWM duty Refer to below for characteristic	1100 min ⁻¹ @ 25% PWM duty Refer to below for characteristic
Sensor spec.	No change	



No. A0052669 - Attached Sheet 6

[MODEL]

9GA0824G7002, 9GA0824G7004, 9GA0824G7005,

9GA0824S7002, 9GA0824S7003,

[Contents of change]

	Before Change	After Change
Motor drive IC	LV8860 By On-semiconductor	NJW4320 By New-Japan-Radio
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	

No. A0052669 - Attached Sheet 7**[MODEL]**

9GA0824H7001, 9GA0824H7002, 9GA0824H7D001

[Contents of change]

	Before change	After change
Motor drive IC	LA6588 By On-semiconductor	NJW4320 By New-Japan-Radio
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	

No. A0052669 - Attached Sheet 8

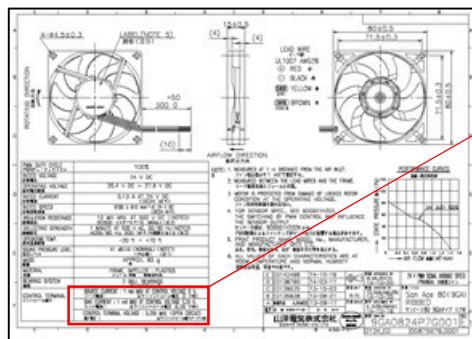
[MODEL]

9GA0824P7G001, 9GA0824P7G003, 9GA0824P7G004, 9GA0824P7G008,

9GA0824P7S001, 9GA0824P7S004, 9GA0824P7S005, 9GA0824P7S006

[Contents of change]

	Before Change	After Change
Motor drive IC	LV8860 By On-semiconductor	NJW4320 By New-Japan-Radio
Operating voltage	No change	
Electrical current	No change	
Speed	No change	
Operating temp.	No change	
Sound pressure level	No change	
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	



Before Change

SOURCE CURRENT : 1 mA MAX. AT CONTROL VOLTAGE 0 V ソース電流 : 1 mA MAX. 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 : 1 mA MAX. 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 : 5.25 V MAX. 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 : 2 mA MAX. 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 : 1 mA MAX. 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 : 5.25 V MAX. 以下 (コントロール端子オープン時)