

Design Change Notification

May 22nd, 2019

To: Sanyo Denki America Cooling Distributors

Product: BLDC FAN MOTOR

Model: San Ace 172 9E type

(Please refer Attached Sheet #1 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	Current Design	Modification	Description
1	Electronic parts and PWB	Use both lead type components and surface mount device. PWB Material: XPC or CEM-3	Use only surface mount device. PWB Material: XPC	Change to the surface mount device from lead type components due to the some production parts are discontinued and aging of the electronic component mounting equipment. Also change the PWB due to the change of electronic parts.
2	Circuit	See the attached sheet for circuit diagram.	See the attached sheet for circuit diagram.	Circuit changes as electronic parts are changed.
3	Motor	See the attached sheet for motor spec.	See the attached sheet for motor spec.	Change the motor of some models due to the change of the electronic parts.
4	Starting current	See the attached sheet for starting current.	See the attached sheet for starting current.	Change the starting current spec. of some models due to the change of the electronic parts.
5	Sensor spec.	See the attached sheet for sensor spec.	See the attached sheet for sensor spec.	Change the sensor spec. of some models due to the change of the electronic parts.
6	Implementation Date			Implementation Date: From the production in November 2019. Please note that the schedule might be changed due to existing component availability.

[Attached Sheet #1: Applicable Model List]

San Ace 172 9E type

Model	Reference Attached Sheet No.
109E1712F501	Attached Sheet #2
109E1712F502	Attached Sheet #2
109E1712F5D01	Attached Sheet #2
109E1712H501	Attached Sheet #2
109E1712H502	Attached Sheet #2
109E1712H508	Attached Sheet #2
109E1712H509	Attached Sheet #2
109E1712H5D01	Attached Sheet #2
109E1712M501	Attached Sheet #2
109E1712M502	Attached Sheet #2
109E1712M506	Attached Sheet #2
109E5712F501	Attached Sheet #2
109E5712F502	Attached Sheet #2
109E5712H501	Attached Sheet #2
109E5712H501-A03	Attached Sheet #2
109E5712H502	Attached Sheet #2
109E5712H5D01	Attached Sheet #2
109E5712M501	Attached Sheet #2
109E5712M502	Attached Sheet #2
109E5712M5D01	Attached Sheet #2

Model	Reference Attached Sheet No.
109E1748F501	Attached Sheet #4
109E1748F502	Attached Sheet #4
109E1748H501	Attached Sheet #4
109E1748H502	Attached Sheet #4
109E1748H5D01	Attached Sheet #4
109E1748H5D03	Attached Sheet #4
109E1748M501	Attached Sheet #4
109E1748M502	Attached Sheet #4
109E5748F501	Attached Sheet #4
109E5748F502	Attached Sheet #4
109E5748H501	Attached Sheet #4
109E5748H502	Attached Sheet #4
109E5748H5D01	Attached Sheet #4
109E5748M501	Attached Sheet #4
109E5748M502	Attached Sheet #4

Model	Reference Attached Sheet No.
109E1724F501	Attached Sheet #3
109E1724F502	Attached Sheet #3
109E1724F5D01	Attached Sheet #3
109E1724F5D03	Attached Sheet #3
109E1724H501	Attached Sheet #3
109E1724H502	Attached Sheet #3
109E1724H541-D	Attached Sheet #3
109E1724H543	Attached Sheet #3
109E1724H5D01	Attached Sheet #3
109E1724H5D04	Attached Sheet #3
109E1724H5D05	Attached Sheet #3
109E1724H5D06	Attached Sheet #3
109E1724M501	Attached Sheet #3
109E1724M502	Attached Sheet #3
109E1724M503	Attached Sheet #3
109E1724M504	Attached Sheet #3
109E1724M5D01	Attached Sheet #3
109E5724F501	Attached Sheet #3
109E5724F502	Attached Sheet #3
109E5724H501	Attached Sheet #3
109E5724H501-A01	Attached Sheet #3
109E5724H502	Attached Sheet #3
109E5724H502-2	Attached Sheet #3
109E5724H502-A01	Attached Sheet #3
109E5724H503	Attached Sheet #3
109E5724H504	Attached Sheet #3
109E5724H505	Attached Sheet #3
109E5724H507	Attached Sheet #3
109E5724H509	Attached Sheet #3
109E5724H510	Attached Sheet #3
109E5724H511	Attached Sheet #3
109E5724H512	Attached Sheet #3
109E5724H513	Attached Sheet #3
109E5724H514	Attached Sheet #3
109E5724H515	Attached Sheet #3
109E5724H516	Attached Sheet #3
109E5724H517	Attached Sheet #3
109E5724H5D01	Attached Sheet #3
109E5724H5D03	Attached Sheet #3
109E5724H5D04	Attached Sheet #3
109E5724M501	Attached Sheet #3
109E5724M502	Attached Sheet #3
109E5724M5D01	Attached Sheet #3

[Attached Sheet #2]

