

Power Distribution Products & Services

Power Distribution Units, Auto-Transfer Switches, Remote EPO Panels, and More

The Infrastructure of Power Distribution

Marway designs and manufactures power distribution products for electronic equipment in standard rack-mount form, and in custom enclosures.

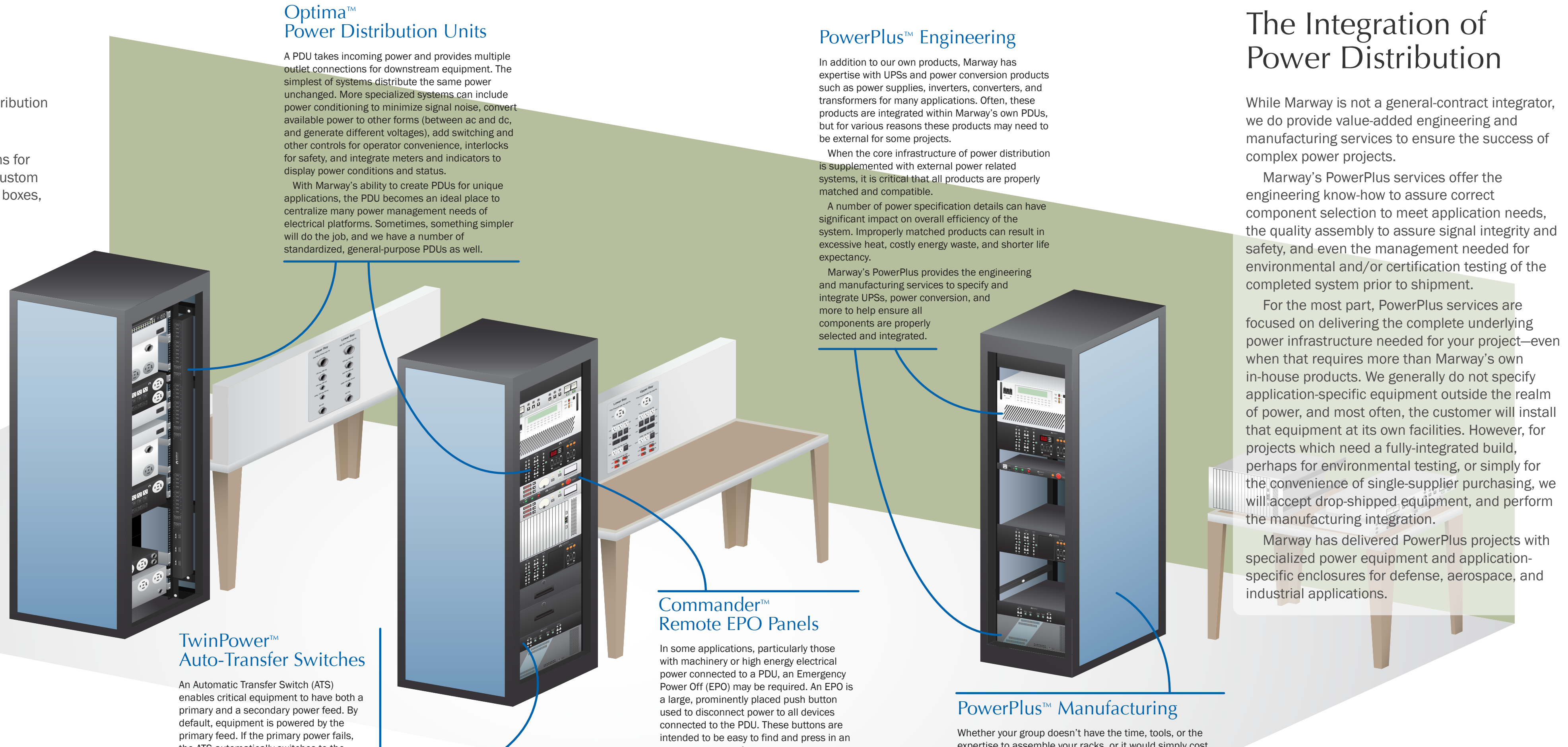
We specialize in creating optimized solutions for unique applications. Whether for single-unit, custom test platforms, or for high-volume, OEM power boxes, we're able to meet the needs of a variety of engineering and manufacturing needs.

We design and manufacture power distribution units (PDUs), auto transfer switches (ATSs) to handle dual power sources, and universal control panels (UCPs) to manage the on/off/EPO of multiple or remotely located PDUs.

