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CATALOG

# ReliaGear® OEM lighting panelboards

Building smart, reliable and flexible solutions together





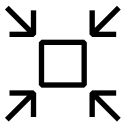
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# ReliaGear® OEM lighting panelboards

It's not only about delivering a product. It's about enabling solutions for your application.



## Space optimization

Designed for seamless integration into your custom solutions, ABB's compact design features a smaller footprint with shortened rails that significantly reduces the overall dimensions and increases the power density of your final solution.



## Tailored options

With both unassembled and pre-assembled options, ABB empowers you to explore ideal solutions crafted to your specific needs, taking you to the next level.

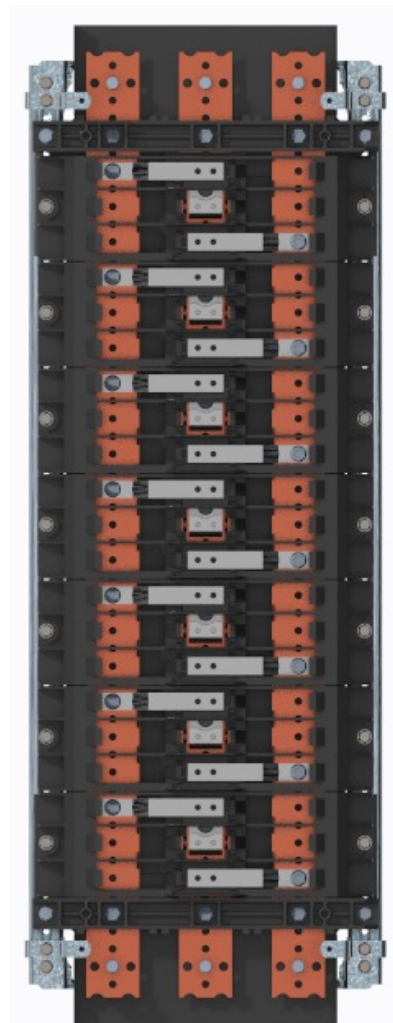
Enjoy a streamlined experience from product selection/configuration to order placement, and take advantage of ABB's comprehensive documentation, drawings and technical support.



## State of the art

Build smart, reliable and quality solutions using ReliaGear® products you can trust.

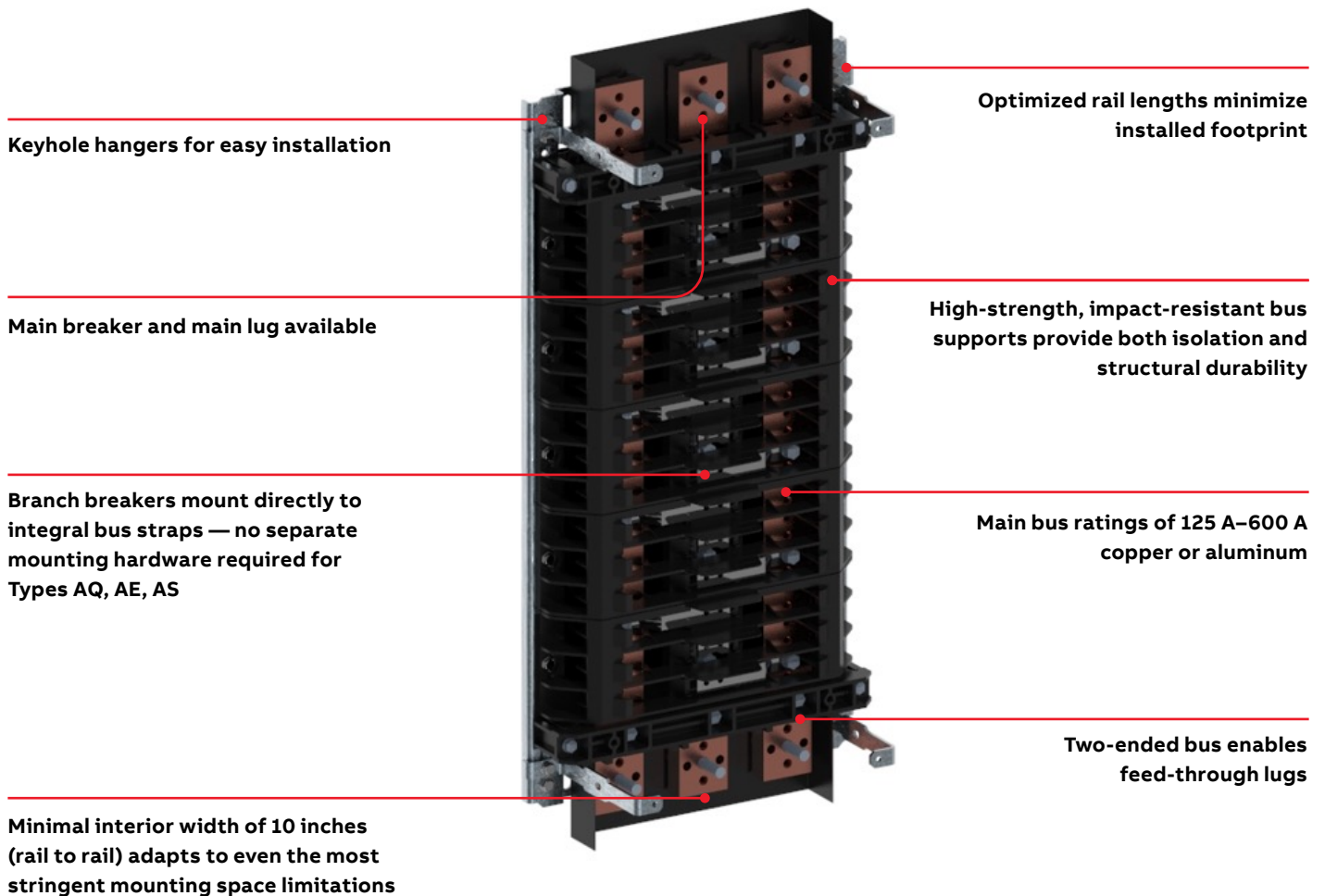
ABB's SACE Tmax® XT circuit breakers include adjustable trip settings, enhanced protection functionalities, embedded communication and Bluetooth® and cloud capabilities to access accurate information anywhere, any time.



When designing ReliaGear® OEM lighting panelboards, we not only thought about adding technical features that meet industry standards, but also about the way they contribute to the success of our OEM partners. That’s why we don’t skimp on investing in R&D, product development or modifying our process. The resulting future-proof solutions help you adapt to ever-evolving industry requirements and improve performance for your customers, all while growing your business.

ReliaGear® OEM lighting panelboards offer the compact size and flexibility you need to design and complement your solutions. Their performance and protection capabilities help you ensure continuity of service and protection of equipment.

ReliaGear® OEM lighting panelboards are well suited for commercial and light industrial applications to advanced heavy-duty applications.





