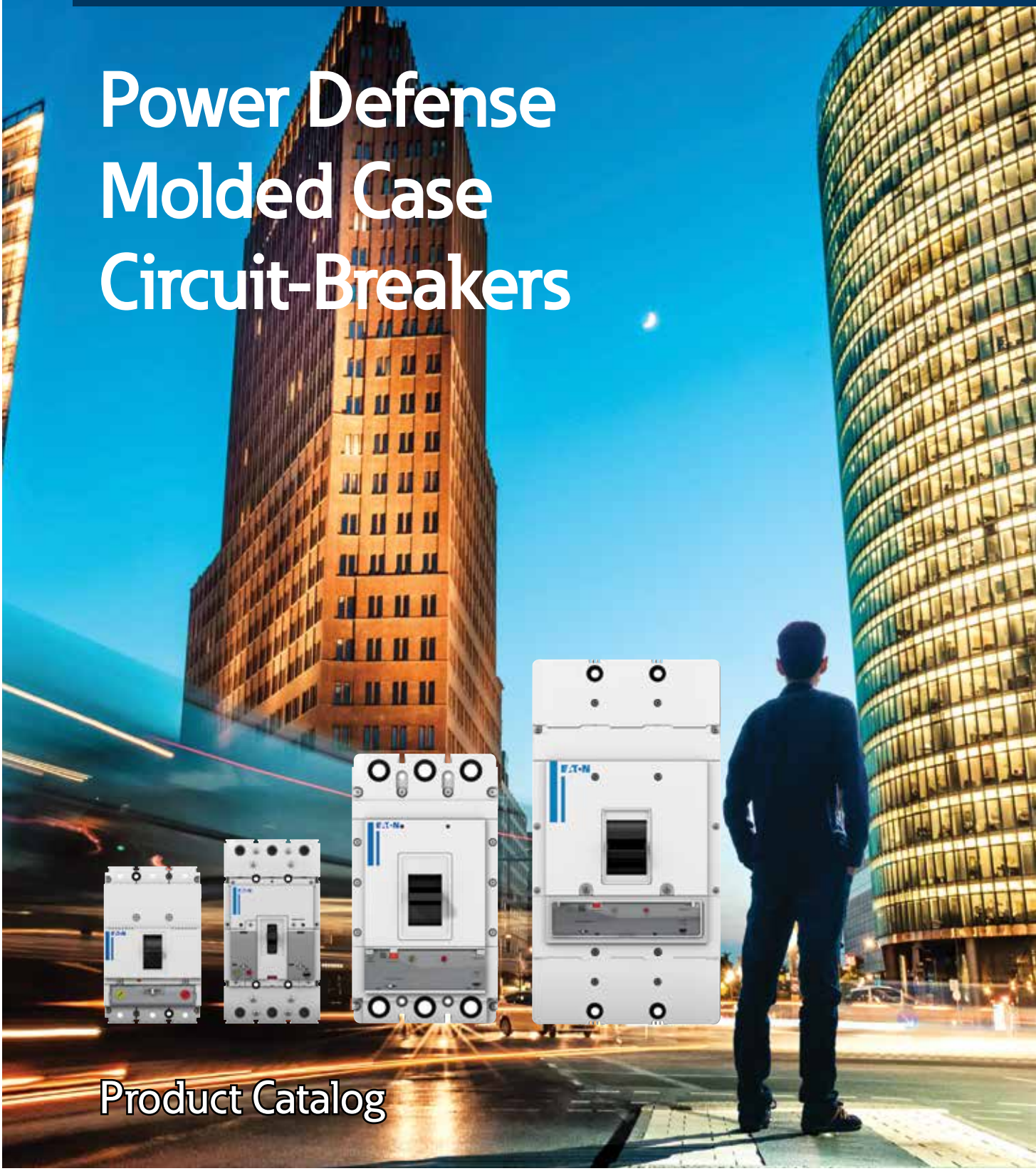
Power Defense Molded Case Circuit-Breakers



Product Catalog

Power Defense

A globally rated platform from Eaton.

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* At Eaton, we believe that power is a fundamental part of just about everything people do. That's why we're dedicated to helping our customers find new ways to manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably. To improve people's lives, the communities where we live and work, and the planet our future generations depend upon. Because this is what really matters. And we're here to make sure it works.

To learn more go to: Eaton.com/whatmatters

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We make what matters work.

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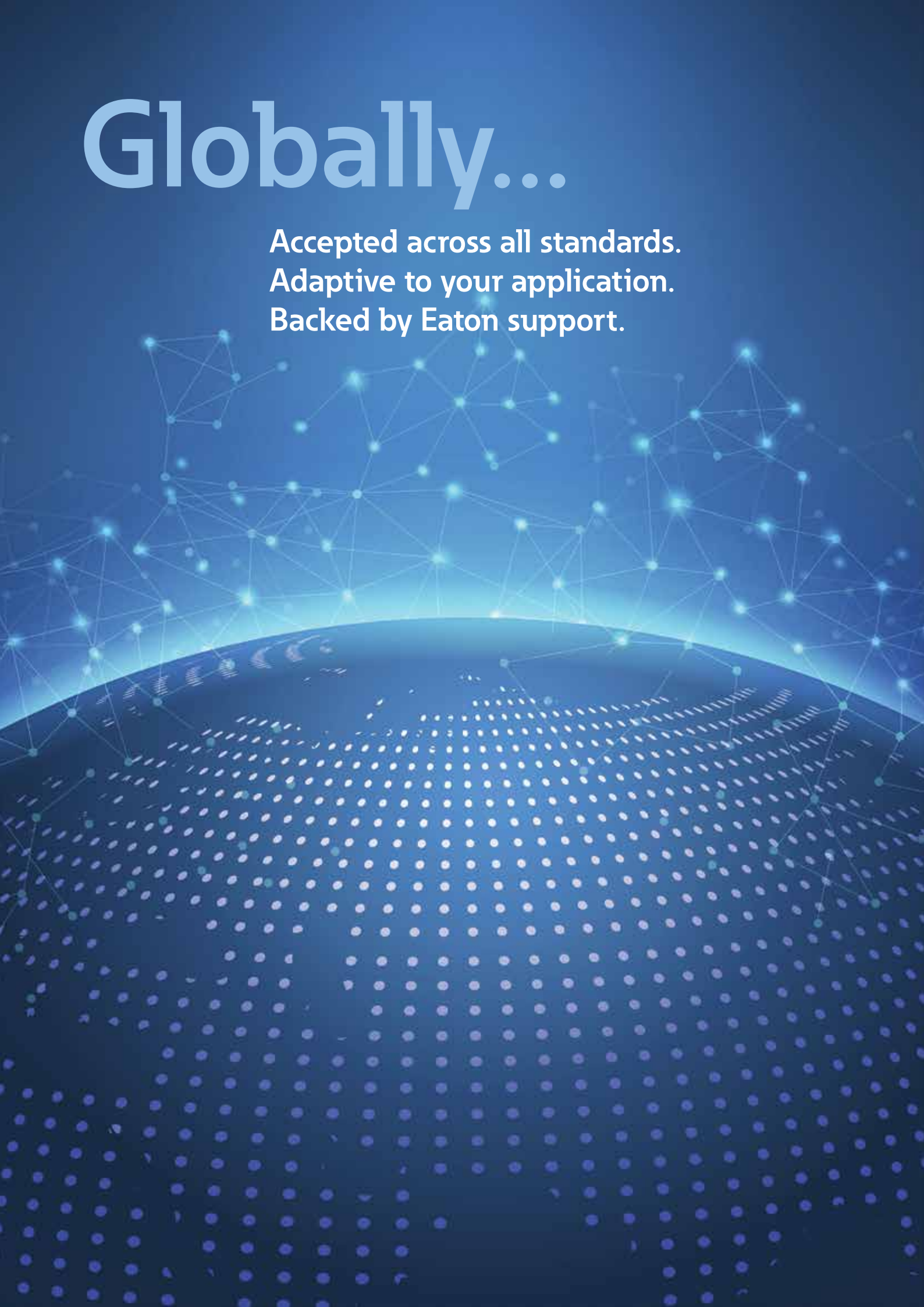
Power Defense Molded Case Circuit-Breaker


Globally...
Accepted across all standards.
Adaptive to your application.
Backed by Eaton support.

Eaton's globally rated Power Defense™ molded case circuit-breaker (MCCB) provides:

- Thermo magnetic breaker for the whole family up to 800A for 40°C and 50°C
- Latest circuit protection technology
- Power Xpert Release (PXR), Eaton's innovative and global based electronic trip unit.

The Power Defense MCCB portfolio is a globally based circuit-breaker design for regional needs. Eaton's best-in-class support enables you to order readily available product for on-time delivery.

Powering Business Worldwide

Power Xpert® Release
Electronic Trip Unit

Simpler communications. Better protection.

Embedded in the Power Defense molded case circuit-breaker portfolio, Power Xpert® Release (PXR) electronic trip units for global low-voltage commercial applications are Eaton's latest innovation in circuit protection technology. They're designed to help you simplify your application and enhance your protection.

- Unique Eaton trip unit platform enables you to easily change set points, test and configure circuit-breakers.
- Enhanced, easy-to-use interface allows you to view and adjust the trip unit settings.

Trip unit selection

The table (next page) indicates the range of trip units that are available across the frames. This range of trip units enables compatibility with global requirements and allows the breaker to be upgraded from the most basic protection functionality to a high-end intelligent power system node.

Thermal magnetic
Available with:
- Adjustable magnetic settings.
- Adjustable thermal settings.
- 40°C and 50°C calibration.
- 4 pole options with 60% and 100% protection.

Electronic
Available with:
- LI protection.
- LSI protection.
- USB connection.
- 4 pole setting for 60% (via PXPM).

Electronic and thermo magnetic trip unit configurations

		Frame 1	Frame 2/9	Frame 3	Frame 4
POWER DEFENSE TRIP UNITS	Continuous Current Range (A)	16 - 160	160 - 250 / 63 - 100	250 - 630	800 - 1000
	Certifications	IEC	IEC	IEC	IEC
	Thermal/Magnetic				
THERMAL MAGNETIC TRIP UNITS	Fixed Thermal Fixed Magnetic	•			
	Adjustable Thermal Adjustable Magnetic	•	•	•	•
	PXR 10				
ELECTRONIC TRIP UNITS	LI	N/A	•	•	•
	LSI	N/A	•		

PXR 10

All of the advantages of an electronic trip unit in a simpler interface for easy set-up.

- Available with basic LI protection and LSI motor protection.
- Includes programmable settings so that it can be tailored for the specific application.

Interruption Ratings

The Power Defense Molded Case Circuit-breaker range is a globally rated platform, with interruption ratings across a broad range of voltages.

These interruption ratings are optimized for power distribution and meet the need for the broadest range of commercial construction applications.

Consult the detailed technical table for each frame for the specific interruption levels.

	IEC Voltages and Ratings								
Interruption Rating	240 Vac			415 Vac			440 Vac		
	Icu	Ics	Icm	Icu	Ics	Icm	Icu	Ics	Icm
F	35	35	73.5	25	25	52.5	20	15	52.5
G	50	50	121	36	36	75.6	30	22.5	63
K	65	65	187	50	50	105	35	26	73.5
M	100	100	220	70	50	154	50	37	105
N	100	100	330	70	70	154	50	37	154

Powering Business Worldwide

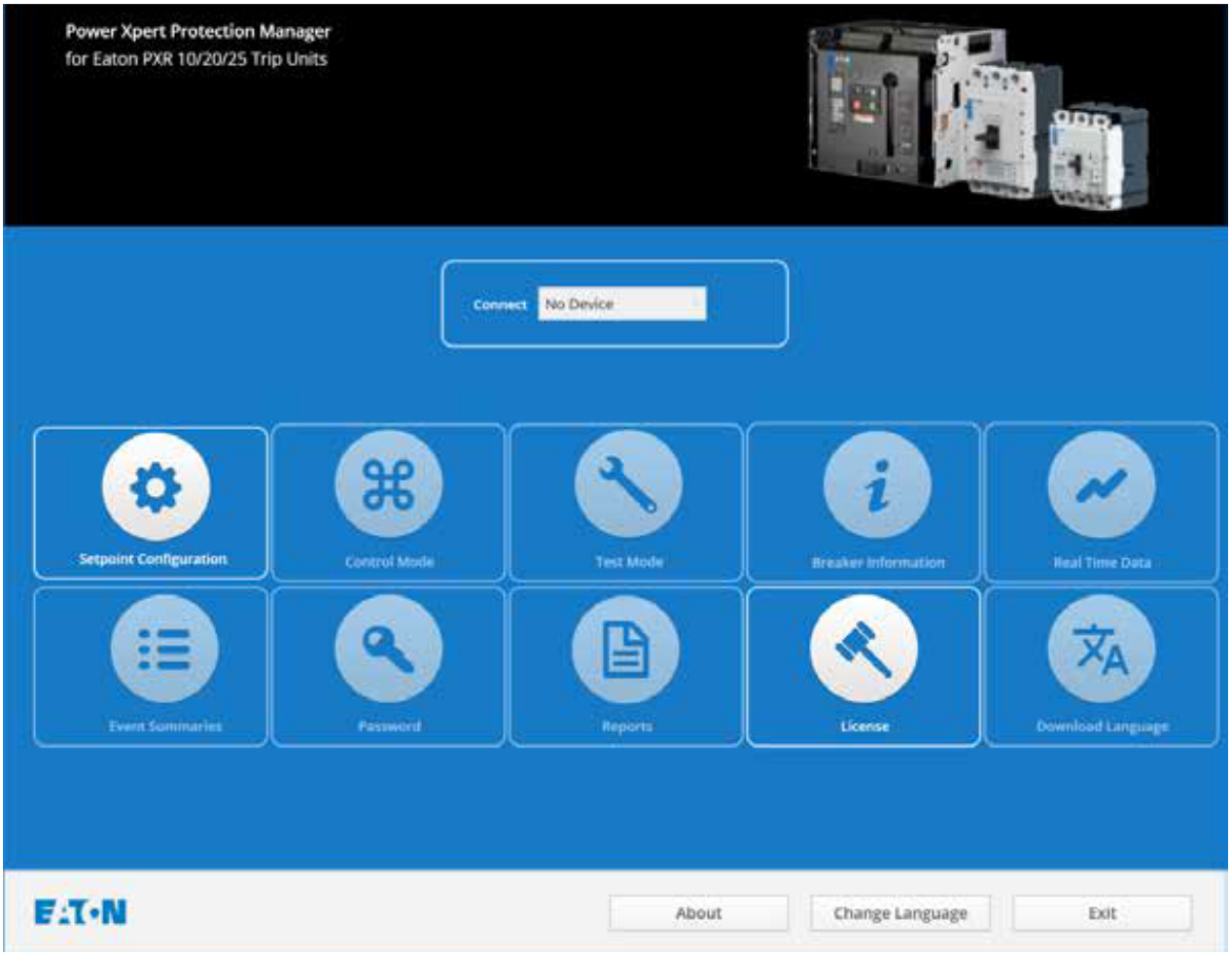
Power Xpert Protection Manager

Simpler operation. Reduced maintenance.

Once installed, your Power Xpert Release trip unit continues to provide cost savings and advanced functionality through the Power Xpert Protection Manager interface (PXPM). This intuitive user interface allows for simple trip unit set up and programming, to meet your application needs while decreasing maintenance and in-field testing time. The testing features and functionality, which can be run through a personal computer, offers savings through labor hour reduction and avoiding the need for expensive proprietary testing kits.

- **Set point Configuration:** Allows direct to-trip unit or offline set up, including duplication of settings between units.
- **Test Mode:** Sensor continuity test and create test reports.
- **Real-Time Data:** Provides information regarding all status from the trip unit.
- **Event Summaries:** Stores up to 200 events, detailed information on the most recent (10) trip and (10) alarm events, and time adjustments to the real-time clock.
- **Reports:** Allows for the formatting and printing of data from the testing performed.

User Interface



Test Report

Modular Accessories

The Power Defense molded case circuit-breakers feature new, modular accessories designed to make it easier than ever before to customize the breaker for the unique requirements of each application.

- A common line of auxiliary switch and bell alarms allow for interchangeability among the different Power Defense breaker frames to enable final breaker configuration at the point of use and minimize the amount of inventory required.
- Compact, modular shunt trips and under voltage releases can be easily installed and removed as the project or application dictates.
- A wide range of rotary handles with different additional features to support your applciation needs.
- Plug-in adapter kits for the whole Power Defense range, to convert your standard circuit-breaker in a Plug-in unit for maintenance reduction within your system.
- State of the art remote operators for all frames to support any kind of remote control need for your system.
- The wide range of different terminal connections for all frames provides you with additional customization capability.
- External RCD for frame 1-3 and many other additional accessories to cover any need or specialization for your application.

Powering Business Worldwide

Power Defense Molded Case Circuit Breaker (MCCB): PDE1, 2, 3, and 4 (up to 1,000A)

Product Description

Eaton's Power Defense MCCBs can safely and reliably distribute, switch and control electrical energy for commercial construction applications. They feature innovative protecting conception and offers fault diagnosis and communication functions via USB.

- Compact structure, with four current frames
- 3-pole and 4-pole (60% version)
- Rated current from 16A up to 1,000A
- Multiple mounting methods
- Auxiliary contacts of the same catalogue models are mounted at different positions, offering different functions
- Decreased types and models, with lower inventory requirement
- Universal cutout dimensions for different models
- Additional switch disconnector offering for all frames

PDE1 circuit-breaker

- Current up to 160A
- Thermo-magnetic circuit-breaker with 40°C and 50°C calibration
- A variety of accessories can be added, including shunt, under-voltage, motor-operated and earth leakage units
- Thermo-magnetic settings are adjustable when I > 32A; breaking capacity available up to M rating

PDE9/2 circuit-breaker

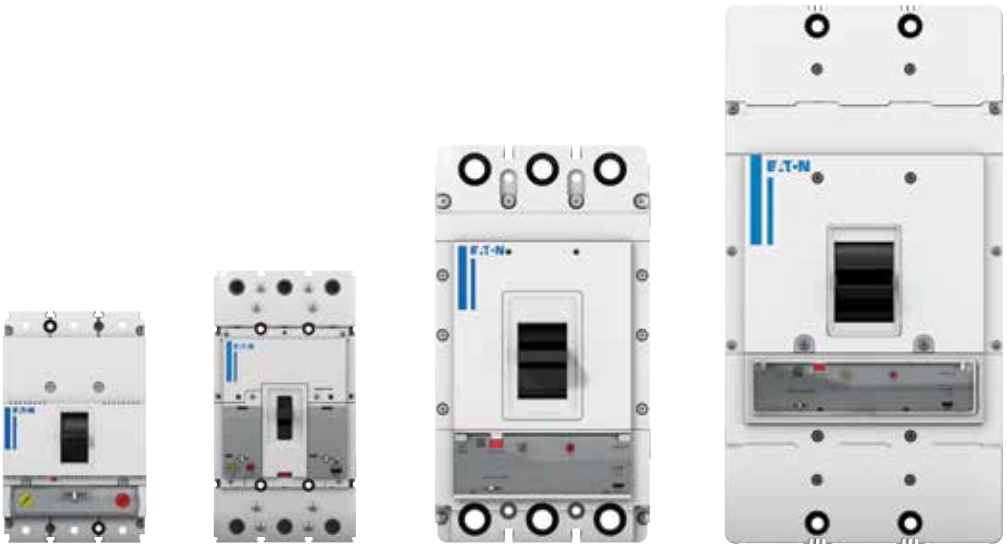
- PDE2 thermo-magnetic circuit-breaker (up to 250A), thermo-magnetic settings adjustable
- PDE2 electronic circuit-breaker up to 250 A adjustable and a special PDE9 electronic circuit-breaker which is smaller can can be adjusted down to 16 A
- A variety of accessories can be added, including shunt, under-voltage, motor-operated and earth leakage units

PDE3 circuit-breaker

- Thermo-magnetic / electronic type, with adjustable thermo-magnetic and electronic settings
- Current up to 630A
- A variety of accessories can be added, including shunt, under-voltage, motor-operated and earth leakage units

PDE4 circuit-breaker

- Thermo-magnetic / electronic type, with adjustable thermo-magnetic and electronic settings
- Current up to 1,000A
- A variety of accessories can be added, including shunt, under-voltage, motor-operated and earth leakage units



Introduction to the Power Xpert® Release Trip Unit

The Power Xpert Release (PXR) trip unit has features and flexibility that allow configuration for a wide variety of protection applications. Communication options support integration into supervisory systems to monitor performance and, if desired, control the circuit-breaker. Advanced metering of current, voltage, energy and power allow monitoring of real-time energy use.

The PXR trip unit is available in multiple MCCB and ACB models. All PXR trip units share common features including configuration of their protective functions, cause-of-trip information, built in secondary injection for testing and a USB port for connection to configuration and monitoring software. Certain models include energy metering with 1% accuracy, network connectivity, multi-language display and advanced protection features.

The PXR trip unit, along with current sensors and a trip actuator, is the subsystem of a circuit-breaker that provides the protective functions. The PXR analyzes signals from the current sensors; if current level and time delay settings are exceeded then the PXR will trip the circuit-breaker. The overload and short circuit tripping characteristics for a specific circuit-breaker are determined by the current rating and user selected protection settings.

Metering uses those same current sensors to monitor and record current. In models that include voltage metering, a rich set of power and energy data is available with 1% accuracy. Additionally the PXR supports a waveform capture mechanism by which you can monitor your systems currents and voltages.

The communication systems provide real-time status and data from the PXR for integration with business information systems, control schemes or other systems used by service personnel. The PXR trip units support several field-busses including ModbusRTU, Ethernet and ProfibusDP. Ethernet communications also includes an advanced web-interface for use with phone, tablet or PC browsers.

Certain models have a LCD display to make set-up and system monitoring possible from the face of the MCCB. Other models have rotary switches to set the available protection settings. Regardless of the interface on the PXR trip units, all aspects of the configuration and performance are available using Power Xpert Protection Manager (PXPM) software.

The Power Xpert Release trip unit is available in several product families like Power Defense, NZM and IZMX.

Visit our Homepage for more detailed information http://www.eaton.eu

PXR User Interface

The PXR trip unit interface is common across all frame sizes of the Power Defense Family of circuit-breaker frames. This common user interface ensures rapid configuration and makes it easier to train service personnel. In each frame size, the elements of the interface are easily recognized even when compressed into smaller fames or mounted horizontally.

The PXR 10 has the simplest user interface (UI), including the essential protection settings and status. Refer to the front panel illustrations of the PXR 10 to determine which user interface elements are provided.

Key Interface Elements

Status Indicator

All PXR trip units have an indicator in the top left labeled "STATUS". During normal operation, this indicator blinks green (on and off approximately once each second), indicating that the trip unit is operating normally.

The status indicator blinks red if the trip unit detects an internal problem. This indicates a problem with the trip actuator coil, a firmware error, or a mechanism error. Take immediate action to replace the trip unit or breaker.

When the status indicator remains off, there is no auxiliary power applied or insufficient primary current to power the trip unit. PXR trip units in MCCB will self-power at 20% of the circuit-breaker frame In.

USB – Test & Configuration Port

The lower right corner of all PXR trip units has a standard micro-B USB connector. Power Xpert Protection Manager software (PXPM) uses the USB port to configure, test and monitor the trip unit. Download the installation package for PXPM software from http://www.eaton.com/pxpm

A USB cable connection from a host PC will power the trip unit when the trip unit is not harvesting sufficient energy from the mains or there is no auxiliary power applied. Commercially available battery packs can also power the trip unit. This connection is intended for temporary use while a user is configuring, monitoring or testing the trip unit.

Push to Trip

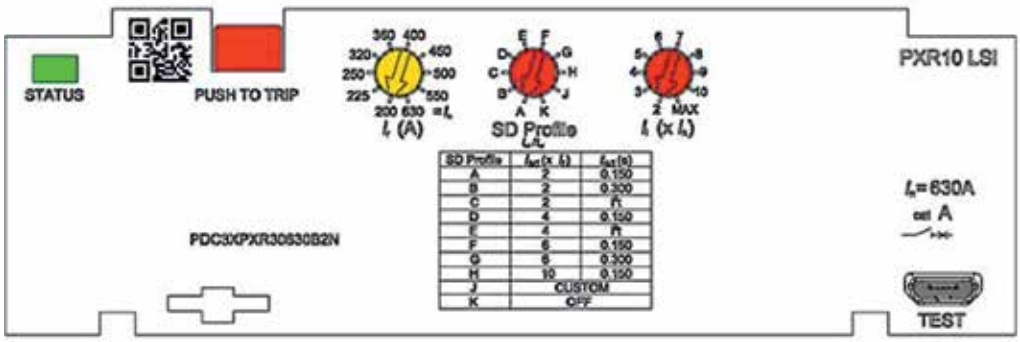
A red button on the front of the trip unit or circuit-breaker provides a mechanical means of tripping the circuit-breaker. Use a small tool to depress it and trip the breaker mechanism.

Tamper Proof Cover

A clear plastic cover allows the settings to be viewed but not changed. Controlling physical access is a key element in your comprehensive security policy. Unauthorized access to change settings is prevented by insertion of a standard sealing wire through the security holes in order to meet applicable tamper-proof requirements.

PXR 10 simplified Rotary Switches

The PXR 10 trip curve configuration is simple, using the switches on the front panel. LSI trip units have 3 rotary switches, while the LI version has only 2, eliminating the center "SD Profile" switch. For all, the yellow color rotary switch sets the Ir and the red switches define short circuit behavior.



All PXR family trip units record the cause-of-trip (CoT) in memory.
The CoT is available by using Power Xpert Protection Manager (PXPM) software.

Technical Data

		PDE1			
Max rated uninterrupted current/continuous current rating I_u, A		160 A			
Number of poles		3 & 4			
Maximum Breaker Capacity(kA rms) Vac 50-60 Hz		**F**	**G**	**K**	**M**
220-240 Vac	I_{cu}	35	50	65	100
	I_{cs}	35	50	65	100
380-415 Vac	I_{cu}	25	36	50	70
	I_{cs}	25	36	50	50
440 Vac	I_{cu}	20	30	35	50
	I_{cs}	15	22.5	26	37
Rated short circuit making capacity I_{cm}					
220-240 Vac	I_{cm}	73.5	121	187	220
380-415 Vac	I_{cm}	52.5	75.6	105	154
440 Vac	I_{cm}	52.5	63	73.5	105
Withstand/Threshold of the frame (kA)	I_{cw}	-			
Clearing time @ 415 V	I_{cu} kA @ 415 V	<10 ms			
Amperage range		16 - 160 A			
Selectivity Category		A			
Reference Standard		IEC/CCC			
Maximum rated current I_n depending on the version		160 A			
Rated insulation voltage U, according to IEC 60947-2					
Main conducting paths		800 V			
Auxiliary circuits		690 V			
Rated impulse withstand voltage					
Main conducting paths	U_{imp}	6 kV			
Auxiliary circuits	U_{imp}	6 kV			
Rated operational voltage Vac U_e IEC/CCC		440 V			
Permissible ambient temperature range (for storage and operation)		-20°C to 70°C			
Product complies with IEC 60-068 Shock		Yes			
Derating for	40° calibrated breaker		50°C calibrated breaker		
	40°C	100%	50°C	100%	
	45°C	97%	55°C	92%	
	50°C	95%	60°C	90%	
	55°C	92%	70°C	80%	
	60°C	90%	75°C	69%	
	70°C	80%	80°C	64%	
Altitude derating factor of voltage	2000 m	440 V			
	3000 m	418 V			
	4000 m	396 V			
Altitude derating factor of rated current	2000 m	100%			
	3000 m	95%			
	4000 m	90%			
Endurance (operating cycles) no-load (mechanical endurance)		25000			
Endurance (operating cycles) with load (electrical endurance) IEC/EN60947-4 B AC-1		10000			
Maximum switching frequency # operations per minute/min		2			
H x W x D (mm)					
3 pole		144.8 x 89.9 x 68.1			
4 pole		144.8 x 119.9 x 68.1			
Pole to pole distance		30.00 mm			
Approx Weight kg fixed	TMTU	3P 1.046 kg			
		4P 1.325 kg			
	ETU PXR10	-			
		-			
Suitable for reverse-feed applications		Yes			
Blow out dimension; Direction of blow out IEC		60 mm; top, front			
Required spacing between circuit-breakers IEC		0 mm			
Installation methods		Fixed			
IP degree		IP2X with Fingerprotection			
Pollution degree / Overvoltage category		III / III			
Power loss per circuit breaker at maximum rated current I_n	W	36.1			
Annex H IT capability 415 V		Yes			

Technical Data

		PDE2				
Max rated uninterrupted current/continuous current rating I_u, A		250 A				
Number of poles		3 & 4				
Maximum Breaker Capacity(kA rms) Vac 50-60 Hz		**F**	**G**	**K**	**M**	**N**
220-240 Vac	I_{cu}	35	50	65	100	100
	I_{cs}	35	50	65	100	100
380-415 Vac	I_{cu}	25	36	50	70	70
	I_{cs}	25	36	50	50	70
440 Vac	I_{cu}	20	30	35	50	50
	I_{cs}	15	22.5	26	37	37
Rated short circuit making capacity I_{cm}						
220-240 Vac	I_{cm}	73.5	121	187	220	330
380-415 Vac	I_{cm}	52.5	75.6	105	154	154
440 Vac	I_{cm}	52.5	63	73.5	105	154
Withstand/Threshold of the frame (kA)	I_{cw}	1.8				
Clearing time @ 415 V	I_{cu} kA @ 415 V	5.1 ms				
Amperage range		63 - 250 A				
Selectivity Category		A				
Reference Standard		IEC/CCC				
Maximum rated current I_n depending on the version		250 A				
Rated insulation voltage U, according to IEC 60947-2						
Main conducting paths		800 V (TM), 690 V (PXR)				
Auxiliary circuits		690 V				
Rated impulse withstand voltage						
Main conducting paths	U_{imp}	8 kV (TM), 6kV (PXR)				
Auxiliary circuits	U_{imp}	4 kV				
Rated operational voltage Vac U_e IEC/CCC		440 V				
Permissible ambient temperature range (for storage and operation)		-20°C to 70°C				
Product complies with IEC 60-068 Shock		Yes				
Derating for	40° calibrated breaker		50°C calibrated breaker			
	40°C	100%	50°C	100%		
	45°C	98%	55°C	93%		
	50°C	96%	60°C	91%		
	55°C	93%	70°C	86%		
	60°C	91%	75°C	80%		
	70°C	80%	80°C	68%		
Altitude derating factor of voltage	2000 m	440 V				
	3000 m	418 V				
	4000 m	396 V				
Altitude derating factor of rated current	2000 m	100%				
	3000 m	100%				
	4000 m	95%				
Endurance (operating cycles) no-load (mechanical endurance)		20000				
Endurance (operating cycles) with load (electrical endurance) IEC/EN60947-4 B AC-1		8000				
Maximum switching frequency # operations per minute/min		2				
H x W x D (mm)						
3 pole		PDE2 200.9 x 104.6 x 88.9		PDE9 152.4 x 104.6 x 88.9		
4 pole		PDE2 200.9 x 139.5 x 88.9		PDE9 152.4 x 139.5 x 88.9		
Pole to pole distance		34.93 mm				
Approx Weight kg fixed	TMTU	PDE2 3P 1.91 kg		PDE9 3P 1.82 kg		
		PDE2 4P 2.58 kg		PDE9 4P 2.46 kg		
	ETU PXR10	-				
		-				
Suitable for reverse-feed applications		Yes				
Blow out dimension; Direction of blow out IEC		25.4 mm; top, front				
Required spacing between circuit-breakers IEC		0 mm				
Installation methods		Fixed				
IP degree		IP2X with Fingerprotection				
Pollution degree / Overvoltage category		III / III				
Power loss per circuit breaker at maximum rated current I_n	W	58 for TMTU PDE2; 34 for ETU PDE2; 22 for PDE9				
Annex H IT capability 415 V		Yes				

Technical Data

		PDE3				
Max rated uninterrupted current/continuous current rating I_u, A		630 A				
Number of poles		3 & 4				
Maximum Breaker Capacity(kA rms) Vac 50-60 Hz		**F**	**G**	**K**	**M**	**N**
220-240 Vac	I_{cu}	35	50	65	100	100
	I_{cs}	35	50	65	100	100
380-415 Vac	I_{cu}	25	36	50	70	70
	I_{cs}	25	36	50	53	70
440 Vac	I_{cu}	20	30	35	50	50
	I_{cs}	15	22.5	26	37	37
Rated short circuit making capacity I_{cm}						
220-240 Vac	I_{cm}	73.5	121	187	220	330
380-415 Vac	I_{cm}	52.5	75.6	105	154	154
440 Vac	I_{cm}	52.5	63	73,5	105	154
Withstand/Threshold of the frame	I_{cw}	6.3 kA				
Clearing time @ 415 V	I_{cu} kA @ 415 V	8.65 ms @ 50 kA, 6.2 ms @ 70 kA				
Amperage range		250 - 630 A				
Selectivity Category		A				
Reference Standard		IEC/CCC				
Maximum rated current I_n depending on the version		630 A				
Rated insulation voltage U, according to IEC 60947-2						
Main conducting paths		800 V				
Auxiliary circuits		690 V				
Rated impulse withstand voltage						
Main conducting paths	U_{imp}	8 kV				
Auxiliary circuits	U_{imp}	4 kV				
Rated operational voltage Vac U_e IEC/CCC		440 V				
Permissible ambient temperature range (for storage and operation)		-25°C to 70°C				
Product complies with IEC 60-068 Shock		Yes				
Derating for	40° calibrated breaker		50° calibrated breaker			
	40°C	100%	50°C	100%		
	45°C	96%	55°C	86%		
	50°C	91%	60°C	82%		
	55°C	86%	70°C	70%		
	60°C	82%	75°C	56%		
	70°C	70%	80°C	48%		
Altitude derating factor of voltage	2000 m	440 V				
	3000 m	418 V				
	4000 m	396 V				
Altitude derating factor of rated current	2000 m	100%				
	3000 m	91%				
	4000 m	82%				
Endurance (operating cycles) no-load (mechanical endurance)		15000				
Endurance (operating cycles) with load (electrical endurance) IEC/EN60947-4 B AC-1		5000				
Maximum switching frequency # operations per minute/min		1				
H x W x D (mm)						
3 pole		257.1 x 138.9 x 109.1				
4 pole		257.1 x 182.9 x 109.1				
Pole to pole distance		43.66 mm				
Approx Weight kg fixed	TMTU	3P 5.8 kg				
		4P 7.9 kg				
	ETU PXR10	-				
		-				
Suitable for reverse-feed applications		Yes				
Blow out dimension; Direction of blow out IEC		25.4 mm; top, front				
Required spacing between circuit-breakers IEC		0 mm				
Installation methods		Fixed				
IP degree		IP2X with Fingerprotection				
Pollution degree / Overvoltage category		III / III				
Power loss per circuit breaker at maximum rated current I_n	W	130 for TMTU; 110 for ETU				
Annex H IT capability 415 V		Yes				

Technical Data

		PDE4			
Max rated uninterrupted current/continuous current rating I_u, A		1000 A			
Number of poles		3 & 4			
Maximum Breaker Capacity(kA rms) Vac 50-60 Hz		**G**	**K**	**M**	**N**
220-240 Vac	I_{cu}	50	65	100	100
	I_{cs}	50	65	100	100
380-415 Vac	I_{cu}	36	50	70	70
	I_{cs}	36	50	50	70
440 Vac	I_{cu}	30	35	50	50
	I_{cs}	22.5	26	37	37
Rated short circuit making capacity I_{cm}					
220-240 Vac	I_{cm}	121	187	220	220
380-415 Vac	I_{cm}	75.6	105	154	154
440 Vac	I_{cm}	63	73.5	105	143
Withstand/Threshold of the frame (kA)	I_{cw}	6			
Clearing time @ 415 V, ms I_{cu} kA @ 415 V	I_{cu} kA @ 415 V	5.23 ms			
Amperage range		800 - 1000 A			
Selectivity Category		A			
Reference Standard		IEC/CCC			
Maximum rated current I_n depending on the version		1000 A			
Rated insulation voltage U, according to IEC 60947-2					
Main conducting paths		800 V			
Auxiliary circuits		690 V			
Rated impulse withstand voltage					
Main conducting paths	U_{imp}	8 kV			
Auxiliary circuits	U_{imp}	4 kV			
Rated operational voltage Vac U_e IEC/CCC		440 V			
Permissible ambient temperature range (for storage and operation)		-25°C to + 70°C			
Product complies with IEC 60-068 Shock		Yes			
Derating for	50° calibrated breaker		50° calibrated breaker		
	40°C	100%	50°C	100%	
	45°C	97%	55°C	90%	
	50°C	94%	60°C	88%	
	55°C	90%	70°C	80%	
	60°C	88%	75°C	69%	
	70°C	80%	80°C	63%	
Altitude derating factor of voltage	2000 m	440 V			
	3000 m	418 V			
	4000 m	396 V			
Altitude derating factor of rated current	2000 m	100%			
	3000 m	94%			
	4000 m	88%			
Endurance (operating cycles) no-load (mechanical endurance)		10000			
Endurance (operating cycles) with load (electrical endurance) IEC/EN60947-4 B AC-1		3000			
Maximum switching frequency # operations per minute/min		1			
H x W x D (mm)					
3 pole		406.4 x 209.6 x 111.2			
4 pole		406.4 x 279.4 x 111.2			
Pole to pole distance		70 mm			
Approx Weight kg fixed	TMTU	3P 13.2 kg			
		4P 17.55 kg			
	ETU PXR10	3P 13.6 kg			
		4P 18.088 kg			
Suitable for reverse-feed applications		Yes			
Blow out dimension; Direction of blow out IEC		60 mm; top, front			
Required spacing between circuit-breakers IEC		0 mm			
Installation methods		Fixed			
IP degree		-			
Pollution degree / Overvoltage category		III / III			
Power loss per circuit breaker at maximum rated current I_n	W	291 for TMTU; 270 for ETU			
Annex H IT capability 415 V		Yes			

Technical Data

			Frame Size 1	Frame Size 2
Max rated uninterrupted current/continuous current rating	I_u	A	160	250
General				
Standards			IEC/EN 60947	IEC/EN 60947
Protection against direct contact			Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110	Finger Protection with IP2X Accessory
Climatic proofing				
Ambient temperature				
Ambient temperature, storage		°C	- 40 up till + 70	- 40 up till + 70
Operation		°C	- 25 up till + 70	- 25 up till + 70
Mechanical shock resistance (10 ms half-sinusoidal shock) according to IEC 60068-2-27		g	20 (half-sinusoidal shock 20 ms)	15 (half-sinusoidal shock 11 ms)
Safe isolation to EN 61140				
Between auxiliary contacts and main contacts		V AC	500	690
Between the auxiliary contacts		V AC	300	300
Mounting position			Vertical and 90° in all directions	Vertical and 90° in all directions
Rated surge voltage invariability	U_{imp}			
Main contacts		V	8000	8000
Auxiliary contacts		V	6000	6000
Rated operational voltage	U_e	V AC	440	440
Rated operating frequency	f	Hz	50/60	50/60
Rated current = rated uninterrupted current	$I_n = I_u$	A	160	250
Overvoltage category/pollution degree			III/3	III/3
Rated insulation voltage	U_i	V	690	690
Use in unearthed supply systems		V	< 440	< 440
Other technical data				
Rated short-circuit making capacity				
	I_{cm}	kA	2.8	5.2
Rated short-time withstand current				
t = 0.3 s	I_{cw}	kA	2	3.6
t = 1 s	I_{cw}	kA	2	3.6
Rated conditional short-circuit current				
With back-up fuse		A gG/gL	gG/gL: 100	250
400 … 415 V		kA	100	100
With downstream fuse		A gG/gL	gG/gL: 100	250
400 … 415 V		kA	100	100
Rated making and breaking capacity				
Rated operational current				
AC-22/23A				
415 V	I_e	A	160	250
Lifespan, mechanical	Operations		20000	20000
Max. operating frequency		Ops/h	120	120
Lifespan, electrical				
AC-1				
400 V 50/60 Hz	Operations		10000	8000
415 V 50/60 Hz	Operations		10000	8000

Technical Data

			Frame size 3	Frame size 4
Max rated uninterrupted current/continuous current rating	I_u	A	630	800
General				
Standards			IEC/EN 60947-3	IEC/EN 60947
Protection against direct contact			Finger Protection with IP2X Accessory / Extend terminal cover	Finger Protection with IP2X Accessory
Climatic proofing				
Ambient temperature				
Ambient temperature, storage		°C	- 40 up till + 70	- 40 up till + 70
Operation		°C	- 25 up till + 70	- 25 up till + 70
Mechanical shock resistance (10 ms half-sinusoidal shock) according to IEC 60068-2-27		g	15 (half-sinusoidal shock 11 ms)	15 (half-sinusoidal shock 11 ms)
Safe isolation to EN 61140				
Between auxiliary contacts and main contacts		V AC	800	800
Between the auxiliary contacts		V AC	690	690
Mounting position			Vertical and 90° in all directions	Vertical and 90° in all directions
Rated surge voltage invariability	U_{imp}			
Main contacts		V	8000	8000
Auxiliary contacts		V	6000	6000
Rated operational voltage	U_e	V AC	440	440
Rated operating frequency	f	Hz	50/60	50/60
Rated current = rated uninterrupted current	$I_n = I_u$	A	630	800
Overvoltage category/pollution degree			III/3	III/3
Rated insulation voltage	U_i	V	800	690
Use in unearthed supply systems		V	≤ 415	< 440
Other technical data				
Rated short-circuit making capacity				
	I_{cm}	kA	12.92	16.3
Rated short-time withstand current				
t = 0.3 s	I_{cw}	kA	7.6	9.6
t = 1 s	I_{cw}	kA	7.6	9.6
Rated conditional short-circuit current				
With back-up fuse		A gG/gL	630	800
400 … 415 V		kA	100	100
With downstream fuse		A gG/gL	630	800
400 … 415 V		kA	100	120
Rated making and breaking capacity				
Rated operational current				
AC-22/23A				
415 V	I_e	A	630	800
Lifespan, mechanical	Operations		15000	10000
Max. operating frequency		Ops/h	60	20
Lifespan, electrical				
AC-1				
400 V / 415 V at 50/60 Hz	Operations		5000	3000

Technical Data

Max rated uninterrupted current/continuous current rating	I_u	A	220
Switching capacity			
400/415 V 50 Hz	I_{cu}	kA	70
Highest Rated current = rated uninterrupted current	$I_n = I_u$	A	220
Setting range			
Overload trip	I_r	A	160 - 220
Short-circuit releases			
Non-delayed	$I_i = I_{n\ x...}$		3 - 13x
Motor rating AC-3 50/60 Hz			
380 V 400 V	P	kW	22
Motor rating AC-3 50/60 Hz			
400 V	P	kW	22
Rated operational current AC-3 50/60 Hz			
400 V	I_e	A	41
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Ambient temperature, storage		°C	- 40 up till + 70
Operation		°C	- 25 up till + 70
Mechanical shock resistance (10 ms half-sinusoidal shock) according to IEC 60068-2-27		g	15 (half-sinusoidal shock 11 ms)
Safe isolation to EN 61140			
Between auxiliary contacts and main contacts		V AC	690
Between the auxiliary contacts	I_e	V AC	300
Mounting position			Vertical and 90° in all directions
Direction of incoming supply			as required
Degree of protection			
Device			IP2X with Finger protection accessory
Other technical data			
Circuit-breakers			
Rated current = rated uninterrupted current	$I_n = I_u$	A	220
Rated surge voltage invariability	U_{imp}		
Main contacts		V	6000
Auxiliary contacts		V	4000
Rated operational voltage	U_e	V AC	440
Overvoltage category/pollution degree			III/3
Rated insulation voltage	U_i	V	690
Use in unearthed supply systems		V	≤ 690
Switching capacity			
Rated short-circuit making capacity	I_{cm}		
240 V	I_{cm}	kA	330
400/415 V	I_{cm}	kA	154
440 V 50/60 Hz	I_{cm}	kA	154
Rated short-circuit breaking capacity Icn	I_{cn}		
Icu to IEC/EN 60947 test cycle O-t-CO	I_{cu}	kA	
240 V 50/60 Hz	I_{cu}	kA	150
400/415 V 50/60 Hz	I_{cu}	kA	70
440 V 50/60 Hz	I_{cu}	kA	70
Ics to IEC/EN 60947 test cycle O-t-CO-t-CO	I_{cs}	kA	
240 V 50/60 Hz	I_{cs}	kA	100
400/415 V 50/60 Hz	I_{cs}	kA	70
440 V 50/60 Hz	I_{cs}	kA	50
Max. operating frequency		Ops/h	120
Total break time at short-circuit		ms	< 10

Technical Data

Utilization category to IEC/EN 60947-2			A
Lifespan, mechanical(of which max. 50 % trip by shunt/undervoltage release)	Operations		20000
Lifespan, electrical			
AC-1			
400 V / 415 V at 50/60 Hz	Operations		10000 (up to 200A) 8000 (above 200A)
Max. operating frequency		Ops/h	120
Total break time at short-circuit		ms	< 10

Thermal Trip Unit

Rated Current (A)	I_u 40°C	16	20	25	32	40	50	63	80	100	125	160	200	250	320	400	500	630	800
Frames	PDE1	•	•	•	•	•	•	•	•	•	•	•							
	PDE2											•	•	•					
	PDE3													•	•	•	•	•	
	PDE4																		•
Thermal Protection																			
Current Setting (A)	Iu x…																		
	PDE1	0.8-1.0 I_n																	
	PDE2											0.8-1.0 I_n							
	PDE3													0.8-1.0 I_n					
	PDE4																		0.8-1.0 I_n
Short-Circuit Protection																			
Current Setting (A)	I_i																		
	PDE1	350 A				8-10 I_n		6-10 I_n				8 I_n							
	PDE2										5-8 I_n								
	PDE3													5-8 I_n					
	PDE4																		5-8 I_n
Neutral Protection																			
4 Pole	PDE1	100%																	
	PDE2											60%/100%							
	PDE3													60%/100%					
	PDE4																		60%/100%

* Without derating at 40°C, In determining the maximum permissible current loads at different ambient temperatures see the derating coefficients table.

