

Instruction Bulletin

FLEX58 Heatsink Fan Kits 31158-296-50, -51, and -52

Class 8839

Retain for future use.

INTRODUCTION

This instruction bulletin contains installation instructions for Heatsink Fan Kits 31158-296-50, -51, and -52 used with the FLEX58 chassis drive controller. These fan kits contain heatsink cooling fans. The listed fan kits may be used as field replacement fans for an ECONO-FLEX™ drive controller or as new heatsink fan kits for installation of a FLEX58 chassis drive controller.

Refer to the ECONO-FLEX instruction bulletin 30072-450-10_, Appendix Spare Parts, to select the proper heatsink fan kit associated with the power converter used.

Refer to Table 1 to select the appropriate heatsink fan kit for the associated FLEX58 chassis drive controller.

Table 1: Heatsink Fan Kits for FLEX58 Chassis Drive Controllers

Fan Kit	460 V Chassis (FLEX*****)	208/230 V Chassis (FLEX*****)	Fan Volts	Power Source
31158-296-50	KU90N4, KD12N4, KD16N4, KD23N4	U90M2, D12M2	120 Vac	user-supplied (requires 23 VA)
31158-296-51	KD28N4, KD33N4, KD46N4	D16M2, D23M2	12 Vdc	chassis drive controller
31158-296-52	KD54N4, KD64N4, KD79N4	D28M2, D33M2, D46M2	12 Vdc	chassis drive controller
Not required	KU18N4, KU29N4, KU41N4, KU54N4, KU72N4	U29M2, U41M2, U72M2	N/A	N/A

You will need the following tools for the procedures outlined in this bulletin:

- Flat blade screwdriver
- Phillips head screwdriver

Table 2: Heatsink Fan Kit Contents

Fan Kit	Qty.	Description	Part No.
31158-296-50	1	Fan Assembly	31158-067-50
	1	Gasket	31158-074-01
	2	Extension Cables	21158-162-50
31158-296-51	1	Fan Assembly	31158-223-50
	1	Gasket	31158-228-01
	4	Rubber Plugs	29210-06320
	1	Extension Cable	31158-267-50
	1	Extension Cable	31158-267-51
31158-296-52	1	Fan Assembly	31158-240-50
	1	Gasket	31158-266-01
	4	Rubber Plugs	29210-06320
	2	Extension Cable	31158-267-50
	1	Extension Cable	31158-267-51



Figure 1: Fan Kit 31158-296-50

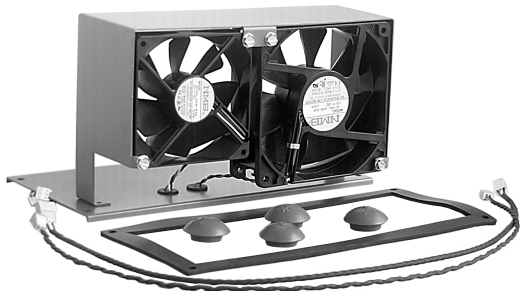


Figure 2: Fan Kit 31158-296-51

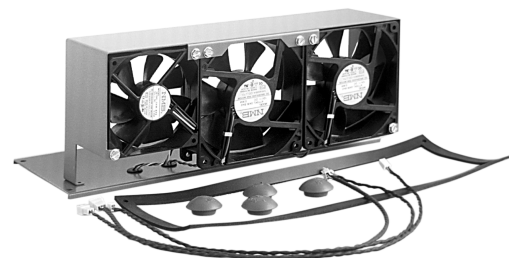


Figure 3: Fan Kit 31158-296-52

FIELD REPLACEMENT OF AN ECONO-FLEX HEATSINK FAN ASSEMBLY

INSTALLING A HEATSINK FAN KIT IN THE FLEX58 CHASSIS DRIVE CONTROLLER

When it is necessary to replace the heatsink fan assembly in an ECONO-FLEX drive controller, refer to the ECONO-FLEX instruction bulletin 30072-450-10_, Chapter 4, Field Replacement of Heatsink Fan Assembly, for the removal and installation procedure.