# Product overview

ReliaGear® OEM lighting panelboards are assembled on rigid steel frames and feature branch circuit breakers from 15 A to 125 A. The maximum short circuit rating is equal to 65 kAIC at 240 V AC and 480/277 V AC.

ReliaGear® OEM lighting panelboards are available as Type L or Type M:

**Type L** — ReliaGear® OEM Type L panelboards feature interior construction only and do not include branch circuit breakers or neutral assembly.

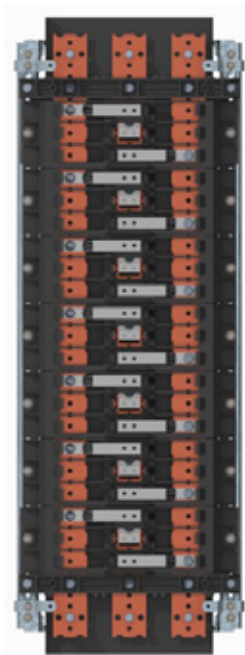
**Type M** — ReliaGear® OEM Type M panelboards include the interior with breakers, integrated neutral assembly and deadfront shield.

Both ReliaGear® OEM lighting panelboards Type L and Type M incorporate the best features you find in the ReliaGear® AQ, AL, AE and AS lighting panelboards from 125 A to 800 A.

Advanced FORMULA A2 and SACE Tmax® XT circuit breakers as mains and sub-feeds are in charge of protecting against destructive overloads or short circuits.

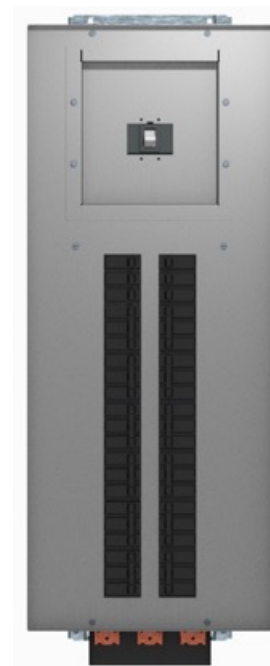
High-strength, impact-resistant bus supports provide both isolation and structural durability.

## Type L



AQL, 42 circuits, main lug

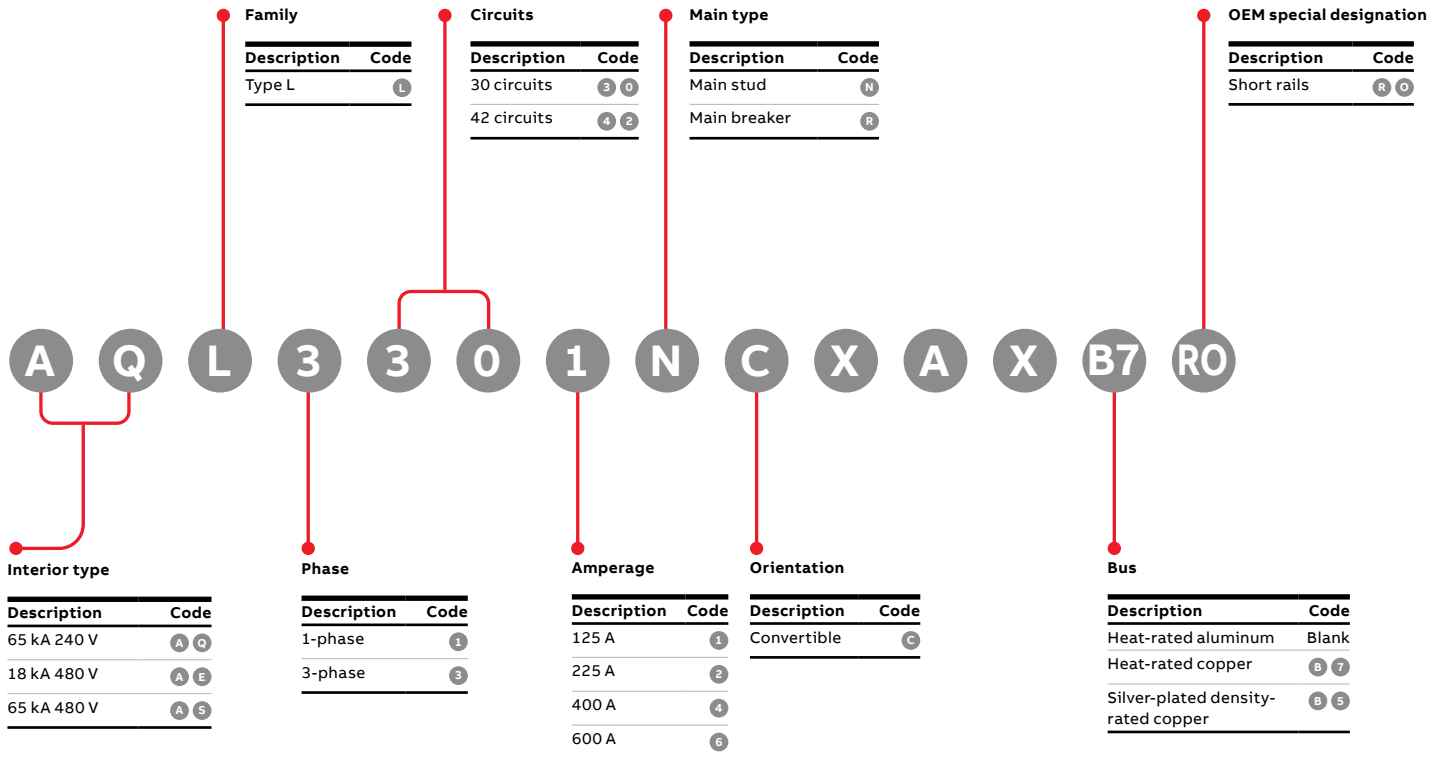
## Type M



AQM, 42 circuits, Tmax XT2 main breaker

# ReliaGear® OEM lighting panelboards

## Type L interior catalog number scheme



This information is provided for interpreting product codes. It should not be used to build an interior.

# ReliaGear® OEM lighting panelboards

## Type L

ReliaGear® OEM Type L provides the interior construction, which is the core component for any power distribution solution. This UL recognized interior is the perfect choice for OEMs who desire to incorporate ReliaGear® interiors in their electrical distribution equipment.

Originally designed for power conditioning equipment, Type L can be used anywhere mounting space is at a premium and wiring terminations will be made at the factory.

Type L interiors are furnished without a neutral or deadfront shield and do not include the enclosure or front. They are available from 125 A to 600 A in main stud, main lug and main breaker configurations. Developed with customer input, the new Type L shorter rail alternative provides a smaller footprint by shortening the side rails, thereby reducing the total height of the interior. This provides even more flexibility, allowing OEMs to optimize the final design/solution.