Electronic Trip Unit PXR 10

Rated Current (A)	Iu	63	100	160	200	220	250	400	630	800	1000
Frames	PDE2		•	•	•	•	•				
	PDE9	•	•								
	PDE3							•	•		
	PDE4									•	•
Neutral Protection											
	PDE2		100%	60%/100%		100%	60%/100%				
	PDE9	100%									
	PDE3							60%/100%			
	PDE4									60%/100%	

PDE2/9 PXR10 Settings (LI)

Frame	63A	100A	160A	200A	250A	All	63A	100A	160A	200A	250A
Profile	Long delay						Instantaneous				
	I_r (A)						I_i (n x I_n)				
Setting						t_r @ 6 x I_r	-	2			
1	16	25	40	50	63	10	2	2	2	2	2
2	18	32	50	63	80	10	3	3	3	3	3
3	20	40	63	80	100	10	4	4	4	4	4
4	25	50	70	90	125	10	5	5	5	5	5
5	32	55	80	100	150	10	6	6	6	6	6
6	40	63	90	125	160	10	8	7	8	7	6.5
7	45	70	100	150	175	10	10	8	10	8	7
8	50	80	125	160	200	10	12	9	12	9	7.5
9	55	90	150	175	225	10	15	10	14	10	8
10	63	100	160	200	250	10	17.4	11	13.1	10.5	8.4
								Instantaneous override			
								1100 A		2100 A	

PDE2 PXR10 - Motor Protection Settings (LSI)

Frame	100 A	160 A	220 A	100 A	160 A	220 A	All			
Profile	Overload			Short delay			Overload			
							PXPM		Trip profile	
Setting	I_e			Isd = nx (Ie)			time (tsd)	SD Setting	Trip classat 6x (Ie)	Phase unbalance %
1	25	40	63	3	3	3	Instantaneous 0,15 s, 0,30 s	A	5	OFF
2	32	50	80	4	4	4		B	10	
3	40	63	90	5	5	5		C	15	
4	50	70	100	6	6	6		D	20	
5	55	80	125	7	7	7		E	30	
6	63	90	150	8	8	8		F	5	ON 5 to 35 % 1 to 200 sec
7	70	100	160	10	10	10		G	10	
8	80	125	175	11	11	11		H	15	
9	90	150	200	12	12	12		J	20	
10	100	160	220	13	13	13		K	30	
				Instantaneous override					Instantaneous override	
				1100 A		2100 A			1100 A	

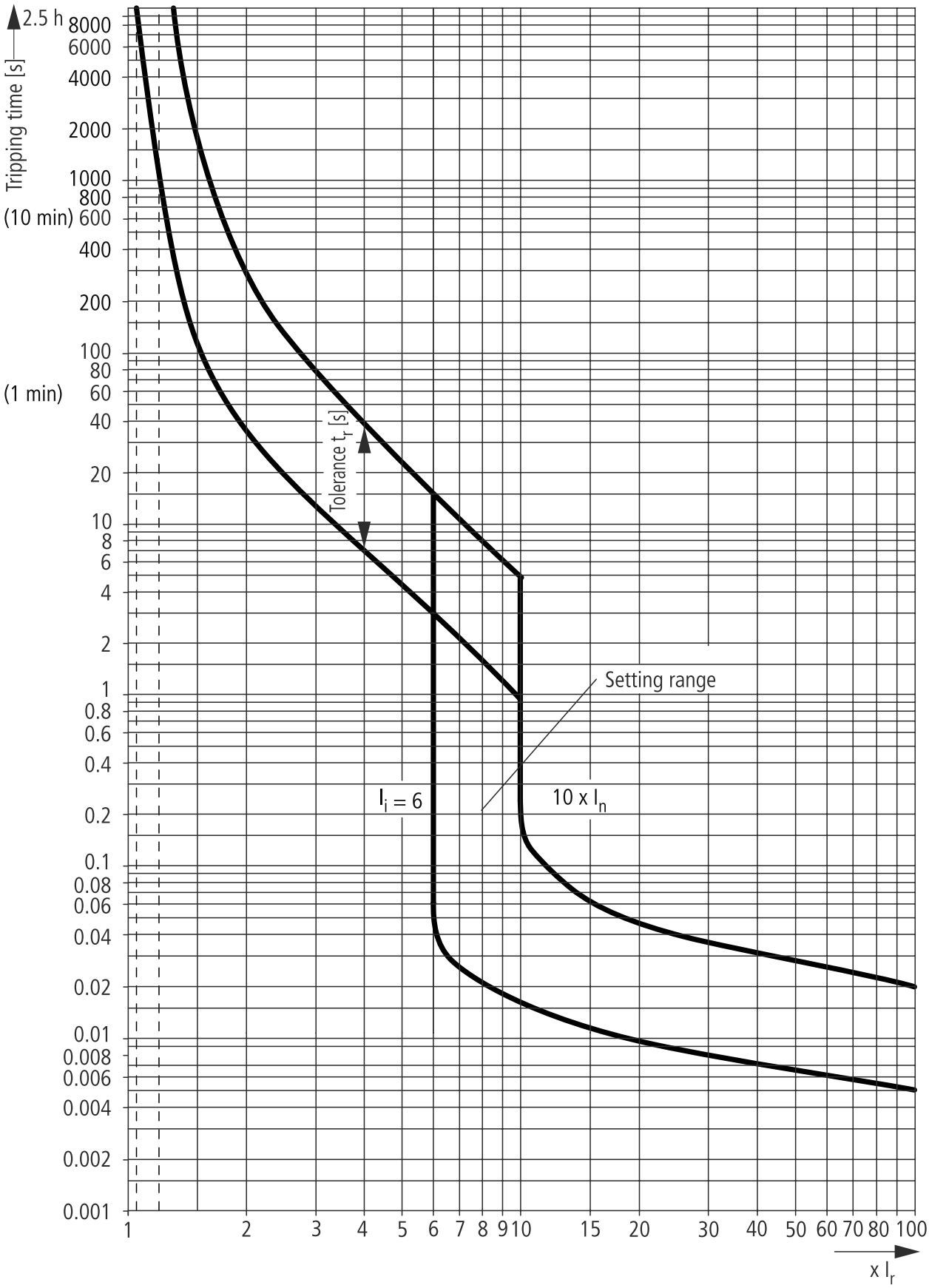
PDE3 PXR10 Settings (LI)

Frame	400 A	630 A	All	400 A	630 A
Profile	Long delay			Instantaneous	
	I_r (A)			I_i (x I_n)	
Setting			t_r @ 6 x I_r		
1	100	200	10	2	2
2	125	225	10	3	3
3	140	250	10	4	4
4	160	320	10	5	5
5	200	360	10	6	6
6	225	400	10	8	7
7	250	450	10	10	8
8	320	500	10	12	9
9	360	550	10	15	10
10	400	630	10	18	11,43
				Instantaneous override	
				4400 A	7200 A

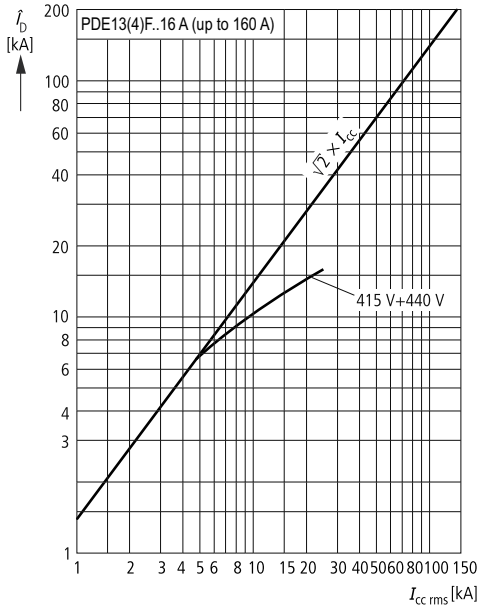
PDE4 PXR10 Settings (LI)

Frame	800 A	1000 A	All	800 A	1000 A
Profile	Long delay			Instantaneous	
	I_r (A)			I_i (x I_n)	
Setting			t_r @ 6 x I_r	Pickup I_i = nx (I_n)	
1	320	400	10	2	2
2	400	550	10	3	3
3	450	630	10	4	4
4	500	700	10	5	5
5	550	750	10	6	6
6	600	800	10	6.5	6.5
7	630	850	10	7	7
8	700	900	10	7.5	7.5
9	750	950	10	8	8
10	800	1000	10	8.5	8
				Instantaneous override	
				6800 A	8000 A

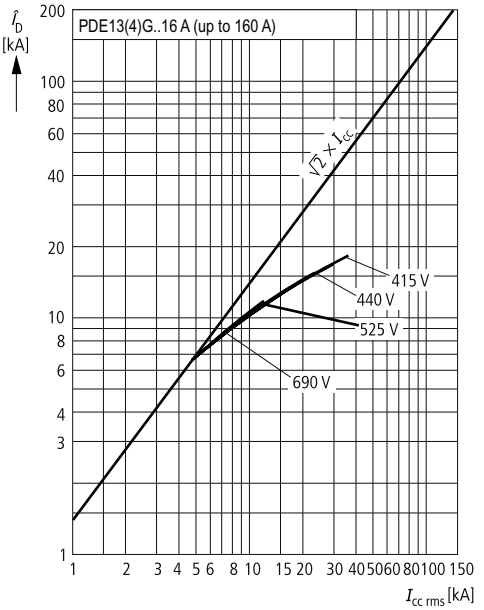
System and line protection with PDE1



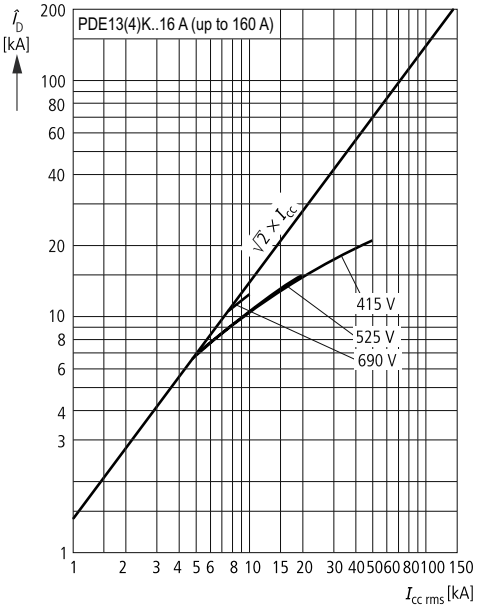
Let-through current I_D PDE1 TMTU
PDE13(4)F..16 A (up to 160 A)



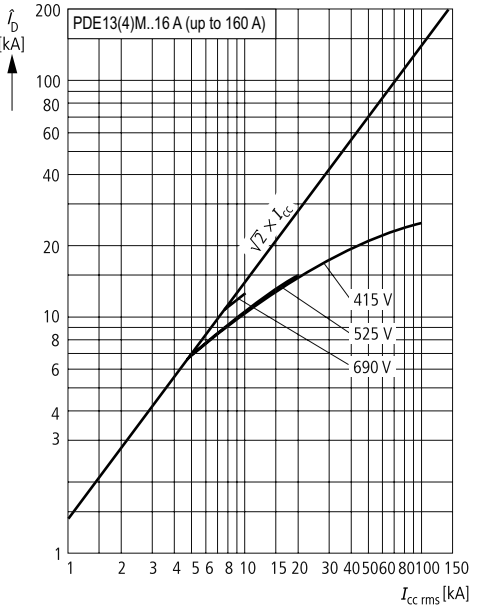
Let-through current I_D PDE1 TMTU
PDE13(4)G..16 A (up to 160 A)



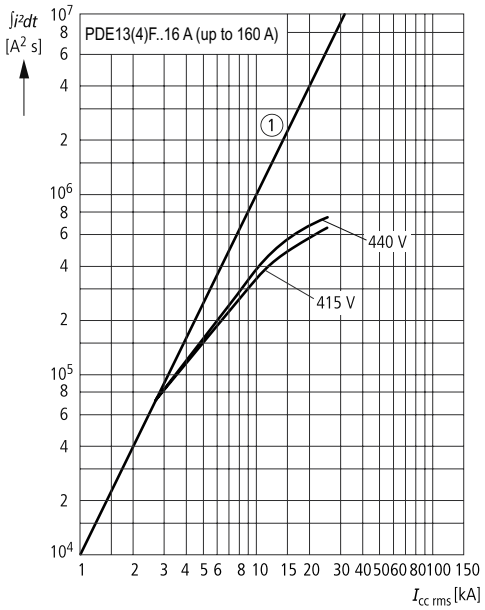
Let-through current I_D PDE1 TMTU
PDE13(4)K..16 A (up to 160 A)



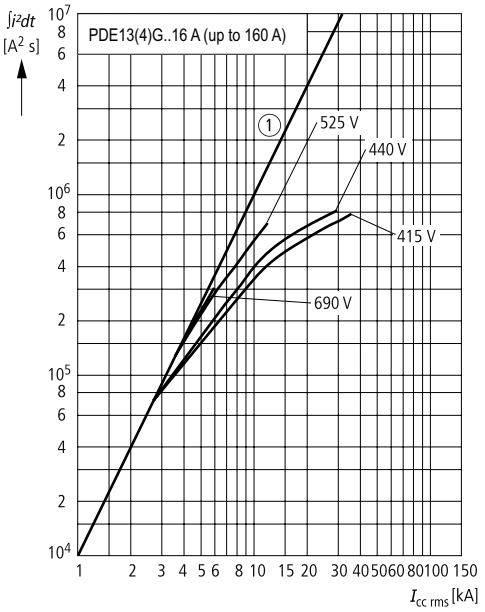
Let-through current I_D PDE1 TMTU
PDE13(4)M..16 A (up to 160 A)



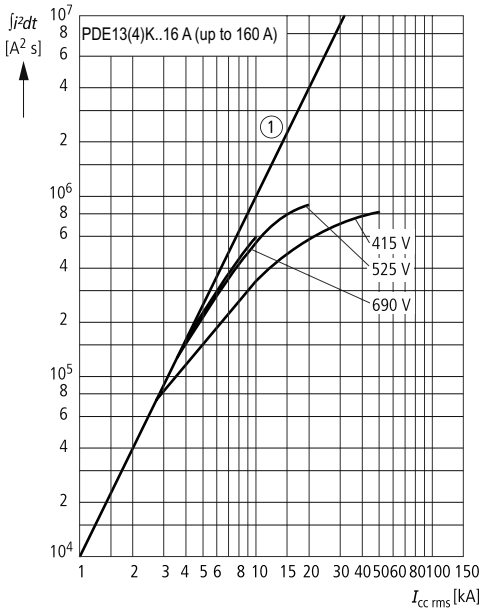
Let-through energy I²t; PDE1 TMTU
PDE13(4)F..16 A (up to 160 A)



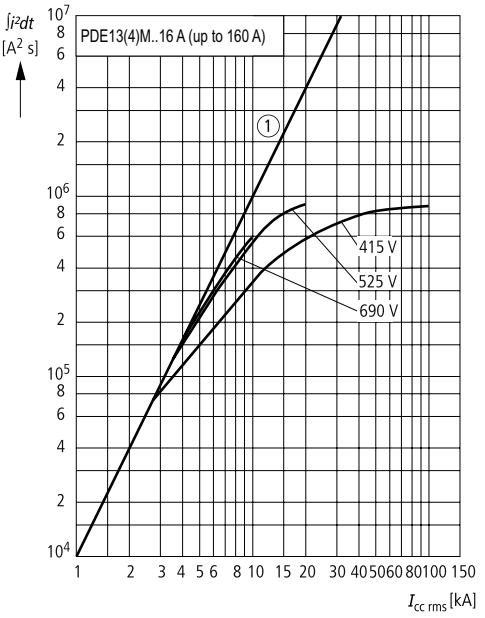
Let-through energy I²t; PDE1 TMTU
PDE13(4)G..16 A (up to 160 A)



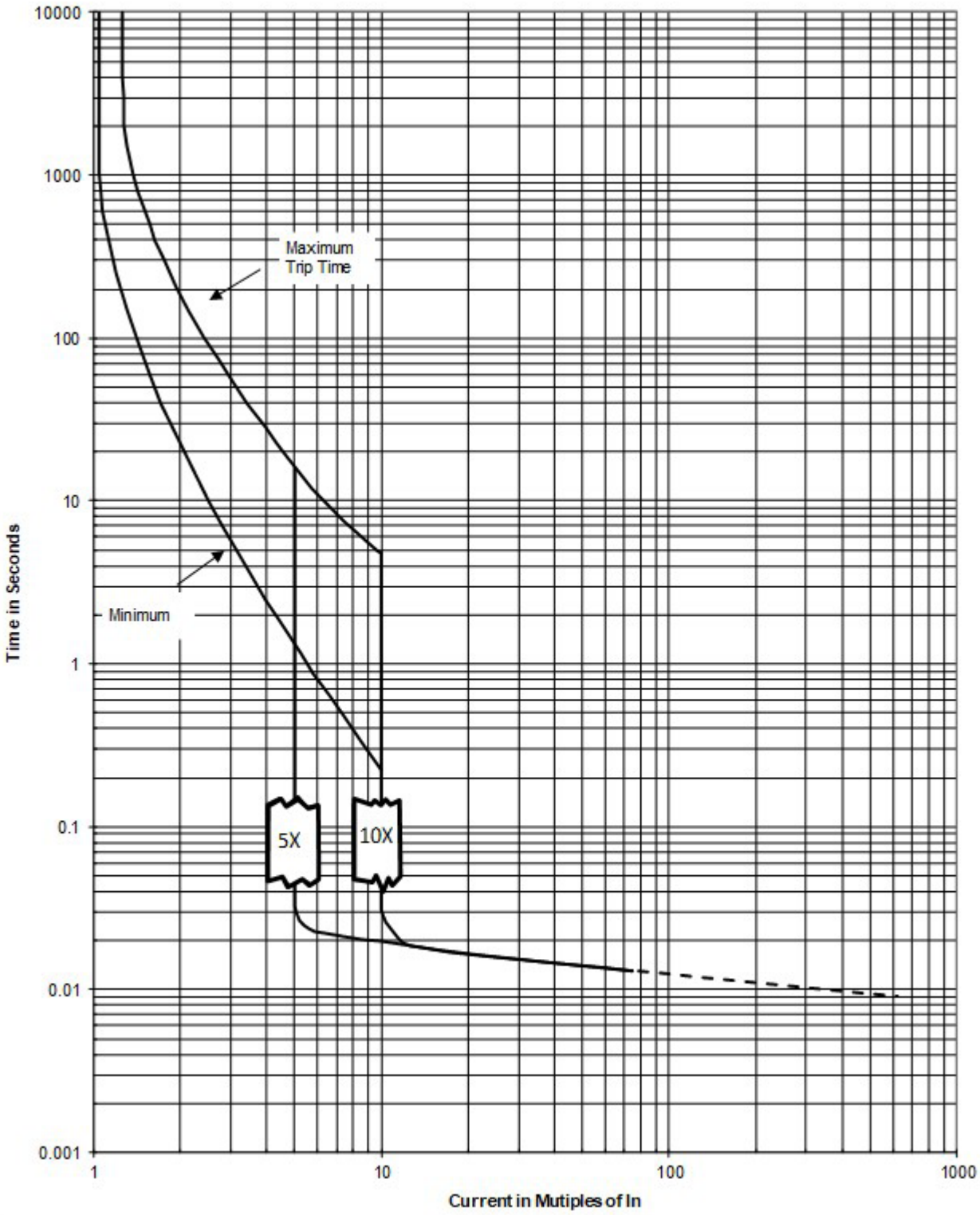
Let-through energy I²t; PDE1 TMTU
PDE13(4)K..16 A (up to 160 A)



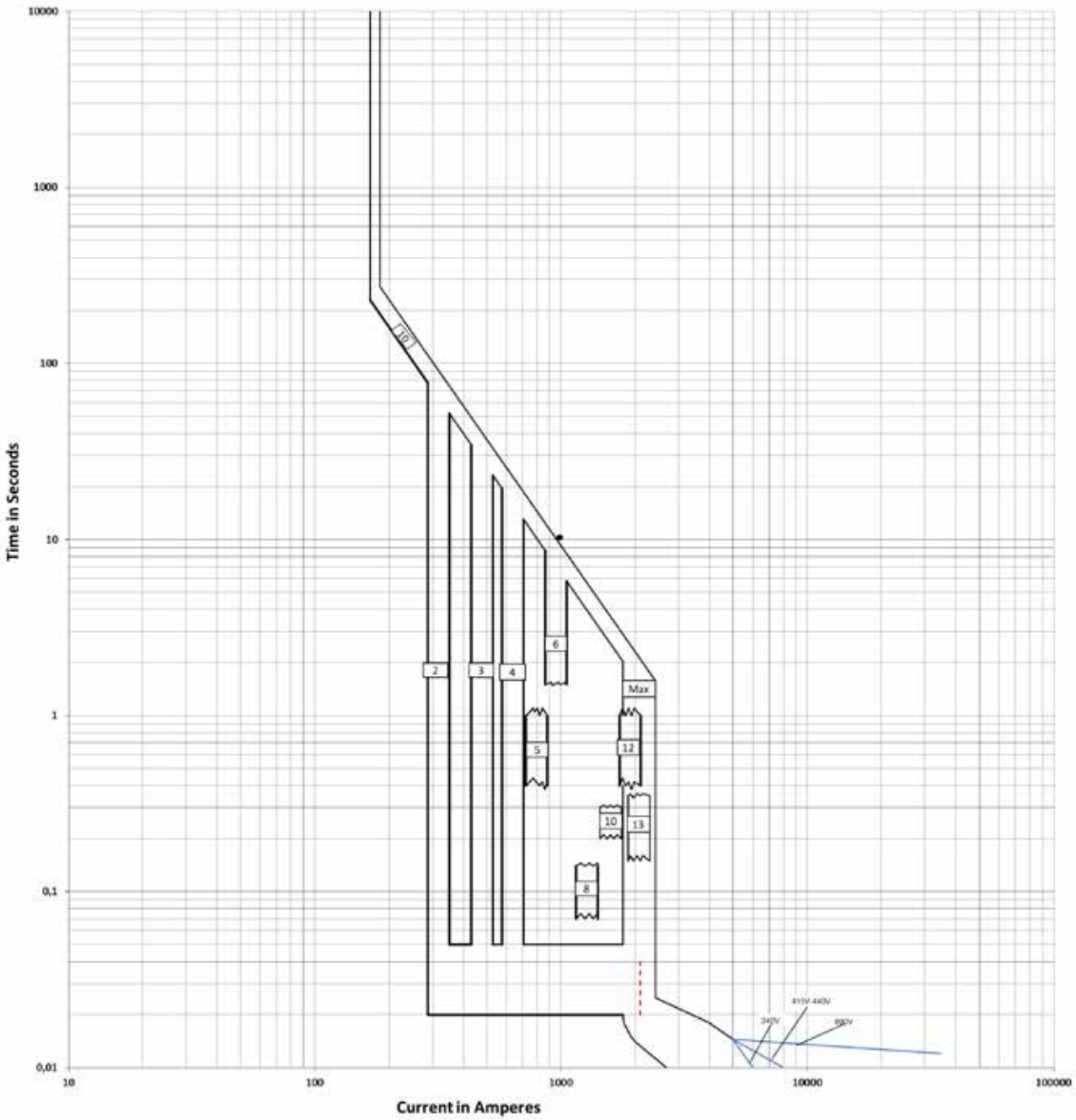
Let-through energy I²t; PDE1 TMTU
PDE13(4)M..16 A (up to 160 A)



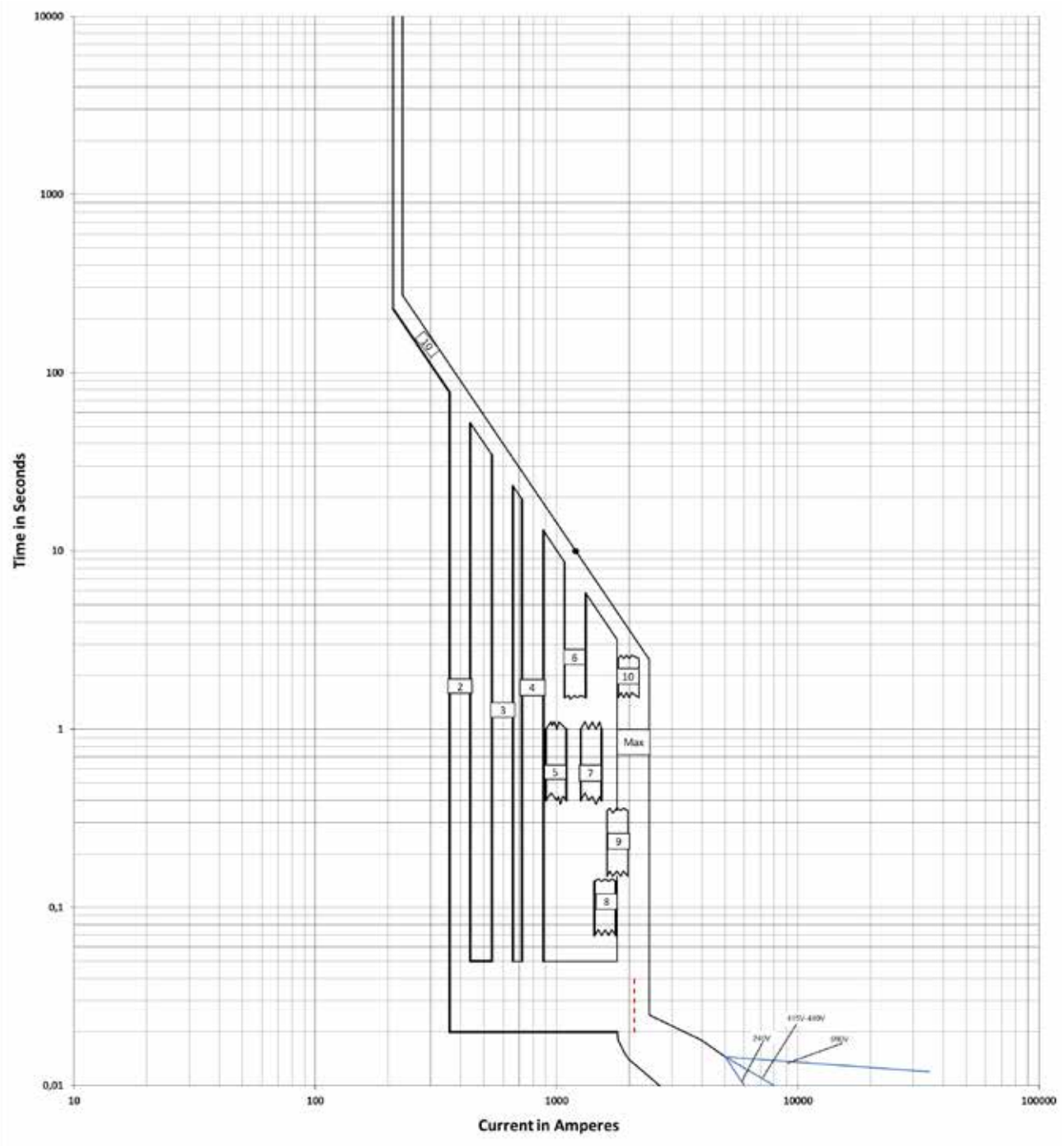
System and line protection with PDE2 TMTU; 160 A, 200 A and 250 A @ 240 V, 415 V and 440 V



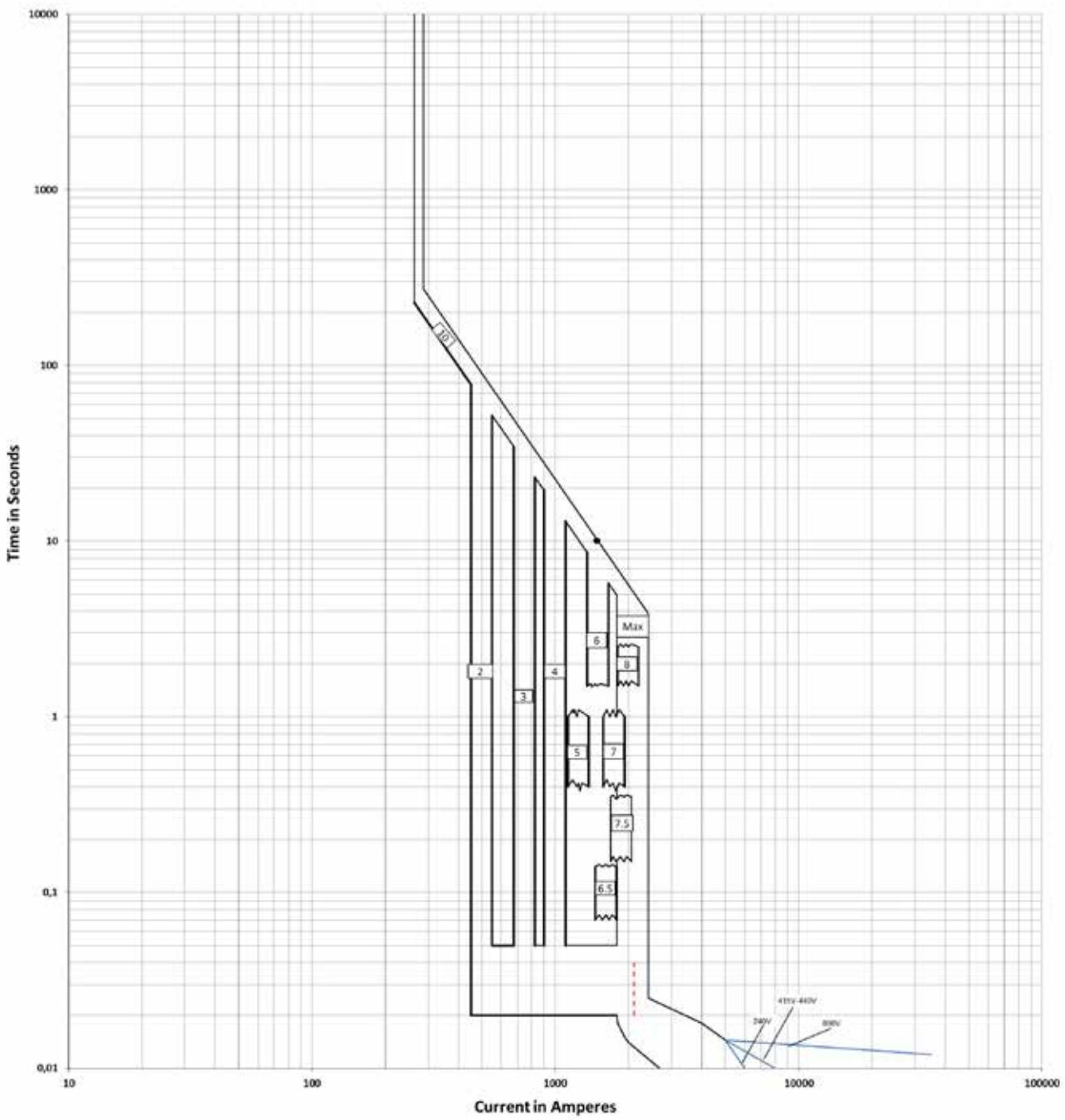
System and line protection with PDE2 I²t Long Delay, Instantaneous, Override Curves; PDE2 ETU PXR10 LI; 160 A @ 240 V, 415 V and 440 V



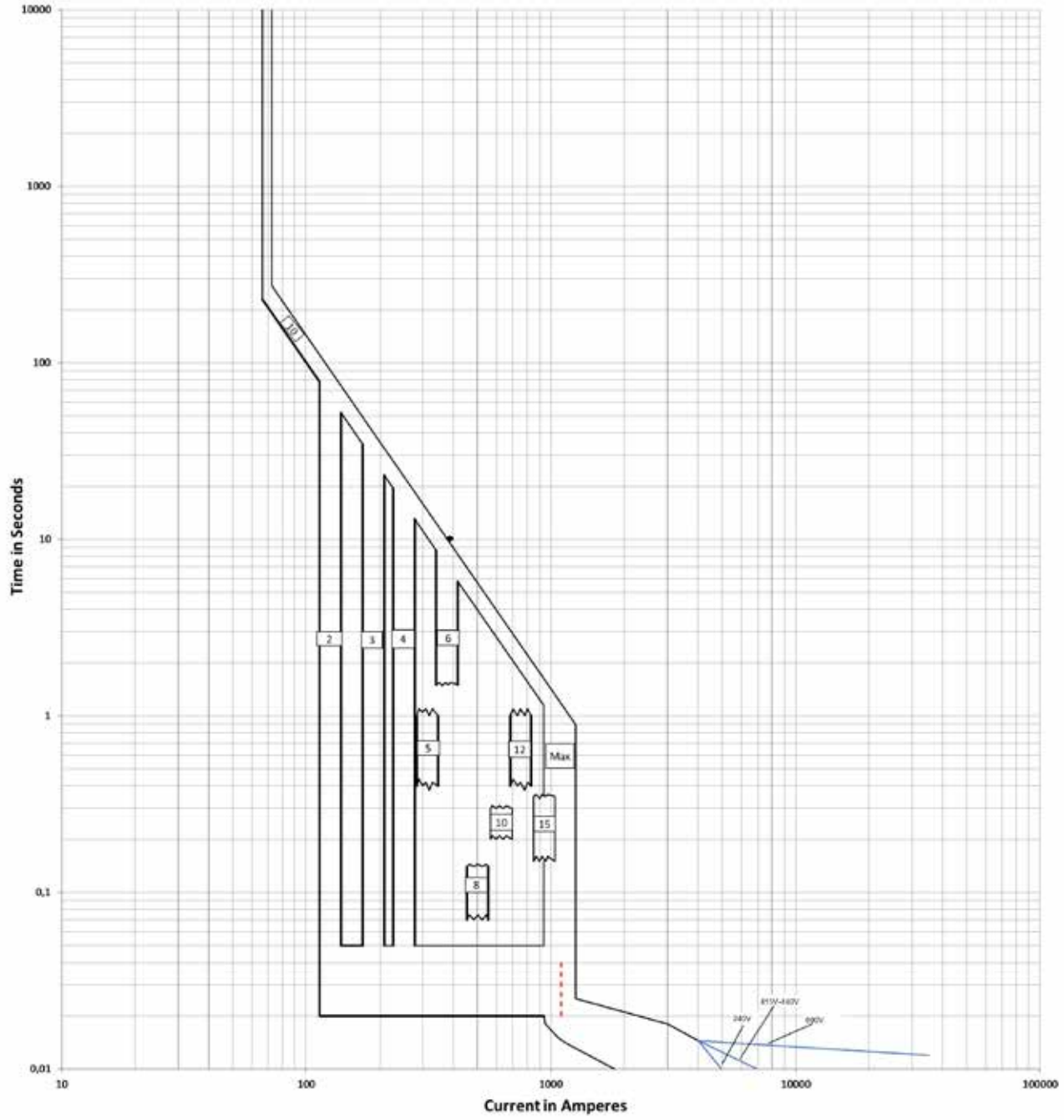
System and line protection with PDE2 I²t Long Delay, Instantaneous, Override Curves; PDE2 ETU PXR10 LI; 200 A @ 240 V, 415 V and 440 V



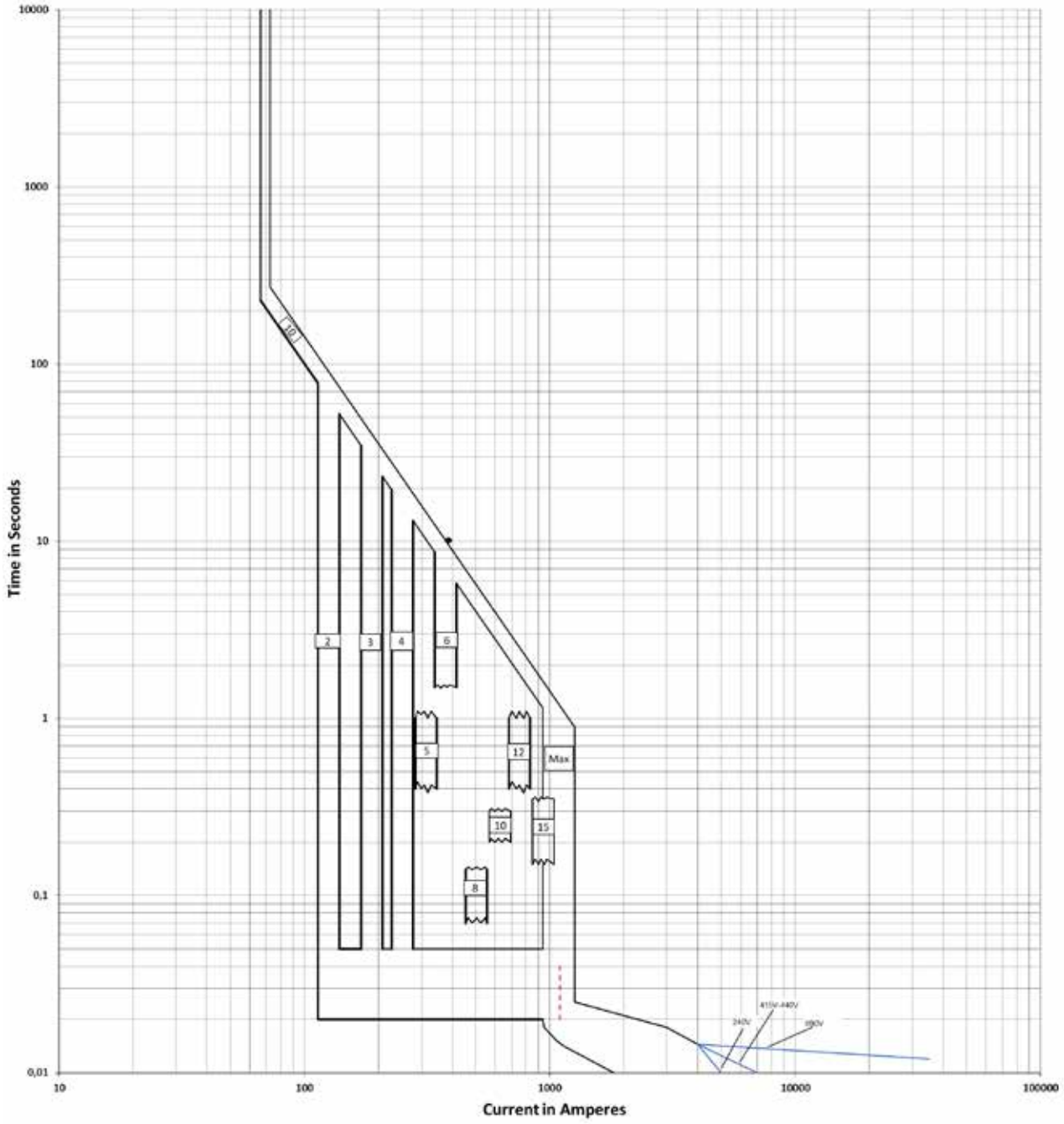
System and line protection with PDE2 I²t Long Delay, Instantaneous, Override Curves PDE2 ETU PXR10 LI; 250 A @ 240 V, 415 V and 440 V



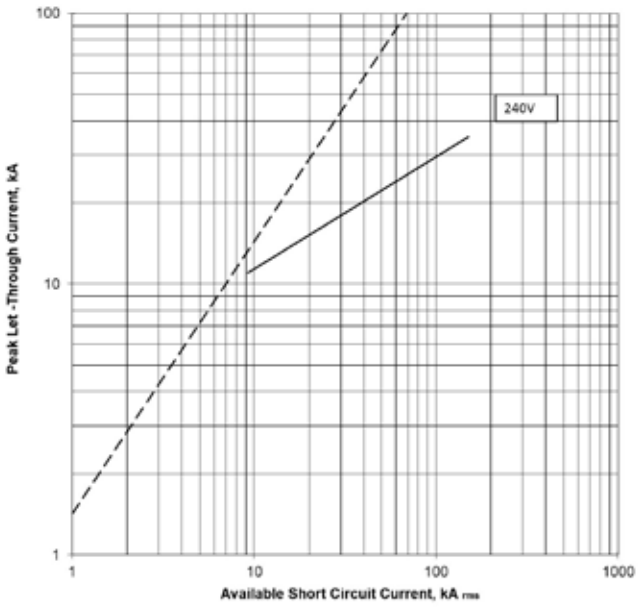
System and line protection with PDE2 I²t Long Delay, Instantaneous, Override Curves PDE9 ETU PXR 10 LI; 63 A @ 240 V, 415 V and 440 V



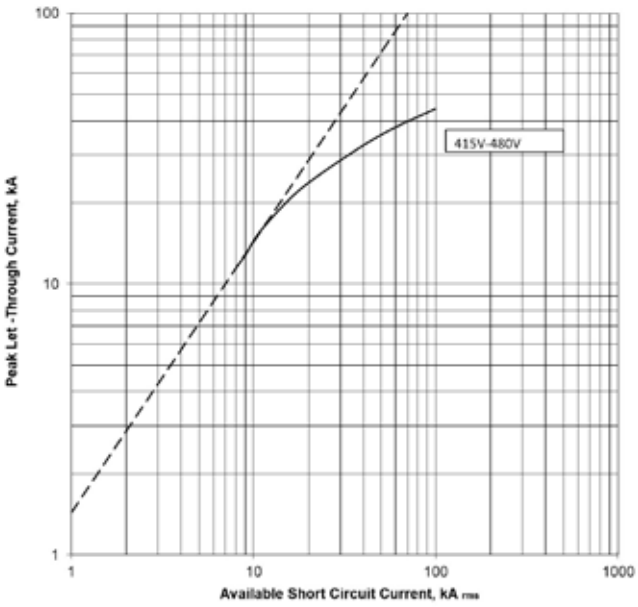
System and line protection with PDE2 I²t Long Delay, Instantaneous, Override Curves PDE9 ETU PXR10 LI; 100 A @ 240 V, 415 V and 440 V



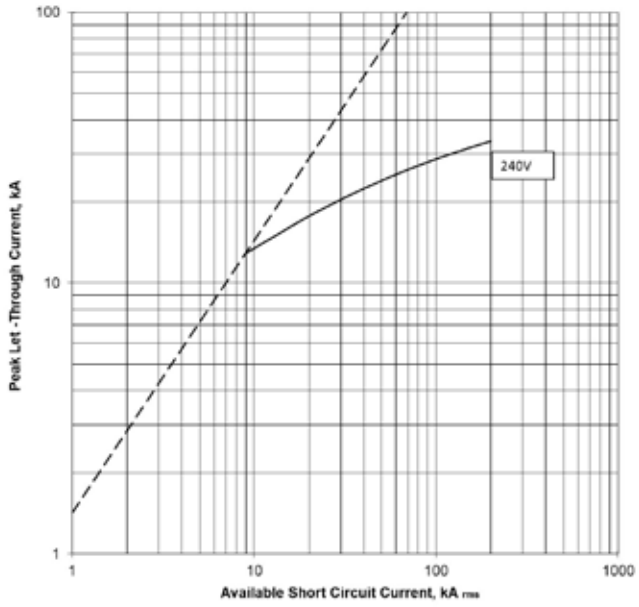
Let-through current I_D PDE2 TMTU; 160 A @ 240 V



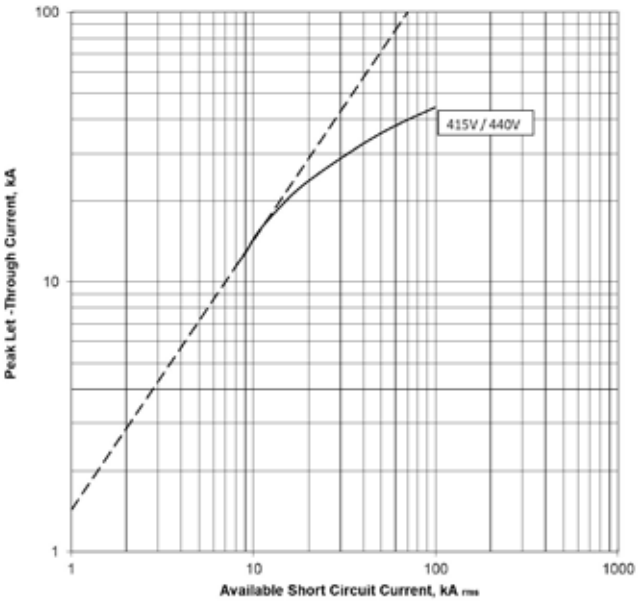
Let-through current I_D PDE2 TMTU; 160 A @ 415 V and 440 V



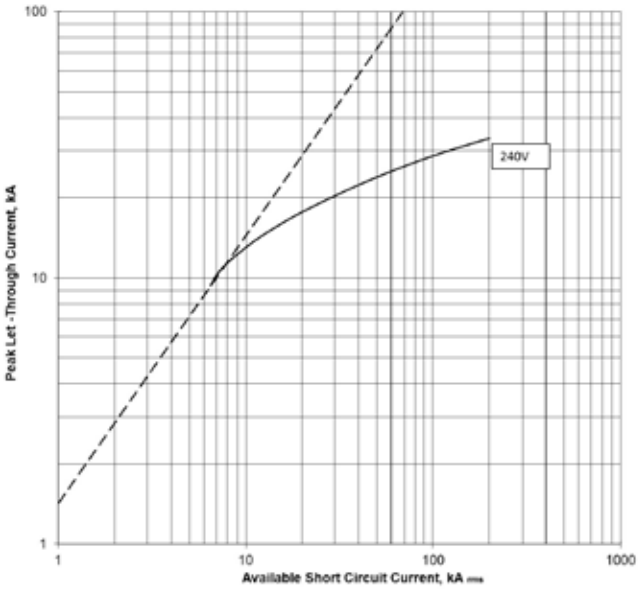
Let-through current I_D PDE2 TMTU; 200 A @ 240 V



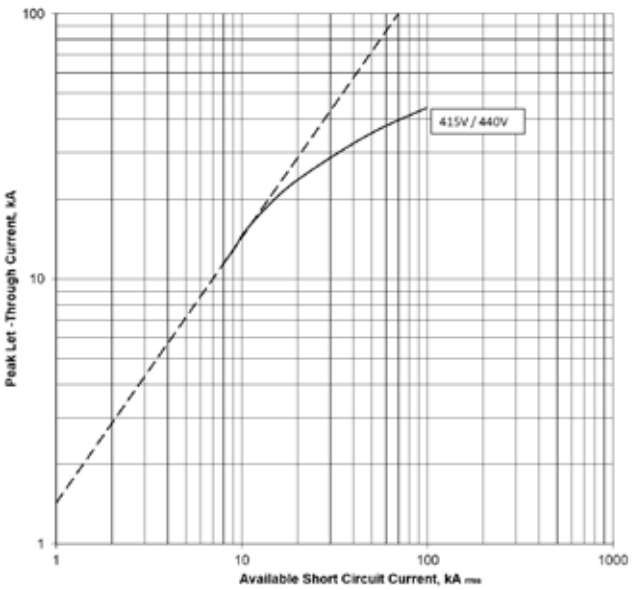
Let-through current I_D PDE2 TMTU; 200 A @ 415 V and 440 V



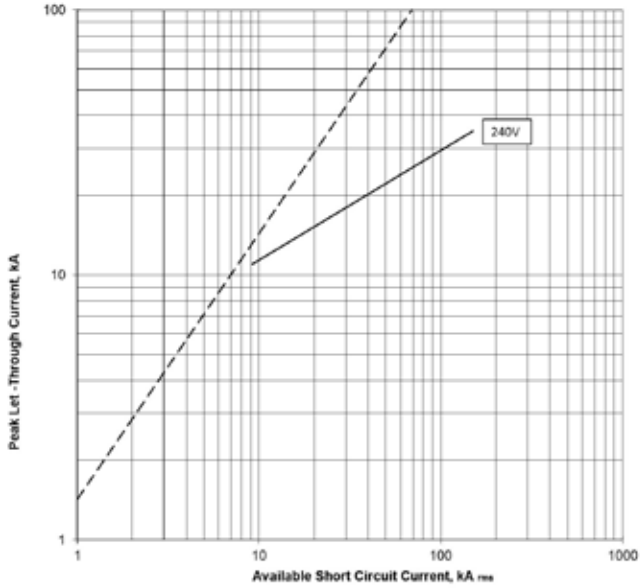
Let-through current I_D PDE2 TMTU; 250 A @ 240 V



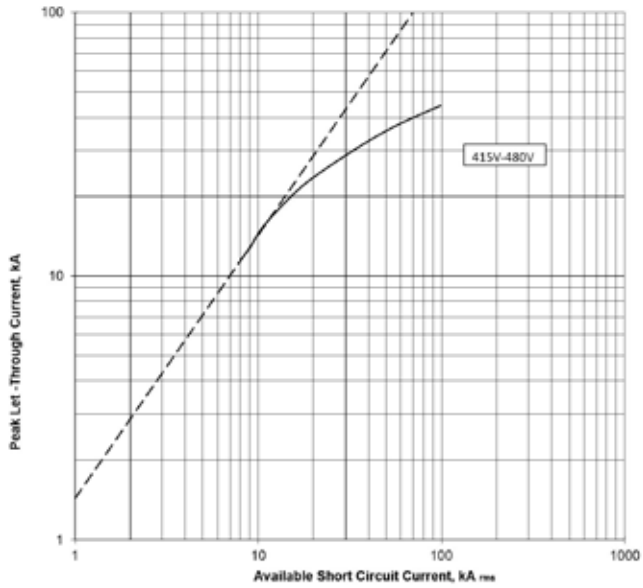
Let-through current I_D PDE2 TMTU; 250 A @ 415 V and 440 V



