Programmable Controller
IC697ACC721/724/744

Rack Fan Assembly

Features

- Provides additional rack cooling
- Three fans per assembly
- Easy installation
- 120 VAC, 240 VAC, or 24 VDC models
- Used with 9-slot IC697 standard racks, 17-slot IC697 VME Integrator racks, and IC698 racks

Functions

The Rack Fan Assembly is an easily installed accessory for use with IC697 standard 9-slot racks, VME Integrator 17-slot racks and IC698 racks. The fan assembly consists of three fans. This fan assembly provides additional rack cooling for installations where heat buildup could be a problem. The fans have a low noise level and use ball bearings for extended life.

It is recommended that the fans be wired to the same source of power as the PLC. This will ensure that the fans are running when the PLC is active.

AC Rack Fan Assemblies (IC697ACC721/724): The three fans are wired in parallel using a cable assembly (supplied with the fan assembly) that plugs into the three fan wiring connectors (see Figure 1). When the cable assembly is installed, the fan on the left (looking at front of rack) will have a 3-foot lead with stripped ends for connecting to the 120 or 240VAC power source.

24 VDC Rack Fan Assembly (IC697ACC744): For Revision B Rack Fan Assemblies and later, the power cable wiring is the same as for the AC Rack Fan Assembles (IC697ACC721/724). For earlier versions, the three fans each have a pair of 12" (310

mm), 24 AWG leads. Connect these leads in parallel, with all red leads connected to +24 VDC, and all black leads connected to 24 VDC Common. Use wire ties to fasten leads down.

Rack/Fan Assembly Compatibility

The following, and later, versions of the Rack Fan Assemblies IC697ACC721B, 724B, and 744 are compatible with the following racks:

- IC697CHS782A and or later versions
- IC697CHS783A or later versions
- IC697CHS790D or later versions
- IC697CHS791D or later versions
- IC698CHS017 and IC697CHS117, all versions

Note: This version of the Rack Fan Assembly is compatible with racks built to conform to shock and high vibration specifications. These high vibration racks have an SV suffix added to the existing rack suffix. For example, IC697CHS790ESV denotes that the rack is a high vibration rack. All rack mounting dimensions and instructions in this data sheet apply to high vibration racks.

Earlier versions of the fan assemblies IC697ACC721A and 724A are compatible with the following IC697 racks.

- IC697CHS782A, B only
- IC697CHS783A, B only
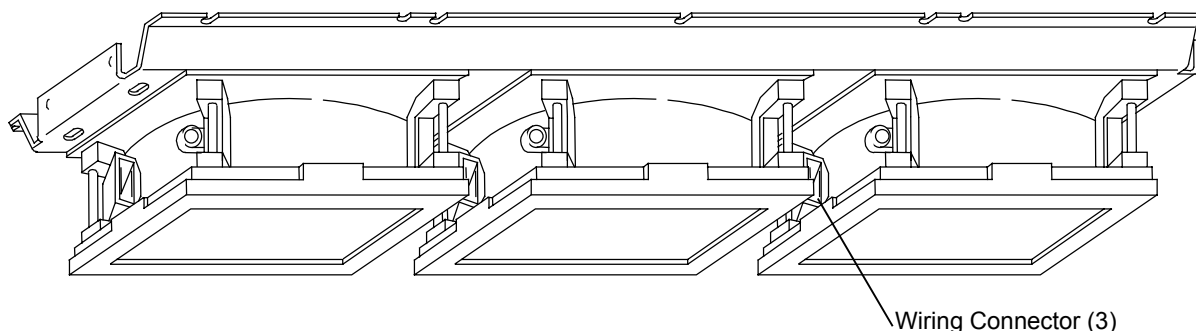- IC697CHS790D only
- IC697CHS791D only

Wiring Connector (3)

Figure 1. AC Rack Fan Assemblies IC697ACC721/724

The following illustration shows the position of the fan assembly when it is mounted on a rack. Note that it is mounted on the bottom of the rack with air flow from the bottom toward the top of the rack.
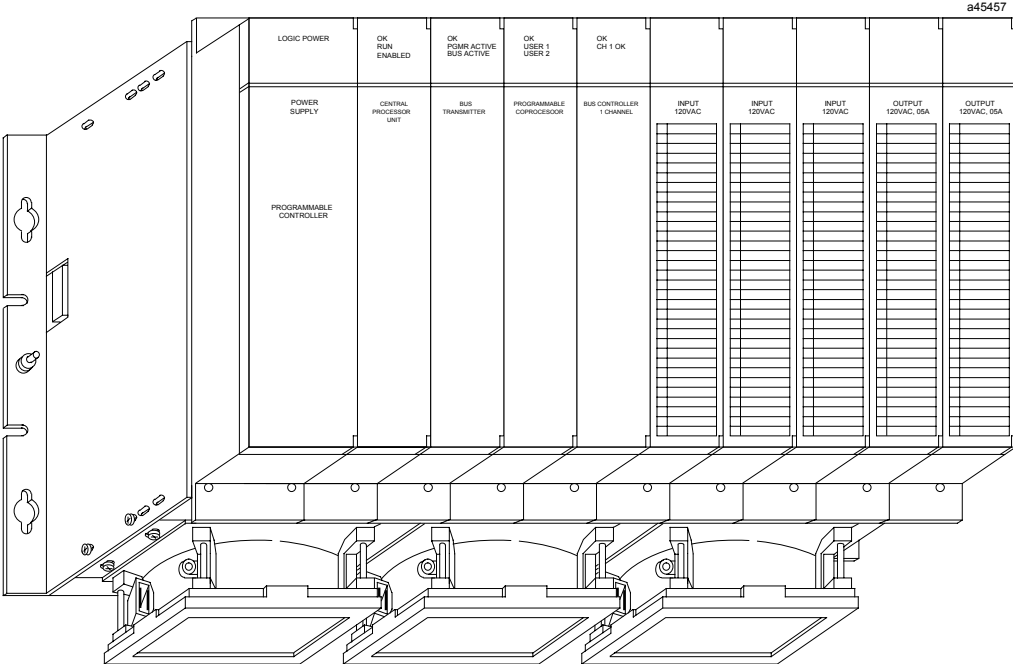

