

InfraStruXure RPP Modular Power Distribution Unit: Hot Aisle Containment Application Guidelines and In Row Baying Instructions

Abstract

The 300-mm Remote Power Panel (RPP) Modular Power Distribution Unit (MPDU) (Only PDPM277H 400V EMEA/APJ/GCN and PDPM144F 208V NAM) is the power source for Rack Mounted Distribution Units and IT loads. As illustrated in **Figure 1**, it houses the hot-pluggable power backplane, monitoring bus, controller, Web card and the support structure for the Power Distribution Modules. Specially designed offset brackets ship with the unit to allow joining to other InRow® products and racks in the row or in a Hot Aisle Containment System (HACS) configuration. HACS door frame configurations do not allow the 300-mm RPP to be located at the end of the aisle.

Figure 1 – 300-mm RPP Modular Power Distribution Unit



In-row: How It Works

In an in-row configuration, the 300-mm RPP can be added anywhere in the row. The end of the row where the right side (facing the front of the unit) is exposed is an excellent location. This allows the unit to be accessible from the side for connecting to the power source without disturbing other equipment which may be already in the row. Power can also be connected from the rear of the unit if side access is not available. Use the supplied offset brackets to fasten the unit to other racks in the row. The offset brackets allow the unit to line up at the front and rear to the neighboring rack or cooling unit. The supplied flat brackets can be used to fasten a 300-mm RPP unit to another 300-mm RPP unit.

In a HACS: How It Works

HACS door frame configurations do not allow the 300-mm RPP to be located at the end of the aisle. The simplest installation method is to locate the 300-mm RPP and connect power lines before adding the racks and cooling units to the row. Use the offset brackets to fasten the 300-mm RPP to neighboring racks or cooling units.

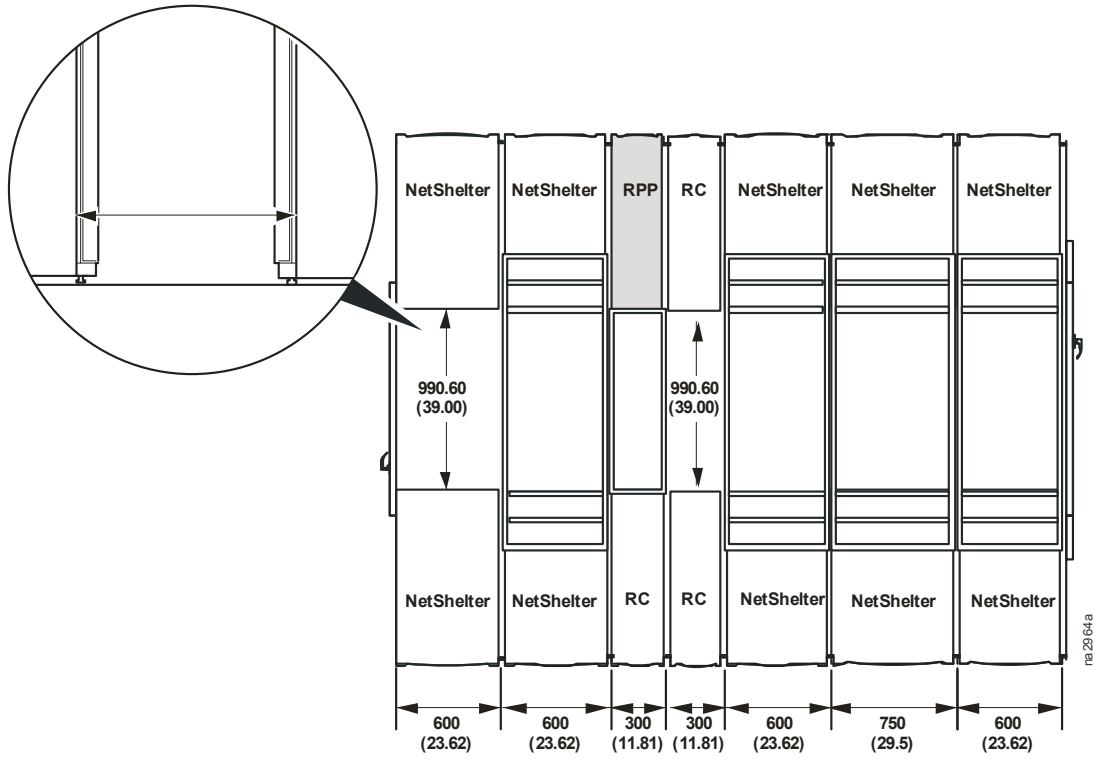
HACS ceiling panels are not attached to the roof of the 300-mm RPP itself but to the adjacent ceiling panels. The adjacent ceiling panels provide stability as they are also secured on their ends to racks or InRow cooling units. The 300-mm RPP should be located across the aisle from another 300-mm RPP or a 300-mm InRow cooling unit (InRow RC, RD) in order to use the 300-mm ceiling panel. If the 300-mm RPP is located across the aisle from a 300-mm InRow cooling unit, the ceiling panel can also be secured to the roof of the cooling unit. Alternately, a 600-mm ceiling panel can be used when the 300-mm RPP is located next to another 300-mm RPP or 300-mm InRow cooling unit and across the aisle from a 600-mm rack or InRow product.