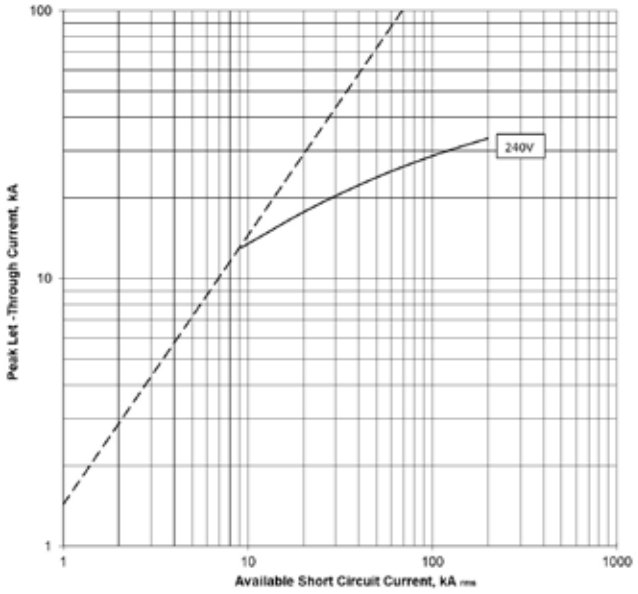
Let-through current I_D PDE2 ETU PXR10 LI; 160 A @ 240 V



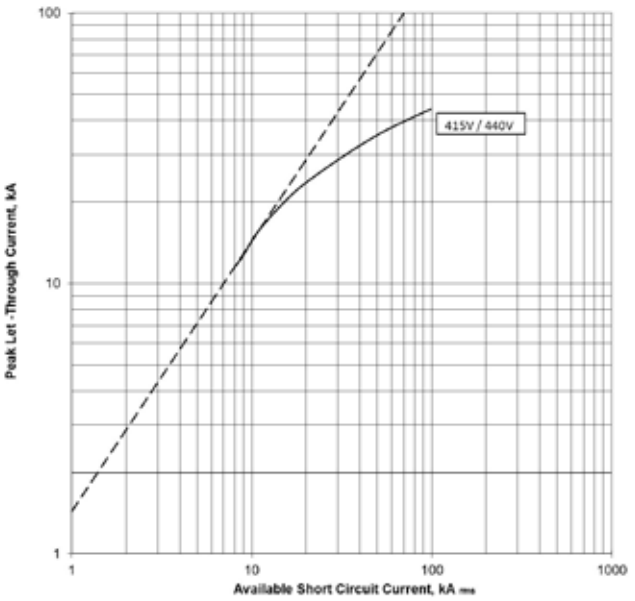
Let-through current I_D PDE2 ETU PXR10 LI; 160 A @ 415 V and 440 V



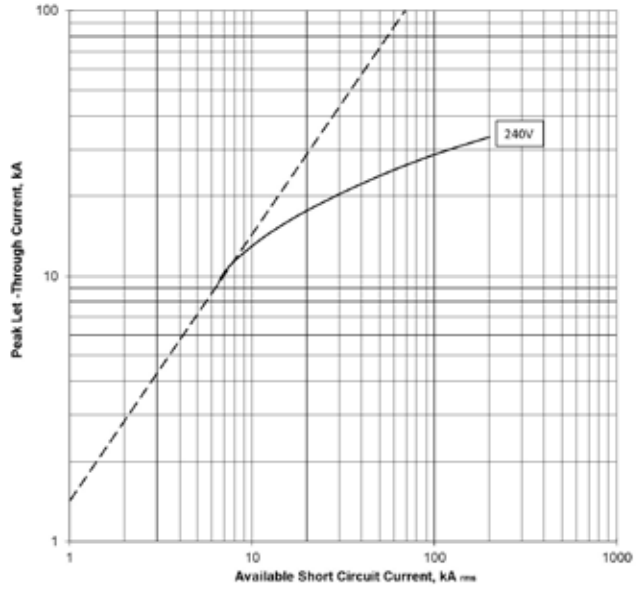
Let-through current I_D PDE2 ETU PXR10 LI; 200 A @ 240 V



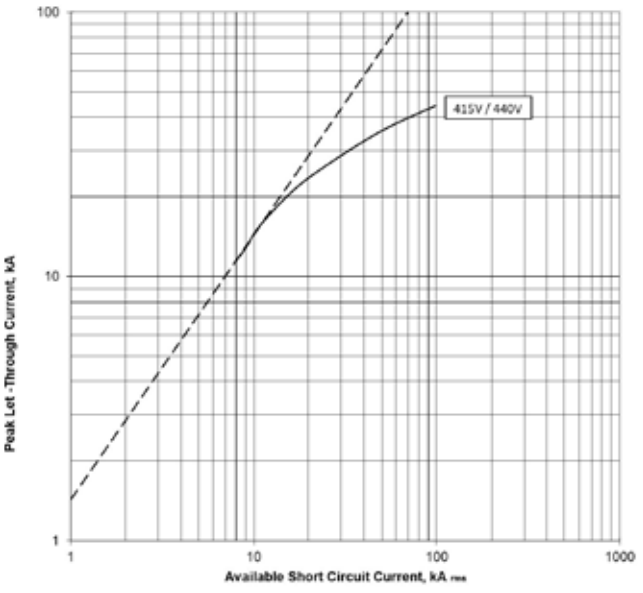
Let-through current I_D PDE2 ETU PXR10 LI; 200 A @ 415 V and 440 V



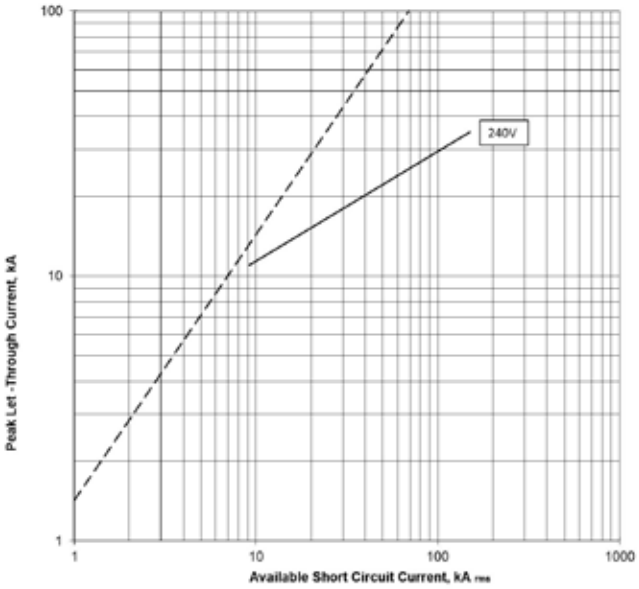
Let-through current I_D PDE2 ETU PXR10 LI; 250 A @ 240 V



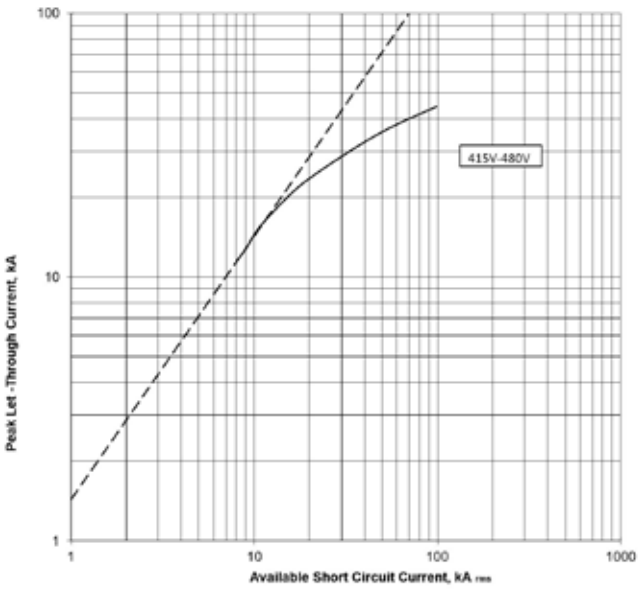
Let-through current I_D PDE2 ETU PXR10 LI; 250 A @ 415 V and 440 V



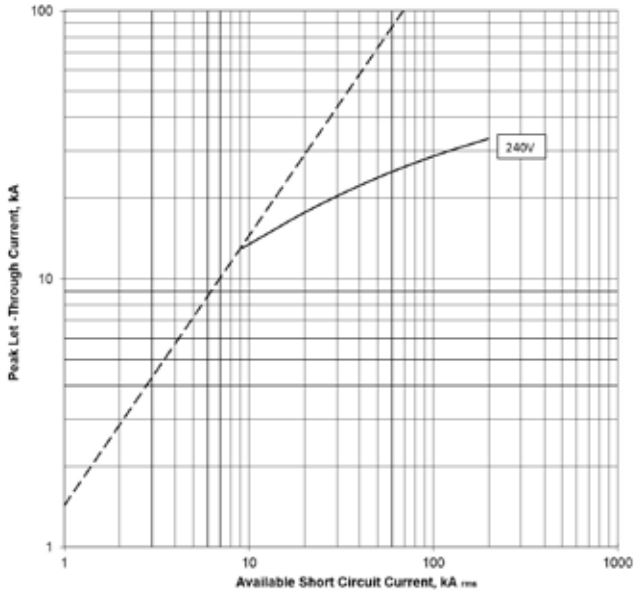
Let-through current I_D PDE2 ETU PXR10 LSI; 100 A and 160 A @ 240 V



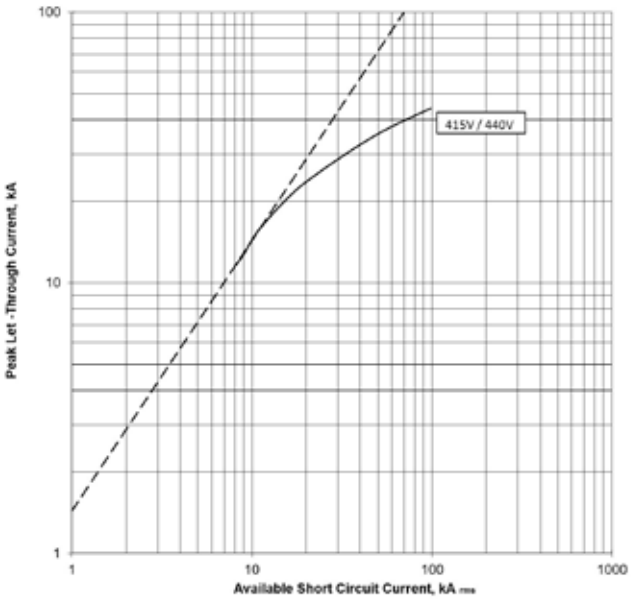
Let-through current I_D PDE2 ETU PXR10 LSI; 100 A and 160 A @ 415 V and 440 V



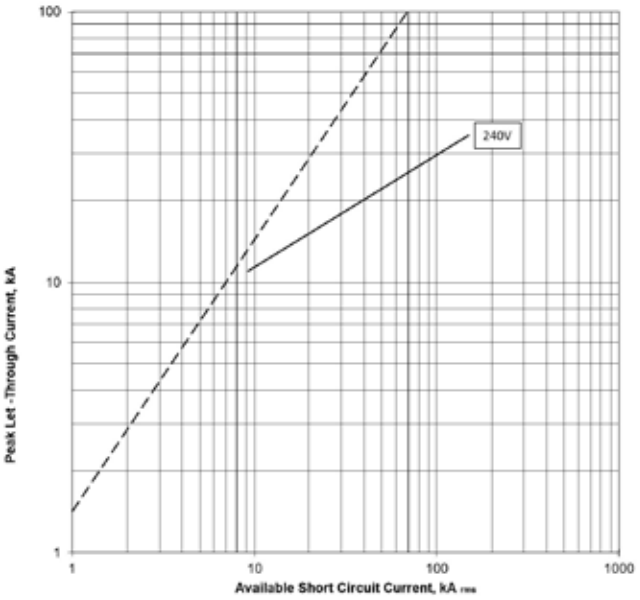
Let-through current I_D PDE2 ETU PXR10 LSI; 250 A @ 240 V



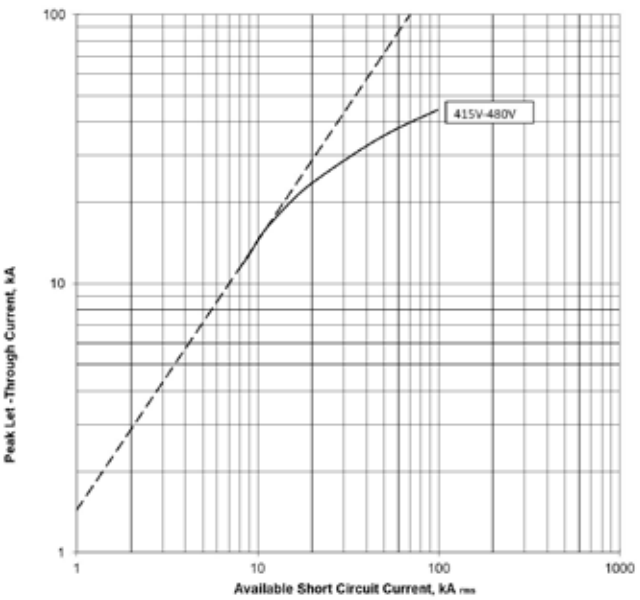
Let-through current I_D PDE2 ETU PXR10 LSI; 250 A @ 415 V and 440 V



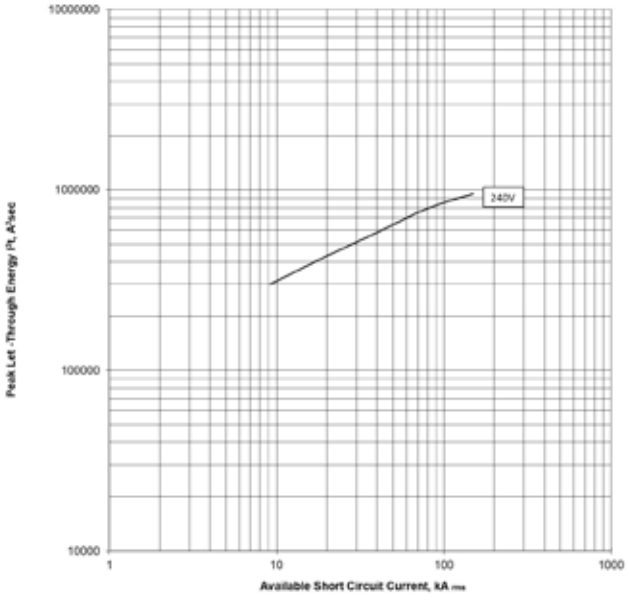
Let-through current I_D; PDE9 ETU PXR10 LI; 63 A and 100 A @ 240 V



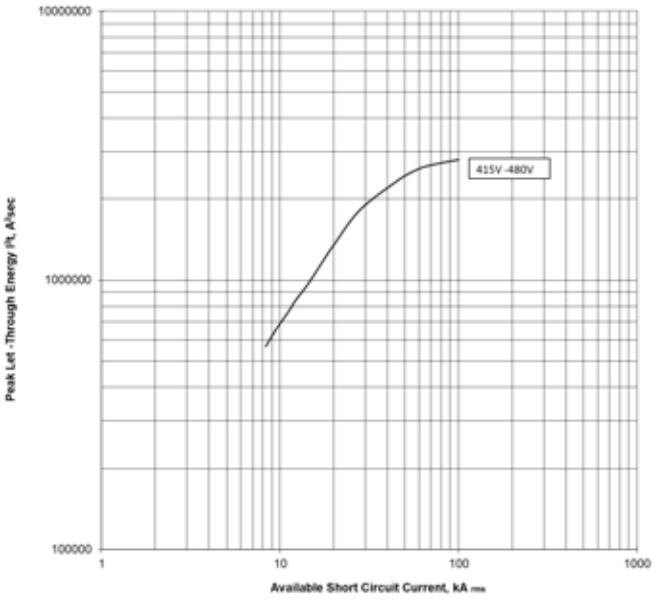
Let-through current I_D; PDE9 ETU PXR10 LI; 63 A and 100 A @ 415 V and 440 V



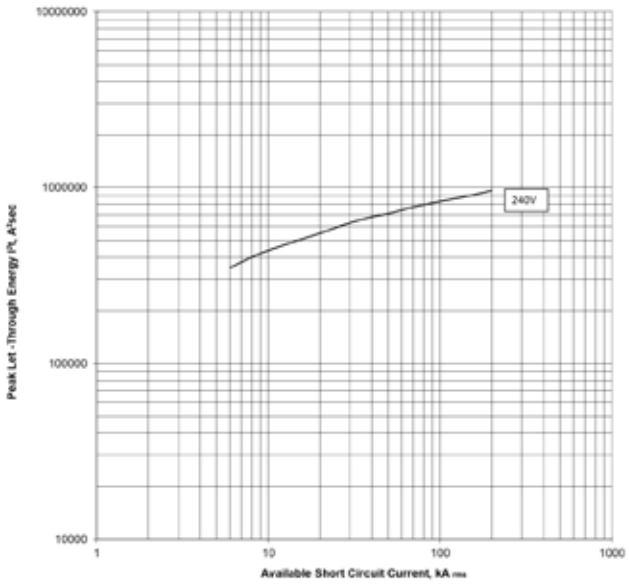
Let-through energy I^2t; PDE2 TMTU; 160 A @ 240 V



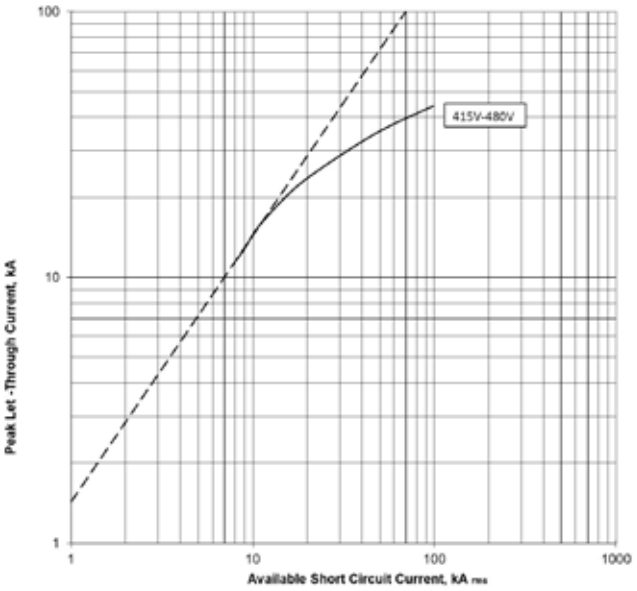
Let-through energy I^2t; PDE2 TMTU; 160 A @ 415 V and 440 V



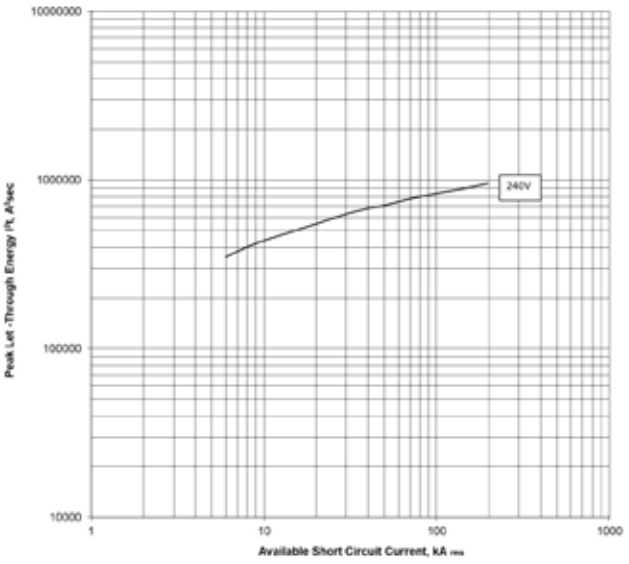
Let-through energy I²t; PDE2 TMTU; 200 A @ 240 V



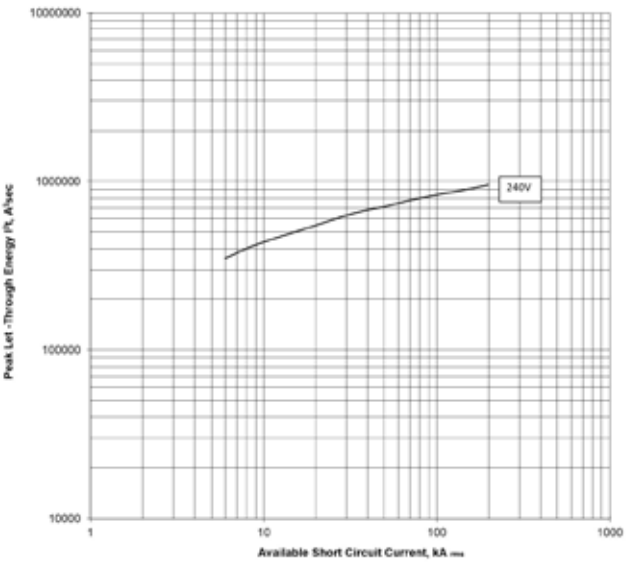
Let-through energy I²t; PDE2 TMTU; 200 A @ 415 V and 440 V



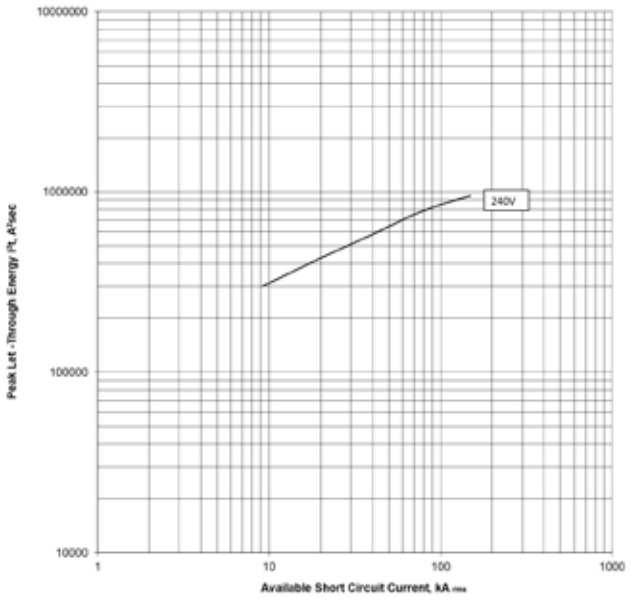
Let-through energy I²t; PDE2 TMTU; 250 A @ 240 V



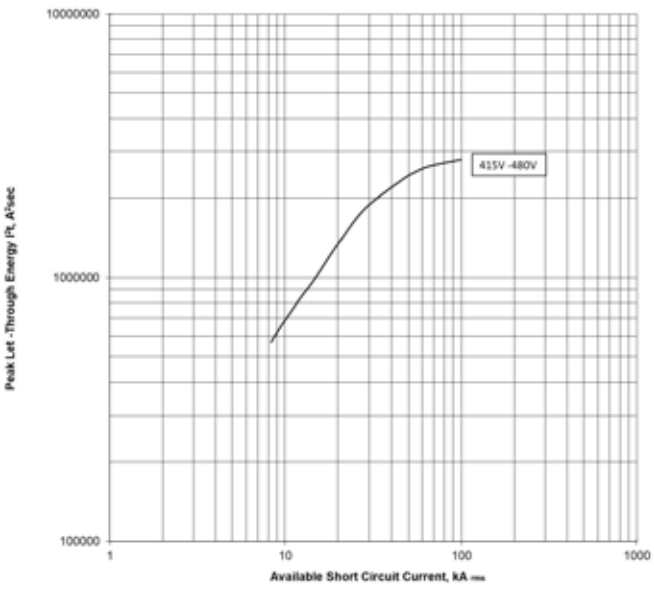
Let-through energy I²t; PDE2 TMTU; 250 A @ 415 V and 440 V



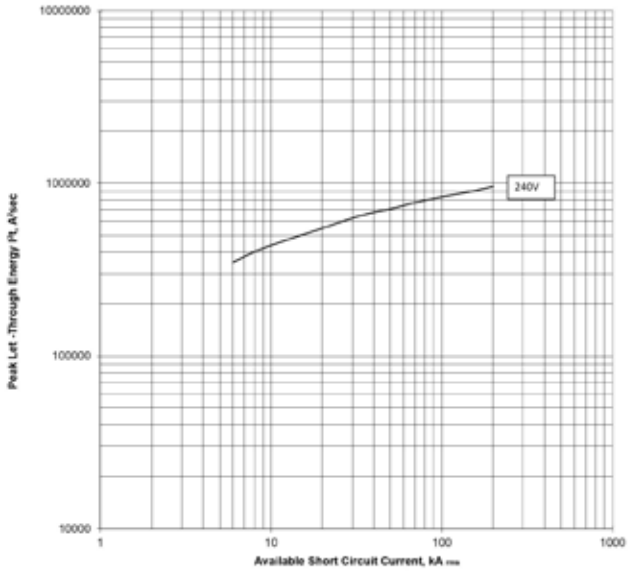
Let-through energy I²t; PDE2 ETU PXR10 LI; 160 A @ 240 V



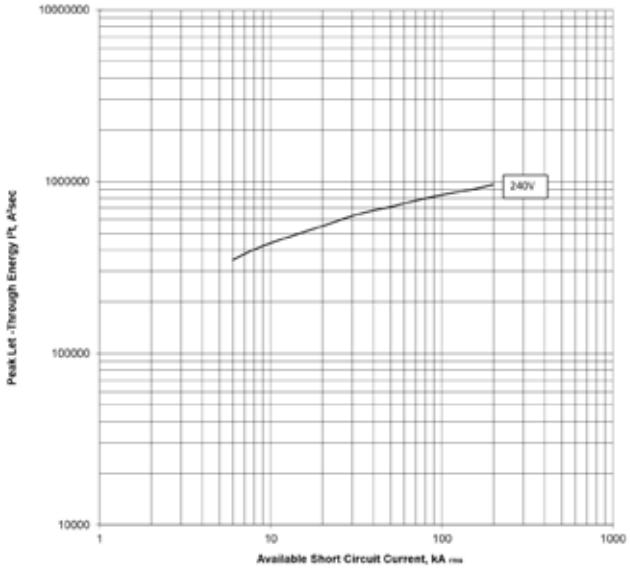
Let-through energy I²t; PDE2 ETU PXR10 LI; 160 A @ 415 V and 440 V



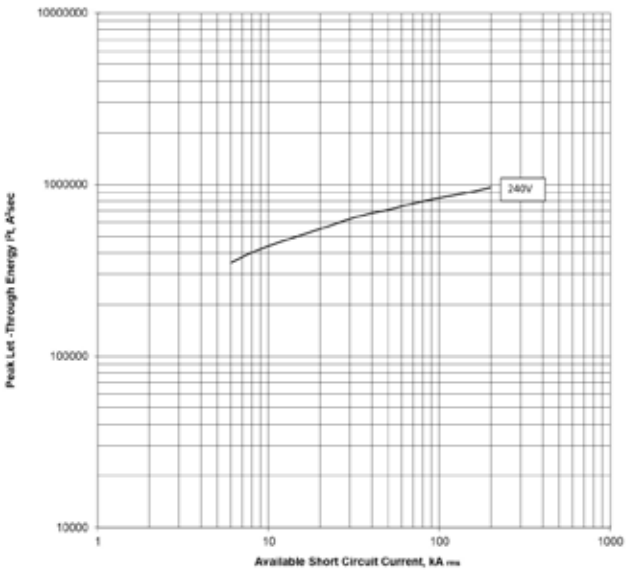
Let-through energy I²t; PDE2 ETU PXR10 LI; 200 A @ 240 V



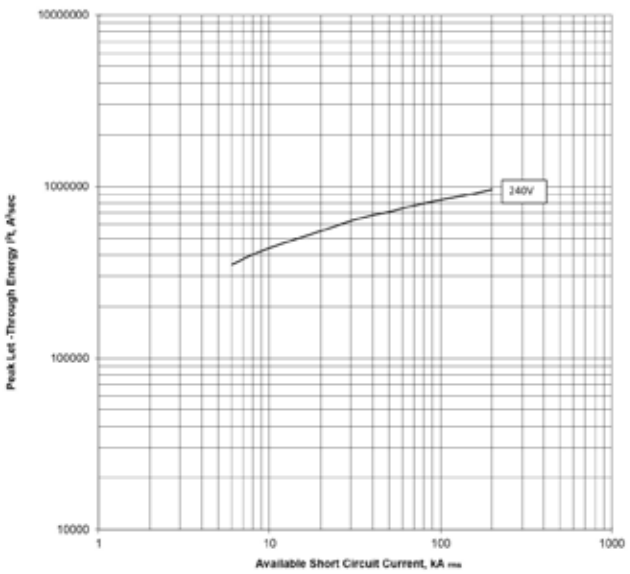
Let-through energy I²t; PDE2 ETU PXR10 LI; 200 A @ 415 V and 440 V



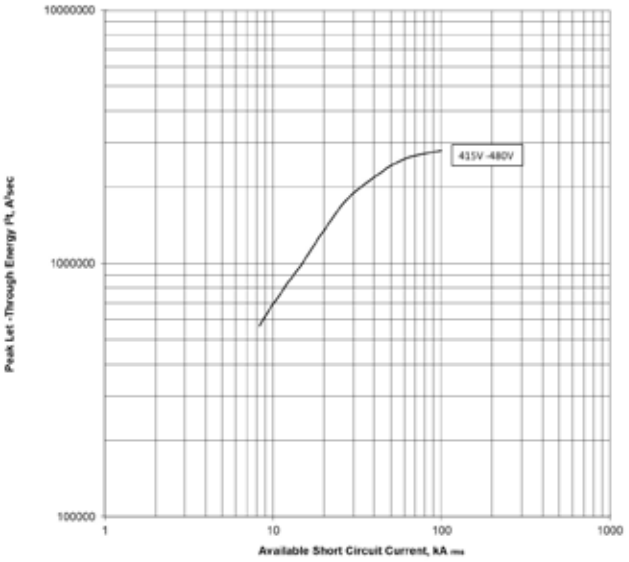
Let-through energy I²t; PDE2 ETU PXR10 LI; 250 A @ 240 V



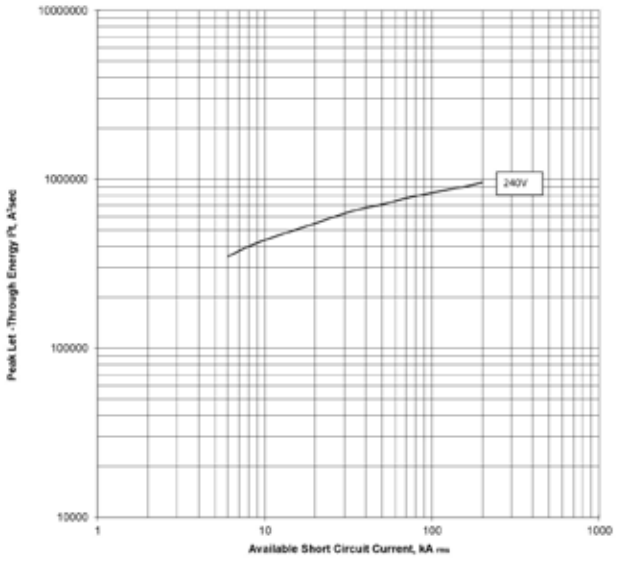
Let-through energy I²t; PDE2 ETU PXR10 LI; 250 A @ 415 V and 440 V



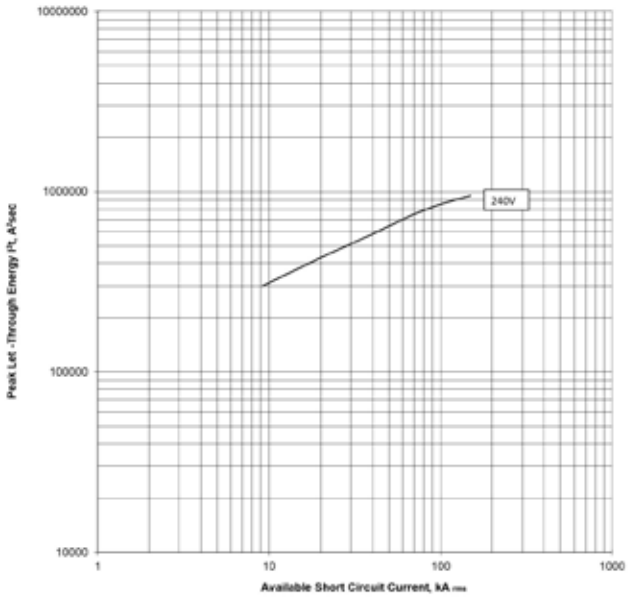
Let-through energy I²t; PDE2 ETU PXR10 LSI; 100 A and 160 A @ 415 V and 440 V



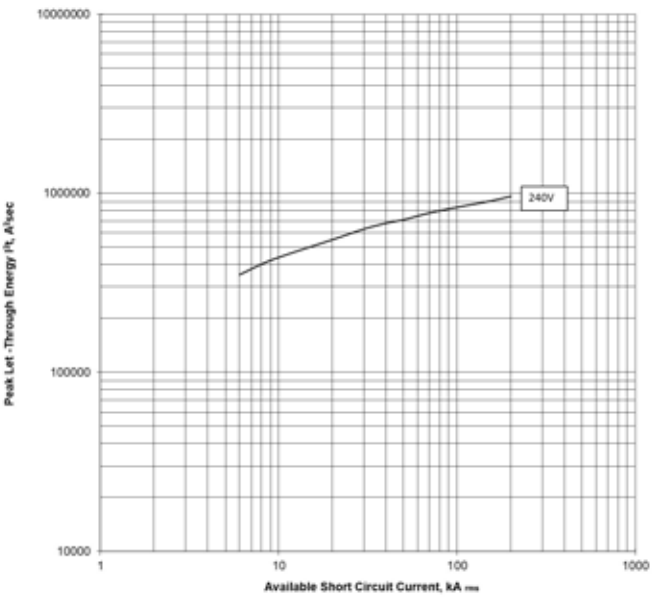
Let-through energy I²t; PDE2 ETU PXR10 LSI; 220 A @ 240 V



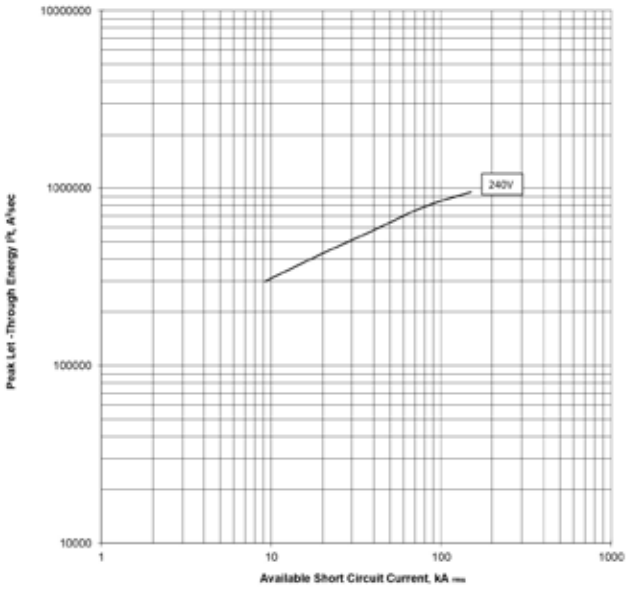
Let-through energy I²t; PDE2 ETU PXR10 LSI; 100 A and 160 A @ 240 V



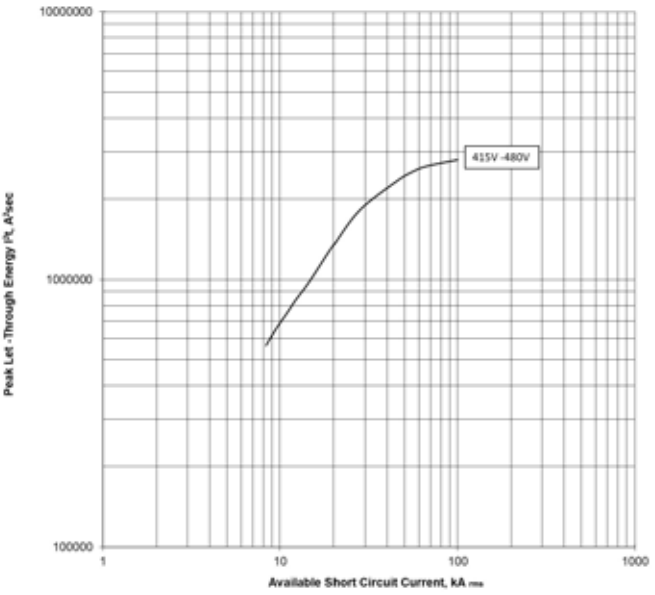
Let-through energy I²t; PDE2 ETU PXR10 LSI; 220 A @ 415 V and 440 V



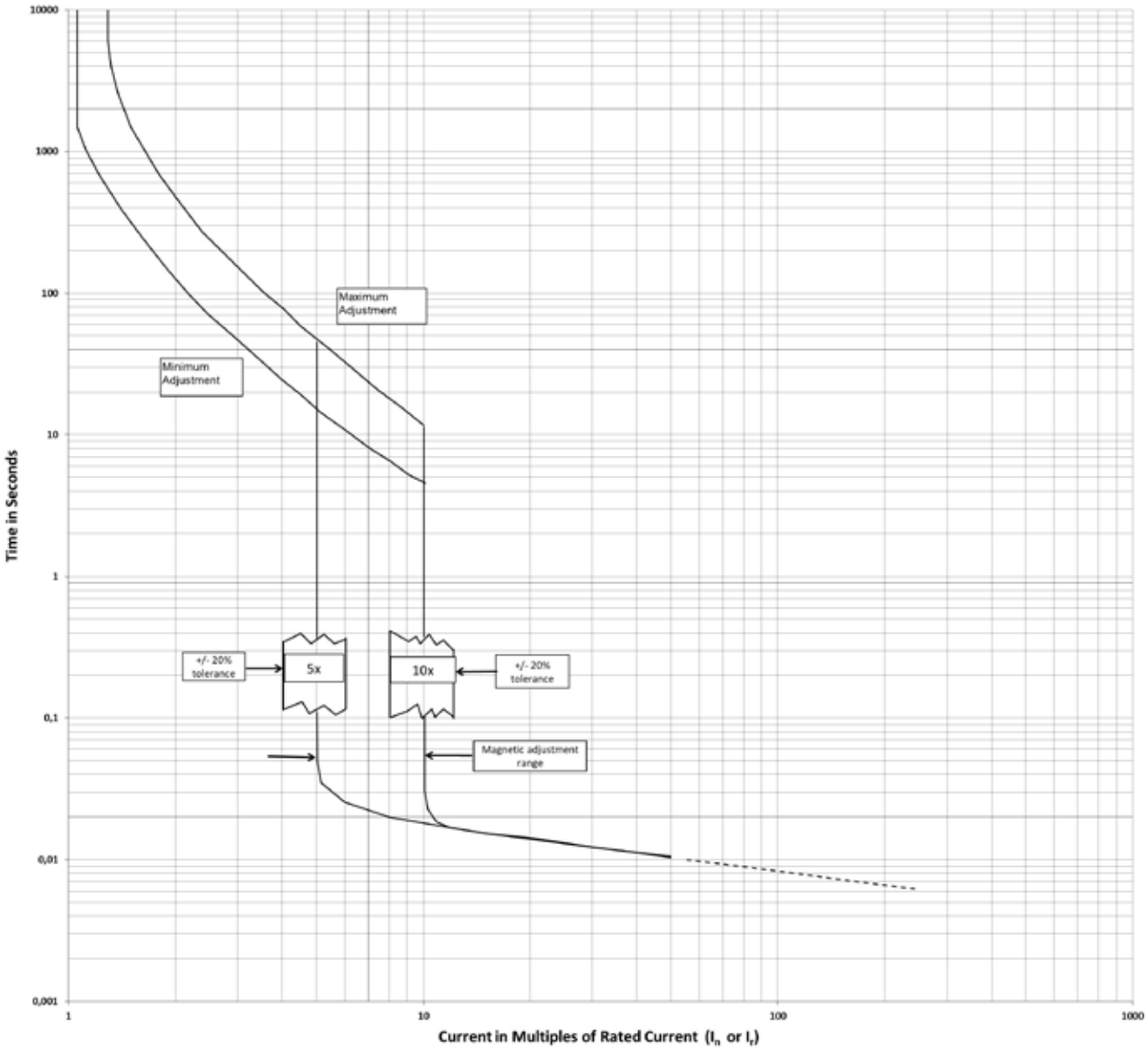
Let-through energy I²t; PDE9 ETU PXR10 LI; 63 A and 100 A @ 240 V



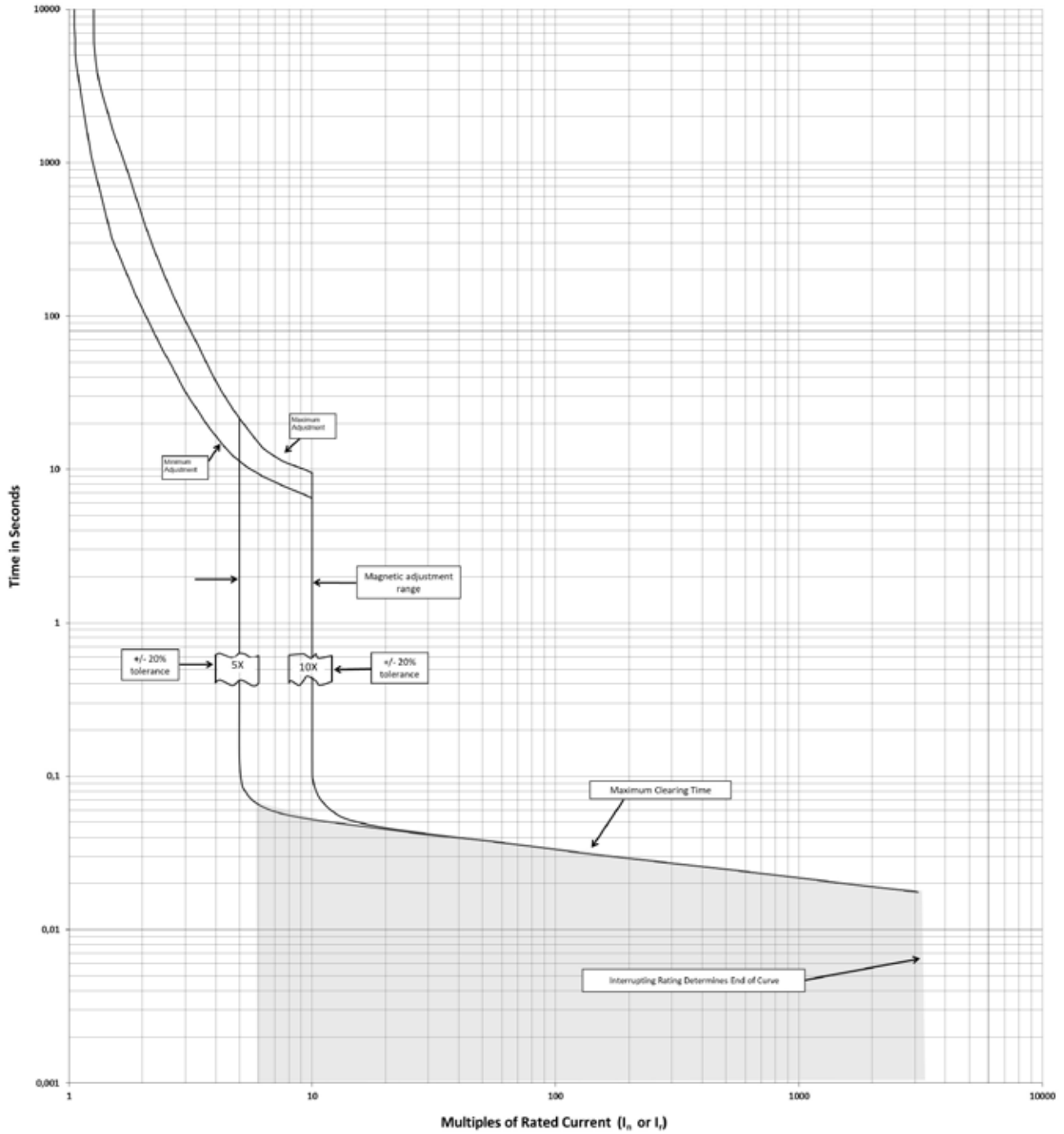
Let-through energy I²t; PDE9 ETU PXR10 LI; 63 A and 100 A @ 415 V and 440 V



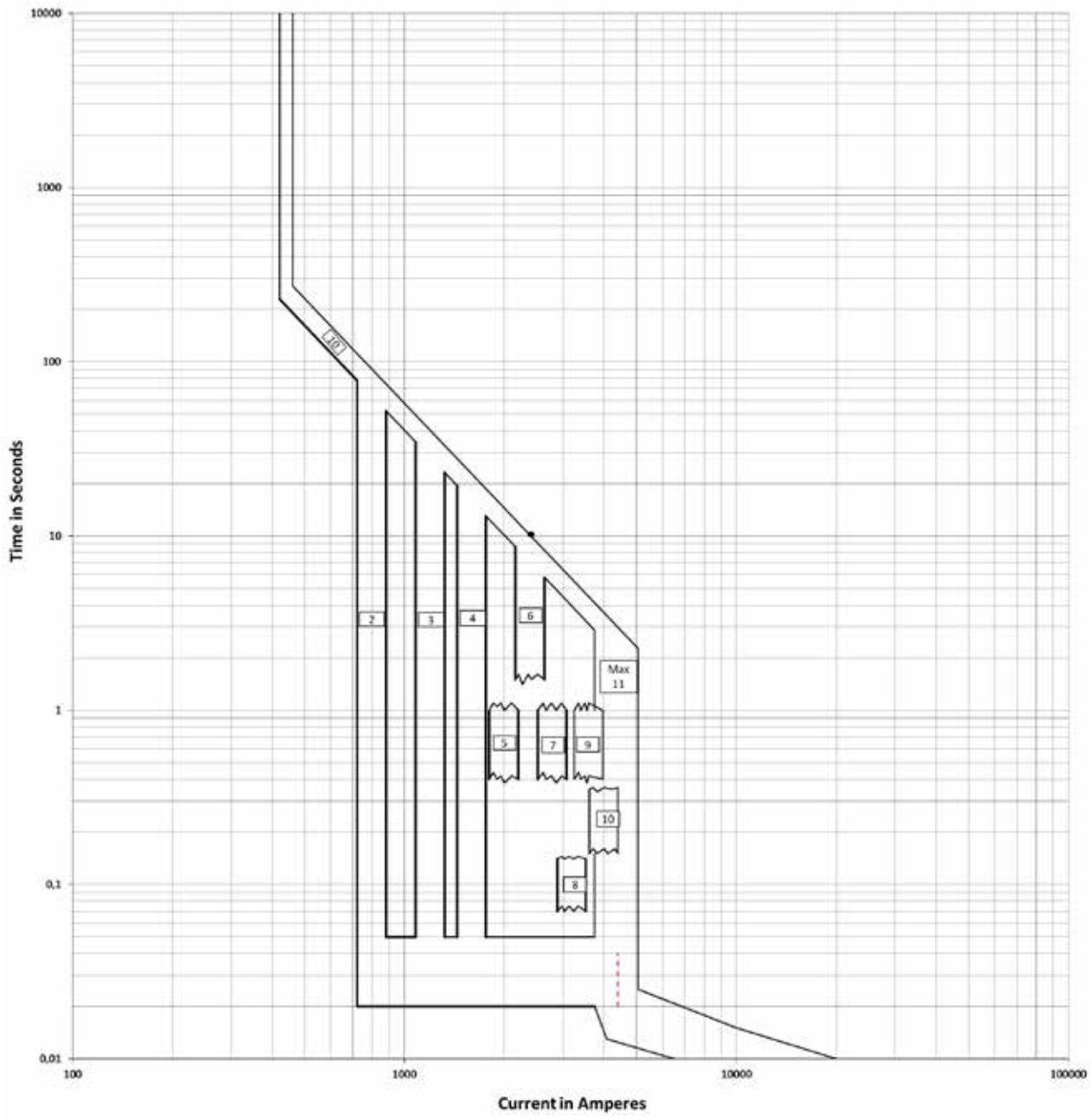
System and line protection with PDE3 TMTU; 250 A, 320 A and 400 A @ 240 V, 415 V and 440 V



