Rittal – The System.

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Power Isolation Solution

Arc Flash Prevention Starts Here

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Arc flash prevention begins with Rittal

An arc flash is the explosive release of energy that occurs when there is a phase-to-phase or phase-to-ground arc fault. The many causes of an arc fault include: user error, accidental contact, corrosion, and insulation failure. Arc flash safety should be a major concern for any application that incorporates high current electrical equipment.

The real-life issues of an arc flash incident

- 5 to 10 arc flash incidents occur every day in the United States
- 2,000 workers are admitted to burn centers per year for treatment of severe arc flash burns
- Arc flash incidents cause multiple deaths per year
- Medical treatment may cost $1.5 million or more per accident
- Average recovery time for an arc flash victim is 8 to 12 months
- Average litigation cost of $10 to $15 million dollars

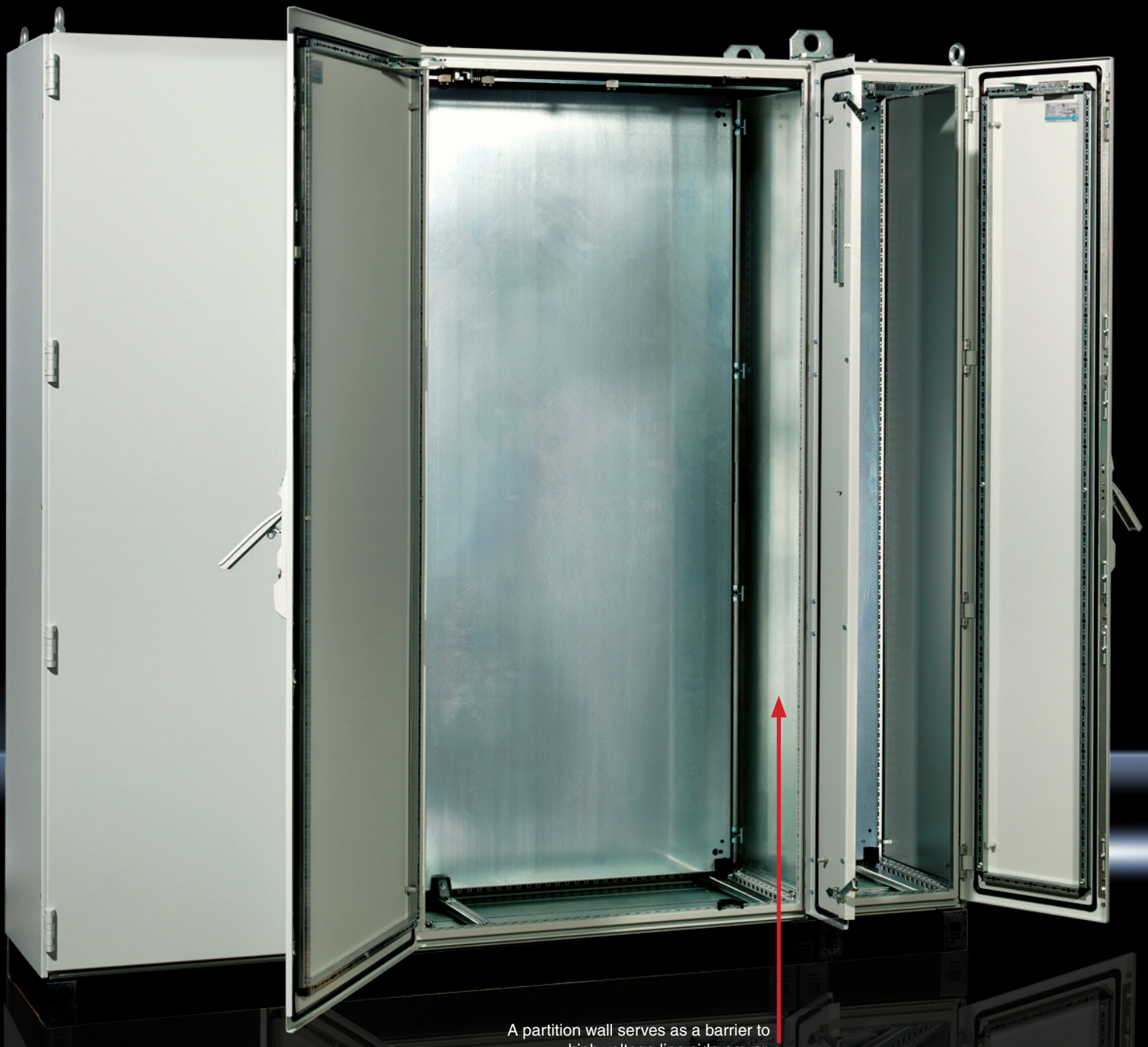
Arc flash prevention should be incorporated into any application from the beginning of the design process. Minimizing exposure to line side power helps to protect personnel from arc flash accidents. Rittal is proud to offer a solution that minimizes down time due to arc flash incidents and more importantly, protects the safety of your personnel.