Components

Table 1 – Parts, SKUs, and descriptions

Part No.	Description	SKU	Description
870-15061	Offset Bracket, RPP	ACDC1018	Ceiling Assembly 300-mm
870-11538	Flat Bracket	ACDC1019	Ceiling Assembly 600-mm

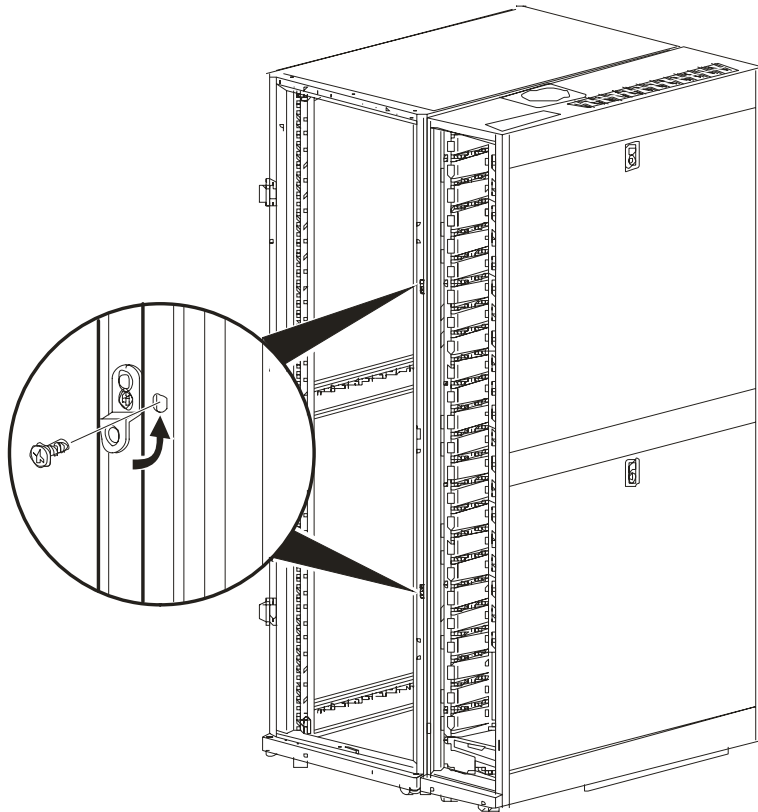
Figure 2 – Example: RPP in a HACS solution



Product and Component Configuration

Use offset brackets to align the 300-mm RPP to racks or InRow cooling units in the row. Attach the offset brackets at two points on either side of the 300-mm RPP at the front and the rear of the unit (8 total brackets).

Figure 3 – Installation using offset brackets



NOTE: Use the supplied flat brackets when securing two 300-mm RPP units together.

The brush ends of 600-mm ceiling panel ACDC1019 are removed when used with the 300-mm RPP. Only the center section is used. 300-mm ceiling panel ACDC1018 does not have brush ends. To install either panel, secure the panels at the sides to the neighboring ceiling panels using the stabilizing brackets included with the ceiling panel assembly. No mounting holes on the top of the 300-mm RPP line up with the mounting holes in the HACS ceiling panels. The adjacent panels hold the panel securely over the 300-mm RPP since they are also secured to a rack or cooling unit at each end. If the 300-mm RPP is located across from a 300-mm cooling unit, the end of the ceiling panel over the cooling unit may be secured.

Figure 4 – HACS ceiling panel assembly