These products form the core of power distribution infrastructure for applications in automated test, manufacturing, chemical refinement, data processing, broadcasting, and many others. These industrial and commercial applications often require customized power management for facilities with unique power conditioning needs, combinations of power types, and specialized monitoring and control.

Marway's products are also used in defense and aerospace. Some of the most unique combinations of ac, dc, and 400 Hz power types are found in these applications. Many of them require creative part selection and packaging to meet tight space and weight budgets.

Marway's ability to integrate power conditioning, conversion, control, and monitoring technologies, and select perfectly matched components for the job allows for optimization not possible with separate third-party products. The result is a solution balanced for space, weight, performance, and cost.



Optima™ Power Distribution Units

A PDU takes incoming power and provides multiple outlet connections for downstream equipment. The simplest of systems distribute the same power unchanged. More specialized systems can include power conditioning to minimize signal noise, convert available power to other forms (between ac and dc, and generate different voltages), add switching and other controls for operator convenience, interlocks for safety, and integrate meters and indicators to display power conditions and status.

With Marway's ability to create PDUs for unique applications, the PDU becomes an ideal place to centralize many power management needs of electrical platforms. Sometimes, something simpler will do the job, and we have a number of standardized, general-purpose PDUs as well.

PowerPlus™ Engineering

In addition to our own products, Marway has expertise with UPSs and power conversion products such as power supplies, inverters, converters, and transformers for many applications. Often, these products are integrated within Marway's own PDUs, but for various reasons these products may need to be external for some projects.

When the core infrastructure of power distribution is supplemented with external power related systems, it is critical that all products are properly matched and compatible.

A number of power specification details can have significant impact on overall efficiency of the system. Improperly matched products can result in excessive heat, costly energy waste, and shorter life expectancy.

Marway's PowerPlus provides the engineering and manufacturing services to specify and integrate UPSs, power conversion, and more to help ensure all components are properly selected and integrated.

The Integration of Power Distribution

While Marway is not a general-contract integrator, we do provide value-added engineering and manufacturing services to ensure the success of complex power projects.

Marway's PowerPlus services offer the engineering know-how to assure correct component selection to meet application needs, the quality assembly to assure signal integrity and safety, and even the management needed for environmental and/or certification testing of the completed system prior to shipment.

For the most part, PowerPlus services are focused on delivering the complete underlying power infrastructure needed for your project—even when that requires more than Marway's own in-house products. We generally do not specify application-specific equipment outside the realm of power, and most often, the customer will install that equipment at its own facilities. However, for projects which need a fully-integrated build, perhaps for environmental testing, or simply for the convenience of single-supplier purchasing, we will accept drop-shipped equipment, and perform the manufacturing integration.

Marway has delivered PowerPlus projects with specialized power equipment and application-specific enclosures for defense, aerospace, and industrial applications.

TwinPower™ Auto-Transfer Switches

An Automatic Transfer Switch (ATS) enables critical equipment to have both a primary and a secondary power feed. By default, equipment is powered by the primary feed. If the primary power fails, the ATS automatically switches to the secondary power feed. This ensures that critical equipment is provided with power, even if the primary power feed fails.

There are several pre-designed models to choose from offering a variety of inlet types, power loads, controls, and outlets. As with all Marway products, we specialize in optimizing a design to incorporate the exact features needed for your application.

Commander™ Remote EPO Panels

In some applications, particularly those with machinery or high energy electrical power connected to a PDU, an Emergency Power Off (EPO) may be required. An EPO is a large, prominently placed push button used to disconnect power to all devices connected to the PDU. These buttons are intended to be easy to find and press in an emergency scenario.

Marway's UCP series of remote panels consolidate the on, off, and EPO control features to manage one or more power distribution units. PDUs with remotely switchable outlets can then apply power on/off control in unison to downstream equipment. Some models allow additional remote EPO buttons.

PowerPlus™ Manufacturing

Whether your group doesn't have the time, tools, or the expertise to assemble your racks, or it would simply cost more to do it yourself, Marway can offer the added manufacturing capacity and expertise needed.

Assembling a complex set of power products into a rack requires knowledge of connectors, cables, enclosures, and numerous safety standards. There are many details learned through experience to ensure proper operation, signal integrity, ease of maintenance, and safety.

Using Marway's PowerPlus services to provide turn-key racks can help ensure a higher quality build which ultimately results in a more successful project.



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The application depicted in this illustration is hypothetical. The non-Marway products and components depicted are intended to be generic, and do not specifically represent any particular manufacturer or product model. The Marway products shown are also not intended to represent specific models.
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