Figure 2. Typical Fan Assembly Mounting (AC Type Fan Assembly Shown)

Installing the Fan Assembly

To install the fan assembly, use the following instructions (refer to Figure 3). *The only tool you need to attach the fan assembly to the rack is a #2 Phillips screwdriver.*

Note: A minimum of 23cm (9 inches) between racks is required to remove and replace an individual fan.
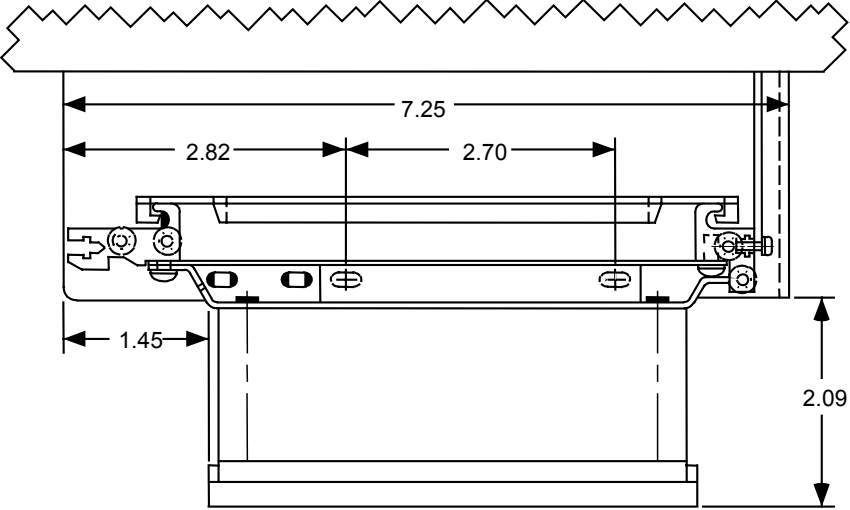

Figure 3. Fan Assembly Dimensions for Mounting

Mounting Fan Assembly on Racks

1. Position the fan assembly on the bottom of the rack and slide the flange on the rear of the fan assembly (flange without slots) under the lip of the rear rail on the rack.

2. While doing this, align the two holes in each end of the fan assembly with the holes in the rack side plates.

3. Install two screws in each end and secure the fan assembly by tightening the screws to 10-12 in.-lbs.

4. There are two additional screws that must be installed in the front rail. Install these screws and tighten to 10-12 in.-lbs.
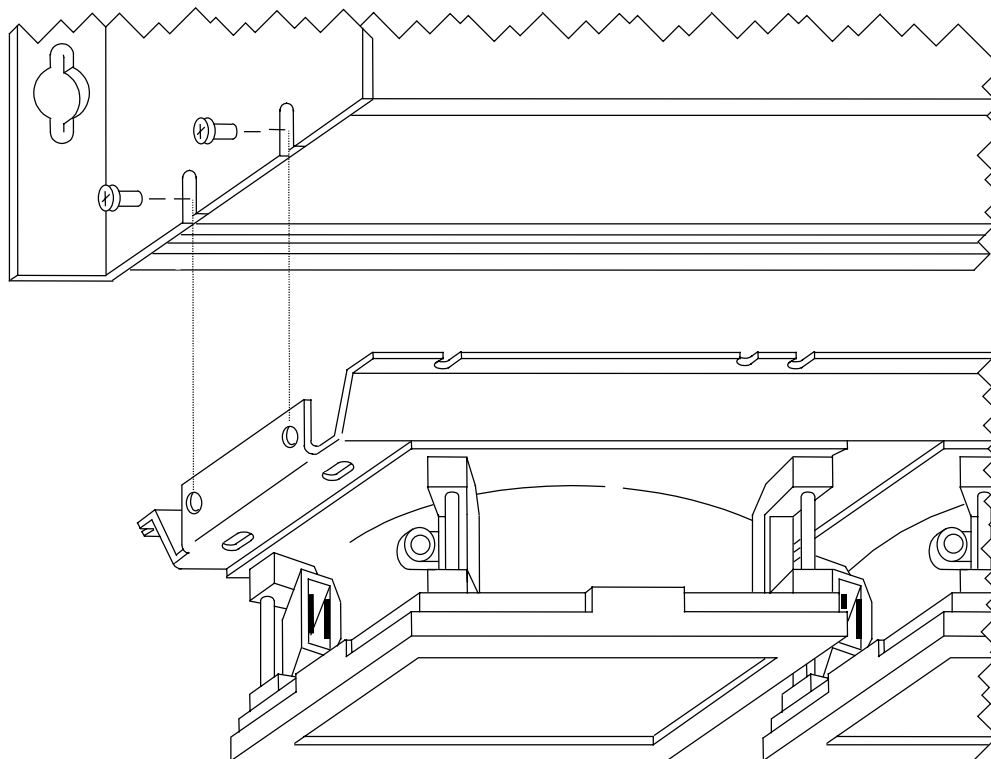

