
PRODUCT GUIDE

ReliaGear™ RD lighting panelboards

Enabling energy management and condition monitoring for optimized performance



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Enabling energy management and condition monitoring for optimized performance

ReliaGear™ RD lighting panelboards (RD) efficiently and safely distribute energy from the power source to the lighting branch circuits of your commercial, light industrial, or advanced heavy-duty applications up to 600A.

RD's versatile and flexible design includes SACE® Tmax® XT4, XT5 circuit breakers as mains, FB circuit breakers as branch CBs and advanced Tmax® XT2 Ekip Dip or Ekip Hi-Touch or standard thermal magnetic as branch / sub-feed breakers.

Tmax XT2 Ekip Hi-Touch trip units help protecting your critical assets against destructive overloads or short circuits. Plus, they can be synchronized with ABB Ability™ Energy and Asset Manager software, enabling smart energy management and condition monitoring for optimized performance. The user can access a wealth of information through a tablet or smartphone from anywhere, anytime.



ReliaGear™ RD lighting panelboards

Experiencing reliable and smart circuit protection is just a touch away



Advanced technologies

Almost a century of research and experience results in highly reliable, top-level products that are ready to face all future challenges. High quality, smart protection capabilities, ease of installation, and durability are some of the features that make the ReliaGear RD lighting panelboard a smart choice.



Smart circuit monitoring

Being connected is a key feature of today's technology. The ReliaGear RD lighting panelboards together with advanced SACE® Tmax® XT and smart XT2 Ekip Hi-Touch circuit breakers offer more than just standalone lighting protection. RD lighting panelboards give you the ability to monitor and manage a wealth of information easily, wherever you are.



Xtreme flexibility

Complex applications might require unique sets of configurations. The ability to choose from thousands of configurations gives our customers more design flexibility resulting in a competitive yet required advantage. Optional features such as surge protection and main or branch circuit metering add the extra layer of protection and control that you rely on.



Space optimization

Space optimization is key for most customers. RD lighting panelboards' enclosure dimensions were reduced from 30 to 20 inches. This means 33% reduction in footprint freeing space for either install more panelboards in a designated area or use for other purposes.



Continuous operation

Flexibility is nothing without performance. The RD lighting panelboard is able to deal with extreme breaking capacities. This functionality, combined with the most precise electronic trip units in the smallest of frames, help ensures continuity of service and equipment protection at all times.



Easy to install even in complex applications

Ease of installation is equal to savings in labor costs. The RD lighting panelboards' nature enables to complete more projects in less time. For instance, only four mounting screws are required to mount the interior, and the extruded split neutrals and NEMA enclosures offer ample gutter space to simplify wiring.

Choosing the right features

The ReliaGear RD lighting panelboards are available with multiple options.

ReliaGear RD lighting panelboards are factory assembled on rigid steel frames and equipped with circuit breakers from 15 A to 600 A. The maximum short circuit rating is equal to 42 kAIC at 600Y/347 V AC and 42 kAIC 480/277 V AC.



System voltages

• Domestic

- 480 V AC; 3-phase, 3-wire
- 208Y/120 V AC; 3-phase, 4-wire
- 480Y/277 V AC; 3-phase, 4-wire
- 600Y/347 V AC; 3-phase, 4-wire

• International

- 380 V AC, 3-phase, 3-wire
- 400 V AC, 3-phase, 3-wire
- 415 V AC, 3-phase, 3-wire
- 220Y/127 V AC, 3-phase, 4-wire
- 230Y/127 V AC, 3-phase, 4-wire
- 380Y/220 V AC, 3-phase, 4-wire
- 400Y/231V AC, 3-phase, 4-wire
- 415Y/240V AC, 3-phase, 4-wire

Feed location

Top or bottom

Incoming type

Main lug only (MLO), main circuit breaker (MCB vertically mounted only) and with feed-through lugs or sub-feed breakers

Busbar ratings

125 A, 225 A, 250 A, 400 A, 600 A

Busbar material

Bare, silver-plated or tin-plated copper, tin-plated aluminum, heat-rated or density-rated