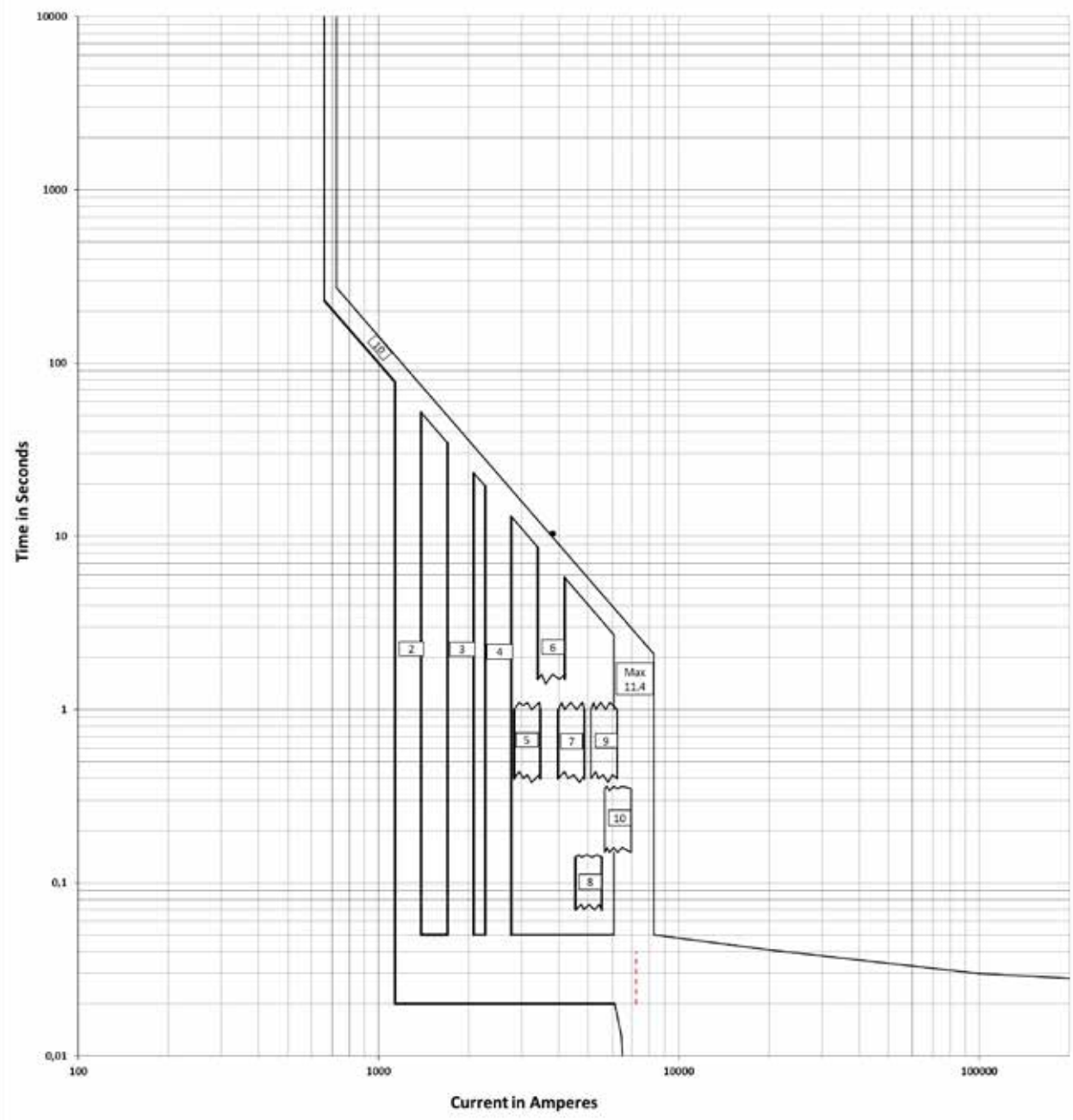
System and line protection with PDE3 TMTU; 500 A and 630 A @ 240 V, 415 V and 440 V



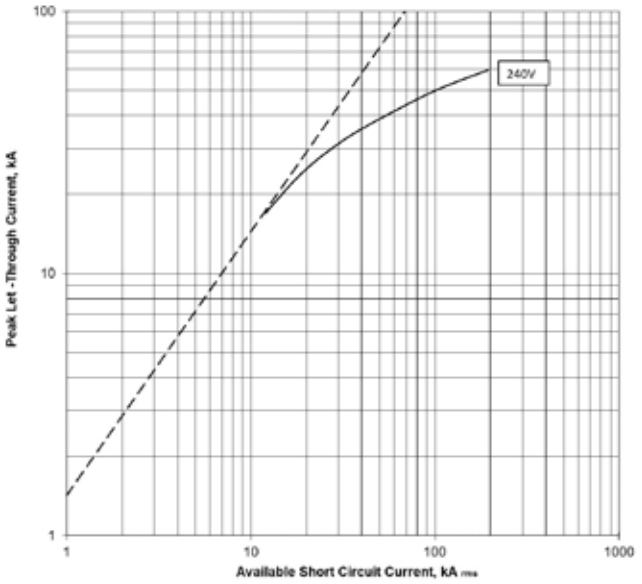
System and line protection with PDE3; I²t Long Delay, Instantaneous, Override Curves; ETU PXR10 LI; 400 A @ 240 V, 415 V and 440 V



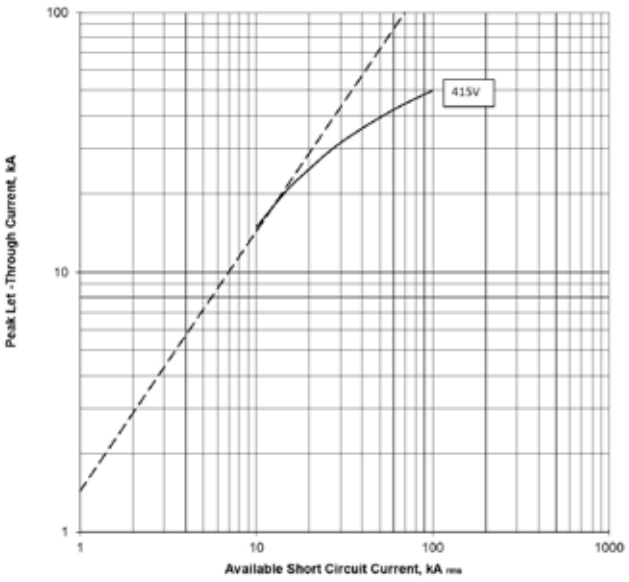
System and line protection with PDE3; I²t Long Delay, Instantaneous, Override Curves; ETU PXR10 LI; 630 A @ 240 V, 415 V and 440 V



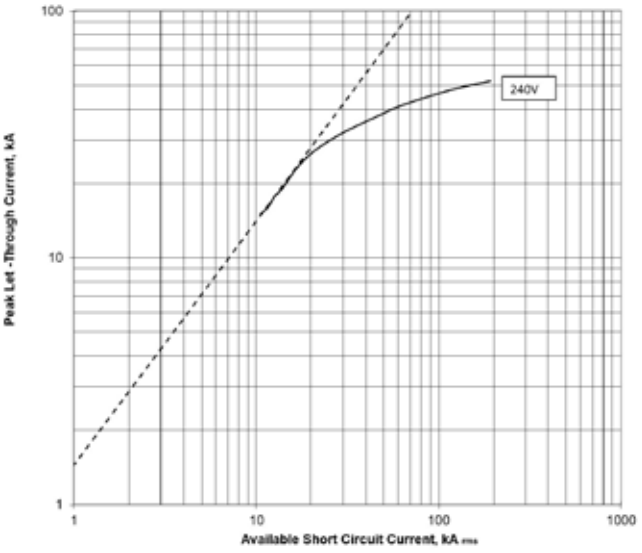
Let-through current I_D; PDE3 TMTU; 250, 320, 400 A @ 240 V



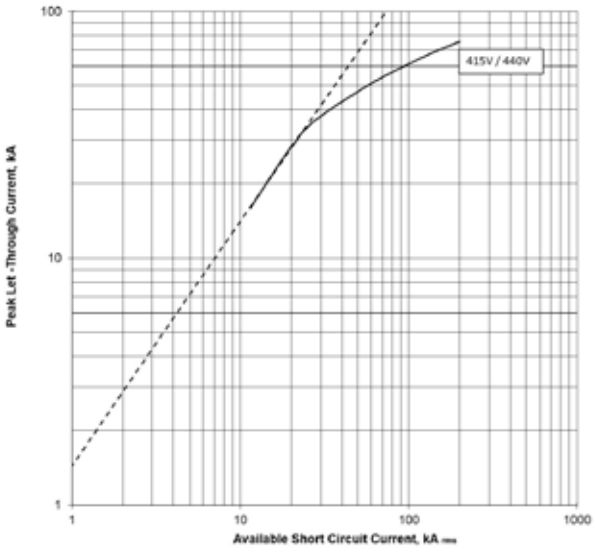
Let-through current I_D; PDE3 TMTU; 250, 320, 400 A @ 415V and 440V



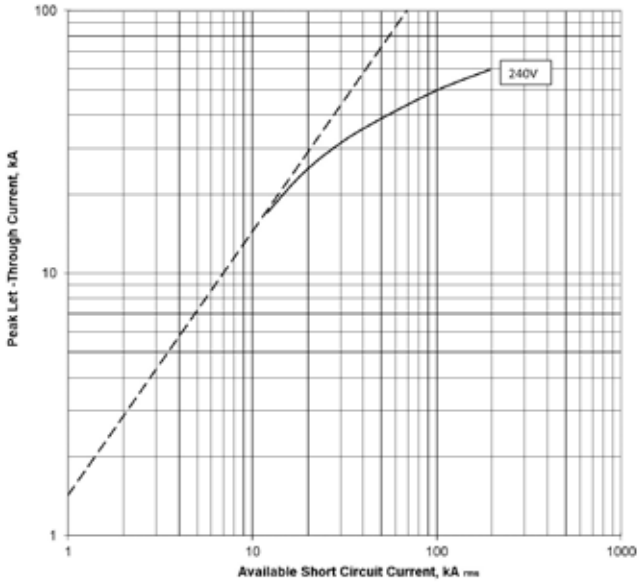
Let-through current I_D; PDE3 TMTU; 500 A and 630 A @ 240 V



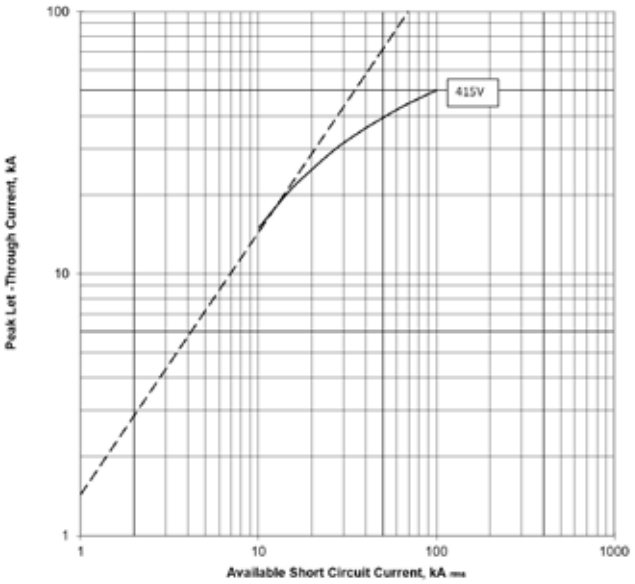
Let-through current I_D; PDE3 TMTU; 500 A and 630 A @ 415V and 440V



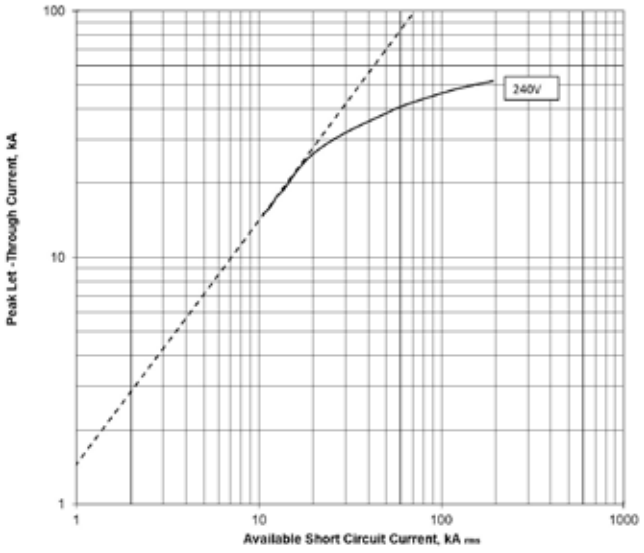
Let-through current I_D; PDE3 ETU PXR10 LI; 400 A @ 240 V



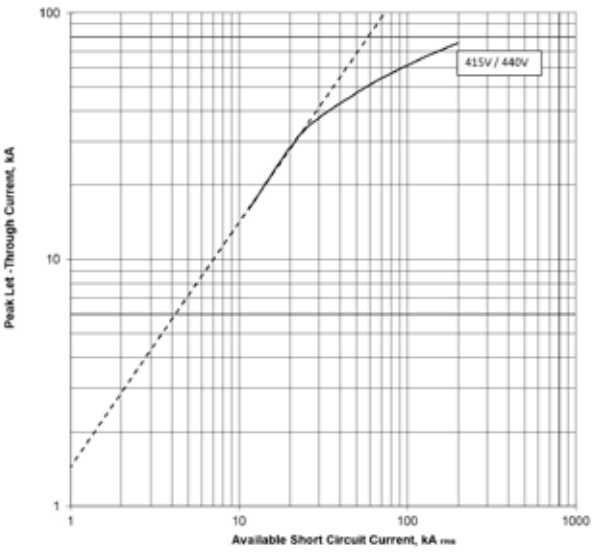
Let-through current I_D; PDE3 ETU PXR10 LI; 400 A @ 415 V and 440 V



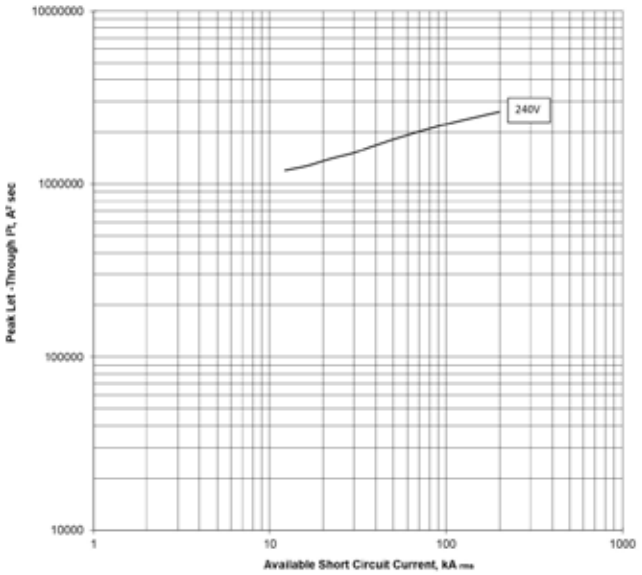
Let-through current I_D; PDE3 ETU PXR10 LI; 630 A @ 240 V



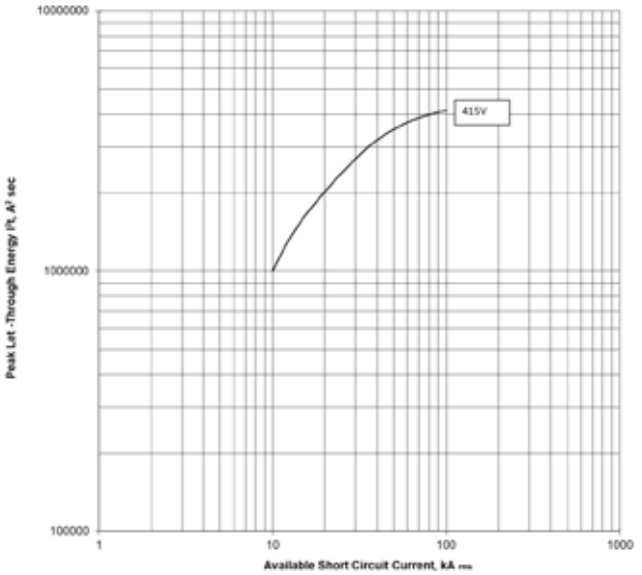
Let-through current I_D; PDE3 ETU PXR10 LI; 630 A @ 415V and 440V



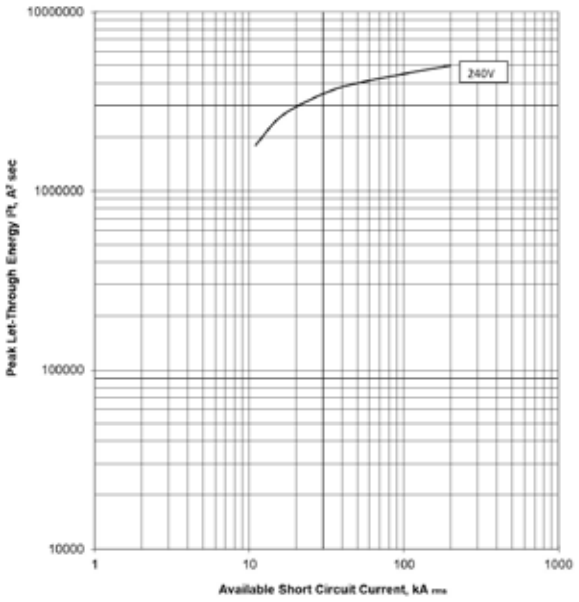
Let Through energy I²t; PDE3 TMTU; 250, 320, 400 A @ 240 V



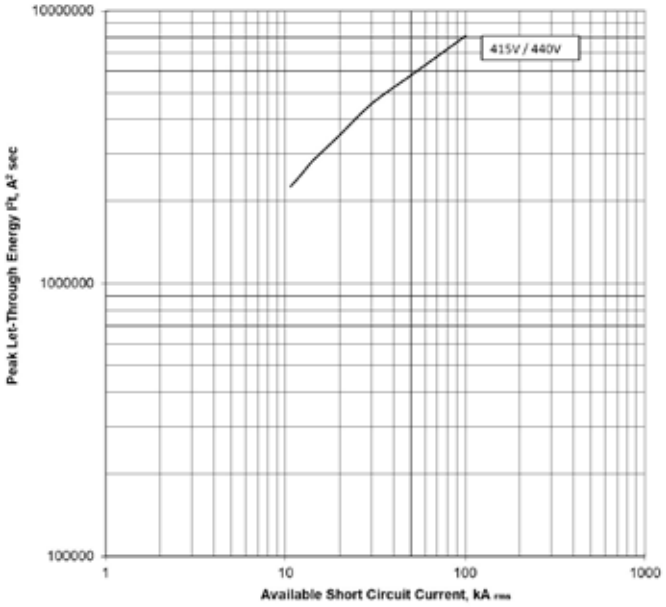
Let Through energy I²t; PDE3 TMTU; 250, 320, 400 A @ 415V and 440V



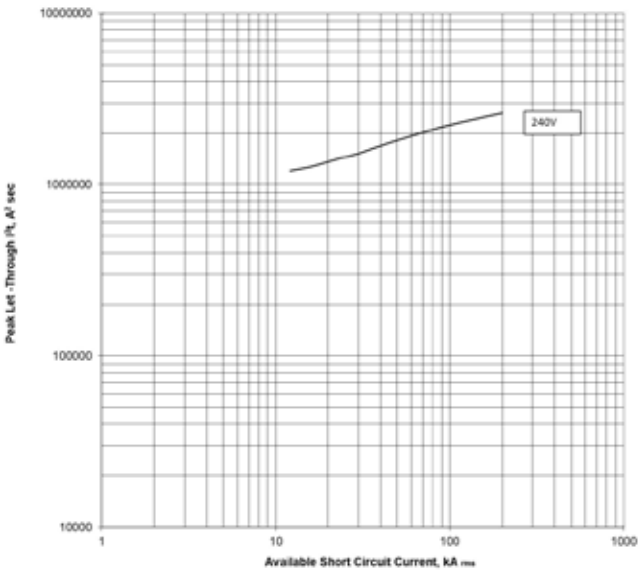
Let Through energy I²t; PDE3 TMTU; 500 A and 630 A @ 240V



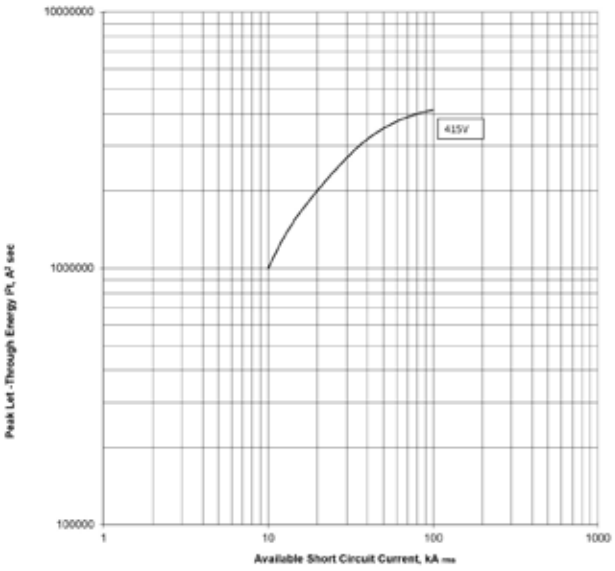
Let Through energy I²t; PDE3 TMTU; 500 A and 630 A @ 415V and 440V



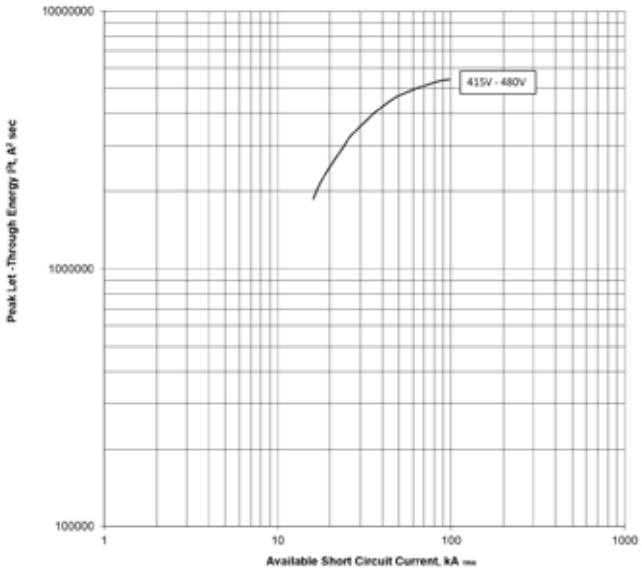
Let Through energy I²t; PDE3 ETU PXR10 LI; 400 A @ 240 V



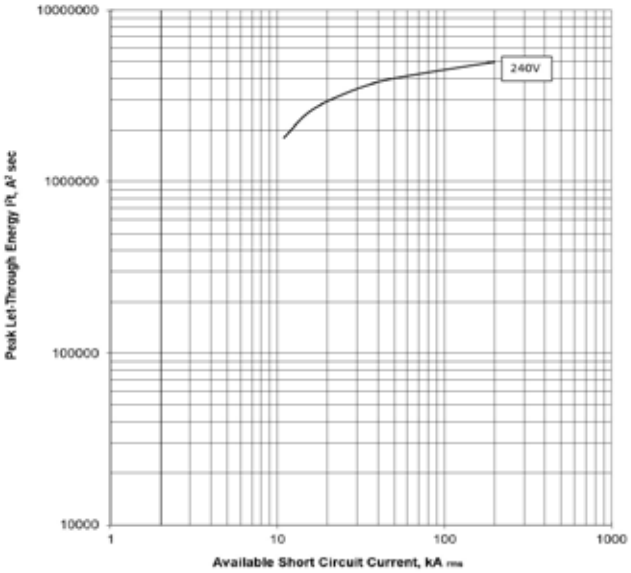
Let Through energy I²t; PDE3 ETU PXR10 LI; 400 A @ 415 V



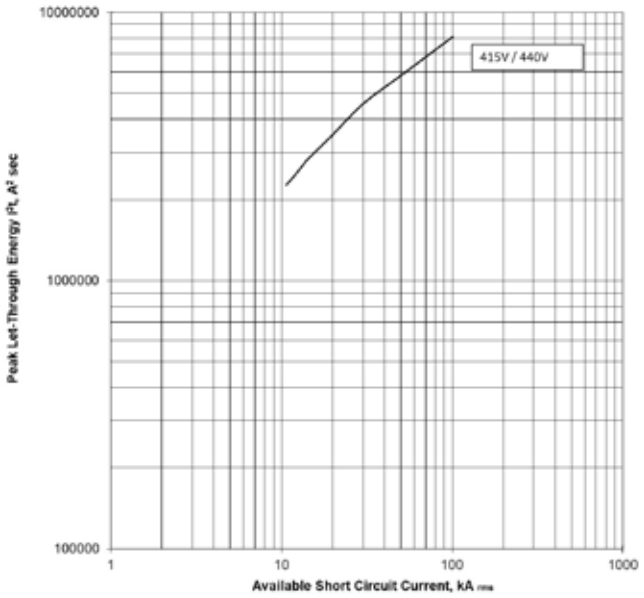
Let Through energy I²t; PDE3 ETU PXR10 LI; 400 A @ 440 V



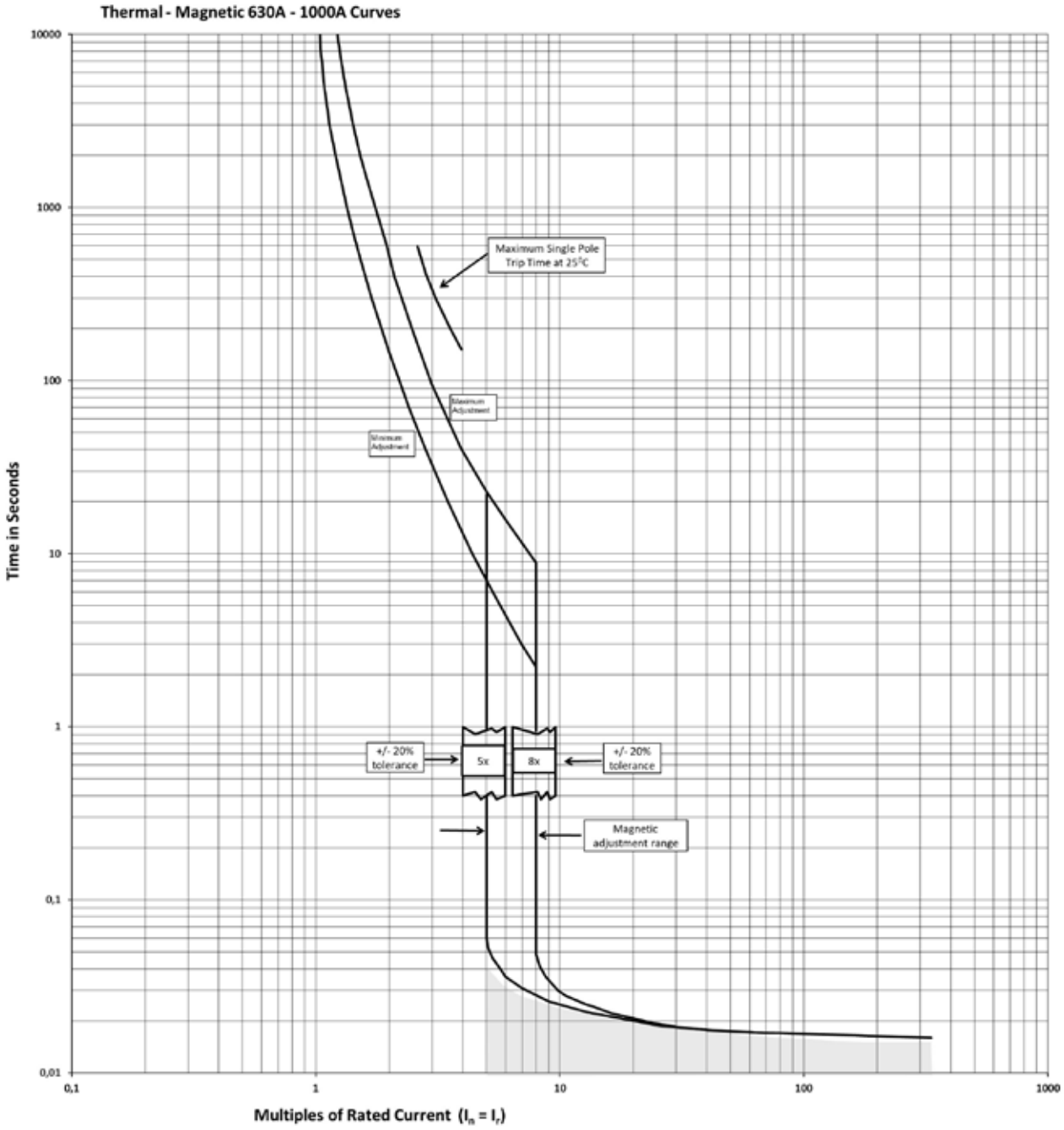
Let Through energy I²t; PDE3 ETU PXR10 LI; 630 A @ 240 V



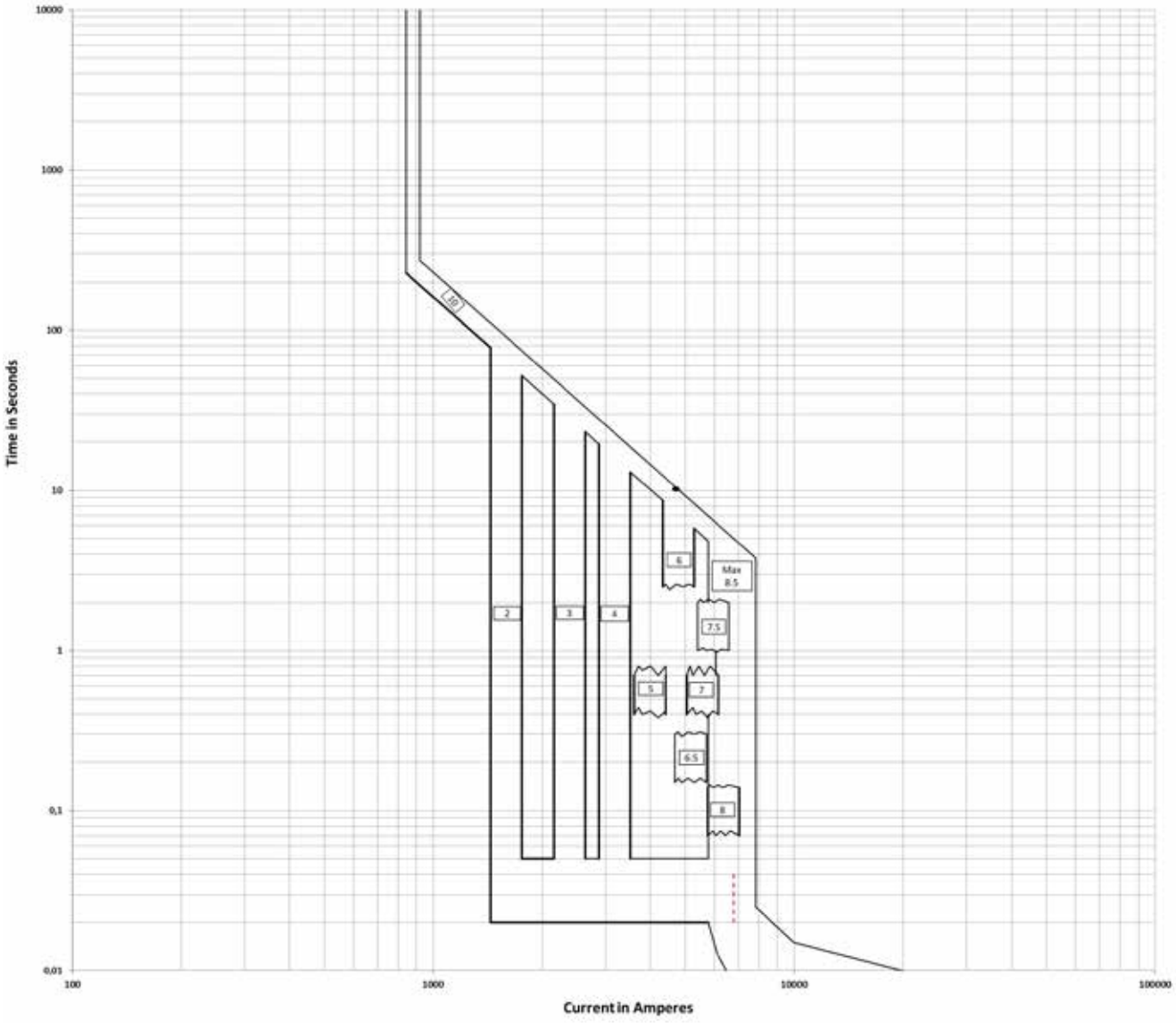
Let Through energy I²t; PDE3 ETU PXR10 LI; 630 A @ 415V and 440V



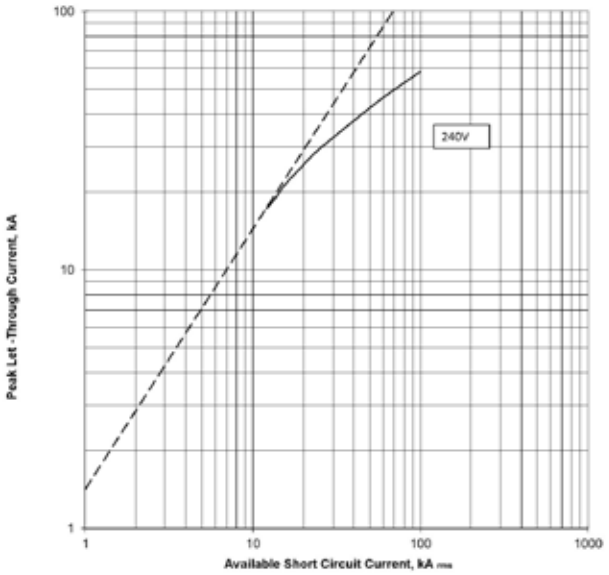
System and line protection with PDE4 TMTU; 800 A @ 240 V, 415 V and 440 V



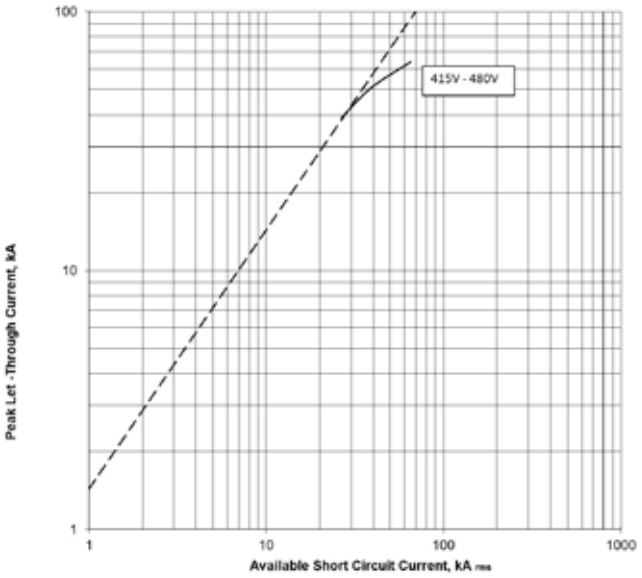
System and line protection with PDE4; I²t Long Delay, Instantaneous, Override Curves ETU PXR10 LI; 800 A @ 240 V, 415 V and 440 V



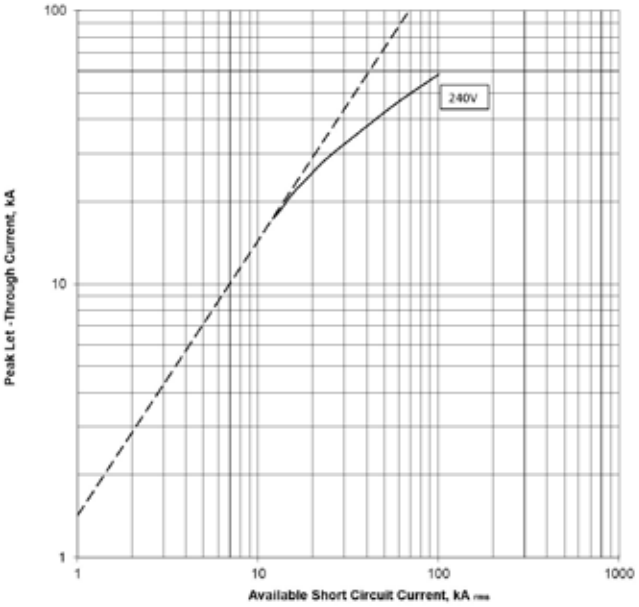
Let-through current I_D; PDE4 TMTU; 800 A @ 240 V



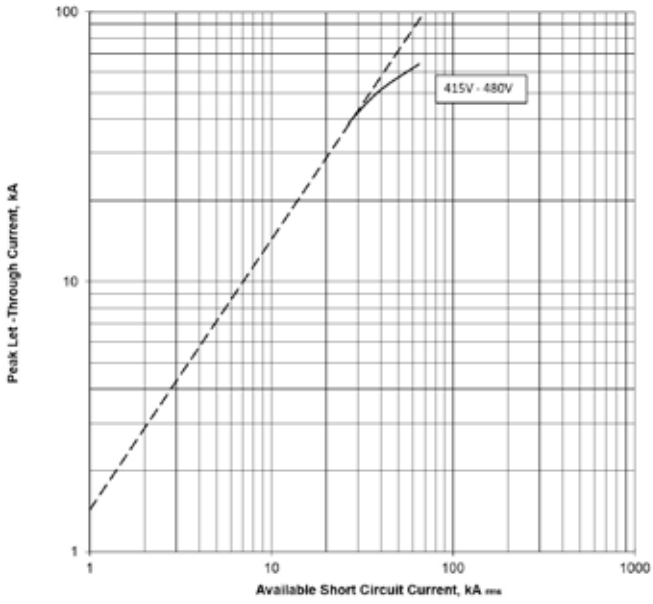
Let-through current I_D; PDE4 TMTU; 800 A @ 415 V and 440 V



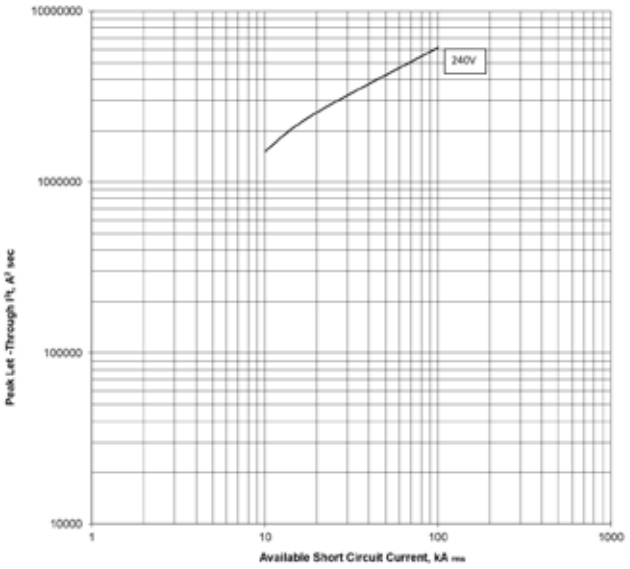
Let-through current I_D; PDE4 ETU PXR10 LI; 800 A @ 240 V



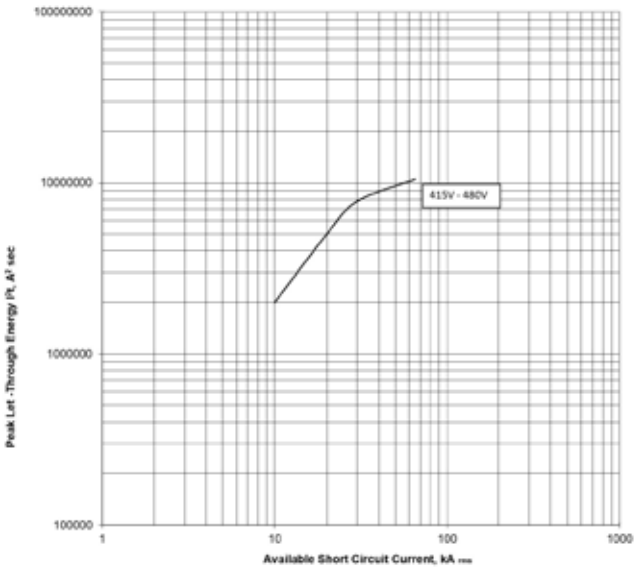
Let-through current I_D; PDE4 ETU PXR10 LI; 800 A @ 415 V and 440 V



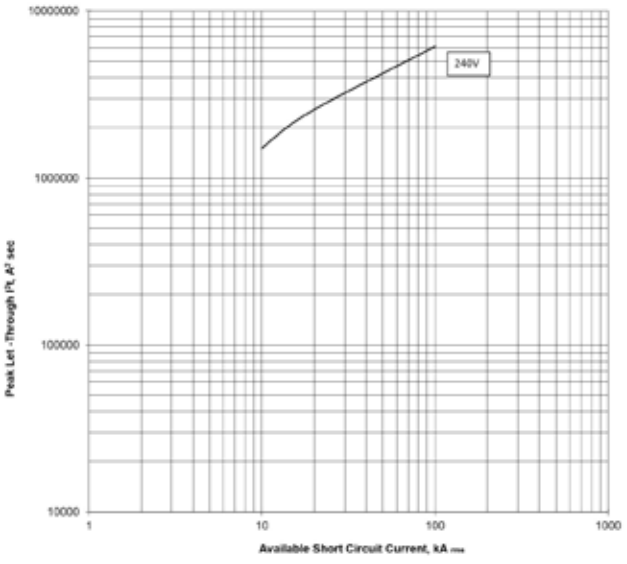
Let-through energy I²t; PDE4 TMTU; 800 A @ 240 V



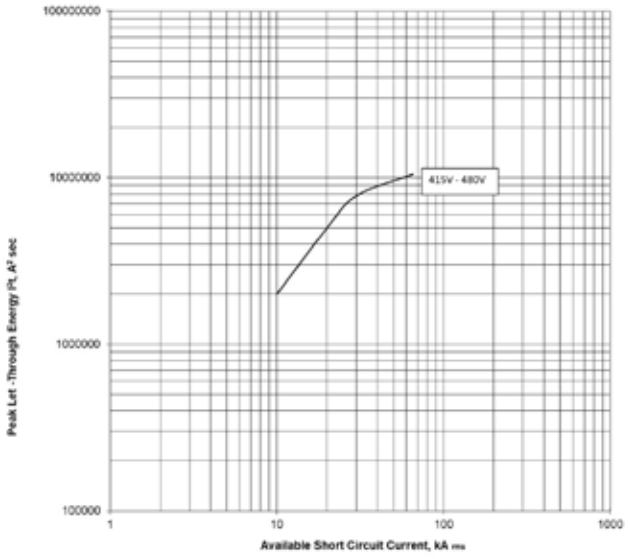
Let-through energy I²t; PDE4 TMTU; 800 A @ 415 V and 440 V



Let-through energy I²t; PDE4 PXR10 LI; 800 A @ 240 V



Let-through energy I²t; PDE4 PXR10 LI; 800 A @ 415 V and 440 V



	Nr of entries	Upstream	PDE1 TMTU I_{cu} = 25 (36) kA						
		I_n [A]	20-40	50	63	80	100	125	160
		II(I_{cu})							
MCBs	**FAZ -B/C**	**I_n [A]**							
FAZ All types with Tripping characteristics B, C	FAZ -B/C	0.5	T	T	T	T	T	T	T
	FAZ -B/C	1	T	T	T	T	T	T	T
	FAZ -B/C	2	2	T	T	T	T	T	T
	FAZ -B/C	3	1.2	2	3	3	10	T	T
	FAZ -B/C	4	1.2	2	3	3	8	T	T
	FAZ -B/C	6	1.2	2	2.5	3	5	10	10
	FAZ -B/C	10	1.2	1.5	2	2	4	10	10
	FAZ -B/C	13	1	1.5	2	2	4	10	10
	FAZ -B/C	16	1	1.2	1.5	2	3	8	8
	FAZ -B/C	20	0.8	1.2	1.5	1.5	3	8	8
	FAZ -B/C	25	0.7	1.2	1.5	1.5	3	7	7
	FAZ -B/C	32	-	1.2	1	1.5	2	6	6
	FAZ -B/C	40	-	-	1	1.5	2	5	5
	FAZ -B/C	50	-	-	-	1.2	1.5	4	4
	FAZ -B/C	63	-	-	-	-	1.5	3	3
FAZ -D	**FAZ -D**								
FAZ All types with Tripping characteristics D	FAZ -D	0.5	9	T	T	T	T	T	T
	FAZ -D	1	0.5	0.7	1.1	1.9	4.2	T	T
	FAZ -D	1.5	0.3	0.6	0.8	1.1	1.6	2.6	2.6
	FAZ -D	2	0.3	0.5	0.75	0.95	1.4	2.4	2.4
	FAZ -D	2.5	0.3	0.5	0.75	0.95	1.3	2.3	2.3
	FAZ -D	3	0.3	0.5	0.7	0.9	1.3	2.1	2.1
	FAZ -D	3.5	0.3	0.5	0.7	0.9	1.3	2	2
	FAZ -D	4	0.3	0.5	0.7	0.9	1.3	1.9	1.9
	FAZ -D	5	0.3	0.5	0.7	0.9	1.3	1.9	1.9
	FAZ -D	6	0.3	0.5	0.6	0.9	1.3	1.8	1.8
	FAZ -D	8	0.3	0.3	0.6	0.75	1	1.3	1.3
	FAZ -D	10	0.3	0.3	0.6	0.75	0.95	1.2	1.2
	FAZ -D	13	0.3	0.3	0.5	0.7	0.9	1.1	1.1
	FAZ -D	16	-	0.3	0.5	0.65	0.8	1.1	1.1
	FAZ -D	20	-	-	0.5	0.65	0.8	1.1	1.1
	FAZ -D	25	-	-	0.5	0.65	0.8	1.1	1.1
	FAZ -D	32	-	-	-	-	0.8	1.1	1.1
	FAZ -D	40	-	-	-	-	-	1	1
PLSM - B/C	**PLSM - B/C**								
PLSM All types with Tripping characteristics B, C	PLSM - B/C	0.5	T	T	T	T	T	T	T
	PLSM - B/C	1	T	T	T	T	T	T	T
	PLSM - B/C	2	2	T	T	T	T	T	T
	PLSM - B/C	3	1.2	2	3	3	10	T	T
	PLSM - B/C	4	1.2	2	3	3	8	T	T
	PLSM - B/C	6	1.2	2	2.5	3	5	10	10
	PLSM - B/C	10	1.2	1.5	2	2	4	10	10
	PLSM - B/C	13	1	1.5	2	2	4	10	10
	PLSM - B/C	16	1	1.2	1.5	2	3	8	8
	PLSM - B/C	20	0.8	1.2	1.5	1.5	3	8	8
	PLSM - B/C	25	0.7	1.2	1.5	1.5	3	7	7
	PLSM - B/C	32	-	1.2	1	1.5	2	6	6
	PLSM - B/C	40	-	-	1	1.5	2	5	5
	PLSM - B/C	50	-	-	-	1.2	1.5	4	4
	PLSM - B/C	63	-	-	-	-	1.5	3	3