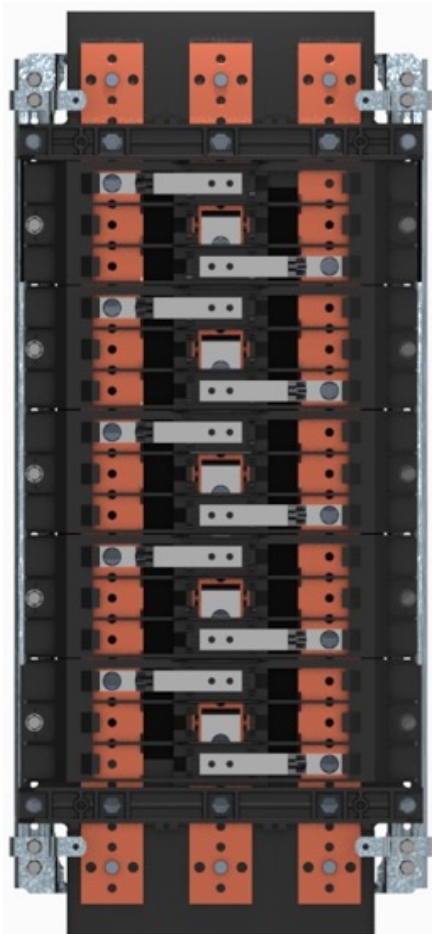
### Product overview

- Panel performance options: AQ/AE/AS\*
  - Single-phase and three-phase
  - 125 A, 225 A, 400 A, 600 A
  - SCCR: 65 kAIC at 240V AC, up to 65 kA at 480Y/277 V; for series rating, reference configuration in empower or DET-008
  - Main stud, main lug, main breaker
  - 30 or 42 circuits
  - Bus options: Heat-rated aluminum heat rated, heat-rated bare copper, silver-plated density-rated copper
  - Optional: Box-mounted neutral available
- \* 2-pole, 2-wire 125 V DC, 250 V DC

### Standards and certifications



- UL 489 molded case circuit breakers
- Unless noted otherwise in BuyLog, all circuit breakers and accessories are listed in UL file number E115



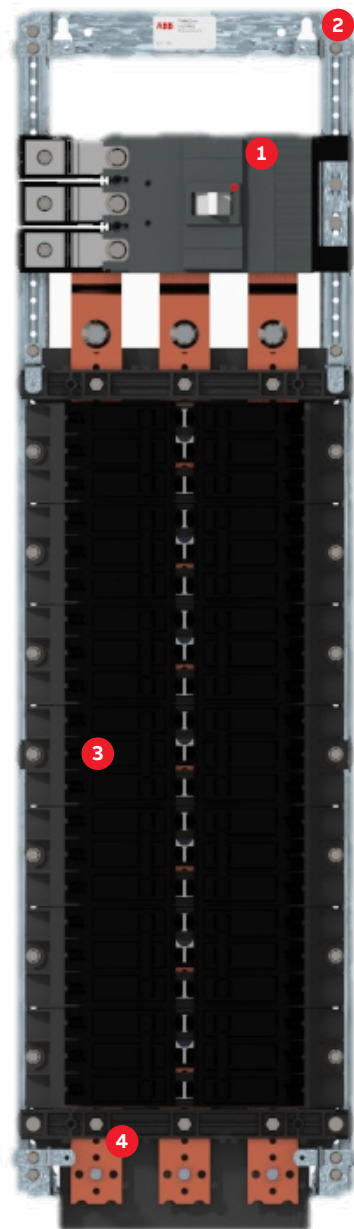


**AQ**

240 V max.  
1- or 3-phase  
125–800 A  
10–65 kAIC  
AQ: Bolt-on  
THQB breakers

—  
ReliaGear® AQL  
lighting panelboard

- ① Main breaker:  
Formula A2 (TMF)
- ② Optimized  
rail length
- ③ Bolt-on THQB  
branch breakers
- ④ Feed-through lug  
provision with  
two-ended bus



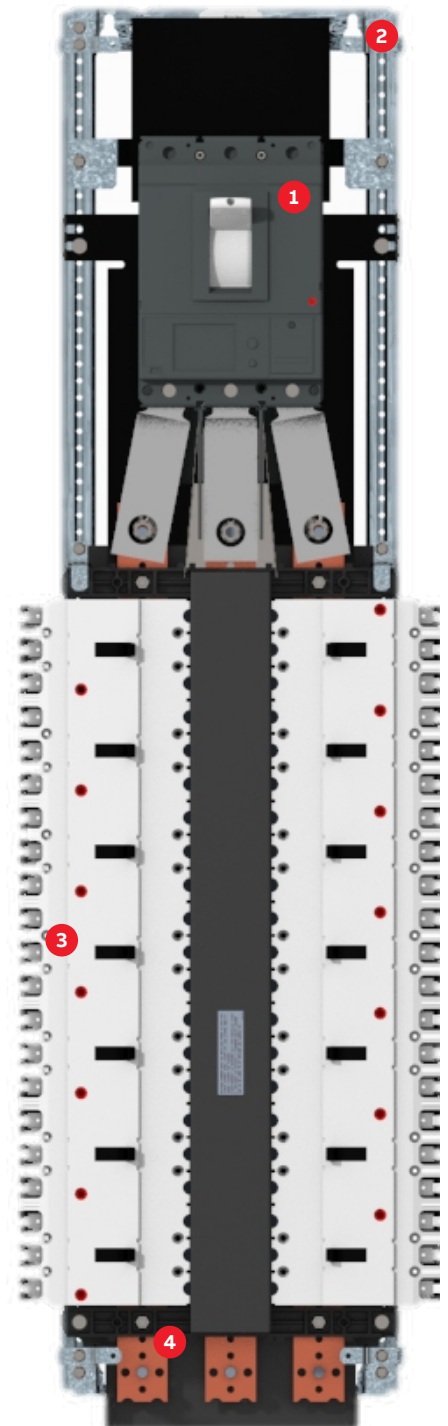
AQL, 42 circuits, FORMULA A2 main breaker

**AS**

480Y/277V max.  
3-phase  
125–600 A,  
100 kAIC at 240  
V; 65 kA at 480 V  
AS: Bolt-on  
TEY (F/D/H/L)  
breakers  
Main lugs  
125–600 A  
up to 250 V DC,  
main breaker  
125 A at 250 V DC

—  
ReliaGear® ASL  
lighting panelboard

- ① Main breaker:  
Tmax XT4,  
Tmax XT trip unit:  
thermal-mag  
fixed (TMF)
- ② Optimized  
rail length
- ③ Bolt-on TEYD/H/L
- ④ Feed-through lug  
provision with  
two-ended bus



ASL, 42 circuits, XT5 main breaker

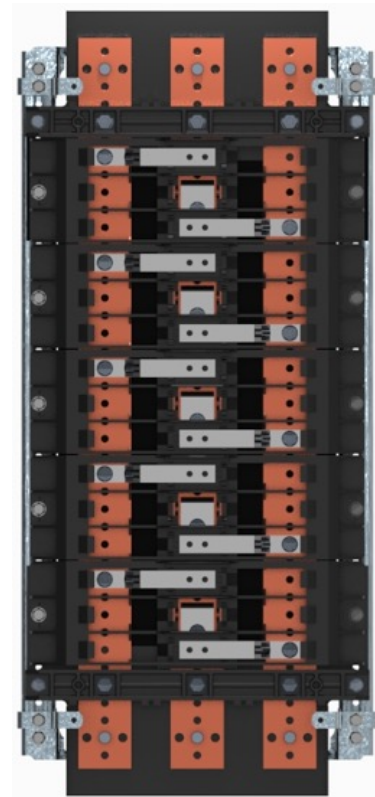
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## OEM selection

### Type L

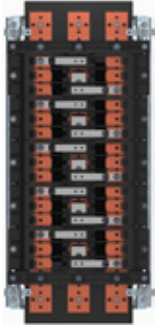
ReliaGear® OEM lighting panelboard interiors are designed for seamless integration into your custom solutions, offering a compact footprint. ABB has tools to support you in this journey. ReliaGear® components are catalog number driven, and ABB has configurators that help get you started.