Where the fan kit is required, install it through the backpanel fan cut-out. For airflow direction, fan cut-out location, and screw sizes refer to the FLEX58 chassis drive controller instruction bulletin, 30072-450-47.

Always install heatsink fans so that air flows upwards.

- Install fan kit 31158-296-50 above the FLEX58 chassis drive controller.
- Install fan kits 31158-296-51 and 31158-296-52 below the FLEX58 chassis drive controller.

To install the fan kits in the back panel:

1. Remove the paper from the gasket to expose the adhesive. Place the adhesive side down on the inside of the panel around the fan cut-out perimeter.
2. The screw holes are not symmetrical in fan kit 31158-296-50. Check that the hole locations in the gasket match the holes in the backpanel.
3. Slide the heatsink fan through the fan cut-out and shift into place. Secure with four (4) 10-32 x 1/2 taptite screws. The taptite screws are **not** supplied in the fan kit.

WIRING THE HEATSINK FAN KITS

Fan Kit 31158-296-50

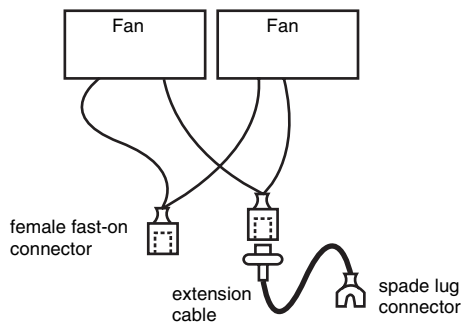


Figure 4: Wiring of Kit 31158-296-50

The 31158-296-50 fan kit must be powered from a separate user-supplied 120 Vac source. For heatsink fan kit 31158-296-50 wiring refer to Figure 4.

Four 22 in. long wires are attached to the heatsink fans. Both sets of wires terminate with a female fast-on connector. Install one extension cable to one fast-on connector, refer to Fig 4. This wiring connection is compatible for the terminations of a Class 9070 control transformer from Square D company.

- Terminate the wires ending in the spade lug on X2 of the transformer. Torque the screw to 20–25 lb-in.
- Terminate the wires ending in the fast-on connector to XF on the transformer fuse.

If using a different control transformer, the connectors may require modification for compatible wiring terminations. Use the second extension cable as needed.

Fan Kits 31158-296-51 and 31158-296-52

The 31158-296-51 and 31158-296-52 fan kits are powered from the FLEX58 chassis drive controller by a dedicated 12 Vdc power source.

- The 31158-296-51 fan kit has one two-wire cable and one three-wire cable, attached to the heatsink fans, and two corresponding extension cables.
- The 31158-296-52 fan kit has two two-wire cables and one three-wire cable, attached to the heatsink fan, and three corresponding extension cables.

1. Attach the extension cables to the fan cables, so that they reach the FLEX58 chassis drive controller's 12 Vdc power source.
2. Terminate the extension cables in the plug-in heatsink fan connector receptacles located on the left side of the FLEX58 chassis drive controller. For the plug-in receptacle locations, refer to, Wiring Terminal Locations, in the FLEX58 instruction bulletin, 30072-450-47.

NOTE: For fan kits 31158-296-51 and 31158-296-52, when the heatsink fan connectors are not properly attached to the FLEX58 chassis drive controller, the drive controller may cycle on and off or not function. If either of these occurs, check the heatsink fan connections.

INSTALLING THE RUBBER PLUGS

There are four rubber plugs in each of the 31158-296-51 and 31158-296-52 fan kits. Insert these rubber plugs in the four cylindrical corner holes of the FLEX58 chassis drive controller, refer to, Wiring Terminal Locations, in the FLEX58 instruction bulletin, 30072-450-47. This will seal the openings to provide a Type 12 rating of the FLEX58 chassis drive controller.

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