PDE2 TMTU I_{cu} = 70 kA				PDE2 ETU				PDE3 TMTU I_{cu} = 70 kA				PDE3 ETU	PDE4 TMTU I_{cu} = 70 kA	PDE4 ETU
125	**160**	**200**	**250**	**63**	**160**	**200**	**250**	**250**	**400**	**500**	**630**	**630**	**800**	**800**
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	6	T	T	T	T	T	T	T	T	T	T
T	T	T	T	2	T	T	T	T	T	T	T	T	T	T
T	T	T	T	1.5	14.1	14.1	14.1	T	T	T	T	T	T	T
T	T	T	T	1.4	7.4	7.4	7.4	T	T	T	T	T	T	T
T	T	T	T	1.4	5	5	5	T	T	T	T	T	T	T
T	T	T	T	1.3	4.8	4.8	4.8	T	T	T	T	T	T	T
12.5	T	T	T	1.3	4.6	4.6	4.6	T	T	T	T	T	T	T
11	13	T	T	1.3	4.4	4.4	4.4	T	T	T	T	T	T	T
11	13	T	T	1.3	4.2	4.2	4.2	T	T	T	T	T	T	T
7.5	10	12.5	T	1.2	3.9	3.9	3.9	T	T	T	T	T	T	T
7.5	9	12	T	1.2	3.8	3.8	3.8	T	T	T	T	T	T	T
7.5	7.5	10	T	1.1	3.5	3.5	3.5	T	T	T	T	T	T	T
5	7.5	7.5	T	-	3.1	3.1	3.1	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	-	-	-
T	T	T	T	T	T	T	T	T	T	T	T	-	-	-
T	T	T	T	3.2	T	T	T	T	T	T	T	-	-	-
T	T	T	T	3	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.9	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.6	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.4	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.3	11.3	11.3	11.3	T	T	T	T	-	-	-
T	T	T	T	2.3	10.4	10.4	10.4	T	T	T	T	-	-	-
T	T	T	T	2.1	6	6	6	T	T	T	T	-	-	-
T	T	T	T	1.4	5.4	5.4	5.4	T	T	T	T	-	-	-
T	T	T	T	1.3	5.1	5.1	5.1	T	T	T	T	-	-	-
T	T	T	T	1.2	4.5	4.5	4.5	T	T	T	T	-	-	-
12	T	T	T	1.2	4.1	4.1	4.1	T	T	T	T	-	-	-
10	12	T	T	1.2	3.9	3.9	3.9	T	T	T	T	-	-	-
10	12	T	T	1.2	3.8	3.8	3.8	T	T	T	T	-	-	-
6	8	11	T	1.2	3.6	3.6	3.6	T	T	T	T	-	-	-
6	8	11	T	1.1	3.4	3.4	3.4	T	T	T	T	-	-	-
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	5	T	T	T	T	T	T	T	T	T	T
T	T	T	T	1.9	T	T	T	T	T	T	T	T	T	T
T	T	T	T	1.3	T	T	T	T	T	T	T	T	T	T
T	T	T	T	1.2	7.4	7.4	7.4	T	T	T	T	T	T	T
T	T	T	T	1.2	5	5	5	T	T	T	T	T	T	T
T	T	T	T	1.2	4.8	4.8	4.8	T	T	T	T	T	T	T
T	T	T	T	1.2	4.6	4.6	4.6	T	T	T	T	T	T	T
T	T	T	T	1.2	4.4	4.4	4.4	T	T	T	T	T	T	T
T	T	T	T	1.1	4.2	4.2	4.2	T	T	T	T	T	T	T
7.5	T	T	T	1.1	3.9	3.9	3.9	T	T	T	T	T	T	T
7.5	9	T	T	1.1	3.8	3.8	3.8	T	T	T	T	T	T	T
7.5	7.5	T	T	1	3.5	3.5	3.5	T	T	T	T	T	T	T
5	7.5	7.5	T	-	3.1	3.1	3.1	T	T	T	T	T	T	T

Selectivity Table

	Nr of entries	Upstream		PDE1 TMTU I_{cu} = 25 (36) kA						
			I_n [A]	20-40	50	63	80	100	125	160
			II(I_{cu})							
PLSM - D	**PLSM - D**									
PLSM All types with Tripping characteristics D	PLSM - D	0.5		9	T	T	T	T	T	T
	PLSM - D	1		0.5	0.7	1.1	1.9	4.2	T	T
	PLSM - D	1.5		0.3	0.6	0.8	1.1	1.6	2.6	2.6
	PLSM - D	2		0.3	0.5	0.75	0.95	1.4	2.4	2.4
	PLSM - D	2.5		0.3	0.5	0.75	0.95	1.3	2.3	2.3
	PLSM - D	3		0.3	0.5	0.7	0.9	1.3	2.1	2.1
	PLSM - D	3.5		0.3	0.5	0.7	0.9	1.3	2	2
	PLSM - D	4		0.3	0.5	0.7	0.9	1.3	1.9	1.9
	PLSM - D	5		0.3	0.5	0.7	0.9	1.3	1.9	1.9
	PLSM - D	6		0.3	0.5	0.6	0.9	1.3	1.8	1.8
	PLSM - D	8		0.3	0.3	0.6	0.75	1	1.3	1.3
	PLSM - D	10		0.3	0.3	0.6	0.75	0.95	1.2	1.2
	PLSM - D	13		0.3	0.3	0.5	0.7	0.9	1.1	1.1
	PLSM - D	16		-	0.3	0.5	0.65	0.8	1.1	1.1
	PLSM - D	20		-	-	0.5	0.65	0.8	1.1	1.1
	PLSM - D	25		-	-	0.5	0.65	0.8	1.1	1.1
	PLSM - D	32		-	-	-	-	0.8	1.1	1.1
	PLSM - D	40		-	-	-	-	-	1	1
PLS6 - B/C	**PLS6 - B/C**									
PLS6 All types with Tripping characteristics B, C	PLS6 - B/C	0.5		T	T	T	T	T	T	T
	PLS6 - B/C	1		T	T	T	T	T	T	T
	PLS6 - B/C	2		2	T	T	T	T	T	T
	PLS6 - B/C	3		1.2	2	3	3	T	T	T
	PLS6 - B/C	4		1.2	2	3	3	T	T	T
	PLS6 - B/C	6		1.2	2	2.5	3	5	T	T
	PLS6 - B/C	10		1.2	1.5	2	2	4	T	T
	PLS6 - B/C	13		1	1.5	2	2	4	T	T
	PLS6 - B/C	16		1	1.2	1.5	2	3	T	T
	PLS6 - B/C	20		0.8	1.2	1.5	1.5	3	T	T
	PLS6 - B/C	25		0.7	1.2	1.5	1.5	3	T	T
	PLS6 - B/C	32		-	1.2	1	1.5	2	T	T
	PLS6 - B/C	40		-	-	1	1.5	2	5	5
	PLS6 - B/C	50		-	-	-	1.2	1.5	4	4
	PLS6 - B/C	63		-	-	-	-	1.5	3	3
PLS6 - D	**PLS6 - D**									
PLS6 All types with Tripping characteristics D	PLS6 - D	0.5		T	T	T	T	T	T	T
	PLS6 - D	1		0.5	0.7	1.1	1.9	4.2	T	T
	PLS6 - D	1.5		0.3	0.6	0.8	1.1	1.6	2.6	2.6
	PLS6 - D	2		0.3	0.5	0.75	0.95	1.4	2.4	2.4
	PLS6 - D	2.5		0.3	0.5	0.75	0.95	1.3	2.3	2.3
	PLS6 - D	3		0.3	0.5	0.7	0.9	1.3	2.1	2.1
	PLS6 - D	3.5		0.3	0.5	0.7	0.9	1.3	2	2
	PLS6 - D	4		0.3	0.5	0.7	0.9	1.3	1.9	1.9
	PLS6 - D	5		0.3	0.5	0.7	0.9	1.3	1.9	1.9
	PLS6 - D	6		0.3	0.5	0.6	0.9	1.3	1.8	1.8
	PLS6 - D	8		0.3	0.3	0.6	0.75	1	1.3	1.3
	PLS6 - D	10		0.3	0.3	0.6	0.75	0.95	1.2	1.2
	PLS6 - D	13		0.3	0.3	0.5	0.7	0.9	1.1	1.1
	PLS6 - D	16		-	0.3	0.5	0.65	0.8	1.1	1.1
	PLS6 - D	20		-	-	0.5	0.65	0.8	1.1	1.1
	PLS6 - D	25		-	-	0.5	0.65	0.8	1.1	1.1
	PLS6 - D	32		-	-	-	-	0.8	1.1	1.1
	PLS6 - D	40		-	-	-	-	-	1	1

PDE2 TMTU I_{cu} = 70 kA				PDE2 ETU				PDE3 TMTU I_{cu} = 70 kA				PDE3 ETU	PDE4 TMTU I_{cu} = 70 kA	PDE4 ETU
125	160	200	250	63	160	200	250	250	400	500	630	630	800	800
T	T	T	T	T	T	T	T	T	T	T	T	-	-	-
T	T	T	T	T	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.6	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.5	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.3	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.1	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2	T	T	T	T	T	T	T	-	-	-
T	T	T	T	1.9	T	T	T	T	T	T	T	-	-	-
T	T	T	T	1.9	T	T	T	T	T	T	T	-	-	-
T	T	T	T	1.8	6	6	6	T	T	T	T	-	-	-
T	T	T	T	1.3	5.4	5.4	5.4	T	T	T	T	-	-	-
T	T	T	T	1.2	5.1	5.1	5.1	T	T	T	T	-	-	-
T	T	T	T	1.1	4.5	4.5	4.5	T	T	T	T	-	-	-
T	T	T	T	1.1	4.1	4.1	4.1	T	T	T	T	-	-	-
T	T	T	T	1	3.9	3.9	3.9	T	T	T	T	-	-	-
T	T	T	T	1	3.8	3.8	3.8	T	T	T	T	-	-	-
6	8	T	T	1	3.6	3.6	3.6	T	T	T	T	-	-	-
6	8	T	T	1	3.4	3.4	3.4	T	T	T	T	-	-	-
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	5	T	T	T	T	T	T	T	T	T	T
T	T	T	T	1.9	T	T	T	T	T	T	T	T	T	T
T	T	T	T	1.3	T	T	T	T	T	T	T	T	T	T
T	T	T	T	1.2	T	T	T	T	T	T	T	T	T	T
T	T	T	T	1.2	5	5	5	T	T	T	T	T	T	T
T	T	T	T	1.2	4.8	4.8	4.8	T	T	T	T	T	T	T
T	T	T	T	1.2	4.6	4.6	4.6	T	T	T	T	T	T	T
T	T	T	T	1.2	4.4	4.4	4.4	T	T	T	T	T	T	T
T	T	T	T	1.1	4.2	4.2	4.2	T	T	T	T	T	T	T
T	T	T	T	1.1	3.9	3.9	3.9	T	T	T	T	T	T	T
T	T	T	T	1.1	3.8	3.8	3.8	T	T	T	T	T	T	T
T	T	T	T	1	3.5	3.5	3.5	T	T	T	T	T	T	T
5	T	T	T	-	3.1	3.1	3.1	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	-	-	-
T	T	T	T	T	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.6	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.5	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.3	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2.1	T	T	T	T	T	T	T	-	-	-
T	T	T	T	2	T	T	T	T	T	T	T	-	-	-
T	T	T	T	1.9	T	T	T	T	T	T	T	-	-	-
T	T	T	T	1.9	T	T	T	T	T	T	T	-	-	-
T	T	T	T	1.8	T	T	T	T	T	T	T	-	-	-
T	T	T	T	1.3	5.4	5.4	5.4	T	T	T	T	-	-	-
T	T	T	T	1.2	5.1	5.1	5.1	T	T	T	T	-	-	-
T	T	T	T	1.1	4.5	4.5	4.5	T	T	T	T	-	-	-
T	T	T	T	1.1	4.1	4.1	4.1	T	T	T	T	-	-	-
T	T	T	T	1	3.9	3.9	3.9	T	T	T	T	-	-	-
T	T	T	T	1	3.8	3.8	3.8	T	T	T	T	-	-	-
T	T	T	T	1	3.6	3.6	3.6	T	T	T	T	-	-	-
T	T	T	T	1	3.4	3.4	3.4	T	T	T	T	-	-	-

Selectivity Table

	Nr of entries	Upstream		PDE1 TMTU I_{cu} = 25 (36) kA						
		I_n [A]		20-40	50	63	80	100	125	160
		II(I_{cu})								
eRBM - B/C	**eRBM - B/C**									
eRBM All types with Tripping characteristics B, C	eRBM - B/C	6		1.2	2	2.5	3	5	T	T
	eRBM - B/C	8		1.2	1.5	2	2	4	T	T
	eRBM - B/C	10		1.2	1.5	2	2	4	T	T
	eRBM - B/C	13		1	1.5	2	2	4	T	T
	eRBM - B/C	16		1	1.2	1.5	2	3	8	8
	eRBM - B/C	20		0.8	1.2	1.5	1.5	3	8	8
	eRBM - B/C	25		0.7	1.2	1.5	1.5	3	7	7
	eRBM - B/C	32		-	1.2	1	1.5	2	6	6
	eRBM - B/C	40		-	-	1	1.5	2	5	5
	eRBM - B/C	45		-	-	-	1.2	1.5	4	4
eRBM - D	**eRBM - D**									
eRBM All types with Tripping characteristics D	eRBM - D	6		0.3	0.5	0.6	0.9	1.3	1.8	1.8
	eRBM - D	8		0.3	0.3	0.6	0.75	1	1.3	1.3
	eRBM - D	10		0.3	0.3	0.6	0.75	0.95	1.2	1.2
	eRBM - D	13		0.3	0.3	0.5	0.7	0.9	1.1	1.1
	eRBM - D	16		-	0.3	0.5	0.65	0.8	1.1	1.1
	eRBM - D	20		-	-	0.5	0.65	0.8	1.1	1.1
PKNM - B	**PKNM - B**									
PKNM All types with Tripping characteristics B	PKNM - B	16		1	1.2	1.5	2	3	8	8
	PKNM - B	20		0.8	1.2	1.5	1.5	3	8	8
	PKNM - B	25		0.7	1.2	1.5	1.5	3	7	7
	PKNM - B	32		-	1.2	1	1.5	2	6	6
	PKNM - B	40		-	-	1	1.5	2	5	5
PKNM - C	**PKNM - C**									
PKNM All types with Tripping characteristics C	PKNM - C	6		1.2	2	2.5	3	5	T	T
	PKNM - C	10		1.2	1.5	2	2	4	T	T
	PKNM - C	16		1	1.2	1.5	1.5	3	8	8
	PKNM - C	20		0.8	1.2	1.5	1.5	3	8	8
	PKNM - C	25		0.7	1.2	1.5	1.5	3	7	7
	PKNM - C	32		-	1.2	1	1.5	2	6	6
	PKNM - C	40		-	-	1	1.5	2	5	5
PKN6 - B	**PKN6 - B**									
PKN6 All types with Tripping characteristics B	PKN6 - B	16		1	1.2	1.5	2	3	T	T
	PKN6 - B	20		0.8	1.2	1.5	1.5	3	T	T
	PKN6 - B	25		0.7	1.2	1.5	1.5	3	T	T
	PKN6 - B	32		-	1.2	1	1.5	2	6	6
	PKN6 - B	40		-	-	1	1.5	2	5	5
PKN6 - C	**PKN6 - C**									
PKN6 All types with Tripping characteristics C	PKN6 - C	6		1.2	2	2.5	3	5	T	T
	PKN6 - C	10		1.2	1.5	2	2	4	T	T
	PKN6 - C	16		1	1.2	1.5	2	3	T	T
	PKN6 - C	20		0.8	1.2	1.5	1.5	3	T	T
	PKN6 - C	25		0.7	1.2	1.5	1.5	3	T	T
	PKN6 - C	32		-	1.2	1	1.5	2	T	T
	PKN6 - C	40		-	-	1	1.5	2	5	5
PD breakers	**PDE1 TMTU**									
PDE1 TMTU	PDE1 TMTU	20-40	70	-	-	0.5	0.7	0.8	1.5	1.5
	PDE1 TMTU	50	70	-	-	-	0.6	0.8	1.5	1.5
	PDE1 TMTU	63	70	-	-	-	-	0.8	1.5	1.5
	PDE1 TMTU	80	70	-	-	-	-	-	1.5	1.5
	PDE1 TMTU	100	70	-	-	-	-	-	-	1.5
	PDE1 TMTU	125	70	-	-	-	-	-	-	-
	PDE1 TMTU	160	70	-	-	-	-	-	-	-

PDE2 TMTU I_{cu} = 70 kA				PDE2 ETU				PDE3 TMTU I_{cu} = 70 kA				PDE3 ETU	PDE4 TMTU I_{cu} = 70 kA	PDE4 ETU
125	160	200	250	63	160	200	250	250	400	500	630	630	800	800
T	T	T	T	1.2	7.4	7.4	7.4	-	-	-	-	-	-	-
T	T	T	T	1.2	7.4	7.4	7.4	-	-	-	-	-	-	-
T	T	T	T	1.2	5	5	5	-	-	-	-	-	-	-
T	T	T	T	1.2	4.8	4.8	4.8	-	-	-	-	-	-	-
T	T	T	T	1.2	4.6	4.6	4.6	-	-	-	-	-	-	-
T	T	T	T	1.2	4.4	4.4	4.4	-	-	-	-	-	-	-
T	T	T	T	1.1	4.2	4.2	4.2	-	-	-	-	-	-	-
7.5	T	T	T	1.1	3.9	3.9	3.9	-	-	-	-	-	-	-
7.5	9	T	T	1.1	3.8	3.8	3.8	-	-	-	-	-	-	-
7.5	7.5	T	T	1	3.5	3.5	3.5	-	-	-	-	-	-	-
T	T	T	T	1.8	6	6	6	-	-	-	-	-	-	-
T	T	T	T	1.3	5.4	5.4	5.4	-	-	-	-	-	-	-
T	T	T	T	1.2	5.1	5.1	5.1	-	-	-	-	-	-	-
T	T	T	T	1.1	4.5	4.5	4.5	-	-	-	-	-	-	-
T	T	T	T	1.1	4.1	4.1	4.1	-	-	-	-	-	-	-
T	T	T	T	1	3.9	3.9	3.9	-	-	-	-	-	-	-
T	T	T	T	1.2	4.6	4.6	4.6	-	-	-	-	-	-	-
T	T	T	T	1.2	4.4	4.4	4.4	-	-	-	-	-	-	-
T	T	T	T	1.1	4.2	4.2	4.2	-	-	-	-	-	-	-
7.5	T	T	T	1.1	3.9	3.9	3.9	-	-	-	-	-	-	-
7.5	9	T	T	1.1	3.8	3.8	3.8	-	-	-	-	-	-	-
T	T	T	T	1.2	7.4	7.4	7.4	-	-	-	-	-	-	-
T	T	T	T	1.2	5	5	5	-	-	-	-	-	-	-
T	T	T	T	1.2	4.6	4.6	4.6	-	-	-	-	-	-	-
T	T	T	T	1.2	4.4	4.4	4.4	-	-	-	-	-	-	-
T	T	T	T	1.1	4.2	4.2	4.2	-	-	-	-	-	-	-
7.5	T	T	T	1.1	3.9	3.9	3.9	-	-	-	-	-	-	-
7.5	9	T	T	1.1	3.8	3.8	3.8	-	-	-	-	-	-	-
T	T	T	T	1.2	4.6	4.6	4.6	-	-	-	-	-	-	-
T	T	T	T	1.2	4.4	4.4	4.4	-	-	-	-	-	-	-
T	T	T	T	1.1	4.2	4.2	4.2	-	-	-	-	-	-	-
T	T	T	T	1.1	3.9	3.9	3.9	-	-	-	-	-	-	-
T	T	T	T	1.1	3.8	3.8	3.8	-	-	-	-	-	-	-
T	T	T	T	1.2	T	T	T	-	-	-	-	-	-	-
T	T	T	T	1.2	5	5	5	-	-	-	-	-	-	-
T	T	T	T	1.2	4.6	4.6	4.6	-	-	-	-	-	-	-
T	T	T	T	1.2	4.4	4.4	4.4	-	-	-	-	-	-	-
T	T	T	T	1.1	4.2	4.2	4.2	-	-	-	-	-	-	-
T	T	T	T	1.1	3.9	3.9	3.9	-	-	-	-	-	-	-
T	T	T	T	1.1	3.8	3.8	3.8	-	-	-	-	-	-	-
2	2.4	2.5	3.1	1	2.6	2.6	2.6	6	13.7	50	T	T	10	10
2	2.4	2.5	3.1	-	2.6	2.6	2.6	6	13.1	47.4	T	T	10	10
1.9	2.3	2.6	3.1	-	2.6	2.6	2.6	6	11.8	43.5	T	T	10	10
1.9	2.3	2.6	3	-	2.6	2.6	2.6	6	11.2	41.3	T	T	10	10
-	2.2	2.6	3	-	2.6	2.6	2.6	6	10.9	40.4	T	T	10	10
-	-	2.6	3	-	2.6	2.6	2.6	6	10.7	39.3	T	T	10	10
-	-	2.6	3	-	-	2.6	2.6	6	10.5	38.5	T	T	10	10

Selectivity Table

	Nr of entries	Upstream		PDE1 TMTU I_{cu} = 25 (36) kA						
			I_n [A]	20-40	50	63	80	100	125	160
			II(I_{cu})							
PDE2 TMTU	**PDE2 TMTU**									
PDE2 TMTU	PDE2 TMTU	125	70	-	-	-	-	-	-	-
	PDE2 TMTU	160	70	-	-	-	-	-	-	-
	PDE2 TMTU	200	70	-	-	-	-	-	-	-
	PDE2 TMTU	250	70	-	-	-	-	-	-	-
PDE2 ETU	**PDE2 ETU**									
PDE2 ETU	PDE2 ETU	63	70	-	-	-	-	-	-	-
	PDE2 ETU	160	70	-	-	-	-	-	-	-
	PDE2 ETU	200	70	-	-	-	-	-	-	-
	PDE2 ETU	250	70	-	-	-	-	-	-	-
PDE3 TMTU	**PDE3 TMTU**									
PDE3 TMTU	PDE3 TMTU	250	70	-	-	-	-	-	-	-
	PDE3 TMTU	400	70	-	-	-	-	-	-	-
	PDE3 TMTU	500	70	-	-	-	-	-	-	-
	PDE3 TMTU	630	70	-	-	-	-	-	-	-
PDE3 ETU	**PDE3 ETU**									
PDE3 ETU	PDE3 ETU	630	70	-	-	-	-	-	-	-
PDE4 TMTU	**PDE4 TMTU**									
PDE4 TMTU	PDE4 TMTU	800	70	-	-	-	-	-	-	-
PDE4 ETU	**PDE4 ETU**									
PDE4 ETU	PDE4 ETU	800	70	-	-	-	-	-	-	-
NZM breakers	**NZM…1-A**									
NZM…1-A	NZM…1-A	20-40	25 - 100	-	-	0.5	0.7	0.8	1.5	1.5
	NZM…1-A	50	25 - 100	-	-	-	0.6	0.8	1.5	1.5
	NZM…1-A	63	25 - 100	-	-	-	-	0.8	1.5	1.5
	NZM…1-A	80	25 - 100	-	-	-	-	-	1.5	1.5
	NZM…1-A	100	25 - 100	-	-	-	-	-	-	1.5
	NZM…1-A	125	25 - 100	-	-	-	-	-	-	-
	NZM…1-A	160	25 - 100	-	-	-	-	-	-	-
NZM…1-M	**NZM…1-M**									
NZM…1-M	NZM…1-M	40	25 - 50	-	-	-	-	0.8	1	1
	NZM…1-M	50	25 - 50	-	-	-	-	-	-	1
	NZM…1-M	63	25 - 50	-	-	-	-	-	-	1
	NZM…1-M	80	25 - 50	-	-	-	-	-	-	-
	NZM…1-M	100	25 - 50	-	-	-	-	-	-	-
NZM…2-A	**NZM…2-A**									
NZM…2-A	NZM…2-A	20-40	25 - 150	-	-	0.5	0.6	0.8	1	1
	NZM…2-A	50	25 - 150	-	-	-	0.6	0.8	1	1
	NZM…2-A	63	25 - 150	-	-	-	-	0.8	1	1
	NZM…2-A	80	25 - 150	-	-	-	-	-	1	1
	NZM…2-A	100	25 - 150	-	-	-	-	-	-	1
	NZM…2-A	125	25 - 150	-	-	-	-	-	-	-
	NZM…2-A	160	25 - 150	-	-	-	-	-	-	-
	NZM…2-A	200	25 - 150	-	-	-	-	-	-	-
	NZM…2-A	250	25 - 150	-	-	-	-	-	-	-
NZM…2-M	**NZM…2-M**									
NZM…2-M…	NZM…2-M	20-120	25 - 150	-	-	-	-	-	-	-
	NZM…2-M	160	25 - 150	-	-	-	-	-	-	-
	NZM…2-M	200	25 - 150	-	-	-	-	-	-	-
NZM…2-VE	**NZM…2-VE**									
NZM…2-VE	NZM…2-VE	100	50 - 150	-	-	-	-	-	-	-
	NZM…2-VE	160	50 - 150	-	-	-	-	-	-	-
	NZM…2-VE	250	50 - 150	-	-	-	-	-	-	-

PDE2 TMTU I_{cu} = 70 kA				PDE2 ETU				PDE3 TMTU I_{cu} = 70 kA				PDE3 ETU	PDE4 TMTU I_{cu} = 70 kA	PDE4 ETU
125	**160**	**200**	**250**	**63**	**160**	**200**	**250**	**250**	**400**	**500**	**630**	**630**	**800**	**800**
-	-	2.2	2.6	-	-	2.7	2.7	3.2	5.4	9.8	16.6	16.6	7.2	7.2
-	-	-	2.5	-	-	-	2.4	3.2	5.4	9.8	16.6	16.6	7.2	7.2
-	-	-	-	-	-	-	-	-	5.4	9.8	15.5	15.5	7.1	7.1
-	-	-	-	-	-	-	-	-	5.4	9.8	13.3	13.3	7.1	7.1
1.7	2.1	2.4	2.6	-	2.4	2.7	3	3.7	6	9.6	16.6	16.6	7	7
-		-	2.5	-	-	2.7	3	3.4	5.6	9.3	13.8	13.8	6.9	6.9
-	-	-	-	-	-	-	-	-	5.5	9.2	13.6	13.6	6.8	6.8
-	-	-	-	-	-	-	-	-	5.5	9.2	13.5	13.5	6.8	6.8
-	-	-	-	-	-	-	-	-	4.3	5.7	6.7	6.7	6	6
-	-	-	-	-	-	-	-	-	-	5.6	6.6	6.6	6	6
-	-	-	-	-	-	-	-	-	-	-	6.4	6.4	6	6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	2.4	2.5	3.1	1.1	2.6	2.6	2.6	6	13.7	50	T	T	10	10
2	2.4	2.5	3.1	-	2.6	2.6	2.6	6	13.1	47.4	T	T	10	10
1.9	2.3	2.6	3.1	-	2.6	2.6	2.6	6	11.8	43.5	T	T	10	10
1.9	2.3	2.6	3	-	2.6	2.6	2.6	6	11.2	41.3	T	T	10	10
-	2.2	2.6	3	-	2.6	2.6	2.6	6	10.9	40.4	T	T	10	10
-	-	2.6	3	-	2.6	2.6	2.6	6	10.7	39.3	T	T	10	10
-	-	2.6	3	-	-	2.6	2.6	6	10.5	38.5	T	T	10	10
2	2.4	2.7	3.1	1.1	2.7	2.7	2.7	6	13.9	50	T	T	10.4	10.4
1.9	2.3	2.6	3	-	2.6	2.6	2.6	6	13.1	47.4	T	T	10	10
1.9	2.3	2.6	3	-	2.6	2.6	2.6	6	12.2	43.4	T	T	10	10
1.8	2.2	2.6	3	-	2.6	2.6	2.6	6	12.3	41.3	T	T	10	10
-	2.2	2.6	3	-	2.6	2.6	2.6	6	12.2	40.4	T	T	10	10
1.9	2.3	2.5	3	1	2.4	2.4	2.4	5.7	T	T	T	T	11.9	11.9
1.9	2.3	2.5	3	-	2.4	2.4	2.4	5.8	T	T	T	T	10.4	10.4
1.9	2.2	2.5	2.9	-	2.4	2.4	2.4	5.8	28.6	T	T	T	10.4	10.4
1.9	2.2	2.5	2.9	-	2.4	2.4	2.4	5.9	26.5	T	T	T	10	10
-	2.2	2.5	2.7	-	2.4	2.4	2.4	5.7	24.5	T	T	T	10	10
-	-	2.3	2.7	-	-	2.4	2.4	4.5	14.1	T	T	T	10	10
-	-	-	2.5	-	-	-	2.4	4.6	16.6	T	T	T	10	10
-	-	-	2.5	-	-	-	-	4.4	10	T	T	T	10	10
-	-	-	-	-	-	-	-	-	10	T	T	T	10	10
-	1.9	2.2	2.7	-	2.4	2.4	2.4	5.9	35.9	T	T	T	11.6	10
-	-	-	2.5	-	-	2.4	2.4	4.4	10	T	T	T	10	10
-	-	-	2.5	-	-	-	-	2.8	10	T	T	T	10	10
-	2	2.2	2.7	-	2.4	2.7	3	4.3	10	T	T	T	10	10
-	-	-	2.7	-	-	2.7	3	4.2	10	T	T	T	10	10
-	-	-	-	-	-	-	-	-	10	T	T	T	10	10

Selectivity Table

	Nr of entries	Upstream		PDE1 TMTU I_{cu} = 25 (36) kA						
			I_n [A]	20-40	50	63	80	100	125	160
			II(I_{cu})							
NZM…2-ME	**NZM…2-ME**									
NZM…2-ME	NZM…2-ME	90	50 - 150	-	-	-	-	-	-	-
	NZM…2-ME	140	50 - 150	-	-	-	-	-	-	-
	NZM…2-ME	220	50 - 150	-	-	-	-	-	-	-
NZM…3-A	**NZM…3-A**									
NZM…3-A (thermal-mag)	NZM…3-A	320	50 - 150	-	-	-	-	-	-	-
	NZM…3-A	400	50 - 150	-	-	-	-	-	-	-
	NZM…3-A	500	50 - 150	-	-	-	-	-	-	-
NZM…3-AE	**NZM…3-AE**									
NZM…3-AE	NZM…3-AE	250	50 - 150	-	-	-	-	-	-	-
	NZM…3-AE	400	50 - 150	-	-	-	-	-	-	-
	NZM…3-AE	630	50 - 150	-	-	-	-	-	-	-
NZM…3-VE	**NZM…3-VE**									
NZM…3-VE	NZM…3-VE	250	50 - 150	-	-	-	-	-	-	-
	NZM…3-VE	400	50 - 150	-	-	-	-	-	-	-
	NZM…3-VE	630	50 - 150	-	-	-	-	-	-	-
NZM…3-ME	**NZM…3-ME**									
NZM…3-ME	NZM…3-ME	220	50 - 150	-	-	-	-	-	-	-
	NZM…3-ME	350	50 - 150	-	-	-	-	-	-	-
	NZM…3-ME	450	50 - 150	-	-	-	-	-	-	-
NZM…4-AE	**NZM…4-AE**									
NZM…4-AE	NZM…4-AE	630	50 - 85	-	-	-	-	-	-	-
	NZM…4-AE	800	50 - 85	-	-	-	-	-	-	-
	NZM…4-AE	1000	50 - 85	-	-	-	-	-	-	-
	NZM…4-AE	1250	50 - 85	-	-	-	-	-	-	-
	NZM…4-AE	1600	50 - 85	-	-	-	-	-	-	-
NZM…4-VE	**NZM…4-VE**									
NZM…4-VE	NZM…4-VE	630	50 - 85	-	-	-	-	-	-	-
	NZM…4-VE	800	50 - 85	-	-	-	-	-	-	-
	NZM…4-VE	1000	50 - 85	-	-	-	-	-	-	-
	NZM…4-VE	1250	50 - 85	-	-	-	-	-	-	-
	NZM…4-VE	1600	50 - 85	-	-	-	-	-	-	-
NZM…4-ME	**NZM…4-ME**									
NZM…4-ME	NZM…4-ME	550	50 - 85	-	-	-	-	-	-	-
	NZM…4-ME	875	50 - 85	-	-	-	-	-	-	-
	NZM…4-ME	1400	50 - 85	-	-	-	-	-	-	-

PDE2 TMTU I_{cu} = 70 kA				PDE2 ETU				PDE3 TMTU I_{cu} = 70 kA				PDE3 ETU	PDE4 TMTU I_{cu} = 70 kA	PDE4 ETU
125	**160**	**200**	**250**	**63**	**160**	**200**	**250**	**250**	**400**	**500**	**630**	**630**	**800**	**800**
-	2.1	2.3	2.7	-	2.4	2.4	2.4	4.3	10	T	T	T	10	10
-	-	-	2.7	-	-	2.4	2.4	4.2	10	T	T	T	10	10
-	-	-	-	-	-	-	-	2.8	10	T	T	T	10	10
-	-	-	-	-	-	-	-	-	5.4	7.2	10	10	6.2	6.2
-	-	-	-	-	-	-	-	-	-	6.9	10	10	6.2	6.2
-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	6.2
-	-	-	-	-	-	-	-	-	5.4	7	10	10	6	6.2
-	-	-	-	-	-	-	-	-	-	-	10	10	6	6.2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	5.3	7.1	10	10	6	6.2
-	-	-	-	-	-	-	-	-	-	-	10	10	6.1	6.2
-	-	-	-	-	-	-	-	-	-	-	-	-	6	6.2
-	-	-	-	-	-	-	-	2.8	4.5	6.5	10	10	6	6.2
-	-	-	-	-	-	-	-	-	4.3	6.5	10	10	6	6.2
-	-	-	-	-	-	-	-	-	-	-	10	-	6	6.2
-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	6.4
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Selectivity Table

				NZM1 A							NZM2-A (25-150 kA)		
	Nr of entries	Upstream											
			I_n [A]	20 - 40	50	63	80	100	125	160	20 - 40	50	63
			II (I_{cu})										
PD breakers	**PDE1 TMTU**												
PDE1 TMTU	PDE1 TMTU	20-40	70	-	-	0.5	0.7	0.8	1.5	1.5	-	-	0.6
	PDE1 TMTU	50	70	-	-	-	0.6	0.8	1.5	1.5	-	-	-
	PDE1 TMTU	63	70	-	-	-	-	0.8	1.5	1.5	-	-	-
	PDE1 TMTU	80	70	-	-	-	-	-	1.5	1.5	-	-	-
	PDE1 TMTU	100	70	-	-	-	-	-	-	1.5	-	-	-
	PDE1 TMTU	125	70	-	-	-	-	-	-	-	-	-	-
	PDE1 TMTU	160	70	-	-	-	-	-	-	-	-	-	-
PDE2 TMTU	**PDE2 TMTU**												
PDE2 TMTU	PDE2 TMTU	125	70	-	-	-	-	-	-	-	-	-	-
	PDE2 TMTU	160	70	-	-	-	-	-	-	-	-	-	-
	PDE2 TMTU	200	70	-	-	-	-	-	-	-	-	-	-
	PDE2 TMTU	250	70	-	-	-	-	-	-	-	-	-	-
PDE2 ETU	**PDE2 ETU**												
PDE2 ETU	PDE2 ETU	63	70	-	-	-	-				-	-	-
	PDE2 ETU	160	70	-	-	-	-	-	-	-	-	-	-
	PDE2 ETU	200	70	-	-	-	-	-	-	-	-	-	-
	PDE2 ETU	250	70	-	-	-	-	-	-	-	-	-	-
PDE3 TMTU	**PDE3 TMTU**												
PDE3 TMTU	PDE3 TMTU	250	70	-	-	-	-	-	-	-	-	-	-
	PDE3 TMTU	400	70	-	-	-	-	-	-	-	-	-	-
	PDE3 TMTU	500	70	-	-	-	-	-	-	-	-	-	-
	PDE3 TMTU	630	70	-	-	-	-	-	-	-	-	-	-
PDE3 ETU	**PDE3 ETU**												
PDE3 ETU	PDE3 ETU	630	70	-	-	-	-	-	-	-	-	-	-
PDE4 TMTU	**PDE4 TMTU**												
PDE4 TMTU	PDE4 TMTU	800	70	-	-	-	-	-	-	-	-	-	-
PDE4 ETU	**PDE4 ETU**												
PDE4 ETU	PDE4 ETU	800	70	-	-	-	-	-	-	-	-	-	-

NZM2-A (25-150 kA)						NZM2-VE (50-150)			NZM...3-A (36-150)				NZM...3-AE (250-630)			NZM...3-VE (50-150)		
80	**100**	**125**	**160**	**200**	**250**	**100**	**160**	**250**	**250**	**320**	**400**	**500**	**250**	**400**	**630**	**250**	**400**	**630**
0.8	1.5	1.5	1.5	2	3	1.5	1.5	3	3	4	6	7	7.5	20	20	12.5	25	25
0.8	1.5	1.5	1.5	2	3	1.5	1.5	3	3	4	6	7	7.5	20	20	12.5	25	25
-	1.5	1.5	1.5	2	3	1.5	1.5	3	3	4	6	7	6	15	15	11	20	20
-	-	1.5	1.5	2	3	-	1.5	3	3	4	6	7	6	15	15	11	20	20
-	-	-	1.5	2	3	-	1.5	3	3	4	6	7	6	15	15	11	20	20
-	-	-	-	2	3	-	-	3	3	4	6	7	6	15	15	11	20	20
-	-	-	-	2	3	-	-	3	3	4	6	7	6	15	15	11	20	20
-	-	-	-	2.4	3	-	-	3	3.4	4	6	6.3	2.7	4.4	5	3.6	6.3	10
-	-	-	-	-	2.9	-	-	3	3.3	4	6	6.2	2.7	4.4	5	3.5	6.2	10
-	-	-	-	-	-	-	-	-	-	3.9	5.9	6	-	4.4	5	-	6	9.8
-	-	-	-	-	-	-	-	-	-	3.9	5.8	6	-	4.4	5	-	6	9.5
-	1.2	1.7	2.1	2.6	3.1	1.2	1.9	3	3.6	4.2	6	6.6	2.7	4.4	5	3.7	6.6	10
-	-	-	-	2.3	3	-	-	3	3.4	4	6	6.1	2.7	4.4	5	3.5	6.1	9.7
-	-	-	-	-	-	-	-	-	-	3.9	6	6	2.7	4.4	5	3.5	6	9.4
-	-	-	-	-	-	-	-	-	-	3.9	5.8	6	-	4.4	5	-	6	9.4
-	-	-	-	-	-	-	-	-	-	3.6	4.7	5.4	-	4.3	4.7	-	5.4	5.4
-	-	-	-	-	-	-	-	-	-	-	-	5.1	-	-	4.7	-	-	5.3
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Selectivity Table

	Nr of entries	Upstream		NZM…4-AE (50-85)					NZM…4-VE (50-85)				
			I_n [A]	630	800	1000	1250	1600	630	800	1000	1250	1600
			II (I_{cu})	7560 (85kA)	9600 (85kA)	12000 (85kA)	15000 (85kA)	19200 (85kA)	7560 (85kA)	9600 (85kA)	12000 (85kA)	15000 (85kA)	19200 (85kA)
PD breakers	**PDE1 TMTU**												
PDE1 TMTU	PDE1 TMTU	20-40	70	T	T	T	T	T	T	T	T	T	T
	PDE1 TMTU	50	70	T	T	T	T	T	T	T	T	T	T
	PDE1 TMTU	63	70	T	T	T	T	T	T	T	T	T	T
	PDE1 TMTU	80	70	T	T	T	T	T	T	T	T	T	T
	PDE1 TMTU	100	70	T	T	T	T	T	T	T	T	T	T
	PDE1 TMTU	125	70	T	T	T	T	T	T	T	T	T	T
	PDE1 TMTU	160	70	T	T	T	T	T	T	T	T	T	T
PDE2	**PDE2**												
PDE2 TMTU	PDE2	125	70	T	T	T	T	T	T	T	T	T	T
	PDE2	160	70	T	T	T	T	T	T	T	T	T	T
	PDE2	200	70	T	T	T	T	T	T	T	T	T	T
	PDE2	250	70	T	T	T	T	T	T	T	T	T	T
PDE2 ETU	**PDE2 ETU**												
PDE2 ETU	PDE2 ETU	63	70	T	T	T	T	T	T	T	T	T	T
	PDE2 ETU	160	70	T	T	T	T	T	T	T	T	T	T
	PDE2 ETU	200	70	T	T	T	T	T	T	T	T	T	T
	PDE2 ETU	250	70	T	T	T	T	T	T	T	T	T	T
PDE3 TMTU	**PDE3 TMTU**												
PDE3 TMTU	PDE3 TMTU	250	70	11.4	37.6	39.3	39.3	39.3	11.4	37.6	39.3	39.3	39.3
	PDE3 TMTU	400	70	11.2	35.4	38	38	38	11.2	35.4	38	38	38
	PDE3 TMTU	500	70	11.1	31.5	37.6	37.6	37.6	11.1	31.5	37.6	37.6	37.6
	PDE3 TMTU	630	70	–	30.7	37.3	37.3	37.3	–	30.7	37.3	37.3	37.3
PDE3 ETU	**PDE3 ETU**												
PDE3 ETU	PDE3 ETU	630	70	–	30.6	37.3	37.3	37.3	–	30.6	37.3	37.3	37.3
PDE4 TMTU	**PDE4 TMTU**												
PDE4 TMTU	PDE4 TMTU	800	70	–	–	18.7	25.3	25.5	–	–	18.7	25.3	25.5
PDE4 ETU	**PDE4 ETU**												
PDE4 ETU	PDE4 ETU	800	70	–	–	19.4	25.3	25.6	–	–	19.4	25.3	25.6

IZMX16...-V (42-65)

630	630	630	800	800	800	1000	1000	1000	1250	1250	1250	1600	1600	1600
7560 (42kA)	**7560 (50kA)**	**7560 (65kA)**	**9600 (42kA)**	**9600 (50kA)**	**9600 (65kA)**	**12000 (42kA)**	**12000 (50kA)**	**12000 (65kA)**	**15000 (42kA)**	**15000 (50kA)**	**15000 (65kA)**	**19200 (42kA)**	**19200 (50kA)**	**19200 (65kA)**
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T

Selectivity Table

	Nr of entries	Upstream		IZMX40...-V (66-105)							
			I_n [A]	1000	1250	1250	1250	1600	1600	1600	2000
			II (I_{cu})	14000 (105 kA)	17500 (66 kA)	17500 (85 kA)	17500 (105 kA)	19200 (66 kA)	19200 (85 kA)	19200 (105 kA)	24000 (66 kA)
PD breakers	**PDE1 TMTU**										
PDE1 TMTU	PDE1 TMTU	20-40	70	T	T	T	T	T	T	T	T
	PDE1 TMTU	50	70	T	T	T	T	T	T	T	T
	PDE1 TMTU	63	70	T	T	T	T	T	T	T	T
	PDE1 TMTU	80	70	T	T	T	T	T	T	T	T
	PDE1 TMTU	100	70	T	T	T	T	T	T	T	T
	PDE1 TMTU	125	70	T	T	T	T	T	T	T	T
	PDE1 TMTU	160	70	T	T	T	T	T	T	T	T
PDE2 TMTU	**PDE2 TMTU**										
PDE2 TMTU	PDE2 TMTU	125	70	T	T	T	T	T	T	T	T
	PDE2 TMTU	160	70	T	T	T	T	T	T	T	T
	PDE2 TMTU	200	70	T	T	T	T	T	T	T	T
	PDE2 TMTU	250	70	T	T	T	T	T	T	T	T
PDE2 ETU	**PDE2 ETU**										
PDE2 ETU	PDE2 ETU	63	70	T	T	T	T	T	T	T	T
	PDE2 ETU	160	70	T	T	T	T	T	T	T	T
	PDE2 ETU	200	70	T	T	T	T	T	T	T	T
	PDE2 ETU	250	70	T	T	T	T	T	T	T	T
PDE3 TMTU	**PDE3 TMTU**										
PDE3 TMTU	PDE3 TMTU	250	70	T	T	T	T	T	T	T	T
	PDE3 TMTU	400	70	T	T	T	T	T	T	T	T
	PDE3 TMTU	500	70	T	T	T	T	T	T	T	T
	PDE3 TMTU	630	70	T	T	T	T	T	T	T	T
PDE3 ETU	**PDE3 ETU**										
PDE3 ETU	PDE3 ETU	630	70	T	T	T	T	T	T	T	T
PDE4 TMTU	**PDE4 TMTU**										
PDE4 TMTU	PDE4 TMTU	800	70	T	T	T	T	T	T	T	T
PDE4 ETU	**PDE4 ETU**										
PDE4 ETU	PDE4 ETU	800	70	T	T	T	T	T	T	T	T

IZMX40…-V (66-105)

2000	2000	2500	2500	2500	3200	3200	3200	4000	4000	4000
24000 (85 kA)	**24000 (105 kA)**	**30000 (66 kA)**	**30000 (85 kA)**	**30000 (105 kA)**	**32000 (66 kA)**	**32000 (85 kA)**	**32000 (105 kA)**	**40000 (66 kA)**	**40000 (85 kA)**	**40000 (105 kA)**
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T

Backup Protection Table

		Upstream	PDE1 TMTU I_n =...160 A				PDE2 TMTU I_n =...250 A				PDE2 ETU I_n =...250 A			
		I_{cu} (415 V)	25 kA	36 kA	50 kA	70 kA	25 kA	36 kA	50 kA	70 kA	25 kA	36 kA	50 kA	70 kA
Downstream	I_{cu} (415 V) [kA]	I_n [A]												
PDE1 TMTU	25	...160	25	36	50	70	25	36	50	70	25	36	50	70
PDE1 TMTU	36	...160	-	36	50	70	-	36	50	70	-	36	50	70
PDE1 TMTU	50	...160	-	-	50	70	-	-	50	70	-	-	50	70
PDE1 TMTU	70	...160	-	-	-	70	-	-	-	70	-	-	-	70
PDE2 TMTU	25	...250	-	36	50	70	25	36	50	70	25	36	50	70
PDE2 TMTU	36	...250	-	-	50	70	-	36	50	70	-	36	50	70
PDE2 TMTU	50	...250	-	-	-	70	-	-	50	70	-	-	50	70
PDE2 TMTU	70	...250	-	-	-	-	-	-	-	70	-	-	-	70
PDE2 ETU	25	...250	-	36	50	70	25	36	50	70	25	36	50	70
PDE2 ETU	36	...250	-	-	50	70	-	36	50	70	-	36	50	70
PDE2 ETU	50	...250	-	-	-	70	-	-	50	70	-	-	50	70
PDE2 ETU	70	...250	-	-	-	-	-	-	-	70	-	-	-	70
PDE3B TMTU	25	...630	-	-	-	-	-	-	-	-	-	-	-	-
PDE3B TMTU	36	...630	-	-	-	-	-	-	-	-	-	-	-	-
PDE3B TMTU	50	...630	-	-	-	-	-	-	-	-	-	-	-	-
PDE3B TMTU	70	...630	-	-	-	-	-	-	-	-	-	-	-	-
PDE3B ETU	25	...630	-	-	-	-	-	-	-	-	-	-	-	-
PDE3B ETU	36	...630	-	-	-	-	-	-	-	-	-	-	-	-
PDE3B ETU	50	...630	-	-	-	-	-	-	-	-	-	-	-	-
PDE3B ETU	70	...630	-	-	-	-	-	-	-	-	-	-	-	-
PDE4 TMTU	36	...800	-	-	-	-	-	-	-	-	-	-	-	-
PDE4 TMTU	50	...800	-	-	-	-	-	-	-	-	-	-	-	-
PDE4 TMTU	70	...800	-	-	-	-	-	-	-	-	-	-	-	-
PDE4 ETU	36	...800	-	-	-	-	-	-	-	-	-	-	-	-
PDE4 ETU	50	...800	-	-	-	-	-	-	-	-	-	-	-	-
PDE4 ETU	70	...800	-	-	-	-	-	-	-	-	-	-	-	-