- 1 Step 1**  
Select the interior by voltage, amperage, number of circuits, bus material and main configuration (lug or breaker).
- 2 Step 2**  
Select main breaker or main lug hardware kit, if required based upon interior selected.
- 3 Step 3**  
Select corresponding branch breakers.
- 4 Step 4**  
Select additional accessories (optional).
- 5 Step 5**  
After selections, visit [www.empower.com](http://www.empower.com) to place your order.
- 6 Step 6**  
Assemble your solutions and deliver value to your customers.



## Type L selection guide

### Step 1: Select interior



- 1 Select the interior by voltage, amperage, number of circuits, bus material and main configuration (lug or breaker).

AEL main lug interior

#### Interior selection

Voltage type	Rating (amps)	No. of circuits	Heat-rated aluminum		Heat-rated copper		
			Main lug Catalog number	Main breaker Catalog number	Main lug Catalog number	Main breaker Catalog number	
240 V AC, 1-phase	125 A	30	AQL1301NCXAXRO	AQL1301RCXAXRO	AQL1301NCXAXB7RO	AQL1301RCXAXB7RO	
		42	AQL1421NCXAXRO	AQL1421RCXAXRO	AQL1421NCXAXB7RO	AQL1421RCXAXB7RO	
	225 A	30	AQL1302NCXAXRO	AQL1302RCXAXRO	AQL1302NCXAXB7RO	AQL1302RCXAXB7RO	
		42	AQL1422NCXAXRO	AQL1422RCXAXRO	AQL1422NCXAXB7RO	AQL1422RCXAXB7RO	
	400 A	30	AQL1304NCXAXRO	AQL1304RCXAXRO	AQL1304NCXAXB7RO	AQL1304RCXAXB7RO	
		42	AQL1424NCXAXRO	AQL1424RCXAXRO	AQL1424NCXAXB7RO	AQL1424RCXAXB7RO	
240 V AC, 3-phase	125 A	30	AQL3301NCXAXRO	AQL3301RCXAXRO	AQL3301NCXAXB7RO	AQL3301RCXAXB7RO	
		42	AQL3421NCXAXRO	AQL3421RCXAXRO	AQL3421NCXAXB7RO	AQL3421RCXAXB7RO	
	225 A	30	AQL3302NCXAXRO	AQL3302RCXAXRO	AQL3302NCXAXB7RO	AQL3302RCXAXB7RO	
		42	AQL3422NCXAXRO	AQL3422RCXAXRO	AQL3422NCXAXB7RO	AQL3422RCXAXB7RO	
	400 A	30	AQL3304NCXAXRO	AQL3304RCXAXRO	AQL3304NCXAXB7RO	AQL3304RCXAXB7RO	
		42	AQL3424NCXAXRO	AQL3424RCXAXRO	AQL3424NCXAXB7RO	AQL3424RCXAXB7RO	
	600 A*	30	AQL3306NCXAXRO	–	AQL3306NCXAXB5RO	AQL3306RCXAXB5RO	
		42	AQL3426NCXAXRO	–	AQL3426NCXAXB5RO	AQL3426RCXAXB5RO	
	480Y/277 V AC, 3-phase, 18 kA	125 A	30	AEL3301NCXAXRO	AEL3301RCXAXRO	AEL3301NCXAXB7RO	AEL3301RCXAXB7RO
			42	AEL3421NCXAXRO	AEL3421RCXAXRO	AEL3421NCXAXB7RO	AEL3421RCXAXB7RO
225 A		30	AEL3302NCXAXRO	AEL3302RCXAXRO	AEL3302NCXAXB7RO	AEL3302RCXAXB7RO	
		42	AEL3422NCXAXRO	AEL3422RCXAXRO	AEL3422NCXAXB7RO	AEL3422RCXAXB7RO	
400 A		30	AEL3304NCXAXRO	AEL3304RCXAXRO	AEL3304NCXAXB7RO	AEL3304RCXAXB7RO	
		42	AEL3424NCXAXRO	AEL3424RCXAXRO	AEL3424NCXAXB7RO	AEL3424RCXAXB7RO	
600 A*		30	AEL3306NCXAXRO	–	AEL3306NCXAXB5RO	AEL3306RCXAXB5RO	
		42	AEL3426NCXAXRO	–	AEL3426NCXAXB5RO	AEL3426RCXAXB5RO	
480Y/277 V AC, 3-phase, 65 kA		125 A	30	ASL3301NCXAXRO	ASL3301RCXAXRO	ASL3301NCXAXB7RO	ASL3301RCXAXB7RO
			42	ASL3421NCXAXRO	ASL3421RCXAXRO	ASL3421NCXAXB7RO	ASL3421RCXAXB7RO
	225 A	30	ASL3302NCXAXRO	ASL3302RCXAXRO	ASL3302NCXAXB7RO	ASL3302RCXAXB7RO	
		42	ASL3422NCXAXRO	ASL3422RCXAXRO	ASL3422NCXAXB7RO	ASL3422RCXAXB7RO	
	400 A	30	ASL3304NCXAXRO	ASL3304RCXAXRO	ASL3304NCXAXB7RO	ASL3304RCXAXB7RO	
		42	ASL3424NCXAXRO	ASL3424RCXAXRO	ASL3424NCXAXB7RO	ASL3424RCXAXB7RO	
	600 A*	30	ASL3306NCXAXRO	–	ASL3306NCXAXB5RO	ASL3306RCXAXB5RO	
		42	ASL3426NCXAXRO	–	ASL3426NCXAXB5RO	ASL3426RCXAXB5RO	

\*600 A copper interiors supplied with silver-plated density-rated copper in lieu of heat-rated copper

## Type L selection guide

Step 2: Select line device type kit (main breaker or lugs)



Main breaker kit

- 2** Select main breaker hardware kit if required based on interior selected in Step 1.
- Amperage of main breaker strap kit must match amperage of interior.
  - Main breaker strap kits are not furnished with circuit breakers. Required breaker must be ordered separately.