Arc Flash Solution from Rittal-The System

The Rittal arc flash solution is designed to keep high and low voltage equipment within the confines of their own respective enclosures. Low voltage enclosures house equipment that is used for programming, data acquisition, and system adjustment. High voltage components are isolated within their own disconnect enclosure. Line side power is segregated within the power isolation enclosure.

When considering safety and design flexibility, Rittal's power isolation enclosure solution provides the capability to separate high and low voltage equipment, supporting compliance with NFPA 70E work place safety standards.

- Off-the-shelf power isolation solution decreases the risk of personnel being exposed to an arc flash incident
- Provides the capability to isolate low-voltage equipment and components from high voltage components
- High voltage, line side power is isolated within its own enclosure
- A partition wall serves as a barrier to high voltage line side power



A partition wall serves as a barrier to high voltage line side power.

An unlimited choice of low-voltage and high-voltage enclosure combinations.

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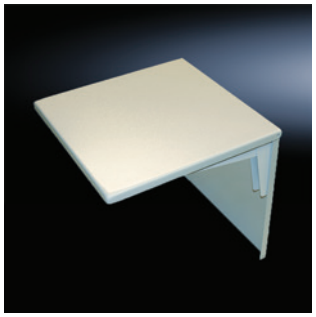
Customizable configurations and solutions from standard components provide a virtually unlimited choice of low voltage (less than 50 volts) and high voltage cabinet combinations to suit your specific application. The Rittal solution minimizes the need for personnel to wear arc flash personal protective equipment (PPE) when working on low voltage equipment, easing safety concerns during lock out tag out. More important than saving down time caused by having to power down the whole system to service, the Rittal arc flash solution helps to decrease the risk of your personnel being exposed to arc flash-related injuries.

Accessories, such as external fold-down shelves, external data pockets, and interface flaps, allow for data retrieval, equipment monitoring, and routine maintenance to be performed externally to minimize exposure to arc flash hazards.

Fold-down shelf

Collapsible shelf designed to support programming and monitoring equipment. Locks in raised position and folds down when not in use.

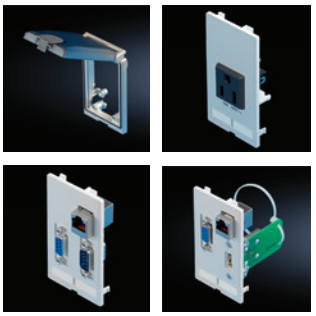


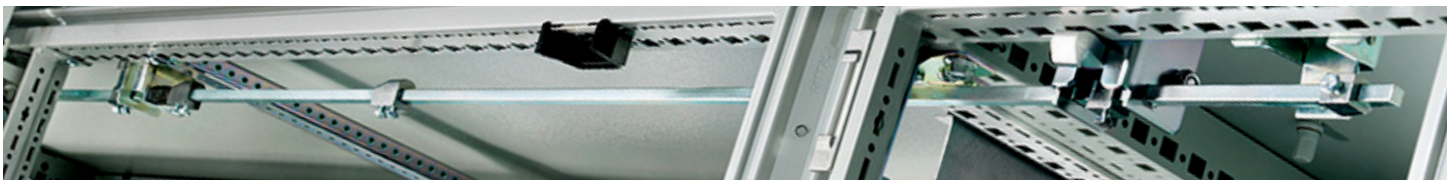
External data pocket

Based on the popular AE wallmount enclosure, this data pocket is designed to store wiring diagrams, operation manuals, and other documents.

Interface flaps, modular

Allows easy access to interfaces and sockets while allowing enclosure door to remain closed, ensuring protection from ambient influences and unauthorized access.

