

Pre-Configured Matching Unit (PCMU)

The solution to mitigate risk and save costs on relay upgrades

The PCMU represents the best choice to replace ABB legacy relays. It ensures a reliable, seamless upgrade due to the risk reduction only a wire-like solution can provide. It also offers the lowest possible cost of installation in the market by allowing you to use the existing wiring and connecting it into the wire-like terminals. Additionally, the time to update drawings after installation is virtually eliminated since no changes in wiring are required.

PCMU benefits:

- **Relion® REF615 technology** - Provides the ideal solution to upgrade ABB's DPU245, DPU445, and DPU 2000
- **Installation Time Savings**
 - **Wire-like** - Unit rear terminals exactly match legacy unit allowing changeouts without opening wire bundles. Matching the legacy relay terminal arrangement lowers risk, minimizes wiring expenses and reduces field hours
 - Installation can be completed in as little as 40 minutes
 - **Form & Fit**- PCMU utilizes the existing cutout; no panel modifications, cutting, or drilling is necessary
- **Engineering Time savings** - Save up to 70% of the time required to update existing drawings after the upgrade
- **Eliminate risk of setting conversions** - Settings conversion support is included to ensure your system keeps functioning properly as soon as the new units are powered on
- **Expanded communication capabilities** - Relion 615 series IEDs come standard with Modbus, DNP3.0, and IEC61850 GOOSE
- **Advanced technology** - Upgrade to the latest capabilities in protection, control, metering, and fault recording



The Relion 615 Series is a comprehensive family of Intelligent Electronic Devices (IEDs) perfectly aligned for the protection, control, measurement, and supervision of utility substations and industrial systems. It includes dedicated IEDs for Feeder, Motor, and Transformer protection.

The PCMU provides a seamless and cost effective way to re-
place legacy relays. It reduces risk and saves money. A detailed
comparison of the PCMU series vs the traditional replacement,
which requires an adapter plate and is not wire alike, shows
how you save time and money when replacing protection relays
and requires less personnel for less time.

The PCMU replaces DPU's of the 245, 445, and 2000 series. To
request a quote, contact your ABB representative with the style
numbers of your existing relays.

	Competitor solution			PCMU		
Engineering of solution	16	hr	\$3,200	4	hr	\$800
Translate protection settings to match old relays	4	hr	\$800	Included in PCMU		
Translate logic settings to match relays	4	hr	\$800	Included in PCMU		
New autocad dwgs	8	hr	\$1,600	2	hr	\$400
Adapter plate	\$50	1	\$50	Included in PCMU		
Miscellaneous	\$100	1	\$100	\$50	1	\$50
Factory prewiring to relay terminals	6	hr	\$300	Included in PCMU		
Removing existing relay & associated wiring	1	hr	\$50	1	hr	\$50
Drill hole, mount plate, wire to terminal blocks	1	hr	\$50	0.5	hr	\$25
Programming set up of new relay, including protection settings	2	hr	\$100	Included in PCMU		
Wire check (ring out)	1	hr	\$50	0.5	hr	\$25
Updating of drawings by customer	35	hr	\$7,000	10	hr	\$2,000
	TOTAL		\$14,100	\$3,350		

Note: Calculation is typical and may vary depending on specific customer conditions. Calculation assumes replacement is planned so no utility downtime is considered.

	Competitor solution			PCMU		
Task Owner	Personnel	Days	Man-days	Personnel	Days	Man-days
Engineering	2	1.25		1	0.50	
Drafting	2	2.75		1	1.63	
Shop Technician	1	0.75		Not required		
Field Technician	1	0.63		1	0.50	
TOTAL	6		9.38	3		2.63

Note: Calculation is typical and may vary depending on specific customer conditions. Calculation assumes replacement is planned so no utility downtime is considered.



PCMU features the same terminal layout as your existing relay.

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