### Main breaker kits

Amperage	Breaker type	No. of poles	Description	Catalog number
125 A	XT1	2	XT1 2-pole strap kit	MBC12
		3	XT1 3-pole strap kit	MBC33
225 A	A2	2	A2 2-pole strap kit	MBA12
		3	A2 3-pole strap kit	MBA13
	XT4	2	XT4 2-pole strap kit	MBB12
		3	XT4 3-pole strap kit	MBB33
400 A	XT5	2	XT5 2-pole strap kit	MBM324
		3	XT5 3-pole strap kit	MBM334
600 A	XT5	2	XT5 600 A 2-pole strap kit	MBM326
		3	XT5 600 A 3-pole strap kit	MBM336



Main lug kit

Select lug kit(s) for main lug application if required based on interior selection in Step 1. Kits applicable to feed-through applications, if required.

### Main/feed-through lug kits: Mechanical

Max. amperage	Lug material	Lug size	Wire size	Catalog number
225 A	Aluminum	Standard	(1) 6–350 kcmil	MLA1
		Oversized	1–600 kcmil or (2) 1/0–250 kcmil	MLA2
	Copper	Standard	4–450 kcmil	MLR1
		Oversized	1–600 kcmil	MLR2
400 A	Aluminum	Standard	2–600 kcmil or (2) 1/0–250 kcmil	MLA41
		Oversized	(1) 3/0–800 kcmil	MLA62
	Copper	Standard	1–600 kcmil	MLR41
		Oversized	(2) 2/0–500 kcmil	MLR61
600 A	Aluminum	Standard	(2) 2/0–500 kcmil	MLA61
		Oversized	3/0–800 kcmil	MLA62
	Copper	Standard	(2) 2/0–300 kcmil	MLR61

### Main/feed-through lug kits: Compression

Amperage	Lug material	Lug size	Wire size	Catalog number
225 A	Aluminum	Standard	(1) 2/0–300 kcmil	MLT1
		Oversized	(1) 4/0–500 kcmil	MLT2
400 A	Aluminum	Standard	(1) 250–600 kcmil	MLT42
		Oversized	500–750 <sup>1</sup> kcmil	MLT41

<sup>1</sup> 500 kcmil Cu, 750 kcmil Al

## Type L selection guide

### Step 3: Select branch devices



3-pole THQB breaker

- 3** THQB and THHQB circuit breakers are intended for use in 208Y/120 V AC systems with the AQ panelboard. All THQB breakers are HACR rated. Note: Branch circuit breakers installed across from each other shall not exceed 180 A in the AQ panel.

Refer to the BuyLog for molded case circuit breakers to see the full offering of available branch circuit breakers.

#### Branch circuit breakers for use with RQ panels (120/240 V AC, 208Y/120 V AC, 3-phase)

Amp rating	10 kAIC			22 kAIC		
	1-pole Catalog number	2-pole Catalog number	3-pole Catalog number	1-pole Catalog number	2-pole Catalog number	3-pole Catalog number
15	THQB1115	THQB2115	THQB32015	THHQB1115	THHQB2115	THHQB32015
20	THQB1120	THQB2120	THQB32020	THHQB1120	THHQB2120	THHQB32020
25	THQB1125	THQB2125	THQB32025	THHQB1125	THHQB2125	THHQB32025
30	THQB1130	THQB2130	THQB32030	THHQB1130	THHQB2130	THHQB32030
35	THQB1135	THQB2135	THQB32035	THHQB1135	THHQB2135	THHQB32035
40	THQB1140	THQB2140	THQB32040	THHQB1140	THHQB2140	THHQB32040
45	THQB1145	THQB2145	THQB32045	THHQB1145	THHQB2145	THHQB32045
50	THQB1150	THQB2150	THQB32050	THHQB1150	THHQB2150	THHQB32050
60	THQB1160	THQB2160	THQB32060	THHQB1160	THHQB2160	THHQB32060
70	THQB1170	THQB2170	THQB32070	THHQB1170	THHQB2170	THHQB32070
80	-	THQB2180	THQB32080	-	THHQB2180	THHQB32080
90	-	THQB2190	THQB32090	-	THHQB2190	THHQB32090
100	-	THQB21100	THQB32100	-	THHQB21100	THHQB32100



3-pole TXQB breaker

TXQB circuit breakers are intended for use in 240 V systems with the RQ panelboard. All TXQB breakers are HACR rated.

Amp rating	65 kAIC		
	1-pole Catalog number	2-pole Catalog number	3-pole Catalog number
15	TXQB1115 <sup>2</sup>	TXQB2115 <sup>1</sup>	TXQB3115 <sup>1</sup>
20	TXQB1120 <sup>2</sup>	TXQB2120 <sup>1</sup>	TXQB3120 <sup>1</sup>
25	TXQB1125	TXQB2125 <sup>1</sup>	TXQB3125 <sup>1</sup>
30	TXQB1130	TXQB2130 <sup>1</sup>	TXQB3130 <sup>1</sup>

<sup>1</sup> Internal common trip

<sup>2</sup> UL listed as SWD (switching duty) rated; suitable for switching 120 V AC fluorescent lighting loads

## Type L selection guide

### Step 3: Select branch devices



1-, 2- and 3-pole  
TEY/TEYF breakers

TEY and TEYF breakers are one-inch wide per pole, compact, bolt-on circuit breakers for use on grounded 480Y/277 V AC systems with the RE panelboard. All TEY/TEYF branch breakers listed are HACR rated.

Refer to the BuyLog for molded case circuit breakers to see the full offering of available branch circuit breakers.

#### Branch circuit breakers for use with RE/RS panels (240 V AC or 277 V AC 1-phase or 480Y/277 V AC 3-phase)

Amp rating	14 kAIC			18 kAIC		
	1-pole Catalog number	2-pole Catalog number	3-pole Catalog number	1-pole Catalog number	2-pole Catalog number	3-pole Catalog number
15	TEY115	TEY215	TEY315	TEYF115	TEYF215	TEYF315
20	TEY120	TEY220	TEY320	TEYF120	TEYF220	TEYF320
25	TEY125	TEY225	TEY325	TEYF125	TEYF225	TEYF325
30	TEY130	TEY230	TEY330	TEYF130	TEYF230	TEYF330
35	TEY135	TEY235	TEY335	TEYF135	TEYF235	TEYF335
40	TEY140	TEY240	TEY340	TEYF140	TEYF240	TEYF340
45	TEY145	TEY245	TEY345	TEYF145	TEYF245	TEYF345
50	TEY150	TEY250	TEY350	TEYF150	TEYF250	TEYF350
60	TEY160	TEY260	TEY360	TEYF160	TEYF260	TEYF360
70	TEY170	TEY270	TEY370	-	TEYF270	TEYF370
80	TEY180	TEY280	TEY380	-	TEYF280	TEYF380
90	TEY190	TEY290	TEY390	-	TEYF290	TEYF390
100	TEY1100	TEY2100	TEY3100	-	TEYF2100	TEYF3100B
110	-	-	-	-	TEYF2110B	TEYF3110B
125	-	-	-	-	TEYF2125B	TEYF3125B



## Type L selection guide

### Step 3: Select branch devices



1-, 2- and 3-pole TEYD/  
TEYH/TEYL breakers

TEYD/TEYH/TEYL breakers are one-inch wide per pole, compact, bolt-on circuit breakers for use on grounded 480Y/277 V AC systems with the RS panelboard.