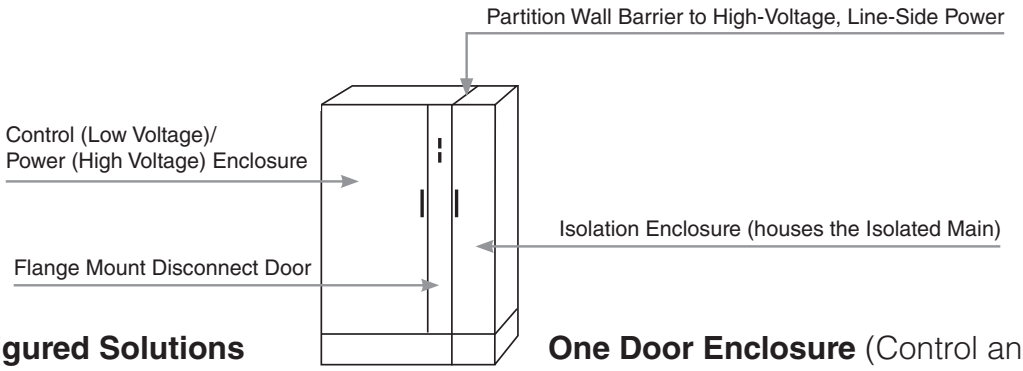




Interlocking door system ensures that the high voltage enclosure cannot be opened while disconnect switch is in “ON” position. For additional safety, all interlocked doors and master door must be closed in order to re-energize the enclosure.

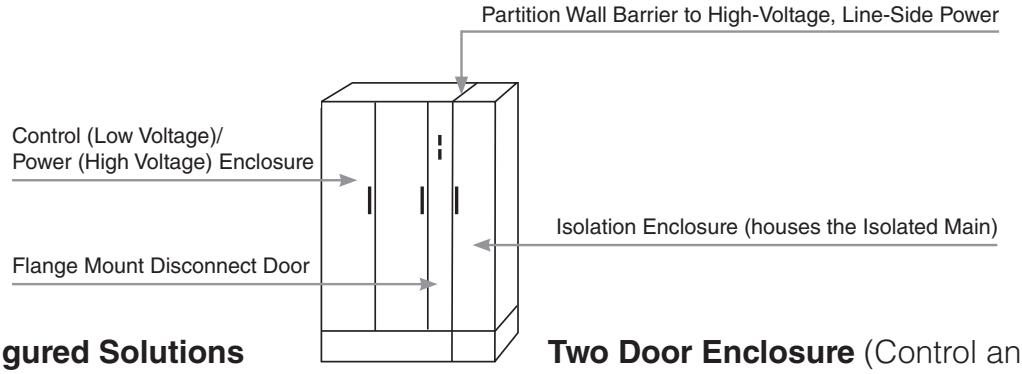
Part Number Explanation

	Height		Width (add numbers)			Depth
TS	83	R	32C	40P	16R	20
Product Family	Overall Height in Inches (Approximate)	Rittal System	Enclosure Width in Inches (Approximate) followed by Control (Low Voltage) and Power (High Voltage) Suffix P=Power=High Voltage C=Control=Low Voltage (<50 volts) PC=Power and Control (High and Low Voltage) combined		Isolation Enclosure Width in Inches (Approximate)	Overall Depth in Inches (Approximate)



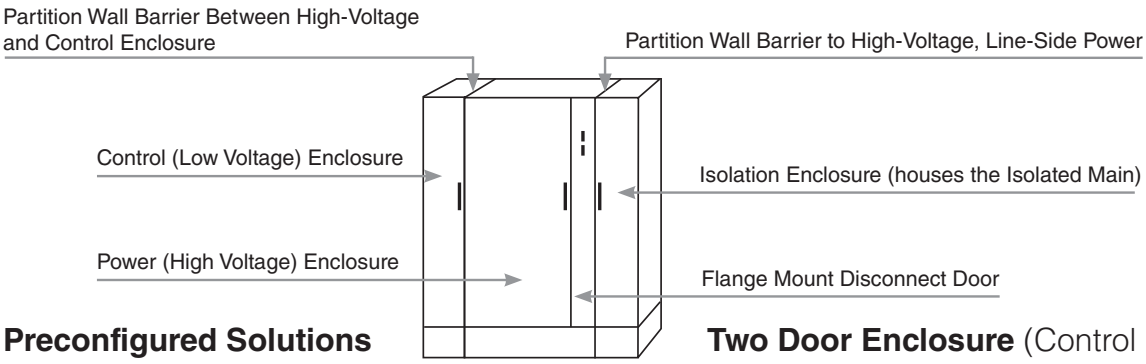
Preconfigured Solutions **One Door Enclosure** (Control and Power Combined)

Part Number	Description	Overall HxWxD (mm)	Panel Dimension High/Control Voltage Enclosure HxW (mm)	Panel Dimension Isolation Enclosure HxW (mm)
TS83R32PC16R20	1 Door Enclosure (1 Door for High Voltage and Control Voltage Combined)	2100x1200x500	1900x700	1900x300
TS83R40PC16R20		2100x1400x500	1900x900	1900x300
TS83R32PC16R24		2100x1200x600	1900x700	1900x300
TS83R40PC16R24		2100x1400x600	1900x900	1900x300
TS90R32PC16R24		2300x1200x600	2100x700	2100x300