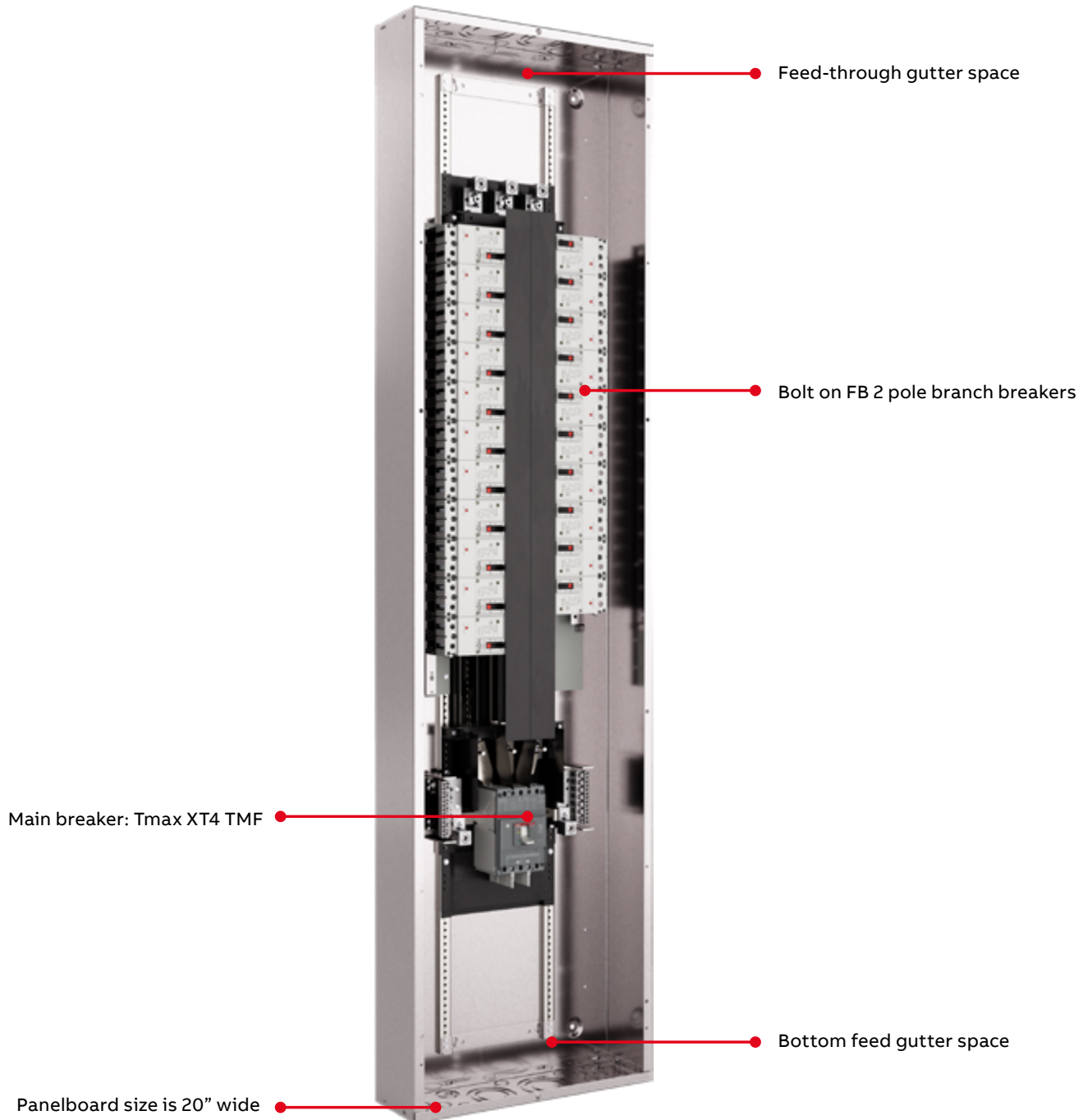
Available environmental enclosure types

- NEMA 1 • NEMA 3R • NEMA 4/4X • NEMA 12

Choosing the right features

Product specifications

Example of panelboard configuration



SACE® Tmax® Molded Case Circuit Breakers

There's more to the SACE Tmax XT than circuit breaking

Main circuit breakers

SACE Tmax XT is a cutting-edge molded case circuit breaker range delivering a brand new product experience. With extreme performance and protection features up to 600A, the Tmax XT maximizes ease of use, integration and connectivity and is built to deliver safety, reliability and quality.



Main circuit breakers

		Tmax XT4	Tmax XT5
Frame size	(A)	250	400 and 600
Poles		3 ⁽²⁾	3 ⁽²⁾
Amperage	(A)	25–250	
Trip units		Thermal magnetic fixed (TMF) Ekip Dip LSI	Thermal magnetic adjustable (TMA) Ekip Dip LSI
Max rated voltage	(V)		
Max. interrupting rating (kA)	240 V AC	200	200
	240 V AC	100	65
	600Y/347V	65	65
	600V	65	65

⁽¹⁾ The panel is limited to 42kAIC at 240V, 480 and 600V.

⁽²⁾ 3 pole can be used in 2 pole applications

SACE® Tmax® Molded Case Circuit Breakers

When it comes to accurate protection, you cannot go wrong with Ekip Dip and Hi-Touch technology

Sub-feed circuit breakers

Tmax XT2 thermal magnetic, Ekip Dip and Ekip Touch/Hi-Touch branch breakers are compact yet powerful circuit breakers capable of handling the most complex tasks and assignments. The frame size is 125A with a range of amperage from 15-125A. They include thermal magnetic and advanced Ekip Dip and Ekip Touch/Hi-Touch trip units. The RD lighting panelboard is limited to 42kAIC at 240V, 480V and 600V, plus available embedded logic and communications are available with the Tmax XT2 Ekip Touch/Hi-Touch.

Branch circuit breakers

FB thermal magnetic circuit breakers are available in 1-, 2- and 3-pole constructions. The frame size is 100A with a range of amperage from 15 to 100A and interrupting ratings from 22 to 42kA at 600Y/347V AC.

Tmax XT2 Ekip Touch/Hi-Touch key features

- Advanced functionality with voltage protection and frequency protection.
- Current measurement and protection
- Safer operation, faster and easier commissioning with embedded features such as smartphone via Bluetooth® wireless technology**, Modbus, Profibus, and DeviceNet™ protocols as well as Modbus TCP, Profinet and EtherNet/IP™ for communications.
- Branch breakers can communicate with ABB ability™ Energy Management software
- Adaptive protection, data network logger, network analyzer
- Front display with an LCD screen to interface with breaker.
- Measurements (voltage, energy, power) as standard and 0.1% accuracy of energy and power readings.



FB Branch and XT2 sub-feed circuit breakers

		FB	Tmax XT2
Frame size	(A)	100	125
Poles		1, 2, 3	3
Amperage	(A)	15-100A	15-125A
Trip units		TMF	TMF Ekip Dip Ekip Touch/Hi-Touch
Max rated voltage	240 480	220A double branch	220A double branch
Max. interrupting rating (kA)	240 480 600Y/347V 600V	200 150 42 N/A	(XT2L) 150 (XT2V) 42 (XT2V) 42 (XT2V)

¹The panel is limited to 42kAIC at 240V, 480 and 600V.

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