Refer to the BuyLog for molded case circuit breakers to see the full offering of available branch circuit breakers.

#### Branch circuit breakers for use with RS panels (480Y/277 V AC 3-phase)

Amp rating	25 kAIC			35 kAIC		
	1-pole Catalog number	2-pole Catalog number	3-pole Catalog number	1-pole Catalog number	2-pole Catalog number	3-pole Catalog number
15	TEYD1015B	TEYD2015B	TEYD3015B	TEYH1015B	TEYH2015B	TEYH3015B
20	TEYD1020B	TEYD2020B	TEYD3020B	TEYH1020B	TEYH2020B	TEYH3020B
25	TEYD1025B	TEYD2025B	TEYD3025B	TEYH1025B	TEYH2025B	TEYH3025B
30	TEYD1030B	TEYD2030B	TEYD3030B	TEYH1030B	TEYH2030B	TEYH3030B
35	TEYD1035B	TEYD2035B	TEYD3035B	TEYH1035B	TEYH2035B	TEYH3035B
40	TEYD1040B	TEYD2040B	TEYD3040B	TEYH1040B	TEYH2040B	TEYH3040B
45	TEYD1045B	TEYD2045B	TEYD3045B	TEYH1045B	TEYH2045B	TEYH3045B
50	TEYD1050B	TEYD2050B	TEYD3050B	TEYH1050B	TEYH2050B	TEYH3050B
60	TEYD1060B	TEYD2060B	TEYD3060B	TEYH1060B	TEYH2060B	TEYH3060B
70	TEYD1070B	TEYD2070B	TEYD3070B	TEYH1070B	TEYH2070B	TEYH3070B
80	-	TEYD2080B	TEYD3080B	-	TEYH2080B	TEYH3080B
90	-	TEYD2090B	TEYD3090B	-	TEYH2090B	TEYH3090B
100	-	TEYD2100B	TEYD3100B	-	TEYH2100B	TEYH3100B
110	-	TEYD2110B	TEYD3110B	-	TEYH2110B	TEYH3110B
125	-	TEYD2125B	TEYD3125B	-	TEYH2125B	TEYH3125B

#### Branch circuit breakers for use with RS panels (277 V AC, 480Y/277 V AC 3-phase)

Amp rating	65 kAIC		
	1-pole Catalog number	2-pole Catalog number	3-pole Catalog number
15	TEYL1015B	TEYL2015B	TEYL3015B
20	TEYL1020B	TEYL2020B	TEYL3020B
25	TEYL1025B	TEYL2025B	TEYL3025B
30	TEYL1030B	TEYL2030B	TEYL3030B
35	TEYL1035B	TEYL2035B	TEYL3035B
40	TEYL1040B	TEYL2040B	TEYL3040B
45	TEYL1045B	TEYL2045B	TEYL3045B
50	TEYL1050B	TEYL2050B	TEYL3050B
60	TEYL1060B	TEYL2060B	TEYL3060B
70	TEYL1070B	TEYL2070B	TEYL3070B
80	-	TEYL2080B	TEYL3080B
90	-	TEYL2090B	TEYL3090B
100	-	TEYL2100B	TEYL3100B
110	-	TEYL2110B	TEYL3110B
125	-	TEYL2125B	TEYL3125B

## Type L selection guide

### Step 4: Select additional accessories

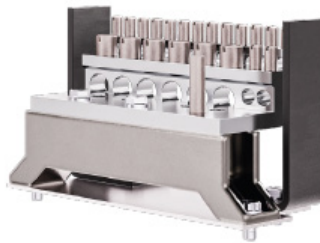


**4** Select ground and neutrals for OEM application. Please refer to main lug section for feed-through lug options.

Equipment ground



Neutrals



#### Equipment ground lug

Item	Description	Wire size	Catalog number
Equipment ground	Bonded	#14-#8, #12-#8 #14-#4 Cu, #6-#4 Al	TGL2
Ground lug	-	#6-2/0	TGL20

#### Neutrals

Amperage	Circuit count	Neutrals per kit	Wire size per neutral	Material	Catalog number
600 A max.	42	2	6) #14-2/0	Aluminum	NT64A1NM
			(15) #14-#4	Copper	NT64C1NM
	84	2	(2) #14-2/0	Aluminum	NT68A1NM
			(40) #14-#4	Copper	NT68C1NM

# ReliaGear® OEM lighting panelboards

## Type M

ReliaGear® OEM Type M provides an interior with pre-installed breakers, integrated neutral and deadfront shield. Lighting panelboard interiors for Type M include AQ, AL, AE, AS and AD. Type M is available in main lug or main breaker and gives you the same features and capabilities of the factory-assembled panelboard offering, delivering the compact size and flexibility you need to seamlessly integrate into your custom solution.



### Product overview

- Panel performance options: AQ/AL/AE/AS/ AD
- Single-phase and three-phase
- 125 A, 225 A, 400 A, 600 A, 800 A
- SCCR: 65 kAIC at 240 V AC, 18 kAIC at 480 V AC or 65 kAIC at 480 V AC; for series rating, refer to DET-008
- Main breaker or main lug
- 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84 or 96 circuits (not all circuit offerings available)
- Bus options: Heat-rated aluminum, density-rated aluminum, heated-rated bare copper, density-rated copper, silver-plated density-rated copper, tin-plated copper
- Note: Type M does not include a box or front

### Standards and certifications



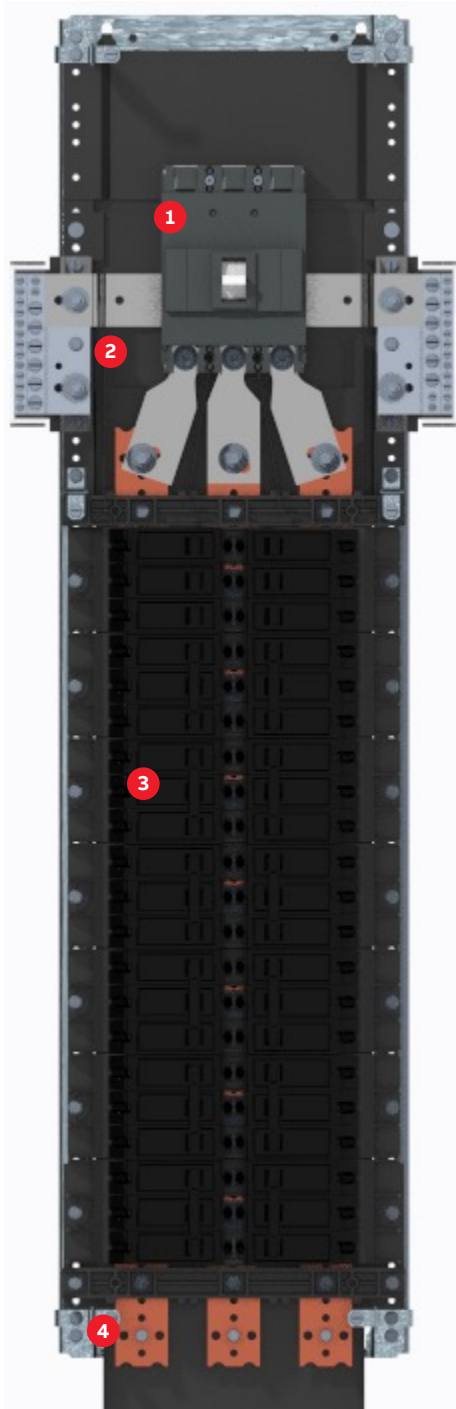
- UL 489 molded case circuit breakers
- Unless noted otherwise in BuyLog, all circuit breakers and accessories are listed in UL file number E11592.