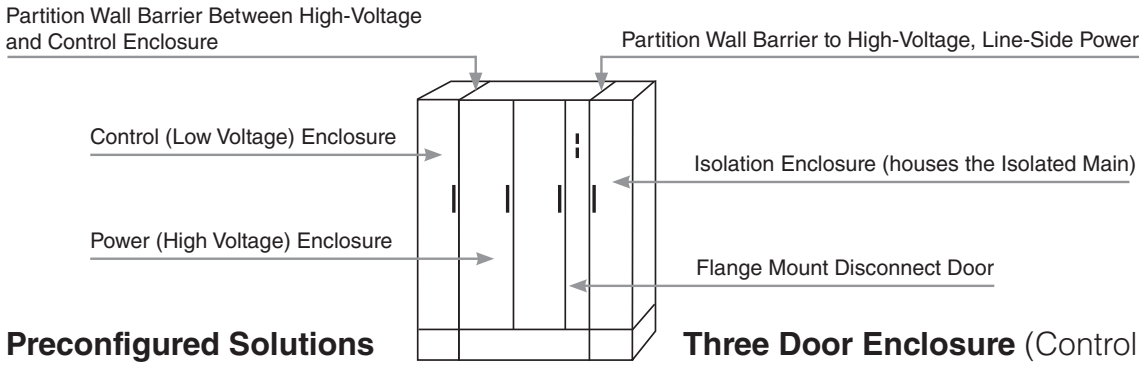
Preconfigured Solutions **Two Door Enclosure** (Control and Power Combined)

Part Number	Description	Overall HxWxD (mm)	Panel Dimension High/Control Voltage Enclosure HxW (mm)	Panel Dimension Isolation Enclosure HxW (mm)
TS83R71PC16R20	2 Door Enclosure (2 Doors for High Voltage and Control Voltage Combined)	2100x2200x500	1900x1700	1900x300
TS83R71PC16R24		2100x2200x600	1900x1700	1900x300
TS90R71PC16R24*		2300x2200x600	(1) 2100x900; (1) 2100x700*	2100x300
*(2) bayed enclosures for low/high voltage cabinet				



Preconfigured Solutions **Two Door Enclosure** (Control and Power Separate)

Part Number	Description	Overall HxWxD (mm)	Panel Dimension Control Voltage Enclosure HxW (mm)	Panel Dimension High Voltage Enclosure HxW (mm)	PanelDimension Isolation Enclosure HxW (mm)
TS83R24C32P16R20	2 Door Enclosure (1 Door Control Voltage; 1 Door High Voltage)	2100x1800x500	1900x500	1900x700	1900x300
TS83R24C40P16R20		2100x2000x500	1900x500	1900x900	1900x300
TS83R24C32P16R24		2100x1800x600	1900x500	1900x700	1900x300
TS83R24C40P16R24		2100x2000x600	1900x500	1900x900	1900x300
TS90R24C32P16R24		2300x1800x600	2100x500	2100x700	2100x300



Preconfigured Solutions **Three Door Enclosure** (Control and Power Separate)

Part Number	Description	Overall HxWxD (mm)	Panel Dimension Control Voltage Enclosure HxW (mm)	Panel Dimension High Voltage Enclosure HxW (mm)	Panel Dimension Isolation Enclosure HxW (mm)
TS83R24C71P16R20	3 Door Enclosure (1 Door Control Voltage; 2 Doors High Voltage)	2100x2800x500	1900x500	1900x1700	1900x300
TS83R24C71P16R24		2100x2800x600	1900x500	1900x1700	1900x300
TS90R24C71P16R24*		2300x2800x600	2100x500	(1) 2100x700 (1) 2100x900	2100x300
*(2) bayed enclosures for high voltage cabinet					

Customizable Solutions Your customizable solution can be expanded to include the widths listed below. Contact your Rittal Distributor or local representative for a solution that meets your precise needs.

Digit Description	Product Family	Overall Height in Inches	Rittal System	Low Voltage Enclosure Width in Inches	High Voltage Enclosure Width in Inches	Isolation Enclosure Width in Inches	Overall Depth in Inches
Available Options for 83" (2100 mm) Height Enclosure	TS	83"	R	24C=24"	32P=32"	16R=16"	20"
				32C=32"			
				40C=40"	40P=40"		
				48C=48"			24"
				63C=63"	63P=63"		
				71C=71"	71P=71"		
Available Options for 90" (2300 mm) Height Enclosure	TS	90"	R	24C=24"	32P=32"*	16R=16"	24"
				32C=32"			
				40C=40"			
				48C=48"			
*32" wide enclosure required; additional 32", 40", or 48" wide enclosures can be bayed to expand overall width							

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- Enclosures
- Power Distribution
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