PDE3 TMTU I_n =…630 A				PDE3 ETU I_n =…630 A				PDE4 TMTU I_n =…800 A			PDE4 ETU I_n =…800 A		
25 kA	36 kA	50 kA	70 kA	25 kA	36 kA	50 kA	70 kA	36 kA	50 kA	70 kA	36 kA	50 kA	70 kA
25	27	27	27	25	36	40	40	36	38	38	36	38	38
-	36	39	39	-	36	40	40	36	38	38	36	38	38
-	-	50	57	-	-	50	70	-	50	70	-	50	70
-	-	-	70	-	-	-	70	-	-	70	-	-	70
25	28	28	28	25	36	44	44	36	50	70	36	50	70
-	36	44	44	-	36	44	44	36	50	70	36	50	70
-	-	50	63	-	-	50	70	-	50	70	-	50	70
-	-	-	70	-	-	-	70	-	-	70	-	-	70
25	28	28	28	25	36	45	45	36	50	70	36	50	70
-	36	44	44	-	36	45	45	36	50	70	36	50	70
-	-	50	63	-	-	50	70	-	50	70	-	50	70
-	-	-	70	-	-	-	70	-	-	70	-	-	70
25	36	50	70	25	36	50	70	36	50	55	36	50	55
-	36	50	70	-	36	50	70	36	50	55	36	50	55
-	-	50	70	-	-	50	70	-	50	70	-	50	70
-	-	-	70	-	-	-	70	-	-	70	-	-	70
25	36	50	70	25	36	50	70	36	50	55	36	50	55
-	36	50	70	-	36	50	70	36	50	55	36	50	55
-	-	50	70	-	-	50	70	-	50	70	-	50	70
-	-	-	70	-	-	-	70	-	-	70	-	-	70
-	-	-	-	-	-	-	-	36	50	70	36	50	70
-	-	-	-	-	-	-	-	-	50	70	-	50	70
-	-	-	-	-	-	-	-	-	-	70	-	-	70
-	-	-	-	-	-	-	-	36	50	70	36	50	70
-	-	-	-	-	-	-	-	-	50	70	-	50	70
-	-	-	-	-	-	-	-	-	-	70	-	-	70

Backup Protection Table

Downstream	Upstream I_{cu} (415 V) I_n [A]	PDE1F(G)(K)(M) U_e = 230/400 V Type B, C	Type D	Type K	PDE1F(G)(K)(M) U_e = 240/415 V Type B	Type C	Type D	Type K
FAZ All types with Tripping characteristics B, C, D	0.16	25	25		-	25	-	
	0.25	25	25		-	25	-	
	0.5	25	25		-	25	25	
	0.75	25	25		-	25	-	
	1	25	25		25	25	25	
	1.5	25	25		25	25	25	
	1.6	25	25		25	25	25	
	2	25	25		25	25	25	
	2.5	25	25		25	25	25	
	3	25	25		25	25	25	
	3.5	25	25		25	25	25	
	4	25	25		25	25	25	
	5	25	25		25	25	25	
	6	25	25		25	25	25	
	7	25	25		25	25	25	
	8	25	25		25	25	25	
	10	25	25		25	25	25	
	12	25	25		25	25	25	
	13	25	25		25	25	25	
	15	25	25		25	25	25	
	16	25	25		25	25	25	
	20	20	25		25	25	25	
	25	20	25		25	25	25	
	30	20	15		20	20	15	
	32	20	15		20	20	15	
	40	20	15		20	20	15	
	50	15	15		15	15	15	
	63	15	15		15	15	15	

FAZ All types with Tripping characteristics K	0.5	25	25
	1	25	25
	1.6	25	25
	2	25	25
	3	25	25
	4	25	25
	6	25	25
	8	25	25
	10	25	25
	13	25	25
	16	25	25
	20	25	25
	25	25	25
	32	20	20
	40	20	20
	50	15	15
	63	15	15

PDE2F(G)(K)(M)(N) U_e = 230/400 V			PDE2F(G)(K)(M)(N) U_e = 240/415 V				PDE2F(G)(K)(M)(N) U_e = 133/230V
Type B, C	Type D	Type K	Type B	Type C	Type D	Type K	Type B, C
25	25		-	20	-		30
25	25		-	20	-		30
25	25		-	20	25		30
25	25		-	20	-		30
25	25		20	20	25		30
25	25		20	20	25		30
25	25		20	20	25		30
25	25		20	20	25		30
25	25		20	20	25		30
25	25		20	20	25		30
25	25		20	20	25		30
25	25		20	20	25		30
25	25		20	20	25		25
25	25		20	20	25		25
25	25		20	20	25		25
25	25		20	20	25		25
25	25		20	20	25		25
20	25		20	20	25		25
20	25		20	20	25		25
20	25		20	20	25		25
20	25		20	20	25		25
20	25		20	20	25		25
20	15		20	20	15		25
20	15		20	20	15		25
20	15		20	20	15		25
15	15		20	20	15		20
15	10		15	15	10		20
15	10		15	15	10		20

		20				20	
		20				20	
		20				20	
		20				20	
		20				20	
		20				20	
		20				20	
		20				20	
		20				20	
		20				20	
		20				20	
		20				20	
		20				20	
		20				20	
		20				20	
		15				15	
		15				15	

Backup Protection Table

Downstream	Upstream I_{cu} (415 V) I_n [A]	PDE1F(G)(K)(M) U_e = 230/400 V Type B, C	Type D	Type K	PDE1F(G)(K)(M) U_e = 240/415 V Type B	Type C	Type D	Type K
PLSM, PL7, mMCM, PXL, PLZM, EM All types with Tripping characteristics B, C, D	0.16	25	25		25			
	0.25	25	25		25			
	0.5	25	25		25			
	0.75	25	25		25			
	1	25	25		25			
	1.5	25	25		25			
	2	25	25		25			
	2.5	25	25		25			
	3	25	25		25			
	3.5	25	25		25			
	4	25	25		25			
	5	25	25		25			
	6	25	25		25			
	8	25	25		25			
	10	25	25		25			
	12	25	25		20			
	13	25	25		20			
	15	25	25		20			
	16	25	25		20			
	20	20	25		20			
	25	20	25		20			
	32	20	15		20			
	40	20	15		15			
	50	15	15		15			
	63	15	15		15			
PLS6, PL6, mMC6, PLZ6 All types with Tripping characteristics B, C, D	0.16	20	20					
	0.25	20	20					
	0.5	20	20					
	0.75	20	20					
	1	20	20					
	1.5	20	20					
	2	20	20					
	2.5	20	20					
	3	20	20					
	3.5	20	20					
	4	20	20					
	5	20	20					
	6	20	20					
	8	20	20					
	10	20	20					
	12	20	20					
	13	20	20					
	15	20	20					
	16	20	20					
	20	15	20					
	25	15	20					
	32	15	12					
	40	15	12					
	50	12	12					
	63	12	12					

PDE2F(G)(K)(M)(N) U_e = 230/400 V			PDE2F(G)(K)(M)(N) U_e = 240/415 V				PDE2F(G)(K)(M)(N) U_e = 133/230V
Type B, C	Type D	Type K	Type B	Type C	Type D	Type K	Type B, C
25	25						
25	25						
25	25						
25	25						
25	25						
25	25						
25	25						
25	25						
25	25						
25	25						
25	25						
25	25						
25	25						
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20	20						
20	20						
20	20						
15	20						
15	20						
15	20						
15	20						
15	20						
15	12						
15	12						
12	12						
12	6						
12	6						

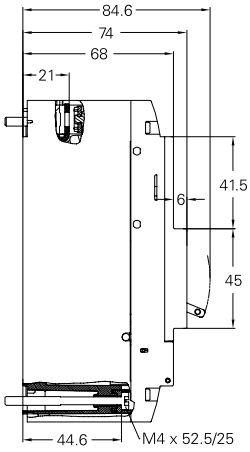
Backup Protection Table

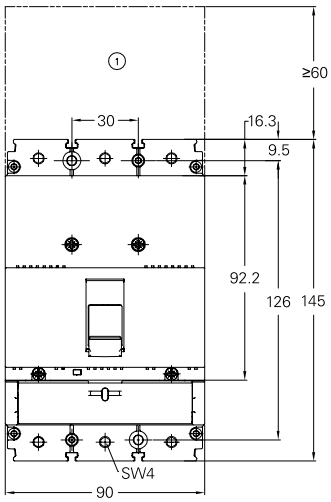
Downstream	Upstream I_{cu} (415 V) I_n [A]	PDE1F(G)(K)(M) U_e = 230/400 V Type B, C	Type D	Type K	PDE1F(G)(K)(M) U_e = 240/415 V Type B	Type C	Type D	Type K
eRBM All types with Tripping characteristics B, C, D	6	25	25		25	25	25	
	8	25	25		25	25	25	
	10	25	25		25	25	25	
	13	25	25		25	25	25	
	16	25	25		25	25	25	
	20	25	25		25	25	25	
	25	25	-		25	25	-	
	32	20	-		20	20	-	
	40	20	-		20	20	-	
	45	15	-		15	15	-	
PKNM-1N, PXK, PFL7, mRBM All types with characterisitc B, C, D	2	35 kA @ 230V (25 kA for PDE1F)						
	4							
	6							
	10							
	13							
	16							
	20							
	25							
	32							
	40							
PKN6, PFL6 All types with Tripping characteristics B, C, D	2	30 kA @ 230V (20 kA for PDE1F)						
	4							
	6							
	10							
	13							
	16							
	20							
	25							
	32							
	40							

PDE2F(G)(K)(M)(N) U_e = 230/400 V			PDE2F(G)(K)(M)(N) U_e = 240/415 V				PDE2F(G)(K)(M)(N) U_e = 133/230V
Type B, C	**Type D**	**Type K**	**Type B**	**Type C**	**Type D**	**Type K**	**Type B, C**
20	25		20	20	25		
20	25		20	20	25		
20	25		20	20	25		
20	25		20	20	25		
20	25		20	20	25		
20	15		20	20	15		
20	-		20	20	-		
20	-		20	20	-		
20	-		20	20	-		
15	-		15	15	-		
36 kA @ 230V (25 kA for PDE2F)	36 kA @ 230V (25 kA for PDE2F)						
30 kA @ 230V (25 kA for PDE2F)	30 kA @ 230V (25 kA for PDE2F)						
30 kA @ 230V (20 kA for PDE2F)	30 kA @ 230V (20 kA for PDE2F)						
25 kA @ 230V (20 kA for PDE2F)	25 kA @ 230V (20 kA for PDE2F)						

Frame size 1

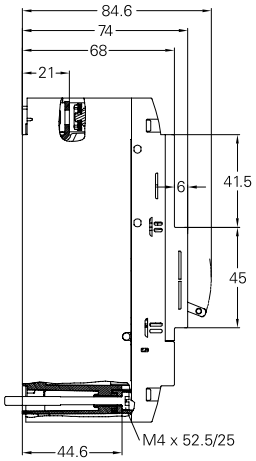
Circuit-Breakers, 3 pole

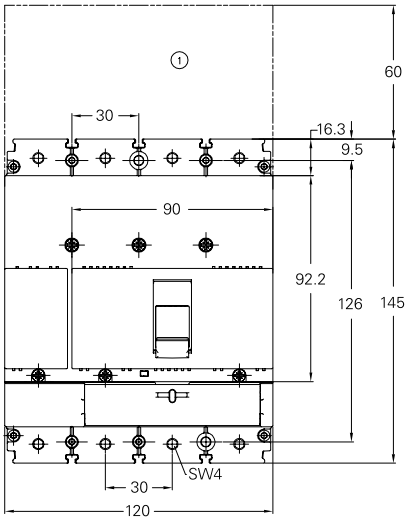




① Blow-out area, minimum distance to other parts ≧ 60 mm

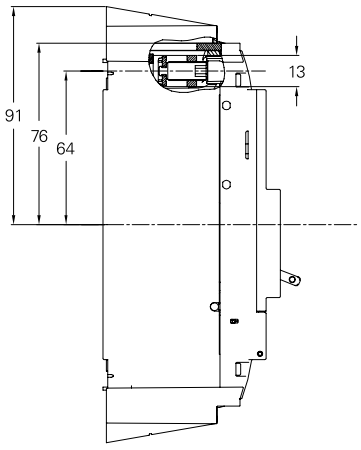
Circuit-Breakers, 4 pole

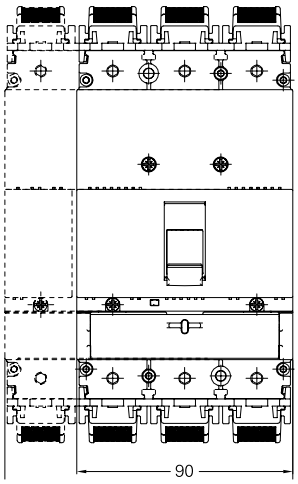




① Blow-out area, minimum distance to other parts ≧ 60 mm

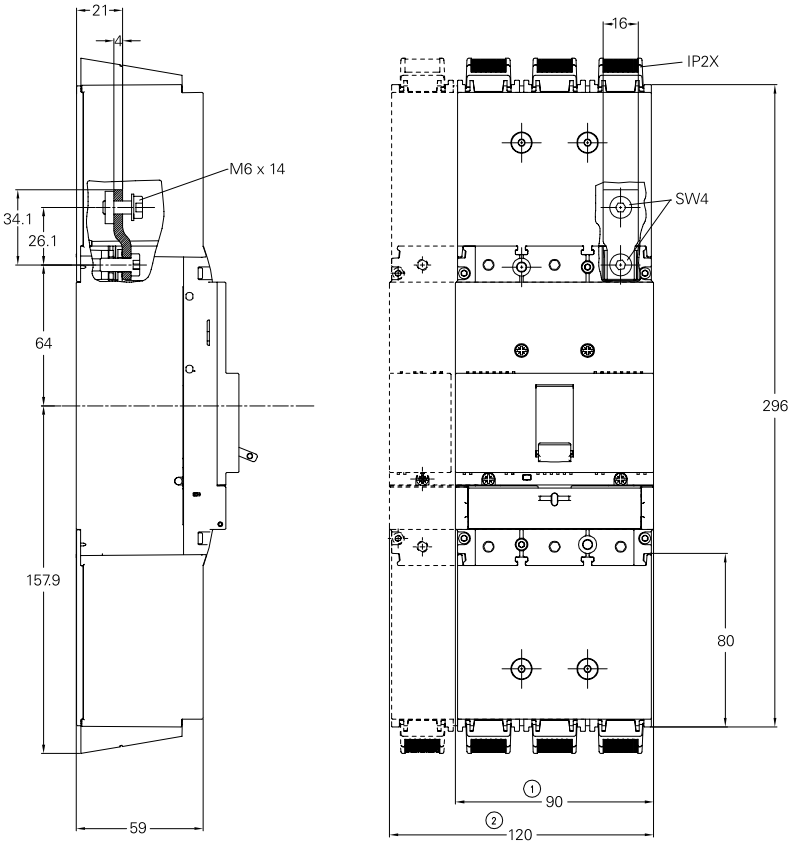
IP2X Fingerprotection





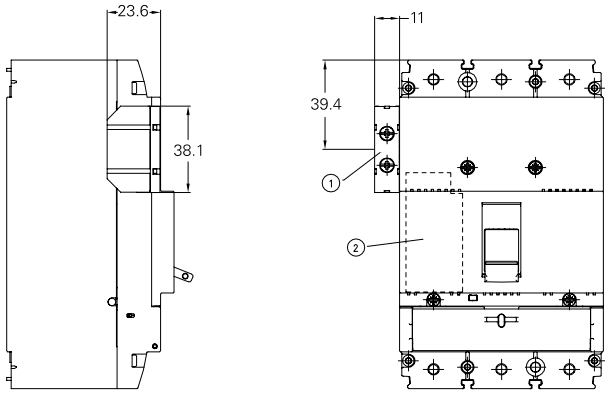
Frame size 1

Terminal Cover



① 3 Pole
② 4 Pole

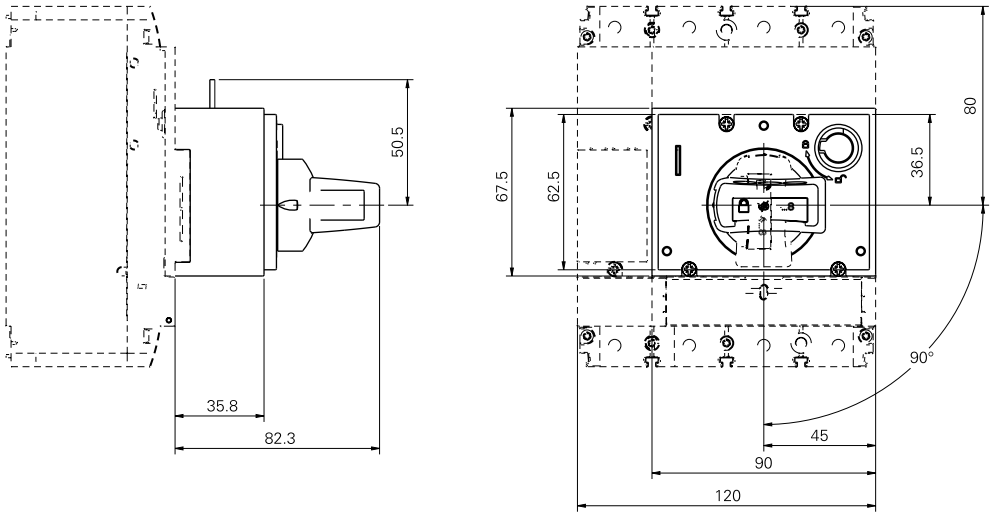
Shunt Release/Undervoltage Release

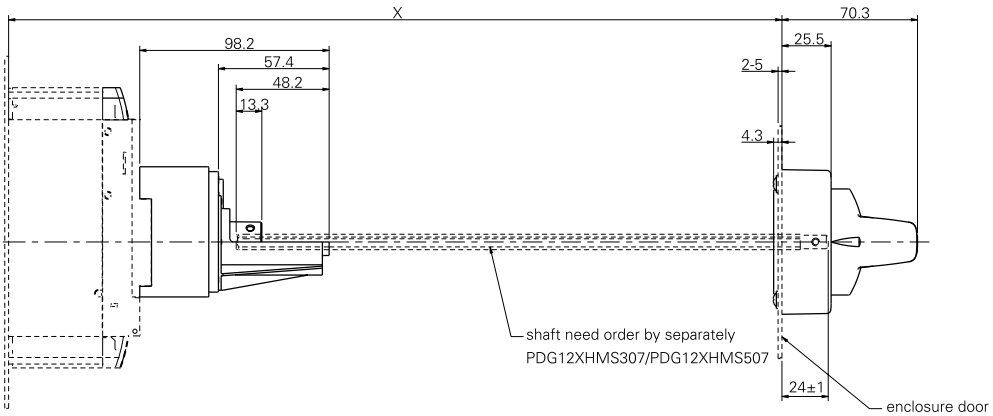


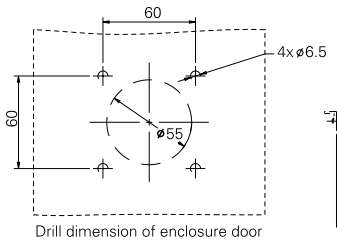
① PDC1XST(T)
PDC1XUV(V)
② PDC1XST(T)(S)(R)
PDC1XUV(V)(U)(W)

Frame size 1

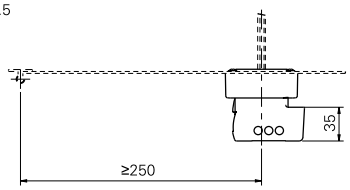
Direct rotary handle

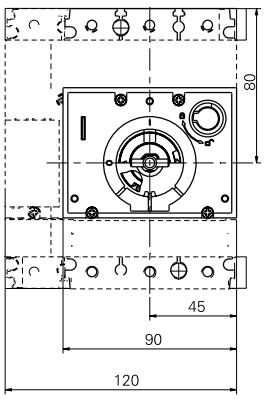






Drill dimension of enclosure door

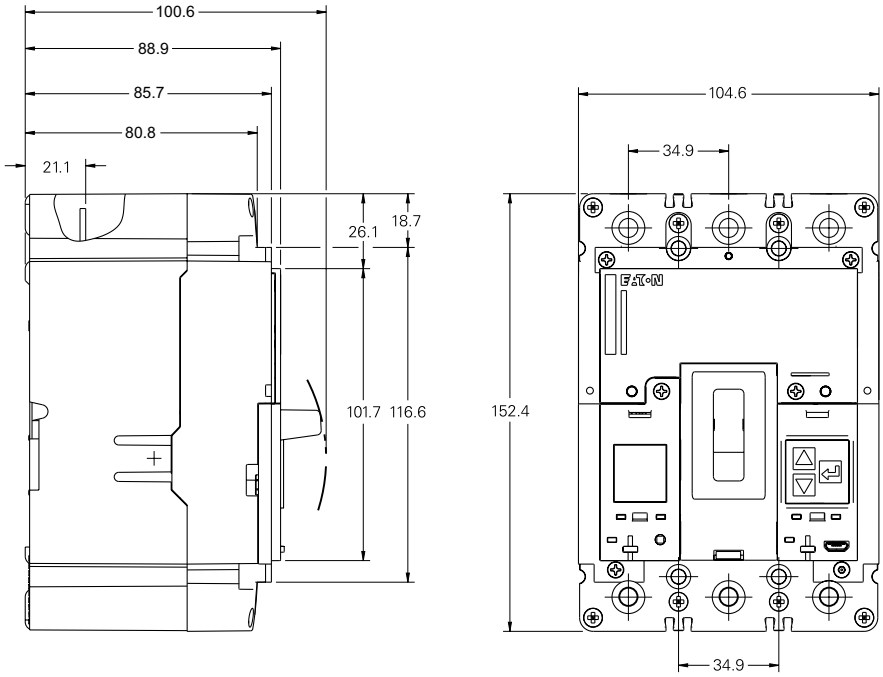




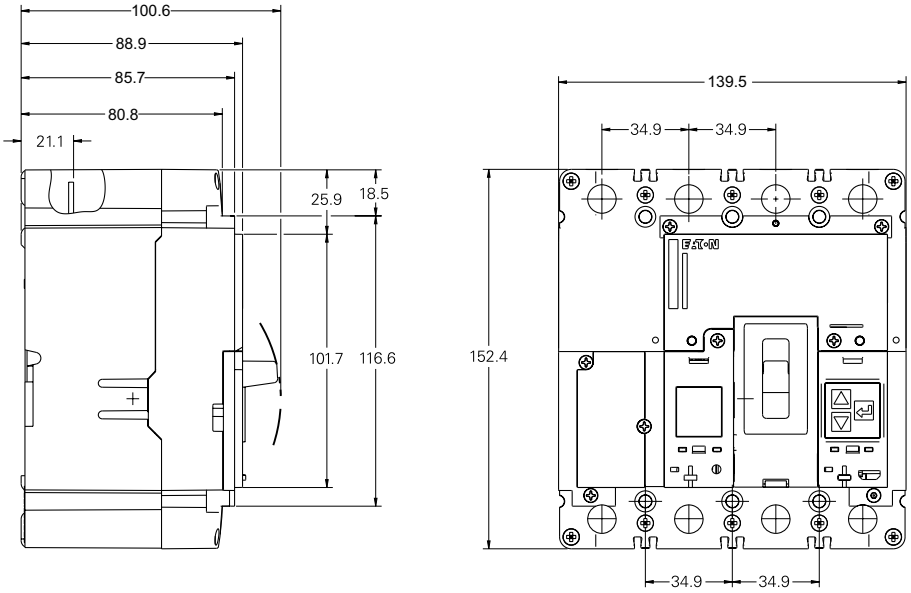
Shaft No.	Shaft Lenght L	Total Lenght X
1	307mm	>180-400mm
2	507mm	>400-600mm

Frame size 2

Circuit-Breakers, 3 pole (63 - 160 A)

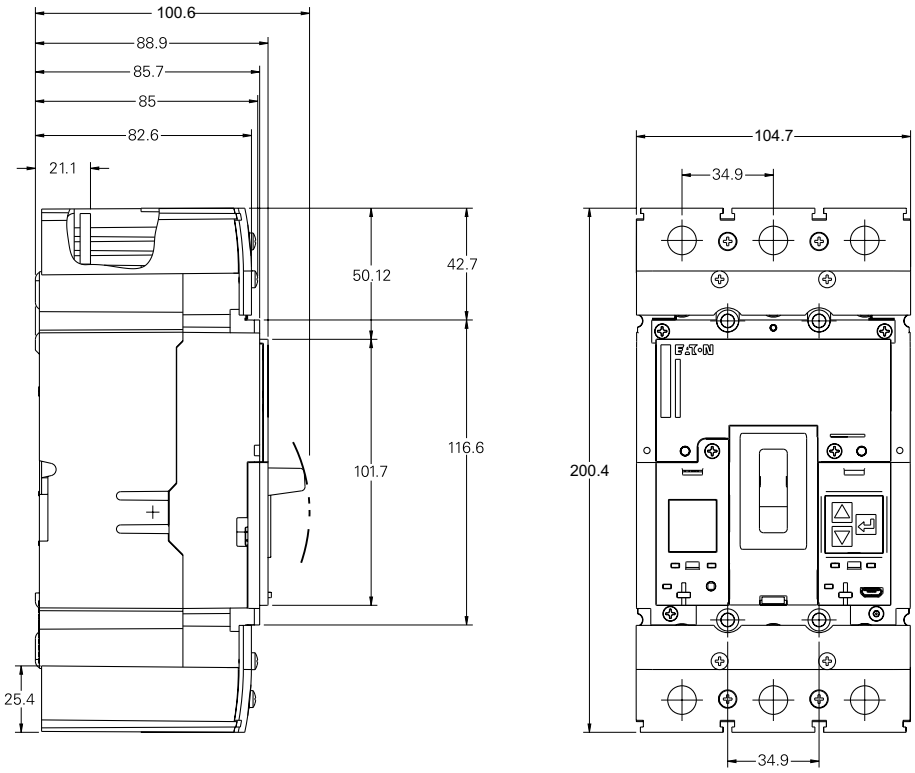


Circuit-Breakers, 4 pole (63 - 160 A)

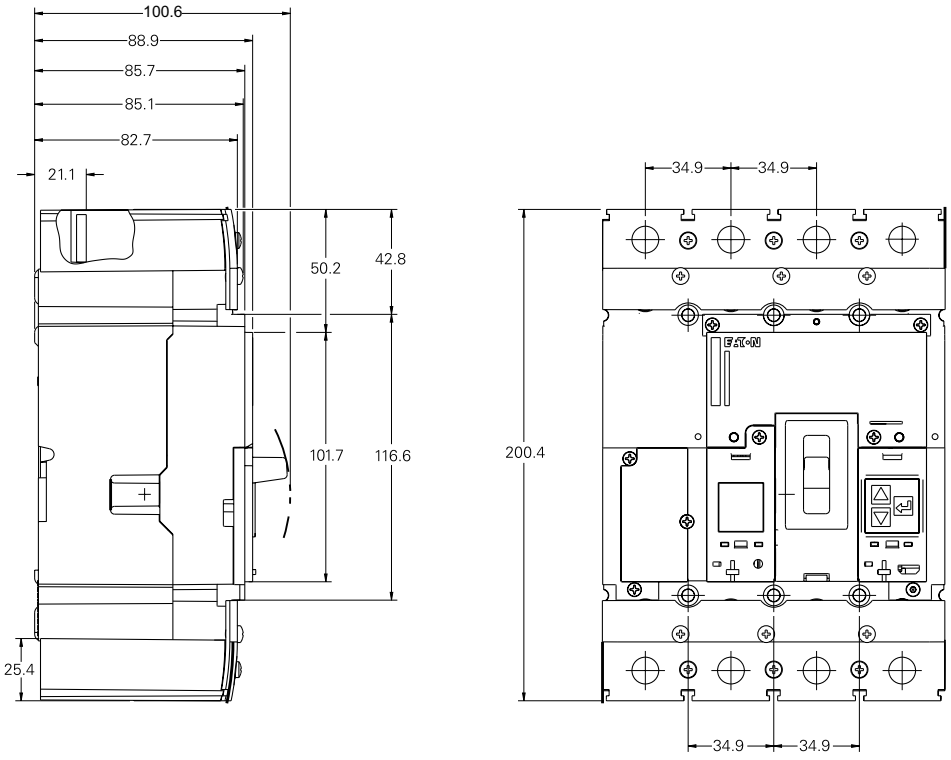


Frame size 2

Circuit-Breakers, 3 pole (160 - 250 A)

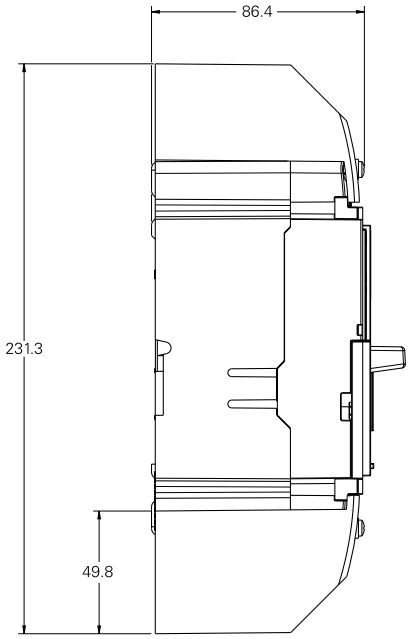


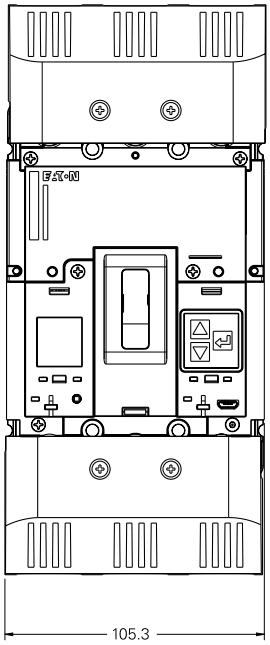
Circuit-Breakers, 4 pole (160 - 250 A)



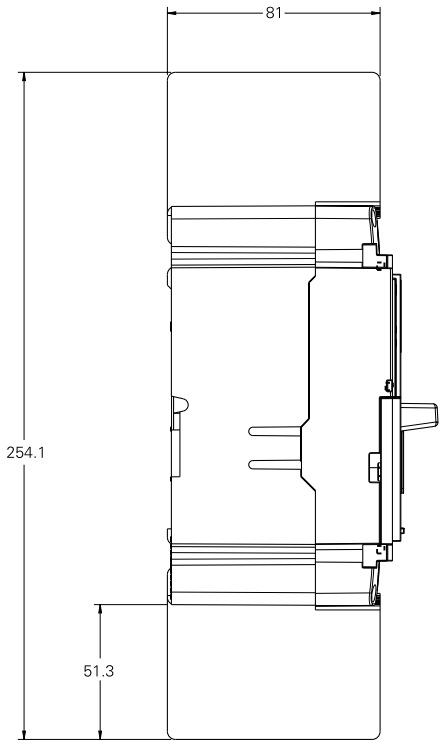
Frame size 2

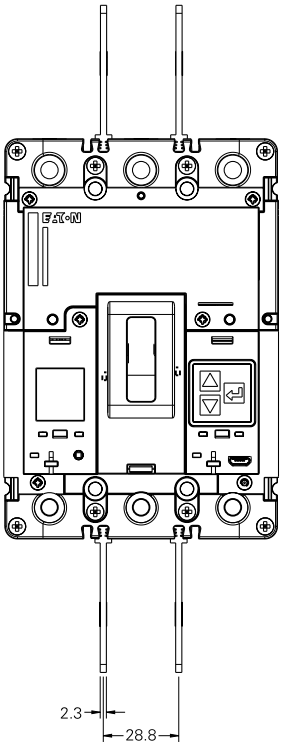
Terminal Cover





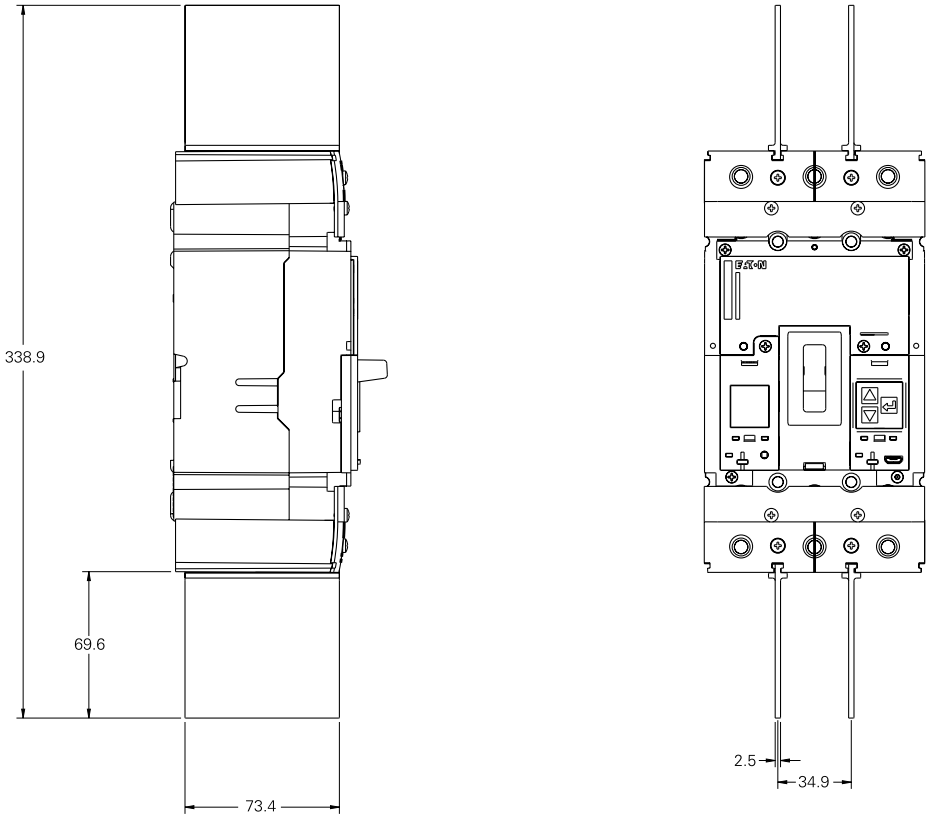
Interphase Barriers (63 - 160 A)



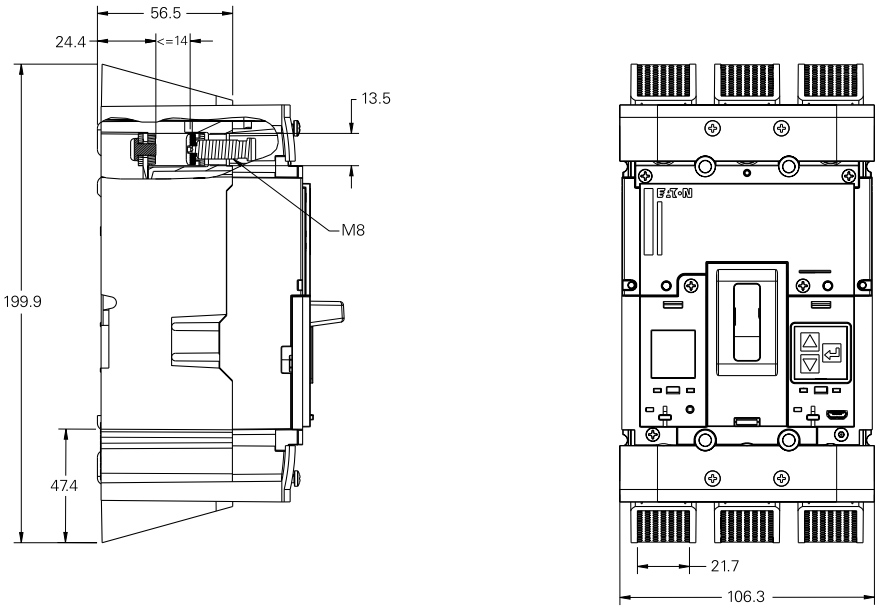


Frame size 2

Interphase Barriers (160 - 250 A)

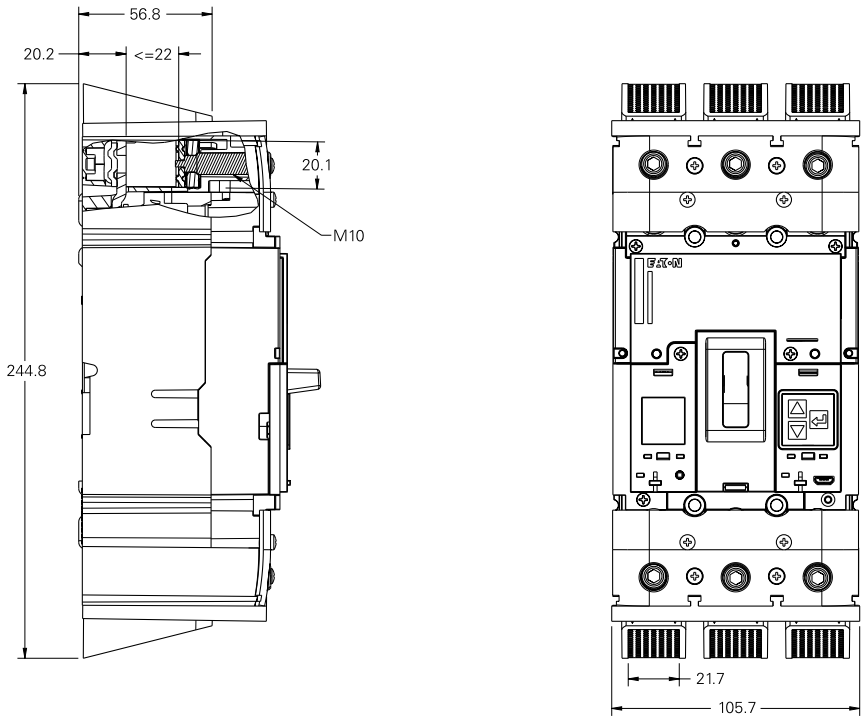


IP2X Fingerprotection (63 - 160 A)

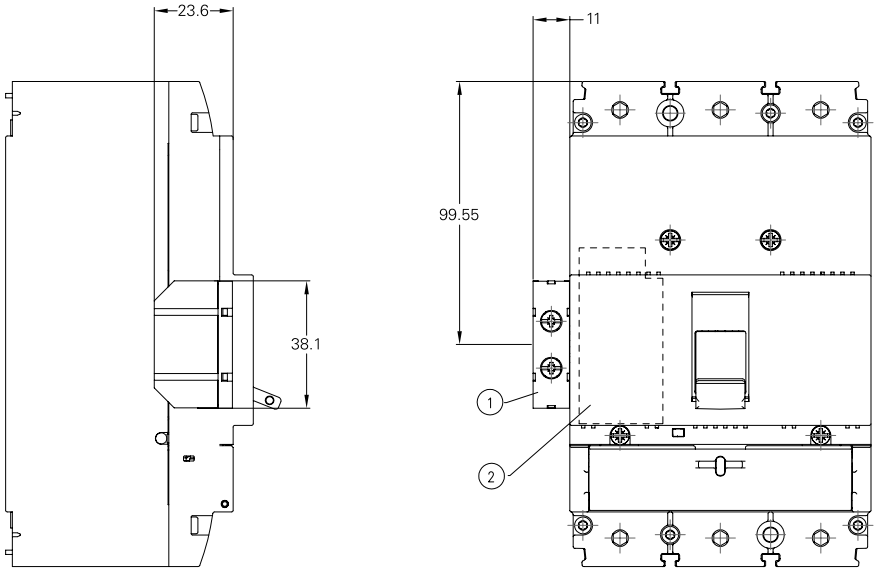


Frame size 2

IP2X Fingerprotection (160 - 250 A)



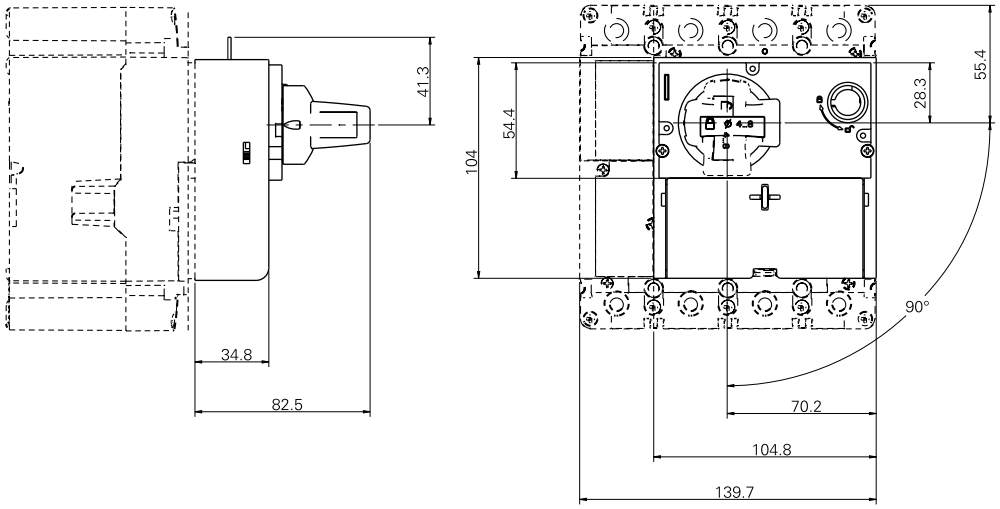
Shunt Release/Undervoltage Release

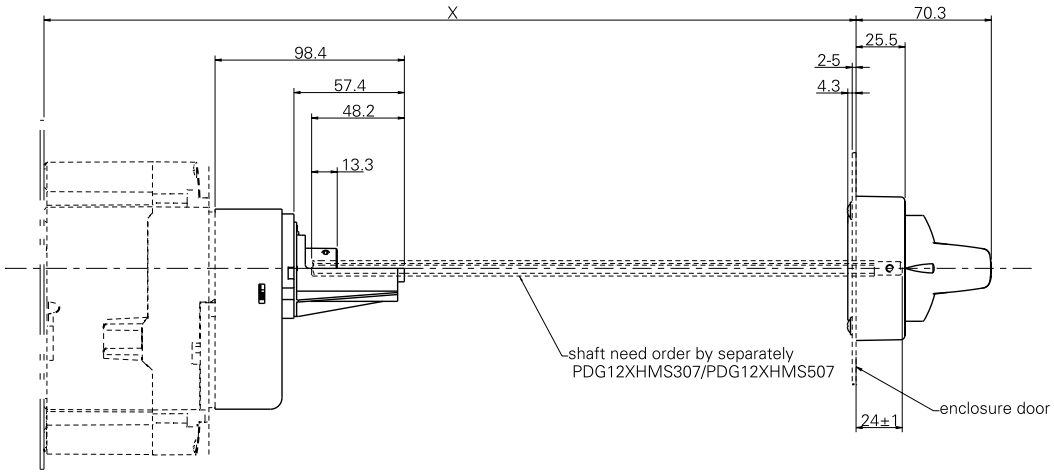


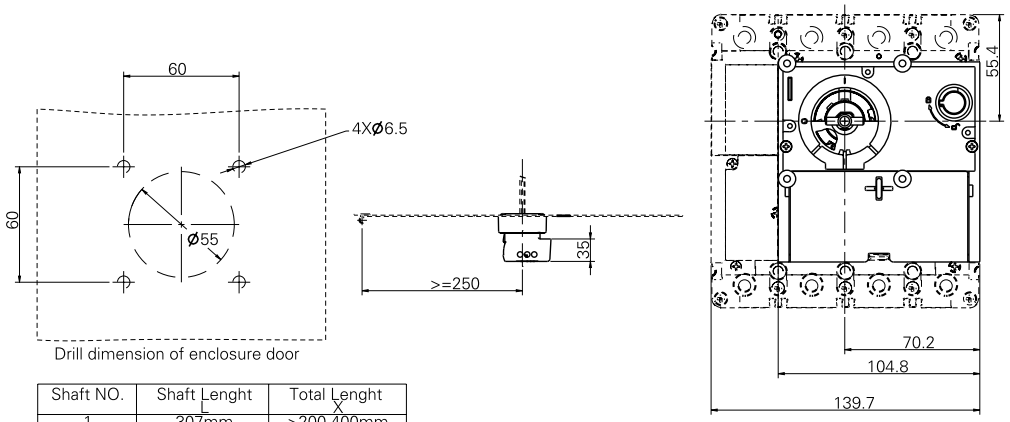
① PDC2XST(T)
PDC2XUV(V)
② PDC2XST(T)(S)(R)
PDC2XUV(V)(U)(W)

Frame size 2

Direct Rotary Handle





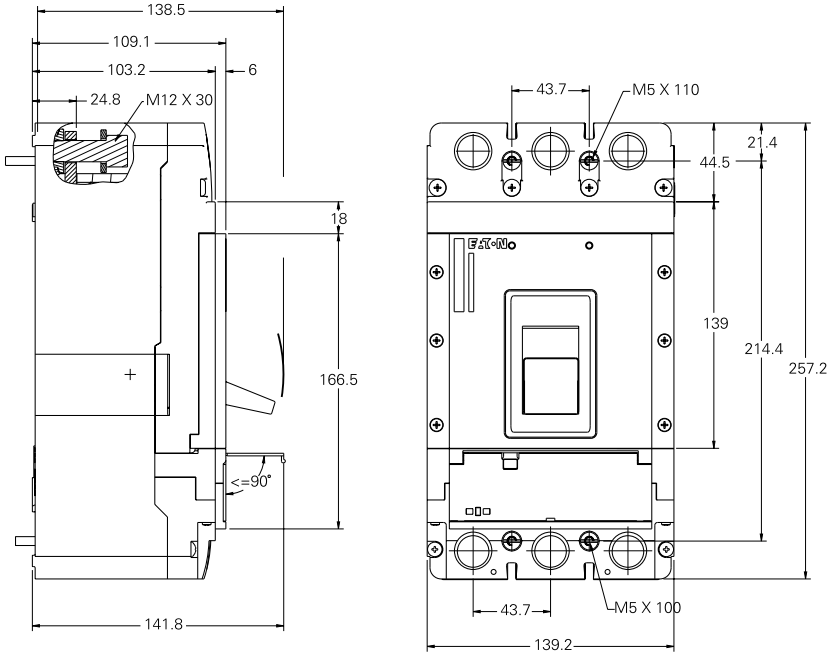


Drill dimension of enclosure door

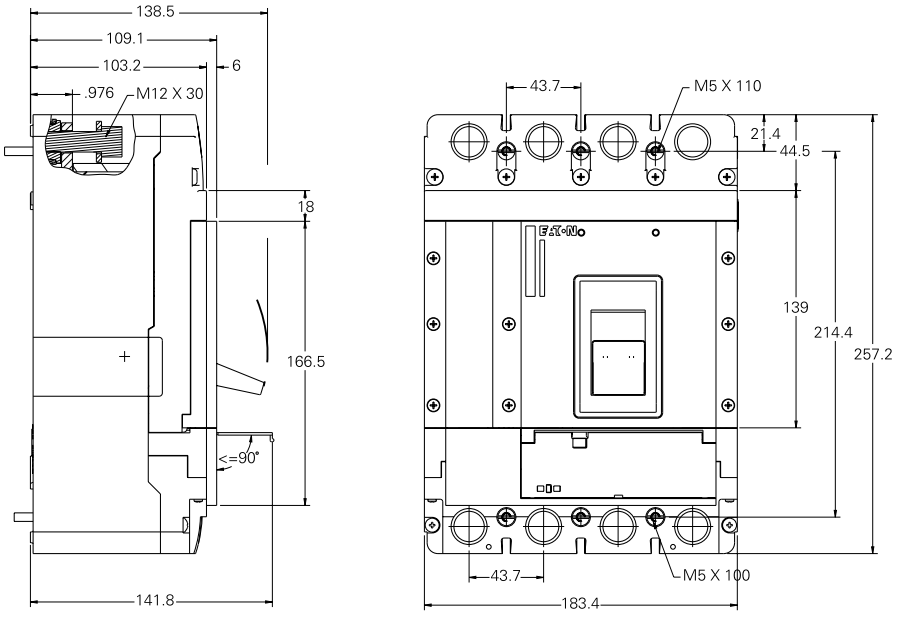
Shaft NO.	Shaft Lenght L	Total Lenght X
1	307mm	>200-400mm
2	507mm	>400-600mm