**AQ**

240 V max.  
1- or 3-phase  
125–800 A  
10–65 kAIC  
AQ: Bolt-on  
THQB breakers

—  
ReliaGear® AQ

lighting panelboard  
 1 Main breaker:  
Tmax® XT1,  
Tmax XT trip unit:  
thermal-mag  
fixed (TMF)  
 2 Split neutral  
 3 Bolt-on THQB  
branch breakers  
 4 Feed-through lug/  
sub-feed breaker  
provision (select  
bus ampacities)



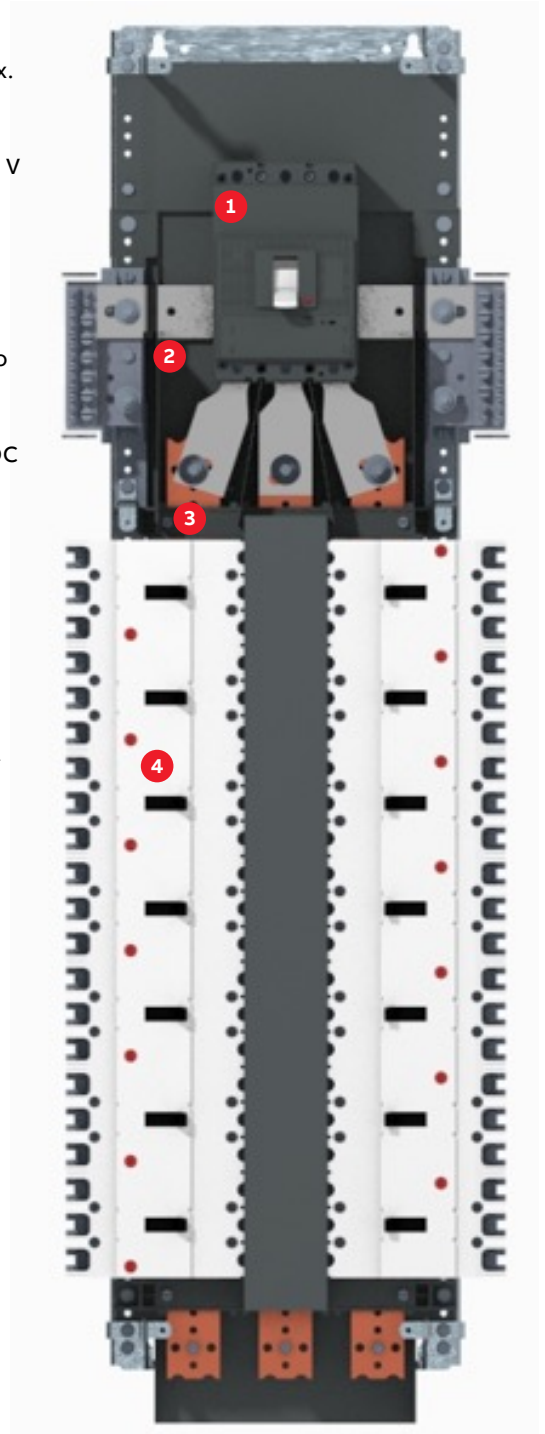
AQM, 42 circuits, FORMULA A2 main breaker  
(deadfront shield hidden for clarity)

**AS**

480Y/277 V max.  
1- or 3-phase  
125–600 A  
100 kAIC at 240 V  
65 kA at 480 V  
AS: Bolt-on  
TEY(D/H/L)  
breakers  
Main lugs  
125–800 A up to  
250 V DC and  
main breaker  
125 A at 250 V DC

