PRODUCT GUIDE

ReliaGear™ RD lighting panelboards
Enabling energy management and condition monitoring for optimized performance
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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.

ReliaGear RD lighting panelboards offer all the great features and reliable performance as the standard ReliaGear lighting panelboards. RD’s versatile and flexible design includes SACE® Tmax® XT circuit breakers as mains and advanced Tmax® XT2 Ekip Dip or Ekip Hi-Touch or standard thermal magnetic as branch 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.

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.

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.

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.

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.

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 with busbar options up to 600A main lug. The maximum short circuit rating is equal to 42 kAIC at 600Y/347 V AC and 42 kAIC 480/277 V AC.

System voltages
- **United States and Canada**
  - 480 V AC, 3-phase, 3-wire
  - 600 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/231 V AC, 3-phase, 4-wire
  - 415Y/240 V 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

Optional features for XT2 Ekip Hi-Touch

- Tmax XT Ekip Hi-Touch branch breakers can communicate with ABB Ability™ Energy and Assets Manager software
- Advanced functionality with voltage protection and frequency protection.
- Adaptive protection, data network logger, network analyzer
- LCD screen to interface with breaker

Configuration A*

1. Main breaker: SACE® Tmax® XT5 Ekip Dip
2. FB 1 & 2 pole branch breakers
3. Tmax XT2 Hi-Touch 3 pole branch breakers
4. End walls with knockouts available as an option in NEMA 1 enclosures

Configuration B*

1. Incoming gutter space
2. Bolt on FB 2 pole branch breakers
3. Main breaker: Tmax XT4 TMF
4. Bottom feed
5. Panelboard size design reduces from 30” wide to 20” wide

*Samples of panelboard configurations.
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.

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<table>
<thead>
<tr>
<th>Main circuit breakers</th>
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</thead>
<tbody>
<tr>
<td><strong>Tmax XT4</strong></td>
</tr>
<tr>
<td>Frame size (A)</td>
</tr>
<tr>
<td>Poles</td>
</tr>
<tr>
<td>Amperage (A)</td>
</tr>
<tr>
<td>Trip units</td>
</tr>
<tr>
<td>Ekip Dip LSI</td>
</tr>
<tr>
<td>Max rated voltage (V)</td>
</tr>
<tr>
<td>480 V AC</td>
</tr>
<tr>
<td>600V/347V</td>
</tr>
<tr>
<td>600V</td>
</tr>
</tbody>
</table>

<sup>(1)</sup>The panel is limited to 42kAIC at 240V, 480 and 600V.
<sup>(2)</sup>3 pole can be used in 2 pole applications

Note: Tmax XT4 replaces SE, SF and FE, XT5 replaces SG and FG. FB replaces T(HED)
SACE® Tmax® Molded Case Circuit Breakers

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

Branch 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.

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, Profinbus, 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.

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Branch circuit breakers

<table>
<thead>
<tr>
<th>FORMULA FB</th>
<th>Tmax XT2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frame size</strong> (A)</td>
<td>100</td>
</tr>
<tr>
<td><strong>Poles</strong></td>
<td>1, 2</td>
</tr>
<tr>
<td><strong>Amperage</strong> (A)</td>
<td>15-100A</td>
</tr>
<tr>
<td><strong>Trip units</strong></td>
<td>TMF</td>
</tr>
<tr>
<td><strong>Max rated voltage</strong></td>
<td>240</td>
</tr>
<tr>
<td>480</td>
<td>220A double branch</td>
</tr>
<tr>
<td><strong>Max. interrupting rating (kA)</strong></td>
<td>240</td>
</tr>
<tr>
<td>480</td>
<td>150</td>
</tr>
<tr>
<td>600V/347V</td>
<td>42</td>
</tr>
<tr>
<td>600V</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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

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