Frame size 3

Circuit-Breakers, 3 pole

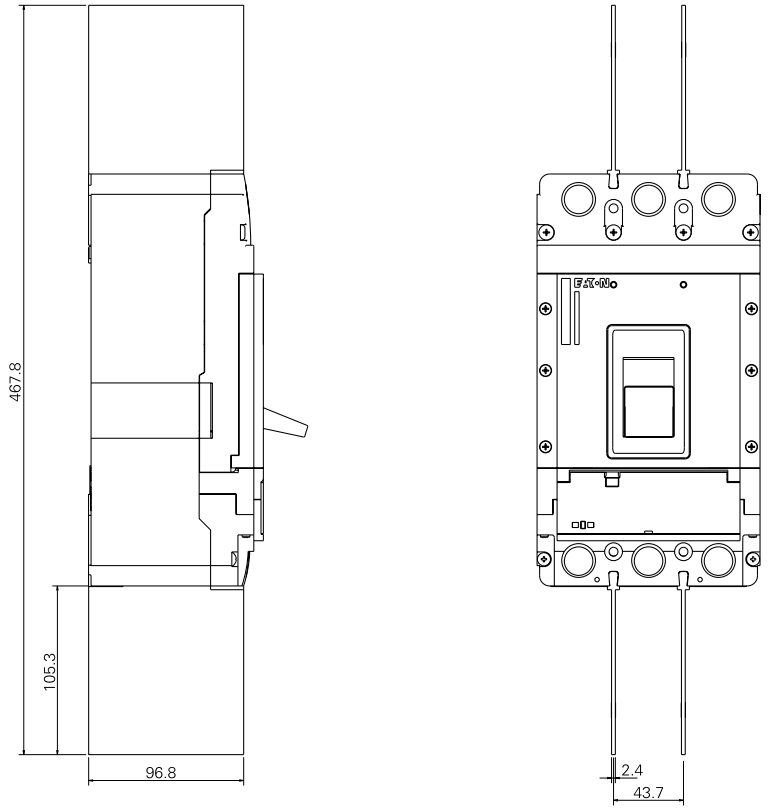


Circuit-Breakers, 4 pole

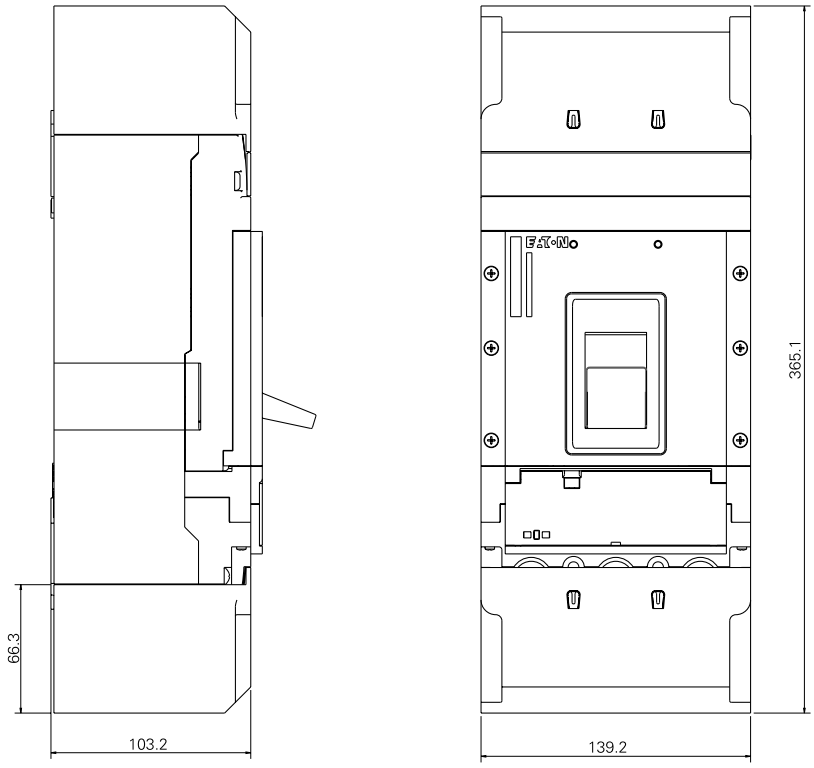


Frame size 3

Interphase Barriers

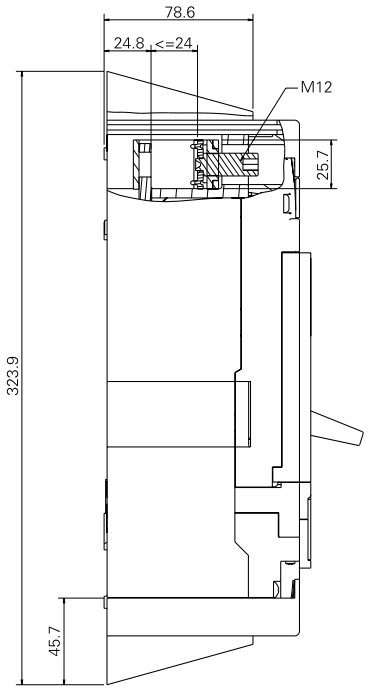


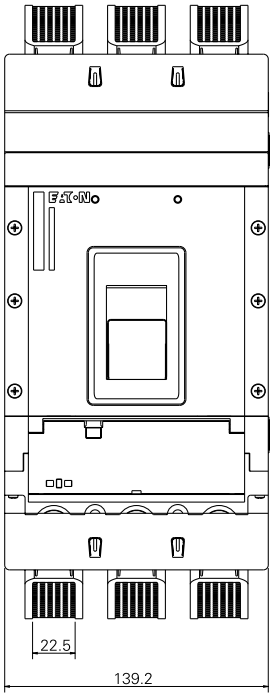
Terminal Cover



Frame size 3

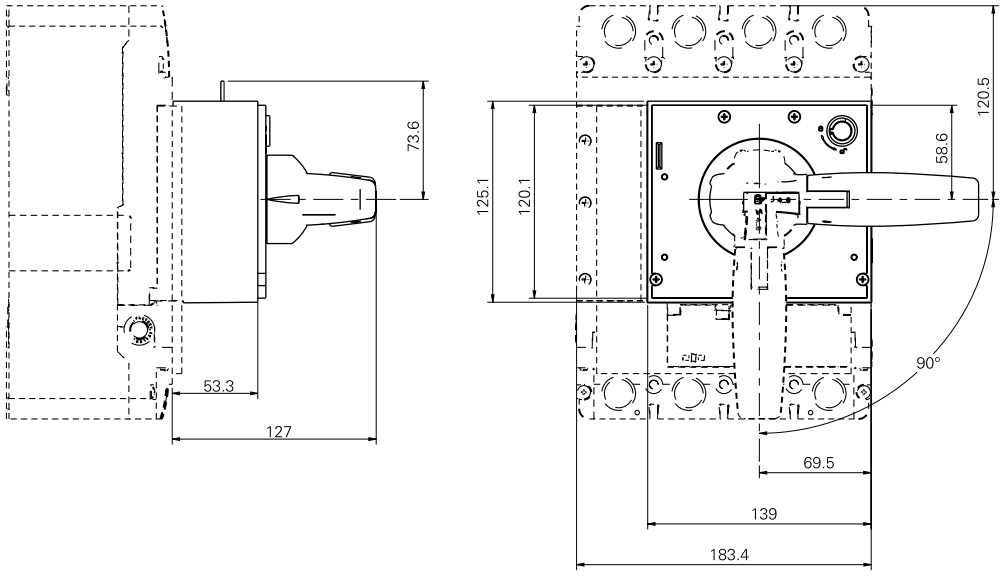
IP2X Fingerprotection

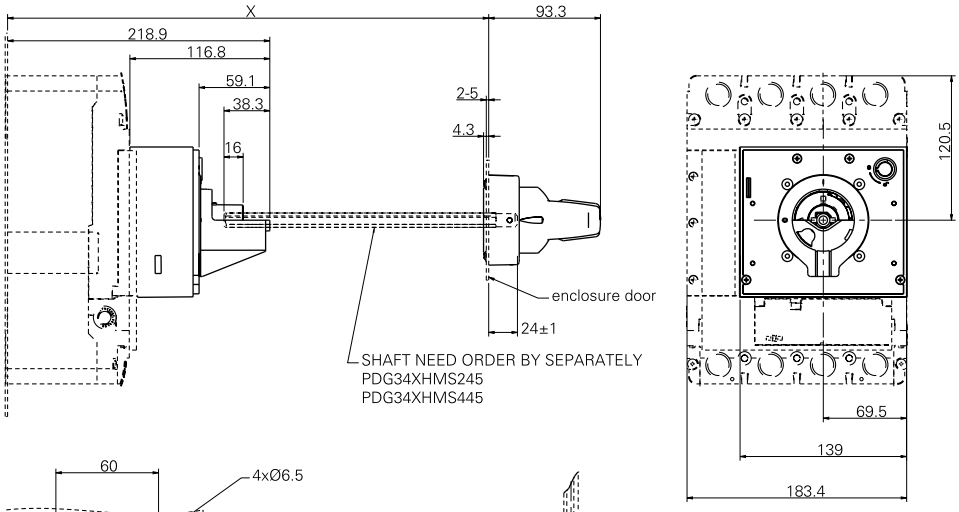


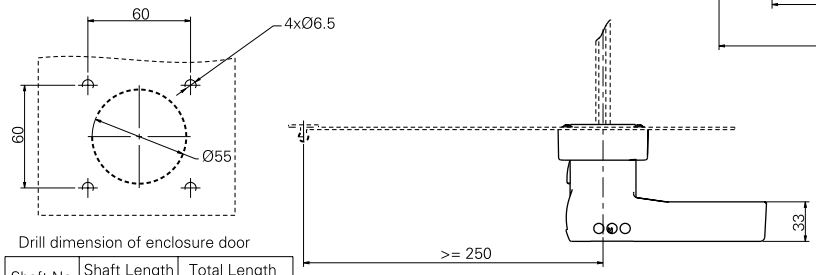


Frame size 3

Direct Rotary Handle





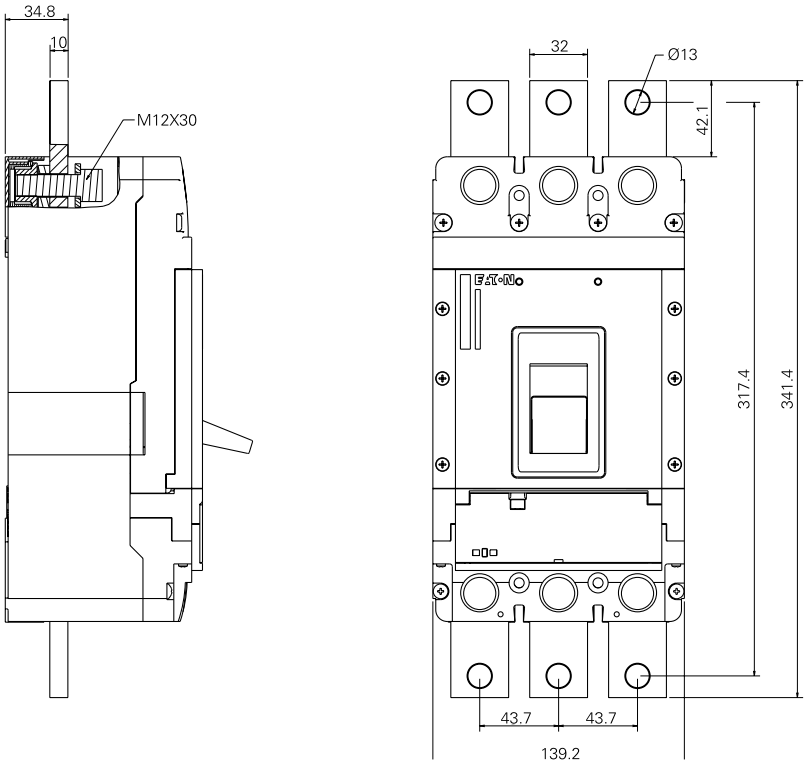


Drill dimension of enclosure door

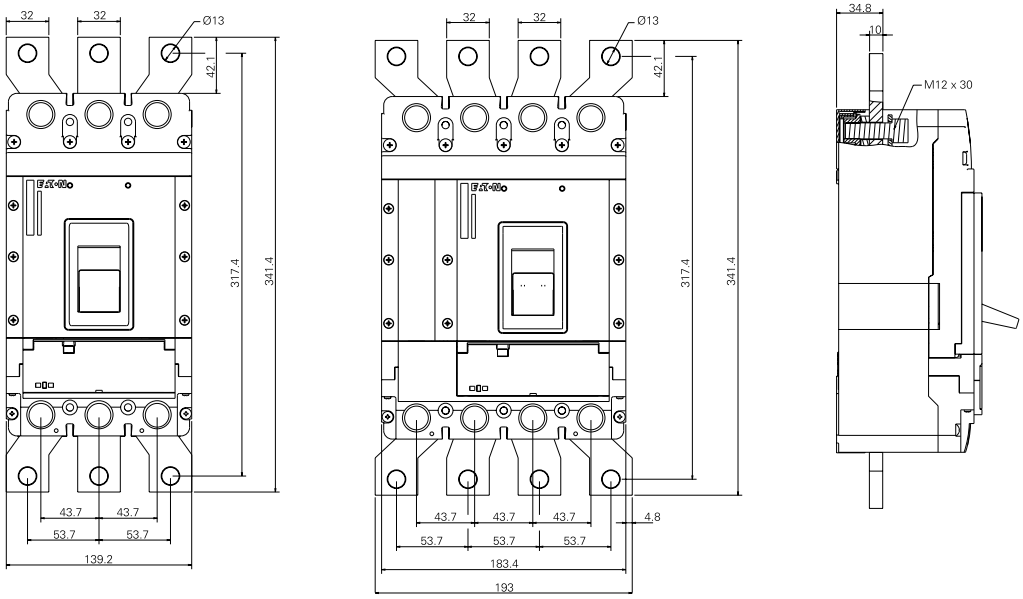
Shaft No.	Shaft Length L	Total Length X
1	245 mm	>233-400 mm
2	445 mm	>400-600 mm

Frame size 3

Terminal extensions

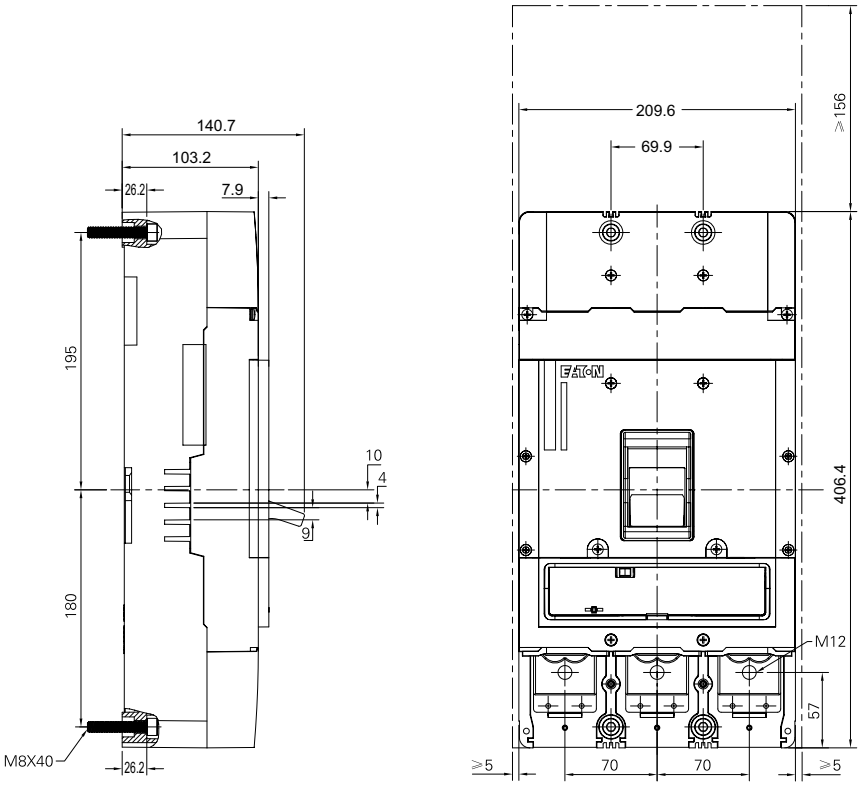


Terminal spreaders

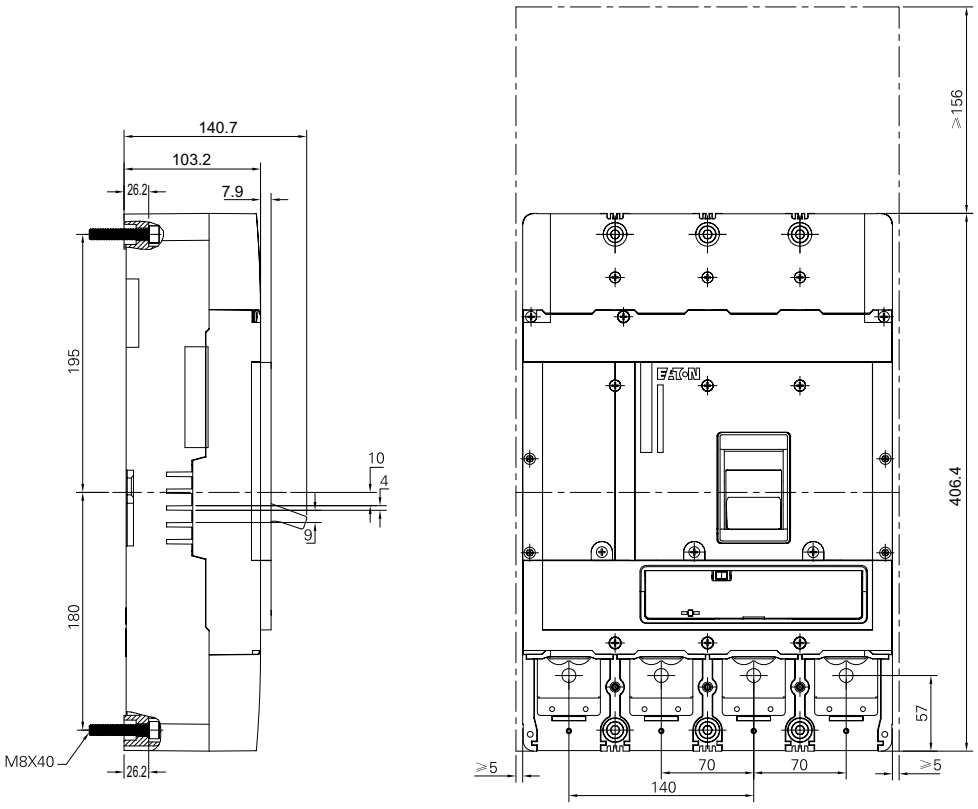


Frame size 4

Circuit-Breakers, 3 pole

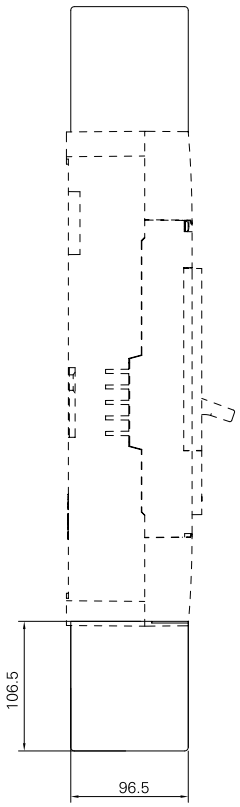


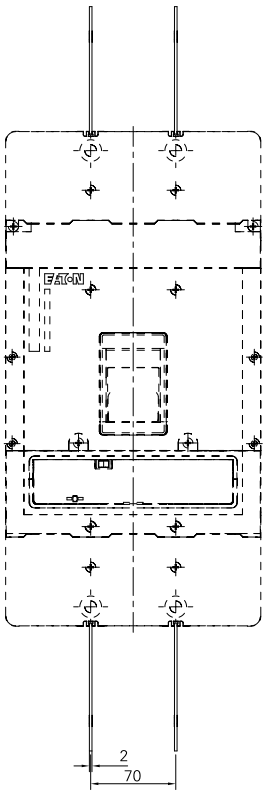
Circuit-Breakers, 4 pole



Frame size 4

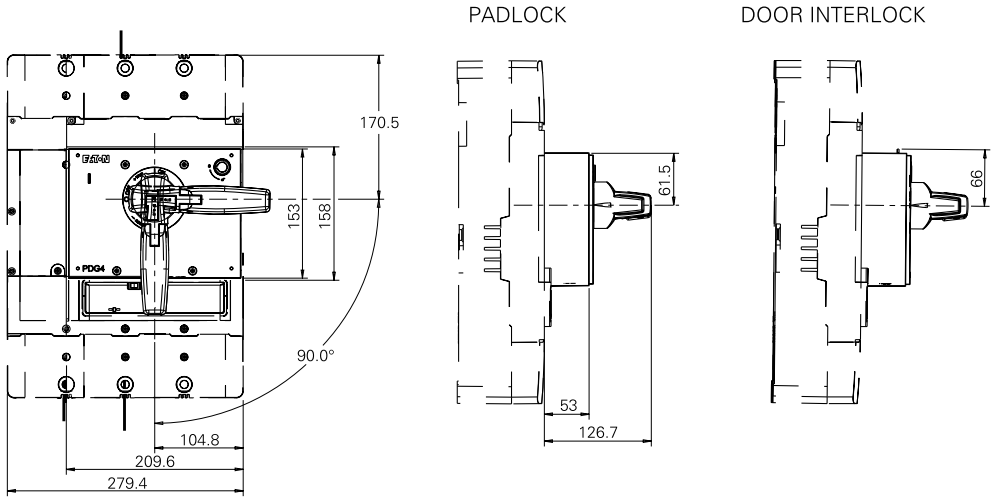
Interphase Barriers

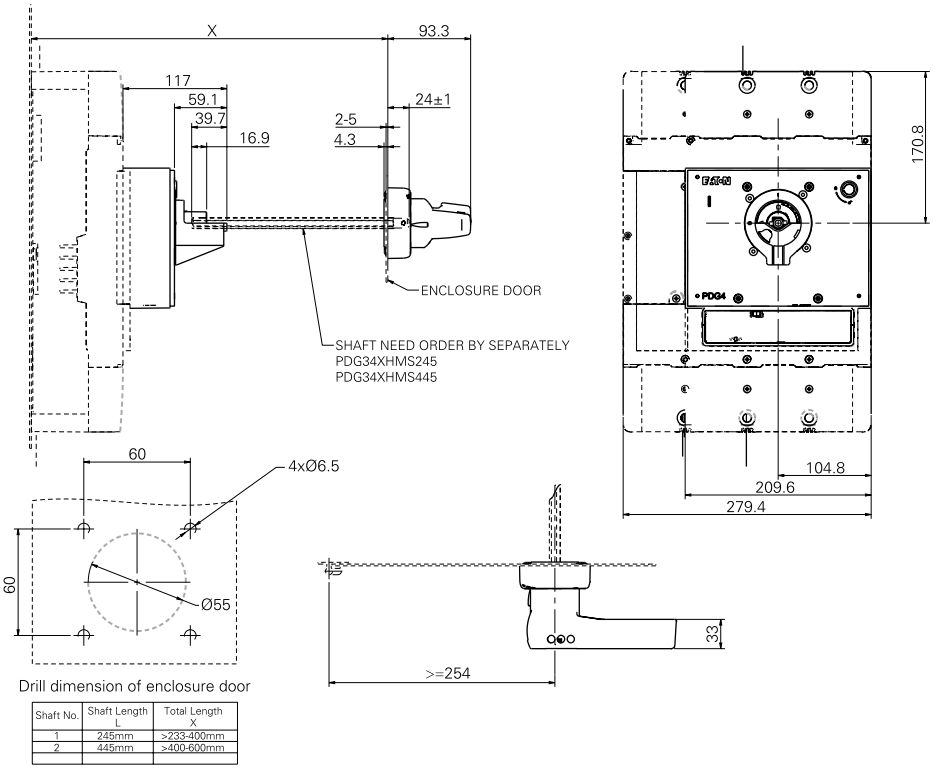




Frame size 4

Direct Rotary Handle



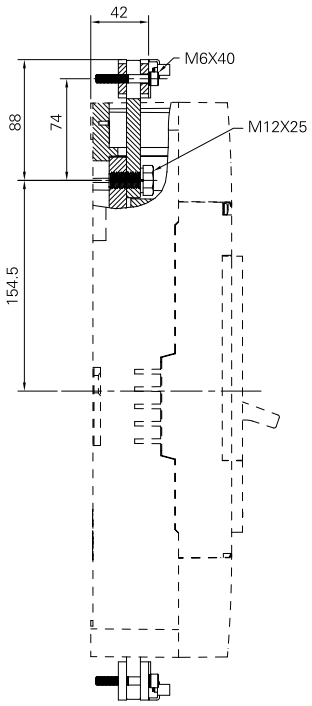


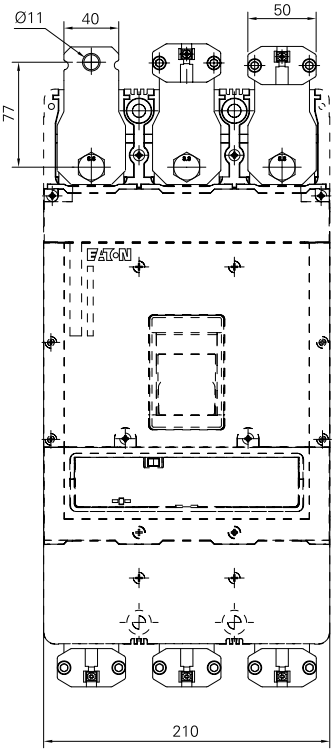
Drill dimension of enclosure door

Shaft No.	Shaft Length L	Total Length X
1	245mm	>233-400mm
2	445mm	>400-600mm

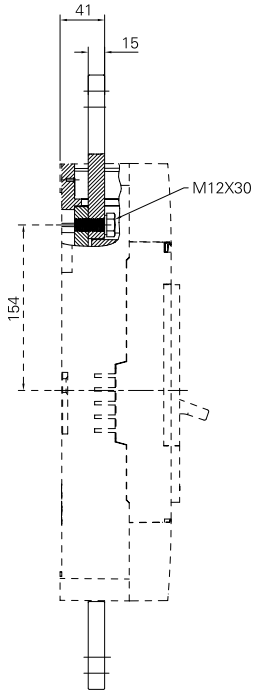
Frame size 4

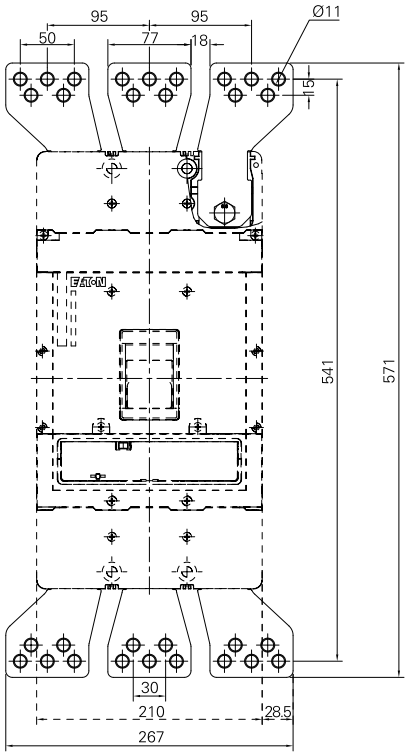
Screw terminal





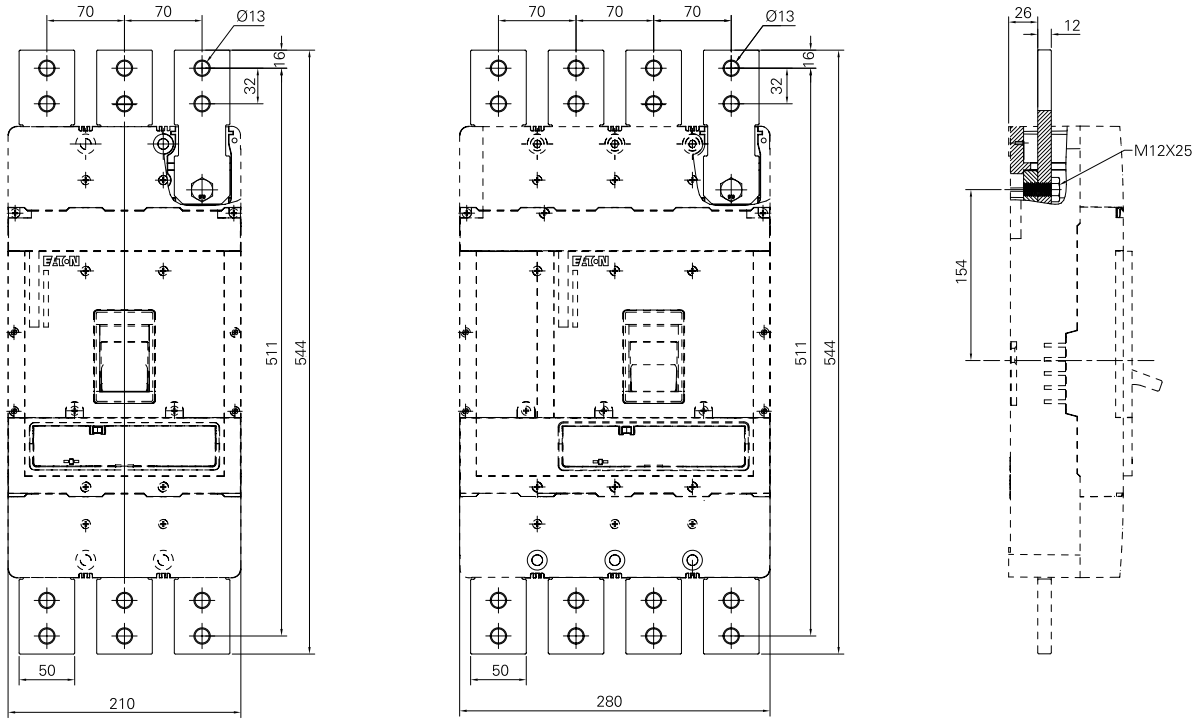
Terminal extensions



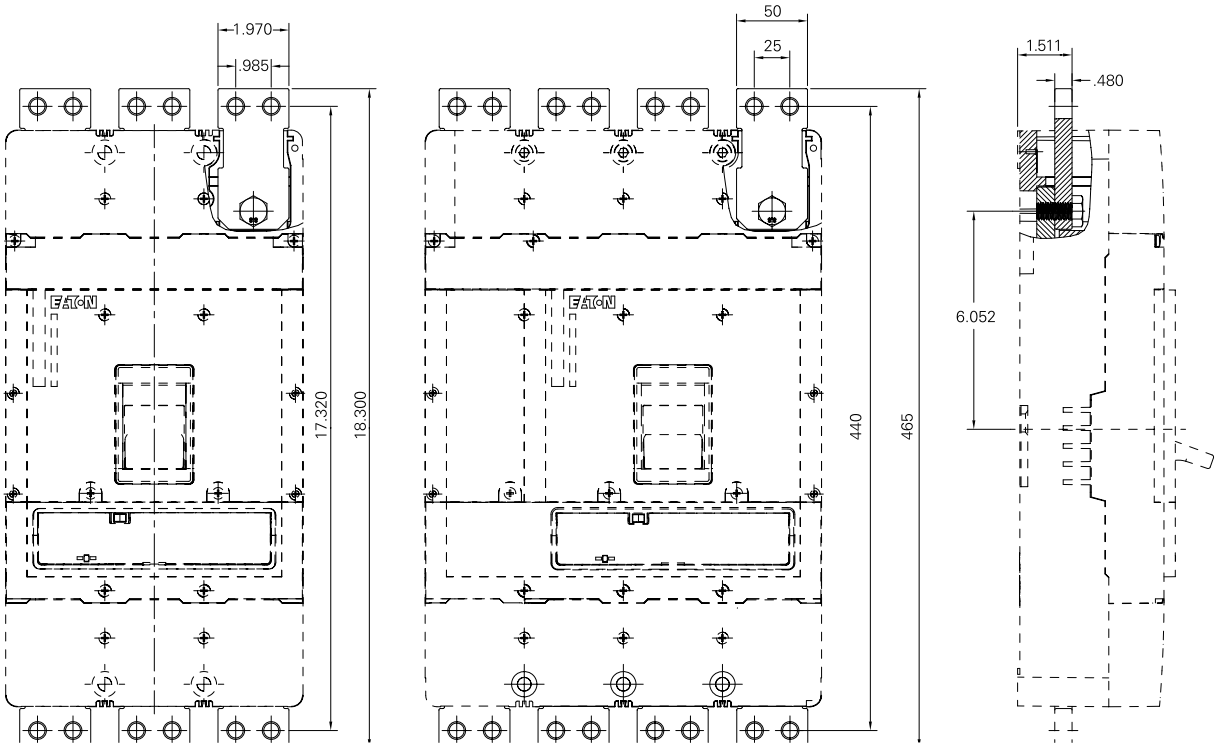


Frame size 4

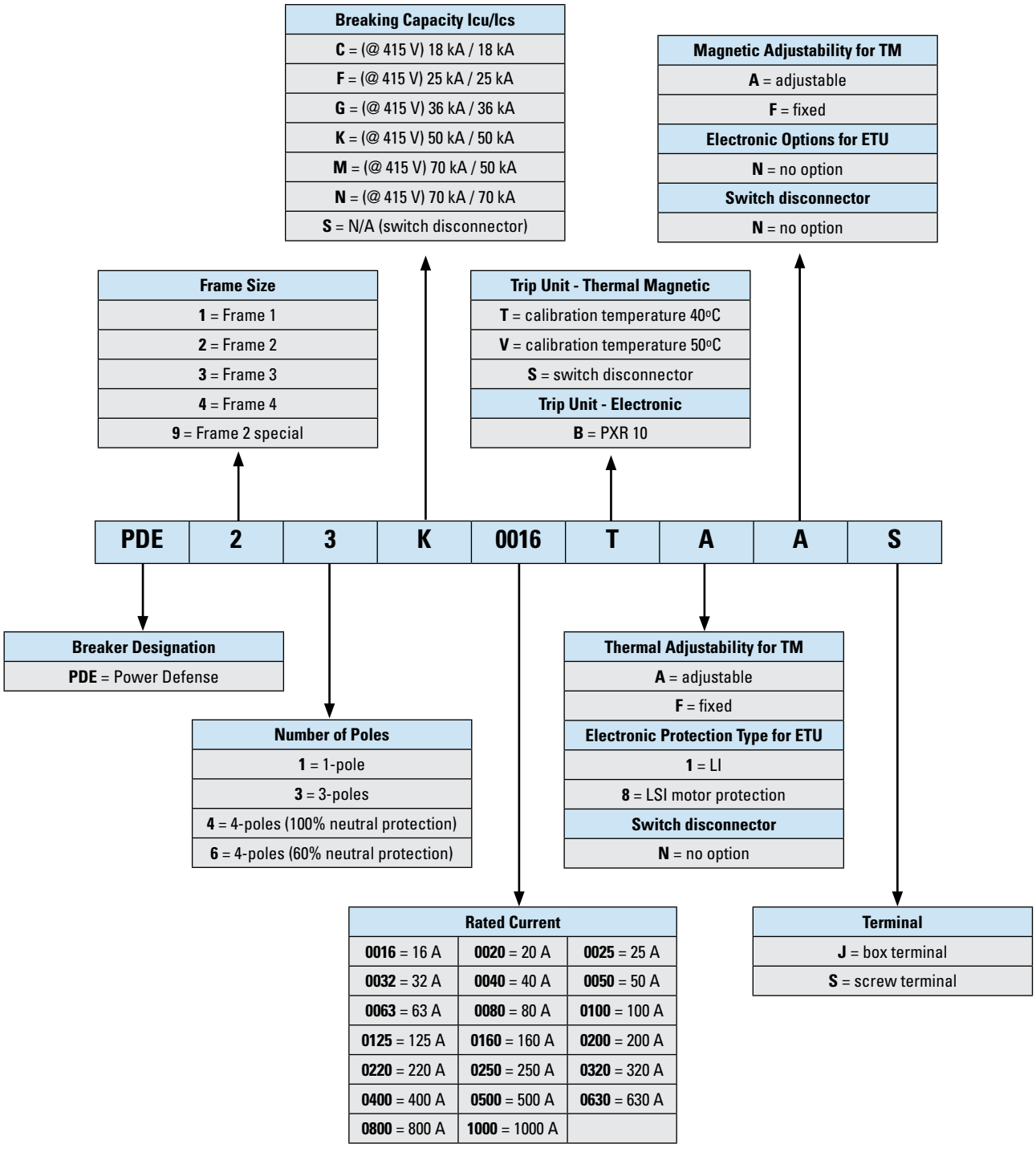
Terminal spreaders 1



Terminal spreaders 2



Power Defense molded case circuit-breaker catalog number key



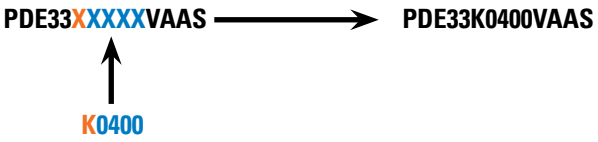
Example for the ordering process

If you would like to order a Power Defense breaker with the specification: Frame size 3, 3-poles, thermomagnetic adjustable/adjustable trip unit @ 50°C calibration temperature, with screw terminals for rated current of 400 A and braking capacity of 50kA, then you would need to proceed in the following way:

- Find the table which addresses the frame size 3, 3-poles, thermomagnetic adjustable/adjustable trip unit @ 50°C calibration temperature, with screw terminals breakers
- As next, find in the table the wished rated current vertically and the wished breaking capacity horizontally. The crossing point in the table of the two chosen parameters, defines a 5 digit code.

Article number	**PDE33XXXXXVAAS**				
breaking capacity @415 V I_{CU}/I_{CS}	**F** 25 kA / 25 kA	**G** 36 kA / 36 kA	**K** 50 kA / 50 kA	**M** 70 kA / 50 kA	**N** 70 kA / 70 kA
rated current					
250 A	F0250	G0250	K0250	M0250	N0250
320 A	F0320	G0320	K0320	M0320	N0320
400 A	F0400	G0400	K0400	M0400	N0400
500 A	F0500	G0500	K0500	M0500	N0500
630 A	F0630	G0630	K0630	M0630	N0630

- And finally, insert the 5 digit code into the full article number to obtain your article number:



Frame size 1, 1-pole

Thermomagnetic trip unit, fixed/fixed

Calibrated at 40°C
Box terminals

Article number		PDE11XXXXXTFFJ
breaking capacity @230 V	C	F
I_{CU}/I_{CS}	18 kA / 18 kA	25 kA / 25 kA
rated current		
16 A	C0016	F0016
20 A	C0020	F0020
25 A	C0025	F0025
32 A	C0032	F0032
40 A	C0040	F0040
50 A	C0050	F0050
63 A	C0063	F0063
80 A	C0080	F0080
100 A	C0100	F0100
125 A	C0125	F0125

wa_ren_00319_r

Frame size 1, 3-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Box terminals

Article number		PDE13XXXXXTAAJ		
breaking capacity @415 V	F	G	K	M
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA
rated current				
16 A	F0016	G0016	K0016	M0016
20 A	F0020	G0020	K0020	M0020
25 A	F0025	G0025	K0025	M0025
32 A	F0032	G0032	K0032	M0032
40 A	F0040	G0040	K0040	M0040
50 A	F0050	G0050	K0050	M0050
63 A	F0063	G0063	K0063	M0063
80 A	F0080	G0080	K0080	M0080
100 A	F0100	G0100	K0100	M0100
125 A	F0125	G0125	K0125	M0125
160 A	F0160	G0160	K0160	M0160

wa_ren_00319_r

Frame size 1, 4-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Box terminals

wa_ren_00319_r

Article number	PDE14XXXXXTAAJ			
breaking capacity @415 V	F	G	K	M
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA
rated current				
16 A	F0016	G0016	K0016	M0016
20 A	F0020	G0020	K0020	M0020
25 A	F0025	G0025	K0025	M0025
32 A	F0032	G0032	K0032	M0032
40 A	F0040	G0040	K0040	M0040
50 A	F0050	G0050	K0050	M0050
63 A	F0063	G0063	K0063	M0063
80 A	F0080	G0080	K0080	M0080
100 A	F0100	G0100	K0100	M0100
125 A	F0125	G0125	K0125	M0125
160 A	F0160	G0160	K0160	M0160

Frame size 1, 3-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 50°C
Box terminals

wa_ren_00319_r

Article number	PDE13XXXXXVAAJ			
breaking capacity @415 V	F	G	K	M
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA
rated current				
16 A	F0016	G0016	K0016	M0016
20 A	F0020	G0020	K0020	M0020
25 A	F0025	G0025	K0025	M0025
32 A	F0032	G0032	K0032	M0032
40 A	F0040	G0040	K0040	M0040
50 A	F0050	G0050	K0050	M0050
63 A	F0063	G0063	K0063	M0063
80 A	F0080	G0080	K0080	M0080
100 A	F0100	G0100	K0100	M0100
125 A	F0125	G0125	K0125	M0125

Frame size 1, 4-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 50°C
Box terminals

Article number		PDE14XXXXXVAAJ		
breaking capacity @415 V	F	G	K	M
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA
rated current				
16 A	F0016	G0016	K0016	M0016
20 A	F0020	G0020	K0020	M0020
25 A	F0025	G0025	K0025	M0025
32 A	F0032	G0032	K0032	M0032
40 A	F0040	G0040	K0040	M0040
50 A	F0050	G0050	K0050	M0050
63 A	F0063	G0063	K0063	M0063
80 A	F0080	G0080	K0080	M0080
100 A	F0100	G0100	K0100	M0100
125 A	F0125	G0125	K0125	M0125

wa_ren_00319_r

Frame size 1, 3-poles

Switch disconnectors

Box terminals

Article number	PDE13XXXXXSNNJ
rated current	
63 A	S0063
100 A	S0100
125 A	S0125
160 A	S0160

wa_ren_00619_r

Frame size 1, 4-poles

Switch disconnectors

Box terminals

Article number	PDE14XXXXXSNNJ
rated current	
63 A	S0063
100 A	S0100
125 A	S0125
160 A	S0160

wa_ren_00619_r

Frame size 2, 3-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Screw terminals

wa_ren_01619_r

Article number			PDE23XXXXXTAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
160 A	F0160	G0160	K0160	M0160	N0160
200 A	F0200	G0200	K0200	M0200	N0200
250 A	F0250	G0250	K0250	M0250	N0250

Frame size 2, 4-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Screw terminals

wa_ren_01619_r

Article number			PDE24XXXXXTAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
160 A	F0160	G0160	K0160	M0160	N0160
200 A	F0200	G0200	K0200	M0200	N0200
250 A	F0250	G0250	K0250	M0250	N0250

Frame size 2, 4-poles (60% neutral protection)

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Screw terminals

wa_ren_01619_r

Article number			PDE26XXXXXTAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
160 A	F0160	G0160	K0160	M0160	N0160
200 A	F0200	G0200	K0200	M0200	N0200
250 A	F0250	G0250	K0250	M0250	N0250

Frame size 2, 3-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 50°C
Screw terminals

wa_ren_01619_r

Article number			PDE23XXXXXVAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
160 A	F0160	G0160	K0160	M0160	N0160
200 A	F0200	G0200	K0200	M0200	N0200
250 A	F0250	G0250	K0250	M0250	N0250

Frame size 2, 4-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 50°C
Screw terminals

wa_ren_01619_r

Article number			PDE24XXXXXVAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
160 A	F0160	G0160	K0160	M0160	N0160
200 A	F0200	G0200	K0200	M0200	N0200
250 A	F0250	G0250	K0250	M0250	N0250

Frame size 2, 4-poles (60% neutral protection)

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 50°C
Screw terminals

wa_ren_01619_r

Article number			PDE26XXXXXVAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
160 A	F0160	G0160	K0160	M0160	N0160
200 A	F0200	G0200	K0200	M0200	N0200
250 A	F0250	G0250	K0250	M0250	N0250

Frame size 2, 3-poles

Electronic trip unit

Screw terminals

wa_ren_10819_I

Article number			PDE23XXXXXB1NS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
160 A	F0160	G0160	K0160	M0160	N0160
200 A	F0200	G0200	K0200	M0200	N0200
250 A	F0250	G0250	K0250	M0250	N0250

Frame size 2, 4-poles

Electronic trip unit

Screw terminals

wa_ren_10819_I

Article number			PDE24XXXXXB1NS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
160 A	F0160	G0160	K0160	M0160	N0160
200 A	F0200	G0200	K0200	M0200	N0200
250 A	F0250	G0250	K0250	M0250	N0250

Frame size 2 (special version), 3-poles

Electronic trip unit

Box terminals

wa_ren_10819_I

Article number			PDE93XXXXXB1NJ		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
63 A	F0063	G0063	K0063	M0063	N0063
100 A	F0100	G0100	K0100	M0100	N0100

Frame size 2 (special version), 4-poles

Electronic trip unit

Box terminals

wa_ren_10819_l

Article number			PDE94XXXXXB1NJ		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
63 A	F0063	G0063	K0063	M0063	N0063
100 A	F0100	G0100	K0100	M0100	N0100

Frame size 2, 3-poles

Electronic trip unit, motor protection

Screw terminals

wa_ren_10819_l

Article number			PDE23XXXXXB8NS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
100 A	F0100	G0100	K0100	M0100	N0100
160 A	F0160	G0160	K0160	M0160	N0160
220 A	F0220	G0220	K0220	M0220	N0220

Frame size 2, 4-poles

Electronic trip unit, motor protection

Screw terminals

wa_ren_10819_l

Article number			PDE24XXXXXB8NS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
100 A	F0100	G0100	K0100	M0100	N0100
160 A	F0160	G0160	K0160	M0160	N0160
220 A	F0220	G0220	K0220	M0220	N0220