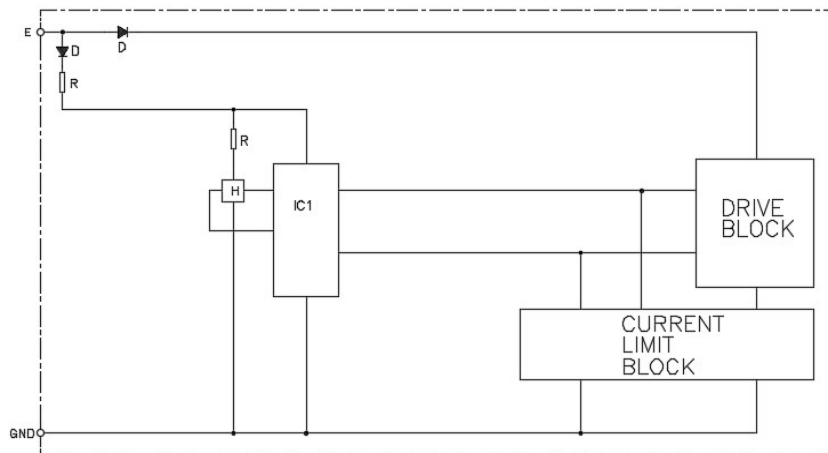
[Applicable Models]

109E5712H5xx, 109E5712H5Dxx, 109E5712F5xx, 109E5712M5xx, 109E5712M5Dxx
 109E1712H5xx, 109E1712H5Dxx, 109E1712F5xx, 109E1712F5Dxx, 109E1712M5xx

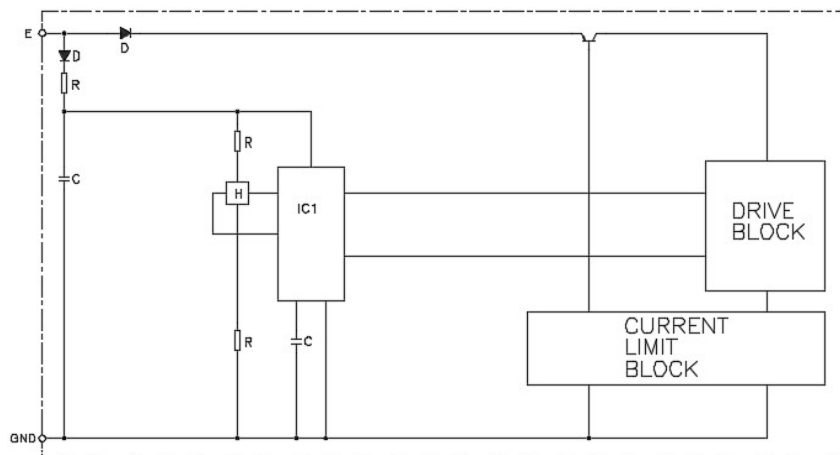
[Contents of change]

	MODEL	Current Design	Modification
Motor	109E5712H5xx, 109E5712H5Dxx 109E1712H5xx, 109E1712H5Dxx	$\phi 0.5 \times 86$ turns	$\phi 0.5 \times 94$ turns
	109E5712F5xx 109E1712F5xx, 109E1712F5Dxx	$\phi 0.45 \times 120$ turns	$\phi 0.45 \times 130$ turns
	109E5712M5xx, 109E5712M5Dxx 109E1712M5xx	$\phi 0.45 \times 125$ turns	$\phi 0.4 \times 175$ turns
Starting current	109E5712H5xx, 109E5712H5Dxx	Nom.: 2.4A Max.: 2.9A	Nom.: 2.85A Max.: 3.45A
	109E1712H5xx, 109E1712H5Dxx	Nom.: 2.59A Max.: 2.85A	Nom.: 2.85A Max.: 3.45A

Schematic circuit diagram before change



Schematic circuit diagram after change



[Attached Sheet #3]

[Applicable Models]

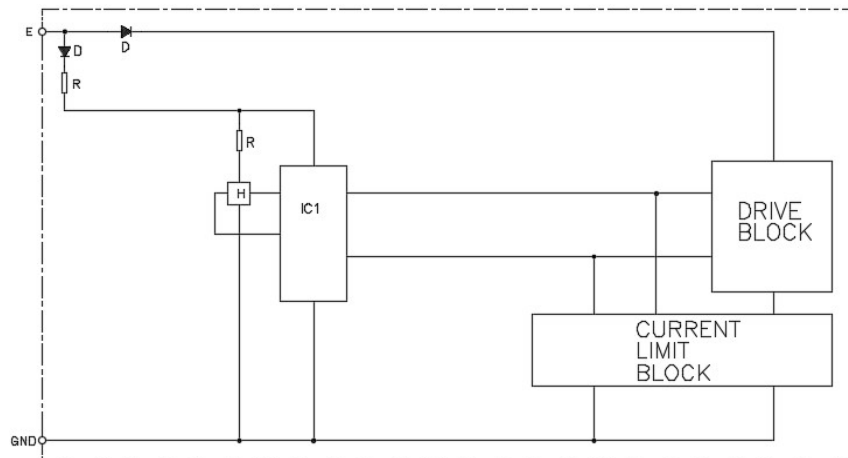
109E5724H5xx, 109E5724H5Dxx, 109E5724F5xx, 109E5724M5xx, 109E5724M5Dxx