Figure 4. Mounting Details for Fan Assembly (AC Type Shown

Changing the Filter

Each fan has a polyurethane filter which can be removed, and cleaned or replaced as needed. Removing a filter is easy, simply lift the tabs located on all four sides of the plastic retainer. Remove the filter and either clean it or replace it with a new filter.

To replace a retainer, align the retainer with the filter assembly and snap the retainer back in place. Details of the filter assembly are shown in the following figure.
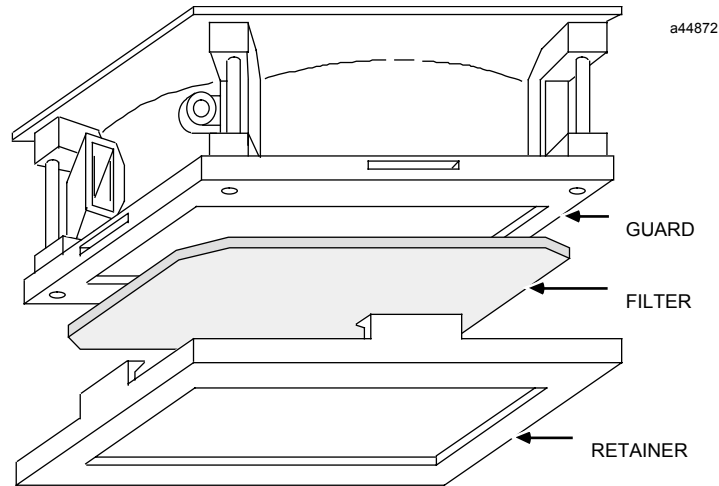
a44872

GUARD

FILTER

RETAINER

Figure 5. Filter Guard Assembly (AC Type Fan Shown)

Table 1. Specifications for IC697ACC721/724/744*

Operating Voltage:	120 VAC, 50/60 Hz (IC697ACC721)
	240 VAC, 50/60 Hz (IC697ACC724)
	24 VDC (IC697ACC744)
Input Power (each fan):	15 to 20 watts at 120 VAC
	16 to 20 watts at 240 VAC
	6.7 watts at 24VDC
Line Amps (each fan):	0.18 to 0.22 amps at 120 VAC
	0.09 to 0.14 amps at 240 VAC
	0.28 amps at 24 VDC
Locked Rotor Amps (each fan):	0.24 to 0.34 amps at 120 VAC
	0.12 to 0.19 amps at 240 VAC
	0.70 amps at 24VDC
Operating Temperature:	-28° to +60°C (-18.4° to +140°F)
Nominal Air Flow (without filter):	@120 or 240 VAC, 60 Hz: 108 CFM (each fan)
Nominal Air Flow (with filter):	@120 or 240 VAC, 60 Hz: 71 CFM (each fan)
Weight of Fan Assembly:	5.94 pounds (2.69 kg)
MTBF for each fan:	@ 40°C (104°F) >80,000 Hours (manufacturers specification)
	@ 60°C (140°F) >50,000 Hours (manufacturers specification)
Filter Assembly	
Retainer and Guard:	UL94V-0 Plastic
Filter Type:	Polyurethane Foam, 30 PPI (Pores Per Inch)

*For product standards and general specifications related to Series 90-70 systems, refer to GFK-0867B, or later.

For product standards and general specifications related to RX7i systems, refer to *the PACSystems RX7i Installation Manual*, GFK-2223.

Table 2. Ordering Information

Description	*Catalog Number*
Rack Fan Assembly, 120 VAC	IC697ACC721
120 VAC Replacement Fans	Sinwan S109AP-11-1TB
Rack Fan Assembly, 240 VAC	IC697ACC724
240 VAC Replacement Fans	Sinwan S109AP-22-1TB
Rack Fan Assembly, 24 VDC	IC697ACC744
24 VDC Replacement Fans	Sinwan SD1238AP-24HBT
Replacement Filter Element for all Rack Fan Assemblies	Comair Rotron 554146 (5 pack)

The Rack Fan Assembly comes as a kit that includes a fan assembly and mounting screws.