Frame size 2, 3-poles

Switch disconnectors

Screw terminals

Article number	PDE23XXXXXSNNS

rated current

wa_ren_01519_r

160 A	S0160
200 A	S0200
250 A	S0250

This assortment will be available soon

Frame size 2, 4-poles

Switch disconnectors

Screw terminals

Article number	PDE24XXXXXSNNS

rated current

wa_ren_01519_r

160 A	S0160
200 A	S0200
250 A	S0250

This assortment will be available soon

Frame size 3, 3-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Screw terminals

wa_ren_01819_r

Article number			PDE33XXXXXTAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
250 A	F0250	G0250	K0250	M0250	N0250
320 A	F0320	G0320	K0320	M0320	N0320
400 A	F0400	G0400	K0400	M0400	N0400
500 A	F0500	G0500	K0500	M0500	N0500
630 A	F0630	G0630	K0630	M0630	N0630

Frame size 3, 4-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Screw terminals

wa_ren_01819_r

Article number			PDE34XXXXXTAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
250 A	F0250	G0250	K0250	M0250	N0250
320 A	F0320	G0320	K0320	M0320	N0320
400 A	F0400	G0400	K0400	M0400	N0400
500 A	F0500	G0500	K0500	M0500	N0500
630 A	F0630	G0630	K0630	M0630	N0630

Frame size 3, 3-poles (60% neutral protection)

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Screw terminals

wa_ren_01819_r

Article number			PDE36XXXXXTAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
320 A	F0320	G0320	K0320	M0320	N0320
400 A	F0400	G0400	K0400	M0400	N0400
500 A	F0500	G0500	K0500	M0500	N0500
630 A	F0630	G0630	K0630	M0630	N0630

Frame size 3, 3-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 50°C
Screw terminals

wa_ren_01819_r

Article number			PDE33XXXXXVAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
250 A	F0250	G0250	K0250	M0250	N0250
320 A	F0320	G0320	K0320	M0320	N0320
400 A	F0400	G0400	K0400	M0400	N0400
500 A	F0500	G0500	K0500	M0500	N0500
630 A	F0630	G0630	K0630	M0630	N0630

Frame size 3, 4-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 50°C
Screw terminals

wa_ren_01819_r

Article number			PDE34XXXXXVAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
250 A	F0250	G0250	K0250	M0250	N0250
320 A	F0320	G0320	K0320	M0320	N0320
400 A	F0400	G0400	K0400	M0400	N0400
500 A	F0500	G0500	K0500	M0500	N0500
630 A	F0630	G0630	K0630	M0630	N0630

Frame size 3, 4-poles (60% neutral protection)

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 50°C
Screw terminals

wa_ren_01819_r

Article number			PDE36XXXXXVAAS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
320 A	F0320	G0320	K0320	M0320	N0320
400 A	F0400	G0400	K0400	M0400	N0400
500 A	F0500	G0500	K0500	M0500	N0500
630 A	F0630	G0630	K0630	M0630	N0630

Frame size 3, 3-poles

Electronic trip unit

Screw terminals

wa_ren_00119_r

Article number			PDE33XXXXXB1NS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
400 A	F0400	G0400	K0400	M0400	N0400
630 A	F0630	G0630	K0630	M0630	N0630

Frame size 3, 4-poles

Electronic trip unit

Screw terminals

wa_ren_00119_r

Article number			PDE34XXXXXB1NS		
breaking capacity @415 V	F	G	K	M	N
I_{CU}/I_{CS}	25 kA / 25 kA	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current					
400 A	F0400	G0400	K0400	M0400	N0400
630 A	F0630	G0630	K0630	M0630	N0630

Frame size 3, 3-poles

Switch disconnectors

Screw terminals

wa_ren_01719_r

Article number	PDE33XXXXXSNNS
rated current	
400 A	S0400
630 A	S0630

Frame size 3, 4-poles

Switch disconnectors

Screw terminals

wa_ren_01719_r

Article number	PDE34XXXXXSNNS
rated current	
400 A	S0400
630 A	S0630

Frame size 4, 3-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Screw terminals

Article number	PDE43XXXXXTAAS			
breaking capacity @415 V	G	K	M	N
I_{CU}/I_{CS}	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current				
800 A	G0800	K0800	M0800	N0800

wa_ren_01319_r

Frame size 4, 4-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Screw terminals

Article number	PDE44XXXXXTAAS			
breaking capacity @415 V	G	K	M	N
I_{CU}/I_{CS}	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current				
800 A	G0800	K0800	M0800	N0800

wa_ren_01319_r

Frame size 4, 4-poles (60% neutral protection)

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Screw terminals

Article number	PDE46XXXXXTAAS			
breaking capacity @415 V	G	K	M	N
I_{CU}/I_{CS}	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current				
800 A	G0800	K0800	M0800	N0800

wa_ren_01319_r

Frame size 4, 3-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 50°C
Screw terminals

Article number	PDE43XXXXXVAAS			
breaking capacity @415 V	G	K	M	N
I_{CU}/I_{CS}	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current				
800 A	G0800	K0800	M0800	N0800

wa_ren_01319_r

Frame size 4, 4-poles

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 50°C
Screw terminals

Article number	PDE44XXXXXVAAS			
breaking capacity @415 V	G	K	M	N
I_{CU}/I_{CS}	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current				
800 A	G0800	K0800	M0800	N0800

wa_ren_01319_r

Frame size 4, 4-poles (60% neutral protection)

Thermomagnetic trip unit, adjustable/adjustable

Calibrated at 40°C
Screw terminals

Article number	PDE46XXXXXVAAS			
breaking capacity @415 V	G	K	M	N
I_{CU}/I_{CS}	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current				
800 A	G0800	K0800	M0800	N0800

wa_ren_01319_r

Frame size 4, 3-poles

Electronic trip unit

Screw terminals

Article number	PDE43XXXXXB1NS			
breaking capacity @415 V	G	K	M	N
I_{CU}/I_{CS}	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current				
800 A	G0800	K0800	M0800	N0800
1000 A	G1000	K1000	M1000	N1000

1000 A breaker will be available soon

wa_ren_00219_r

Frame size 4, 4-poles

Electronic trip unit

Screw terminals

Article number	PDE44XXXXXB1NS			
breaking capacity @415 V	G	K	M	N
I_{CU}/I_{CS}	36 kA / 36 kA	50 kA / 50 kA	70 kA / 50 kA	70 kA / 70 kA
rated current				
800 A	G0800	K0800	M0800	N0800
1000 A	G1000	K1000	M1000	N1000

1000 A breaker will be available soon

wa_ren_00219_r

Frame size 4, 3-poles

Switch disconnectors

Screw terminals

Article number	PDE43XXXXXSNNS

wa_ren_01119_r

rated current

800 A	S0800

This assortment will be available soon

Frame size 4, 4-poles

Switch disconnectors

Screw terminals

Article number	PDE44XXXXXSNNS

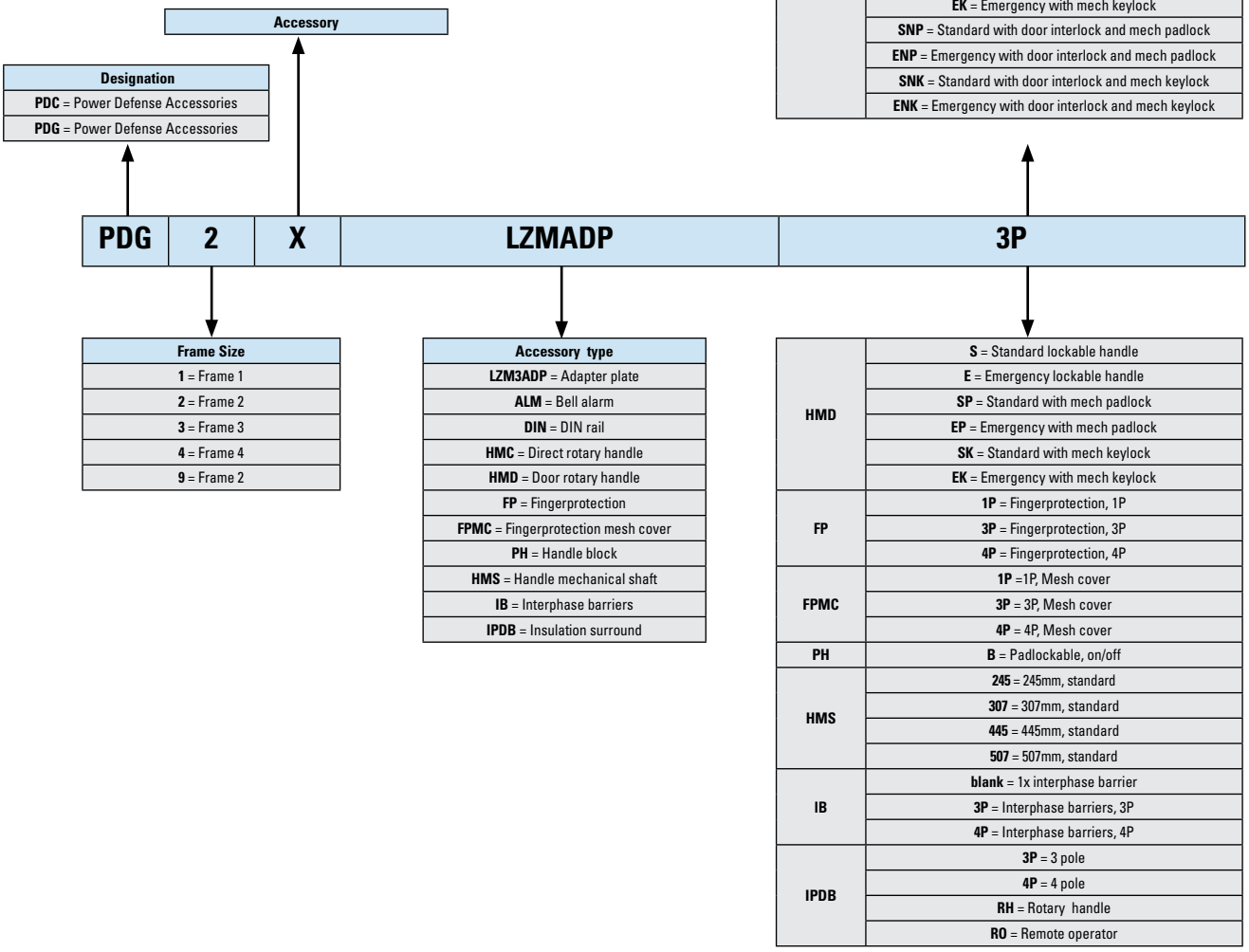
wa_ren_01119_r

rated current

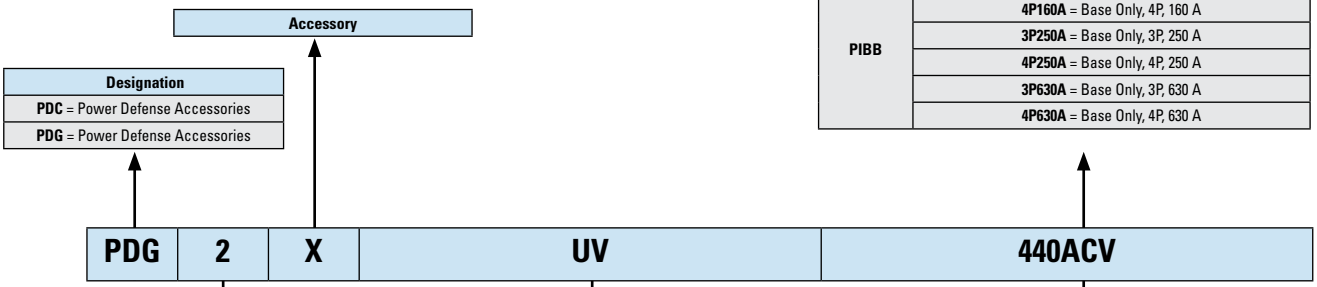
800 A	S0800

This assortment will be available soon

Power Defense molded case circuit-breaker catalog number key



Power Defense molded case circuit-breaker catalog number key



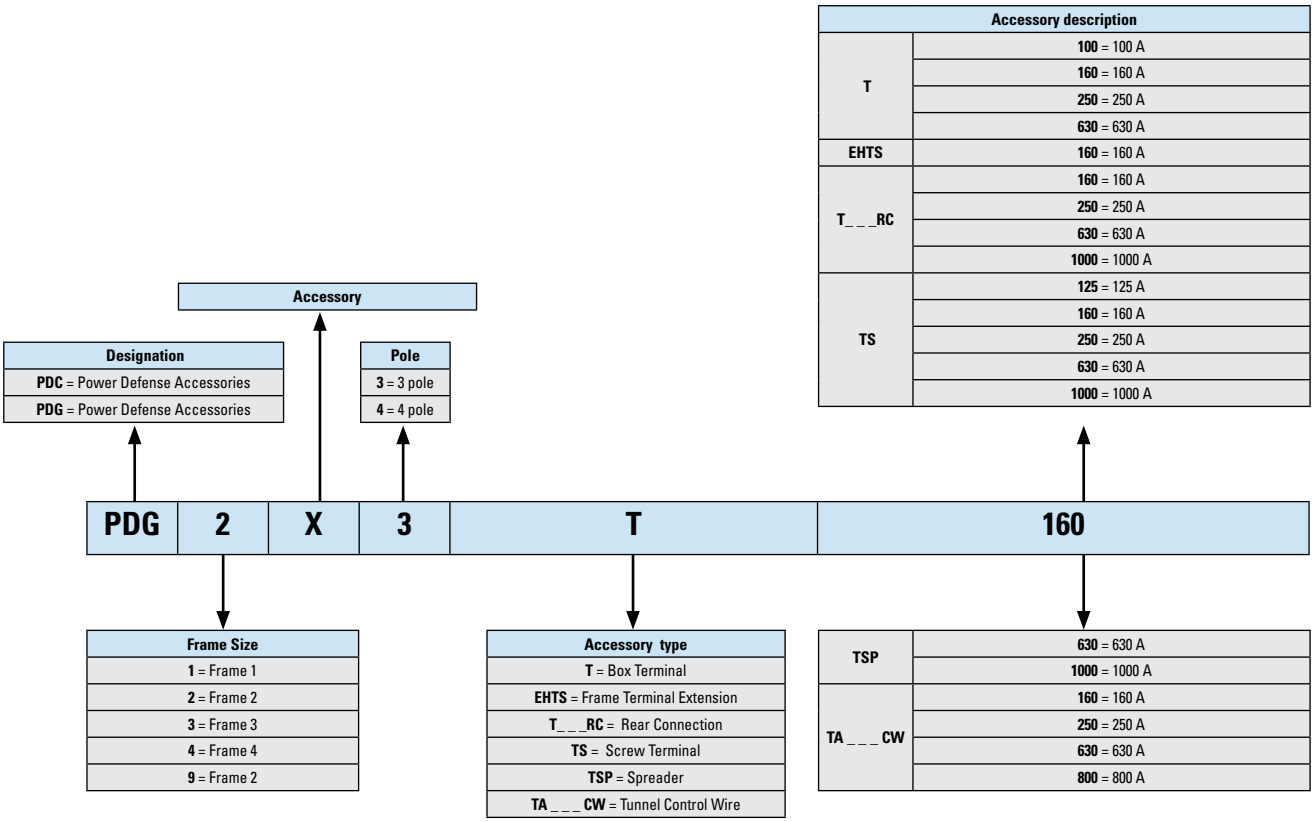
Accessory description	
IPPB	**Blank** = IP pocket barrier, trip accessory side
MCI	**Blank** = Mechanical interlock
PLK	**TOFF** = Padlock hasp, side left, off only
	LOFF = Padlock hasp, side left, off only
	ROFF = Padlock hasp, side right, off only
PIBB	**3P160A** = Base Only, 3P, 160 A
	4P160A = Base Only, 4P, 160 A
	3P250A = Base Only, 3P, 250 A
	4P250A = Base Only, 4P, 250 A
	3P630A = Base Only, 3P, 630 A
	4P630A = Base Only, 4P, 630 A

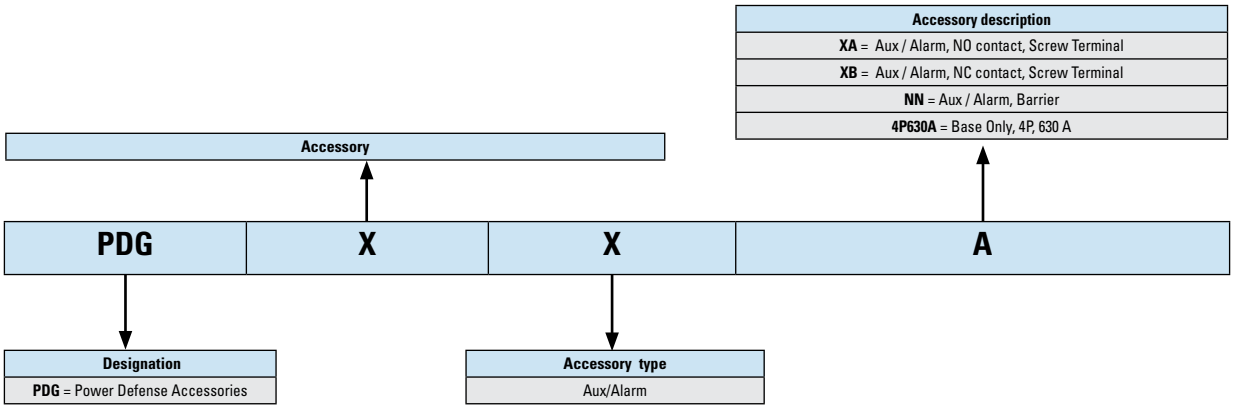
Frame Size
1 = Frame 1
2 = Frame 2
3 = Frame 3
4 = Frame 4
9 = Frame 2

Accessory type
IPPB = IP Pocket Barrier, Trip Accessory Side
MCI = Mechanical Interlock
PLK = Padlock Hasp
PIBB = Plug In Base Only
PIBK = Plug In Breaker Parts Kit
RCD = RCD
ROP = Remote Operator
ROPX = Mechanical Interlock for Remote Operator
ST = Shunt Release
TC = Terminal Cover
UV = Undervoltage Release
WDR = Withdrawable Unit

PIBK	**3P160A** = 3P, 160 A
	4P160A = 4P, 160 A
	3P250A = 3P, 250 A
	4P250A = 4P, 250 A
	3P630A = 3P, 630 A
	4P630A = 4P, 630 A
RCD	**3P100F300** = 3P, 300 mA fix below
	3P100 = 3P, adjustable below 30, 100, 300, 500, 1000, 3000 mA
	4P100F030 = 4P, 30 mA fix below
	4P100F300 = 4P, 300 mA fix below
	4P100 = 4P, adjustable below 30, 100, 300, 500, 1000, 3000 mA
	3P160F030S = 3P, 30mA fix side (right)
	3P160F300S = 3P, 300mA fix side (right)
	3P160S = 3P, adjustable side (right) 30, 100, 300, 500, 1000, 3000 mA
	4P160F030S = 4P, 30 mA fix side (right)
	4P160F300S = 4P, 300 mA fix side (right)
	4P160S = 4P, adjustable side (right) 30, 100, 300, 500, 1000, 3000 mA
	3P250 = 3P, adjustable below
	4P250 = 4P, adjustable below
ROP	**240AC** = 200-240VAC, stored energy
	440AC = 380-440VAC, stored energy
	24DC = 24VDC, stored energy
ROPX	**MCI** = side by side and below (700 mm)
	MCIS = side by side only (400 mm)
ST	**440ACT** = 380-440VAC, screw terminal
	250ACDCT = 200-240VAC/250VDC, screw terminal
	24ACDCT = 24VAC/DC, Screw Terminal
TC	**1P** = 1 pole
	3P = 3 pole
	4P = 4 pole
UV	**440ACV** = 380-440VAC, screw terminal
	240ACV = 208-240VAC, screw terminal
	24ACV = 24VAC, screw terminal
	18DCW = 18VDC, pigtail 3.0 m
WDR	**3P630A** = 3 pole, 630 A
	4P630A = 4 pole, 630 A
	3P1000A = 3 pole, 1000 A
	4P1000A = 4 pole, 1000 A

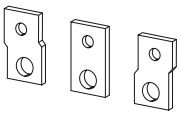
Power Defense molded case circuit-breaker catalog number key





Adapter plate

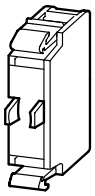
zg_PDC3XLZM3ADP3P



Specification	Frame	Type Designation	Article No.
Adapter plate (Conversion kit)	3	PDC3XLZM3ADP3P	PDC710369
Adapter plate (Conversion kit)	3	PDC3XLZM3ADP4P	PDC710457
Adapter plate (Conversion kit)	4	PDC4XLZM4ADP3P	PDC710464
Adapter plate (Conversion kit)	4	PDC4XLZM4ADP4P	PDC710465

Aux/Alarm

00044385_0



Specification	Frame	Type Designation	Article No.
Aux/Alarm	1, 2, 3, 4, 9	PDGXXA[1]	185150
Aux/Alarm	1, 2, 3, 4, 9	PDGXXB[1]	185149
IP Pocket Barrier Aux/Alarm	1, 2, 3, 4, 9	PDGXNN[1]	185154

[1] (not applicable for right pocket side of PXR breaker)

Bell alarm

sg02720_l

Specification	Frame	Type Designation	Article No.
Bell alarm of PDE PXR	2, 9	PDG2XALMBC	PDC710009
Bell alarm of PDE PXR	2, 9	PDG2XALMEC	PDC710010

Only for the left pocket of the PXR breaker

Box terminal

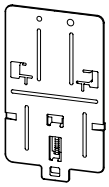
sg00520

Specification	Frame	Type Designation	Article No.
Box Terminal	1	PDC1X3T160	PDC710395
Box Terminal	1	PDC1X4T160	PDC710396
Box Terminal	2	PDC2X3T160	PDE710018
Box Terminal	2	PDC2X4T160	PDE710019
Box Terminal	2	PDC2X3T250	PDE710020
Box Terminal	2	PDC2X4T250	PDE710021
Box Terminal	9	PDC9X3T100 *	PDC719200
Box Terminal	9	PDC9X4T100 *	PDC719201
Box Terminal	3	PDC3X3T630	PDC710398
Box Terminal	3	PDC3X4T630	PDC710397

* This assortment will be available soon

DIN rail

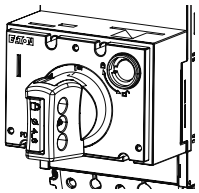
zg_PDC1XDIN35



Specification	Frame	Type Designation	Article No.
DIN Rail	1	PDC1XDIN35	PDE710008
DIN Rail	2, 9	PDG2XDIN75	PDC710394

Direct Rotary Handle

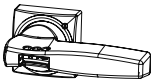
zg_PDC1XHMCS



Specification	Frame	Type Designation	Article No.
Direct Rotary Handle	1	PDC1XHMCS	PDC710257
Direct Rotary Handle	1	PDC1XHMCE	PDC710258
Direct Rotary Handle	1	PDC1XHMCSN	PDC710259
Direct Rotary Handle	1	PDC1XHMCEN	PDC710260
Direct Rotary Handle	1	PDC1XHMCSP	PDC710261
Direct Rotary Handle	1	PDC1XHMCEP	PDC710262
Direct Rotary Handle	1	PDC1XHMCSK	PDC710263
Direct Rotary Handle	1	PDC1XHMCEK	PDC710264
Direct Rotary Handle	1	PDC1XHMCSNP	PDC710265
Direct Rotary Handle	1	PDC1XHMCENP	PDC710266
Direct Rotary Handle	1	PDC1XHMCSNK	PDC710267
Direct Rotary Handle	1	PDC1XHMCENK	PDC710268
Direct Rotary Handle	2, 9	PDG2XHMCS	PDC710275
Direct Rotary Handle	2, 9	PDG2XHMCE	PDC710276
Direct Rotary Handle	2, 9	PDG2XHMCSN	PDC710277
Direct Rotary Handle	2, 9	PDG2XHMCEN	PDC710278
Direct Rotary Handle	2, 9	PDG2XHMCSP	PDC710279
Direct Rotary Handle	2, 9	PDG2XHMCEP	PDC710280
Direct Rotary Handle	2, 9	PDG2XHMCSK	PDC710281
Direct Rotary Handle	2, 9	PDG2XHMCEK	PDC710282
Direct Rotary Handle	2, 9	PDG2XHMCSNP	PDC710283
Direct Rotary Handle	2, 9	PDG2XHMCENP	PDC710284
Direct Rotary Handle	2, 9	PDG2XHMCSNK	PDC710285
Direct Rotary Handle	2, 9	PDG2XHMCENK	PDC710286
Direct Rotary Handle	3	PDG3XHMCS	PDC710293
Direct Rotary Handle	3	PDG3XHMCE	PDC710294
Direct Rotary Handle	3	PDG3XHMCSN	PDC710295
Direct Rotary Handle	3	PDG3XHMCEN	PDC710296
Direct Rotary Handle	3	PDG3XHMCSP	PDC710297
Direct Rotary Handle	3	PDG3XHMCEP	PDC710298
Direct Rotary Handle	3	PDG3XHMCSK	PDC710299
Direct Rotary Handle	3	PDG3XHMCEK	PDC710300
Direct Rotary Handle	3	PDG3XHMCSNP	PDC710301
Direct Rotary Handle	3	PDG3XHMCENP	PDC710302
Direct Rotary Handle	3	PDG3XHMCSNK	PDC710303
Direct Rotary Handle	3	PDG3XHMCENK	PDC710304
Direct Rotary Handle	4	PDG4XHMCS	PDC710311
Direct Rotary Handle	4	PDG4XHMCE	PDC710312
Direct Rotary Handle	4	PDG4XHMCSN	PDC710313
Direct Rotary Handle	4	PDG4XHMCEN	PDC710314
Direct Rotary Handle	4	PDG4XHMCSP	PDC710315
Direct Rotary Handle	4	PDG4XHMCEP	PDC710316
Direct Rotary Handle	4	PDG4XHMCSK	PDC710317
Direct Rotary Handle	4	PDG4XHMCEK	PDC710318
Direct Rotary Handle	4	PDG4XHMCSNP	PDC710319
Direct Rotary Handle	4	PDG4XHMCENP	PDC710320
Direct Rotary Handle	4	PDG4XHMCSNK	PDC710321
Direct Rotary Handle	4	PDG4XHMCENK	PDC710322

Door Rotary Handle (shaft not included)

zg_PDC1XHMDS



Specification	Frame	Type Designation	Article No.
Door Rotary Handle	1	PDC1XHMDS	PDC710269
Door Rotary Handle	1	PDC1XHMDE	PDC710270
Door Rotary Handle	1	PDC1XHMDSP	PDC710271
Door Rotary Handle	1	PDC1XHMDEP	PDC710272
Door Rotary Handle	1	PDC1XHMDSK	PDC710273
Door Rotary Handle	1	PDC1XHMDEK	PDC710274
Door Rotary Handle	2, 9	PDG2XHMDS	PDC710287
Door Rotary Handle	2, 9	PDG2XHMDE	PDC710288
Door Rotary Handle	2, 9	PDG2XHMDSP	PDC710289
Door Rotary Handle	2, 9	PDG2XHMDEP	PDC710290
Door Rotary Handle	2, 9	PDG2XHMDSK	PDC710291
Door Rotary Handle	2, 9	PDG2XHMDEK	PDC710292
Door Rotary Handle	3	PDG3XHMDS	PDC710305
Door Rotary Handle	3	PDG3XHMDE	PDC710306
Door Rotary Handle	3	PDG3XHMDSP	PDC710307
Door Rotary Handle	3	PDG3XHMDEP	PDC710308
Door Rotary Handle	3	PDG3XHMDSK	PDC710309
Door Rotary Handle	3	PDG3XHMDEK	PDC710310
Door Rotary Handle	4	PDG4XHMDS	PDC710323
Door Rotary Handle	4	PDG4XHMDE	PDC710324
Door Rotary Handle	4	PDG4XHMDSP	PDC710325
Door Rotary Handle	4	PDG4XHMDEP	PDC710326
Door Rotary Handle	4	PDG4XHMDSK	PDC710327
Door Rotary Handle	4	PDG4XHMDEK	PDC710328

Fingerprotection

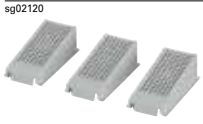
sg01720

Specification	Frame	Type Designation	Article No.
Fingerprotection	1	PDC1XFP3P	PDE710012
Fingerprotection	1	PDC1XFP4P	PDE710013
Fingerprotection	1	PDC1XFP1P	PDE710014
Fingerprotection	2	PDC2XFP3P *	PDC719202
Fingerprotection	2	PDC2XFP4P *	PDC719203
Fingerprotection	9	PDG2XFP3P *	PDC710331
Fingerprotection	9	PDG2XFP4P *	PDC710332
Fingerprotection	3	PDG3XFP3P	PDC710333
Fingerprotection	3	PDG3XFP4P	PDC710334

* This assortment will be available soon

Fingerprotection - Mesh Cover

sg02120

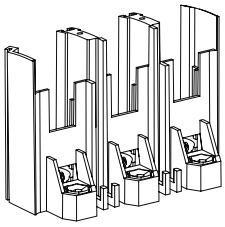


Specification	Frame	Type Designation	Article No.
Fingerprotection - Mesh Cover	1	PDC1XFPMC3P	PDE710015
Fingerprotection - Mesh Cover	1	PDC1XFPMC4P	PDE710016
Fingerprotection - Mesh Cover	1	PDC1XFPMC1P	PDE710017
Fingerprotection - Mesh Cover	2, 9	PDC2XFPMC3P *	PDC719400
Fingerprotection - Mesh Cover	2, 9	PDC2XFPMC4P *	PDC719401
Fingerprotection - Mesh Cover	3	PDG3XFPMC3P	PDC710498
Fingerprotection - Mesh Cover	3	PDG3XFPMC4P	PDC710499

* This assortment will be available soon

Frame Terminal Extension

zg_PDGXXA1

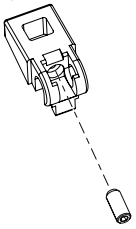


Specification	Frame	Type Designation	Article No.
Frame Terminal Extension	9	PDC9X3EHTS160	PDC719207
Frame Terminal Extension	9	PDC9X4EHTS160	PDC719208

This assortment will be available soon

Handle Block

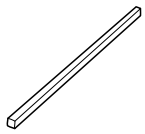
zg_PDG2XPHB



Specification	Frame	Type Designation	Article No.
Handle Block	1	PDC1XPHB	PDC710423
Handle Block	2, 9	PDG2XPHB	PDC710424
Handle Block	3	PDG3XPHB	PDC710425
Handle Block	4	PDG4XPHB	PDC710426

Handle Mechanical Shaft

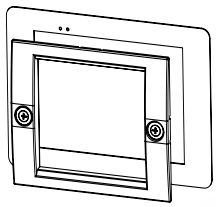
00095913_0



Specification	Frame	Type Designation	Article No.
Handle Mechanical Shaft	1, 2, 9	PDG12XHMS307	PDC710343
Handle Mechanical Shaft	1, 2, 9	PDG12XHMS507	PDC710344
Handle Mechanical Shaft	3,4	PDG34XHMS245	PDC710345
Handle Mechanical Shaft	3,4	PDG34XHMS445	PDC710346

Insulation Surround

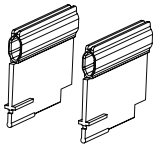
zg_pdc1_xipdb3p



Specification	Frame	Type Designation	Article No.
Insulation Surround	1	PDC1XIPDB3P	PDC710443
Insulation Surround	2, 9	PDC2XIPDB3P	PDC710444
Insulation Surround	3	PDC3XIPDB3P	PDC710445
Insulation Surround	4	PDC4XIPDB3P	PDC710446
Insulation Surround	1	PDC1XIPDB4P	PDC710447
Insulation Surround	2, 9	PDC2XIPDB4P	PDC710448
Insulation Surround	3	PDC3XIPDB4P	PDC710449
Insulation Surround	4	PDC4XIPDB4P	PDC710450
Insulation Surround	1	PDC1XIPDBRH	PDC710451
Insulation Surround	2, 9	PDC2XIPDBRH	PDC710452
Insulation Surround	1, 2	PDC12XIPDBRO	PDC710453
Insulation Surround	3	PDC3XIPDBRORH	PDC710454
Insulation Surround	4	PDC4XIPDBRORH	PDC710455

Interphase barriers

zg_PDG1XIBI2



Specification	Frame	Type Designation	Article No.
Interphase Barriers	1	PDC1XIB3P	PDC710359
Interphase Barriers	1	PDC1XIB4P	PDC710360
Interphase Barriers	2	PDC2XIB3P *	PDC710361
Interphase Barriers	2	PDC2XIB4P *	PDC710362
Interphase Barriers	2	PDG2XIB3P	PDC710363
Interphase Barriers	2	PDG2XIB4P	PDC710364
Interphase Barriers	3	PDG3XIB3P	PDC710365
Interphase Barriers	3	PDG3XIB4P	PDC710366
Interphase Barriers	4	PDG4XIB3P *	PDC710367
Interphase Barriers	4	PDG4XIB4P *	PDC710368

* This assortment can be ordered starting in Q4/2020

Interphase barriers for side by side mounting

Specification	Frame	Type Designation	Article No.
Interphase Barriers	1	PDC1XIB	PDC710468
Interphase Barriers	2	PDC2XIB *	PDC719215

* This assortment will be available soon

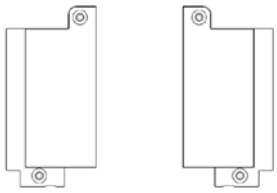
Interphase Barriers (not usable for side by side mounting)

Specification	Frame	Type Designation	Article No.
Interphase Barriers	2	PDG2XIB *	PDC710808
Interphase Barriers	3	PDG3XIB	PDC710469
Interphase Barriers	4	PDG4XIB *	PDC710810

* This assortment will be available soon

IP Pocket Barrier, Trip Accessory Side

zg_PDG2XIPPB

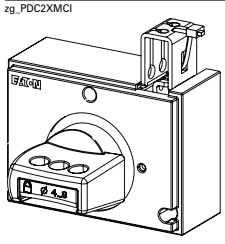


Specification	Frame	Type Designation	Article No.
IP Pocket Barrier, Trip Accessory Side	2, 9	PDG2XIPPB	PDC719468
IP Pocket Barrier, Trip Accessory Side	3	PDG3XIPPB	PDC719469
IP Pocket Barrier, Trip Accessory Side	4	PDG4XIPPB *	PDC719470

* This assortment will be available soon

Mech interlock

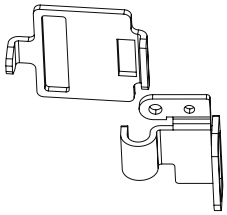
zg_PDC2XMCI



Specification	Frame	Type Designation	Article No.
Mech interlock	1	PDC1XMCI	PDC710460
Mech interlock	2	PDC2XMCI	PDC710461
Mech interlock	3	PDC3XMCI	PDC710462
Mech interlock	4	PDC4XMCI	PDC710463

Padlock Hasp

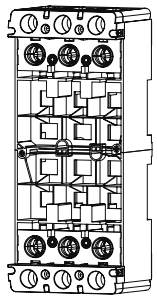
zg_PDC1XPLKTOFF



Specification	Frame	Type Designation	Article No.
Padlock Hasp	1	PDC1XPLKTOFF	PDC710428
Padlock Hasp	2, 9	PDG2XPLKLOFF	PDC710430
Padlock Hasp	2, 9	PDG2XPLKROFF	PDC710431
Padlock Hasp	2, 9	PDG2XPLKTOFF	PDC710433
Padlock Hasp	3	PDG3XPLKTOFF	PDC710436
Padlock Hasp	4	PDG4XPLKTOFF	PDC710438

Plug In Base Only

zg_PDC1XPIBB3P160A



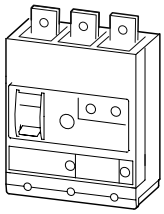
Specification	Frame	Type Designation	Article No.
Plug In Base Only	1	PDC1XPIBB3P160A	PDC710470
Plug In Base Only	1	PDC1XPIBB4P160A	PDC710471
Plug In Base Only	2	PDC2XPIBB3P250A	PDC710476
Plug In Base Only	2	PDC2XPIBB4P250A	PDC710477
Plug In Base Only	9	PDC9XPIBB3P160A	PDC710474
Plug In Base Only	9	PDC9XPIBB4P160A	PDC710475
Plug In Base Only	3	PDC3XPIBB3P630A	PDC710480
Plug In Base Only	3	PDC3XPIBB4P630A	PDC710481

Plug In Breaker Parts Kit

Specification	Frame	Type Designation	Article No.
Plug In Breaker Parts Kit	1	PDC1XPIBK3P160A	PDC710484
Plug In Breaker Parts Kit	1	PDC1XPIBK4P160A	PDC710485
Plug In Breaker Parts Kit	2	PDC2XPIBK3P250A	PDC710490
Plug In Breaker Parts Kit	2	PDC2XPIBK4P250A	PDC710491
Plug In Breaker Parts Kit	9	PDC9XPIBK3P160A	PDC710488
Plug In Breaker Parts Kit	9	PDC9XPIBK4P160A	PDC710489
Plug In Breaker Parts Kit	3	PDC3XPIBK3P630A	PDC710494
Plug In Breaker Parts Kit	3	PDC3XPIBK4P630A	PDC710495

RCD

zg_PDE1XRCD3P100F030

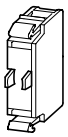


Specification	Frame	Type Designation	Article No.
RCD	1	PDE1XRCD3P100F030	PDE710026
RCD	1	PDE1XRCD3P100F300	PDE710027
RCD	1	PDE1XRCD3P100	PDE710028
RCD	1	PDE1XRCD4P100F030	PDE710029
RCD	1	PDE1XRCD4P100F300	PDE710030
RCD	1	PDE1XRCD4P100	PDE710031
RCD	1	PDE1XRCD3P160F030S	PDE710032
RCD	1	PDE1XRCD3P160F300S	PDE710033
RCD	1	PDE1XRCD3P160S	PDE710034
RCD	1	PDE1XRCD4P160F030S	PDE710035
RCD	1	PDE1XRCD4P160F300S	PDE710036
RCD	1	PDE1XRCD4P160S	PDE710037
RCD	2	PDE2XRCD3P250 *	PDC719001
RCD	2	PDE2XRCD4P250 *	PDC719002
RCD	3	PDE3XRCD3P630 *	PDC719005
RCD	3	PDE3XRCD4P630 *	PDC719006

* This assortment will be available soon

RCD - auxillary contact only for frame size 1

zg_M22-K10



Specification	Frame	Type Designation	Article No.
RCD - auxillary contact only for frame size 1	1	M22-K10	216376
RCD - auxillary contact only for frame size 1	1	M22-K01	216378

Rear Connection

sg01420

Specification	Frame	Type Designation	Article No.
Rear Connection	1	PDC1X3T160RC	PDE710006
Rear Connection	1	PDC1X4T160RC	PDE710007
Rear Connection w/ Extended Housing	2, 9	PDC2X3T250RC	PDE710024
Rear Connection w/ Extended Housing	2, 9	PDC2X4T250RC	PDE710025
Rear Connection	3	PDC3X3T630RC	PDC710400
Rear Connection	3	PDC3X4T630RC	PDC710399
Rear Connection	4	PDC4X3T1000RC *	PDC710401
Rear Connection	4	PDC4X4T1000RC *	PDC710402

* This assortment will be available soon

Remote operator

Specification	Frame	Type Designation	Article No.
Remote operator	1	PDE1XROP240AC	PDC719017
Remote operator	1	PDE1XROP440AC	PDC719018
Remote operator	1	PDE1XROP24DC	PDC719019
Remote operator	2	PDE2XROP240AC	PDC719027
Remote operator	2	PDE2XROP440AC	PDC719028
Remote operator	2	PDE2XROP24DC	PDC719029
Remote operator	3	PDE3XROP240AC	PDC719037
Remote operator	3	PDE3XROP440AC	PDC719038
Remote operator	3	PDE3XROP24DC	PDC719039
Remote operator	4	PDE4XROP240AC	PDC719047
Remote operator	4	PDE4XROP440AC	PDC719048
Remote operator	4	PDE4XROP24DC	PDC719049
Remote operator for TMTU breaker only	2	PDE2XROPT240AC	PDC719421
Remote operator for TMTU breaker only	2	PDE2XROPT440AC	PDC719422
Remote operator for TMTU breaker only	2	PDE2XROPT24DC	PDC719423

This assortment will be available soon

Mechanical interlock for remote operator

Specification	Frame	Type Designation	Article No.
Mechanical interlock for remote operator	1	PDC1XROPXMCIS	PDC719056
Mechanical interlock for remote operator	2	PDG2XROPXMCIS	PDC719057
Mechanical interlock for remote operator	3	PDG3XROPXMCIS	PDC719058
Mechanical interlock for remote operator	4	PDG4XROPXMCIS	PDC719059
Mechanical interlock for remote operator	1	PDC1XROPXMCI	PDC719060
Mechanical interlock for remote operator	2	PDG2XROPXMCI	PDC719061
Mechanical interlock for remote operator	3	PDG3XROPXMCI	PDC719062
Mechanical interlock for remote operator	4	PDG4XROPXMCI	PDC719063

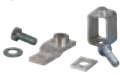
This assortment will be available soon

Screw terminal

sg01120

Specification	Frame	Type Designation	Article No.
Screw Terminal (terminal cover needed)	1	PDC1X3TS160	PDE710001
Screw Terminal (terminal cover needed)	1	PDC1X4TS160	PDE710002
Screw Terminal (terminal cover needed)	1	PDC1X1TS125	PDE710003
Screw Terminal	9	PDC9X3TS160 *	PDC719209
Screw Terminal	9	PDC9X4TS160 *	PDC719210

sg01220

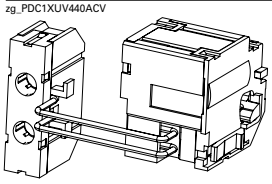


Screw Terminal	2	PDC2X3TS250 *	PDC719307
Screw Terminal	2	PDC2X4TS250 *	PDC719308
Screw Terminal	3	PDC3X3TS630	PDC710406
Screw Terminal	3	PDC3X4TS630	PDC710405
Screw Terminal	4	PDC4X3TS1000	PDC710407
Screw Terminal	4	PDC4X4TS1000	PDC710408

* This assortment will be available soon

Shunt release

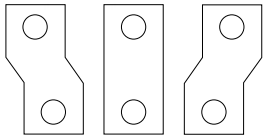
zg_PDC1XUV440ACV



Specification	Frame	Type Designation	Article No.
Shunt Release	1	PDC1XST440ACT	PDC710173
Shunt Release	1	PDC1XST250ACDCT	PDC710185
Shunt Release	1	PDC1XST24ACDCT	PDC710209
Shunt Release	2, 9	PDG2XST440ACT	PDC710174
Shunt Release	2, 9	PDG2XST250ACDCT	PDC710186
Shunt Release	2	PDG2XST24ACDCT	PDC710210
Shunt Release	3	PDG3XST440ACT	PDC710175
Shunt Release	3	PDG3XST250ACDCT	PDC710187
Shunt Release	3	PDG3XST24ACDCT	PDC710211
Shunt Release	4	PDG4XST440ACT	PDC710176
Shunt Release	4	PDG4XST250ACDCT	PDC710188
Shunt Release	4	PDG4XST24ACDCT	PDC710212

Spreader

zg_PDC3X3TSP630



Specification	Frame	Type Designation	Article No.
Spreader	3	PDC3X3TSP630	PDC710412
Spreader	3	PDC3X4TSP630	PDC710411
Spreader	4	PDC4X3TSP1000	PDC710414
Spreader	4	PDC4X4TSP1000	PDC710413

Terminal cover

sg02520

Specification	Frame	Type Designation	Article No.
Terminal Cover	1	PDC1XTC3P	PDE710009
Terminal Cover	1	PDC1XTC4P	PDE710010
Terminal Cover	1	PDC1XTC1P	PDE710011
Terminal Cover	2	PDC2XTC3P	PDC719309
Terminal Cover	2	PDC2XTC4P	PDC719310
Terminal Cover	9	PDG2XTC3P	PDC710337
Terminal Cover	9	PDG2XTC4P	PDC710338
Terminal Cover	3	PDG3XTC3P	PDC710339
Terminal Cover	3	PDG3XTC4P	PDC710340

Tunnel Control Wire

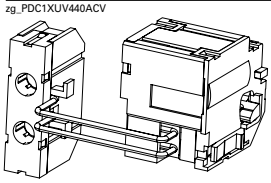
sg00320

Specification	Frame	Type Designation	Article No.
Tunnel Control Wire	1	PDC1X3TA160CW	PDE710004
Tunnel Control Wire	1	PDC1X4TA160CW	PDE710005
Tunnel Control Wire	2	PDC2X3TA250CW	PDE710022
Tunnel Control Wire	2	PDC2X4TA250CW	PDE710023
Tunnel Control Wire	3	PDG3X3TA630CW	PDC710348
Tunnel Control Wire	3	PDG3X4TA630CW	PDC710349
Tunnel Control Wire	4	PDG4X3TA800CW	PDC710811
Tunnel Control Wire	4	PDG4X4TA800CW	PDC710812

This assortment will be available soon

Undervoltage release

zg_PDC1XUV440ACV

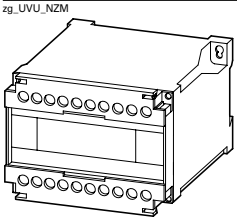


Specification	Frame	Type Designation	Article No.
Undervoltage Release	1	PDC1XUV440ACV	PDC710032
Undervoltage Release	1	PDC1XUV240ACV	PDC710044
Undervoltage Release	1	PDC1XUV24ACV	PDC710068
Undervoltage Release	1	PDC1XUV24DCV	PDC710128
Undervoltage Release	2, 9	PDG2XUV440ACV	PDC710033
Undervoltage Release	2, 9	PDG2XUV240ACV	PDC710045
Undervoltage Release	2, 9	PDG2XUV24ACV	PDC710069
Undervoltage Release	2, 9	PDG2XUV24DCV	PDC710129
Undervoltage Release	3	PDG3XUV440ACV	PDC710034
Undervoltage Release	3	PDG3XUV240ACV	PDC710046
Undervoltage Release	3	PDG3XUV24ACV	PDC710070
Undervoltage Release	3	PDG3XUV24DCV	PDC710130
Undervoltage Release	4	PDG4XUV440ACV	PDC710035
Undervoltage Release	4	PDG4XUV240ACV	PDC710047
Undervoltage Release	4	PDG4XUV24ACV	PDC710071
Undervoltage Release	4	PDG4XUV24DCV	PDC710131
Undervoltage Release	1	PDC1XUV18DCW *	PDC710355
Undervoltage Release	2, 9	PDG2XUV18DCW *	PDC710356
Undervoltage Release	3	PDG3XUV18DCW *	PDC710357
Undervoltage Release	4	PDG4XUV18DCW *	PDC710358

* Only for combination with UVU

UVU-NZM

zg_UVU_NZM



Specification	Frame	Type Designation	Article No.
UVU-NZM		UVU-NZM	260154

Withdrawal Unit

Specification	Frame	Type Designation	Article No.
Withdrawal Unit	3	PDG3XWDR3P630A	PDC719220
Withdrawal Unit	3	PDG3XWDR4P630A	PDC719221
Withdrawal Unit	4	PDC4XWDR3P1000A	PDC719222
Withdrawal Unit	4	PDC4XWDR4P1000A	PDC719223

This assortment will be available soon

Notes

Eaton's mission is to improve the quality of life and the environment through the use of power management technologies and services. We provide sustainable solutions that help our customers effectively manage electrical, hydraulic, and mechanical power – more safely, more efficiently, and more reliably. Eaton's 2020 revenues were $17.9 billion, and we sell products to customers in more than 175 countries. We have approximately 92,000 employees.

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