109E1724H5xx, 109E1724H5Dxx, 109E1724F5xx, 109E1724F5Dxx, 109E1724M5xx, 109E1724M5Dxx

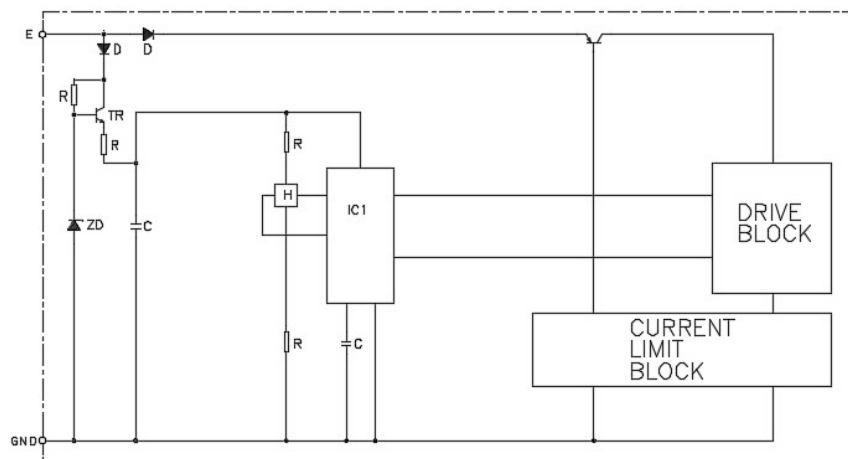
[Contents of change]

	MODEL	Current Design	Modification
Motor	109E5724H5xx, 109E5724H5Dxx 109E1724H5xx, 109E1724H5Dxx	ϕ 0.35x180turns	ϕ 0.35x180turns
	109E5724F5xx 109E1724F5xx, 109E1724F5Dxx	ϕ 0.3x235turns	ϕ 0.3x245turns
	109E5724M5xx, 109E5724M5Dxx 109E1724M5xx, 109E1724M5Dxx	ϕ 0.3x270turns	ϕ 0.29x330turns
Starting current	109E5724H5xx, 109E5724H5Dxx 109E1724H5xx, 109E1724H5Dxx	Nom.: 1.1A Max.: 1.3A	Nom.: 1.5A Max.: 1.7A

Schematic circuit diagram before change



Schematic circuit diagram after change



[Attached Sheet #4]

[Applicable Models]

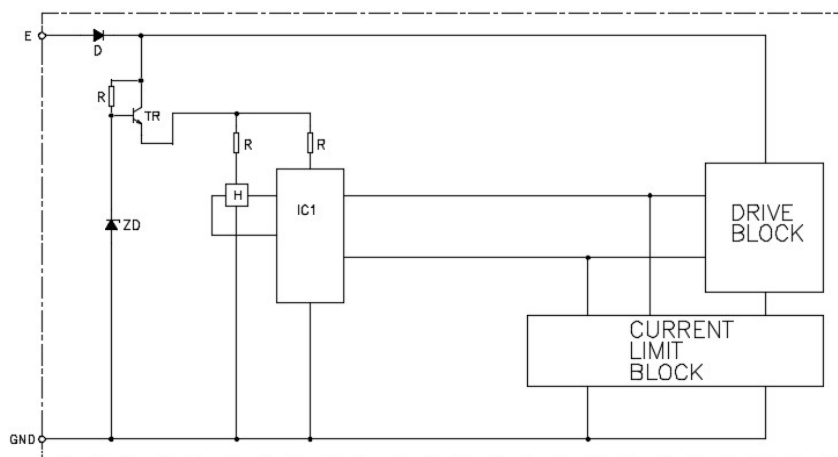
109E5748H5xx, 109E5748H5Dxx, 109E5748F5xx, 109E5748M5xx

109E1748H5xx, 109E1748H5Dxx, 109E1748F5xx, 109E1748M5xx

[Contents of change]

	MODEL	Current Design	Modification
Motor	109E5748H5xx, 109E1748H5xx	$\phi 0.3 \times 200$ turns	$\phi 0.24 \times 415$ turns
	109E5748H5Dxx, 109E1748H5Dxx	$\phi 0.22 \times 370$ turns	$\phi 0.24 \times 415$ turns
	109E5748F5xx, 109E1748F5xx	$\phi 0.3 \times 270$ turns	$\phi 0.21 \times 510$ turns
	109E5748M5xx, 109E1748M5xx	$\phi 0.22 \times 335$ turns	$\phi 0.19 \times 680$ turns

Schematic circuit diagram before change



Schematic circuit diagram after change