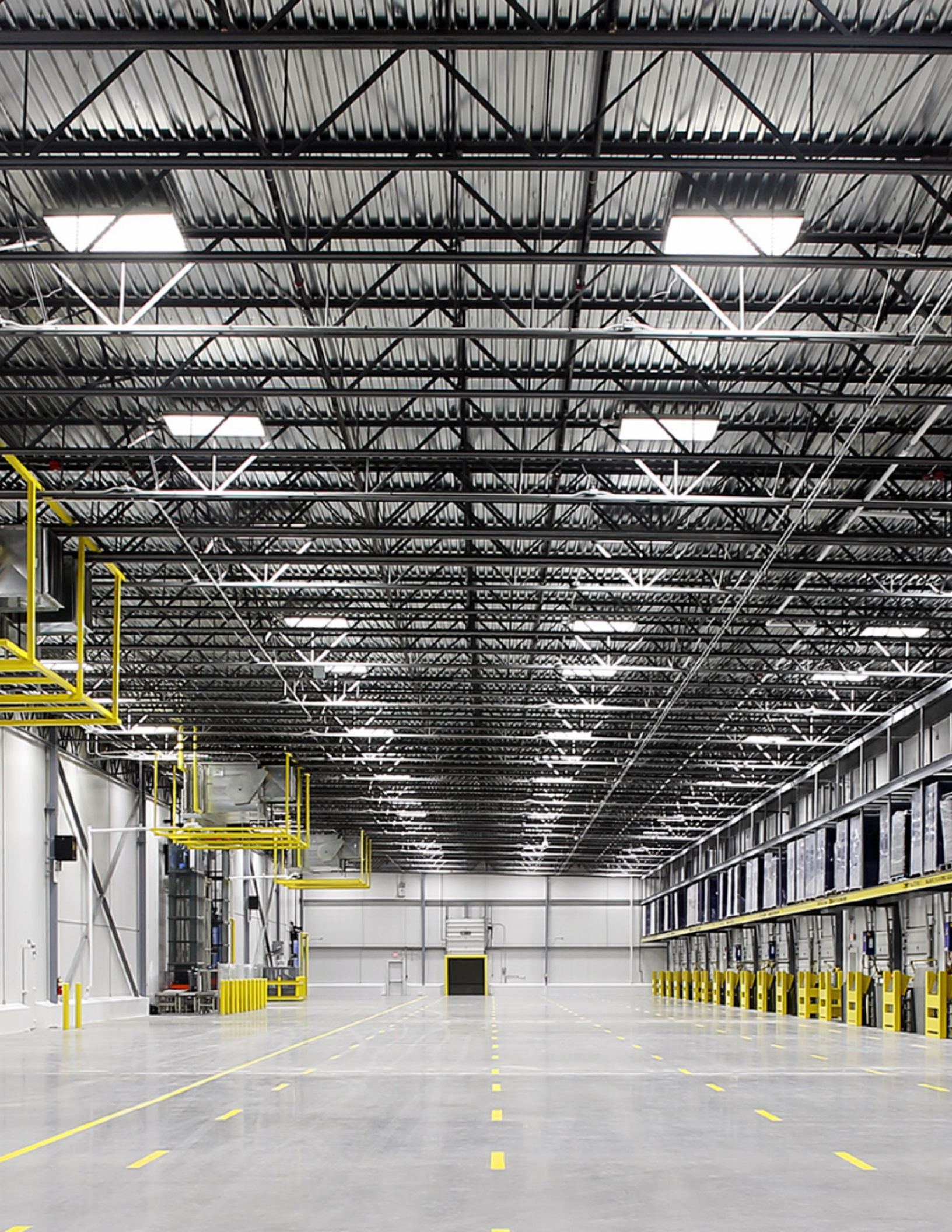
—  
ReliaGear® AS

lighting panelboard  
 1 Main breaker:  
Tmax® XT4,  
Tmax XT trip unit:  
thermal-mag  
fixed (TMF)  
 2 split neutral  
 3 Impact-resistant  
bus supports  
 4 Bolt-on TEYD/H/L  
branch breakers



AQM, 42 circuits, Tmax XT5 main breaker  
(deadfront shield hidden for clarity)







## Molded case circuit breakers

From design to manufacturing, FORMULA A2 and Tmax® XT circuit breakers set the standard for edge technologies to deliver XTreme performance. With superior quality and advanced features such as higher interrupt ratings (up to 200 kA), Ekip DIP and thermal-magnetic trip units, FORMULA A2 and Tmax XT circuit breakers support low tier to high tier customers.



Tmax XT, Formula A2 and legacy GE breakers range

		Formula A2	XT1	XT4	XT5	XT2
Frame size	(A)	225	125	250	400–600	125
Poles		2, 3	3*	3*	3 <sup>(1)</sup>	3
Amperage	(A)	125–225	15–125	25–250	250–600	15–125
Max. rated voltage	(V)	240	480	600	600	220 double batch
Trip units		Thermal magnetic fixed (TMF)	Thermal magnetic fixed (TMF)	Thermal magnetic fixed (TMF) Ekip DIP LSI	Thermal magnetic adjustable (TMA) Ekip DIP LSI	TMF Ekip DIP Ekip Hi-Touch
Max. interrupting rating	240 V	(kA)	10	100 <sup>(3)</sup>	200 <sup>(3)</sup>	200 (XT2L)
	480 V		–	65	65	150 (XT2V)
	600 Y/347 V					42 (XT2V)
	600 V					42 (XT2V)

\*3-pole can be used in a 2-pole application

\*\*1-pole rated 15–70 A

†1-pole rated 15–60 A

‡1-pole max. (kA) 14

Note: Formula A2 replaces TQD and THQD | XT1 or XT4 replaces SE | XT4 replaces SF | XT5 replaces SG | XT6 replaces SK

TMF: Thermo-mag fixed: No adjustments possible

TMA: Thermo-mag adjustable: Adjustable thermal (L) and magnetic (I)

## Tmax XT trip units — thermal magnetic and Ekip DIP

### Thermal magnetic

Key:

1. Current threshold for short circuit protection.
2. Rotary switch for short circuit protection.
3. Current threshold for overload protection.
4. Rotary switch for overload threshold setting.



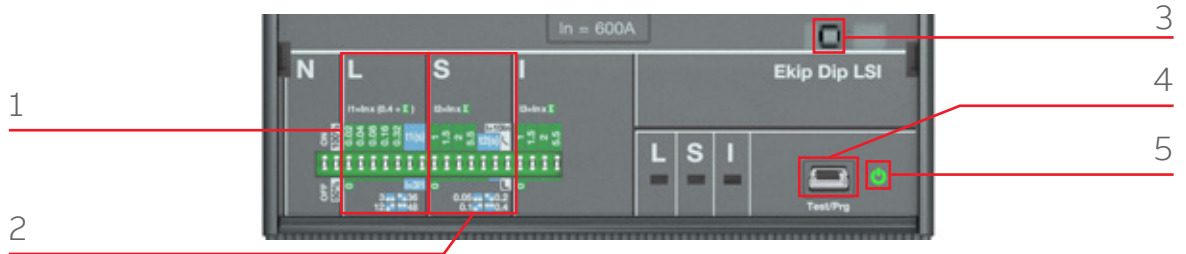




THQB (bolt-on)	THQB (bolt-on)	TXQB	TEY	TEYF	TEYD	TEYH	TEYL
100	100	100	100	100	100	100	100
1, 2, 3	1, 2, 3	1, 2, 3	1 <sup>†</sup> , 2, 3	1 <sup>†</sup> , 2, 3	1, 2, 3	1, 2, 3	1, 2, 3
15-100 <sup>(2)</sup>	15-100 <sup>(2)</sup>	15-30	15-100	15-100 <sup>†</sup>	15-125 <sup>(2)</sup>	15-125 <sup>(2)</sup>	15-125 <sup>(2)</sup>
240	240	120/240	480	480	480	480	480
Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
10	22	65	65	65	65	65	100 <sup>(3)</sup>
-	-	-	14	18	25	35	65

**Ekip DIP LSI or adjustable L, S and I**

- Key:
1. DIP switches for overload protection setting.
  2. DIP switches for short circuit and time-delayed short circuit protection settings.
  3. Slot for lead seal.
  4. Test connector.
  5. Power-on LED.



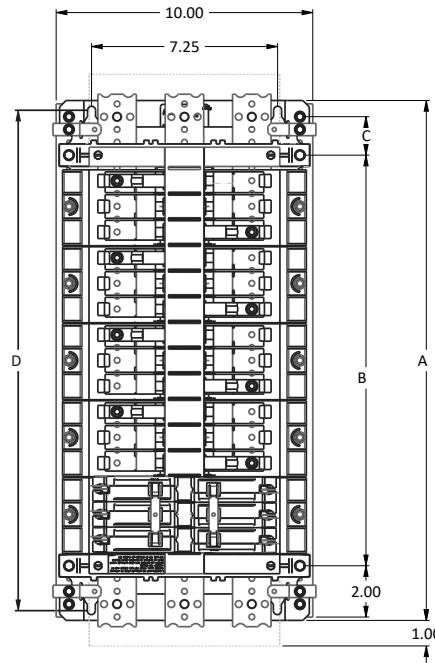
## ReliaGear® OEM lighting panelboards

### Type L dimensions

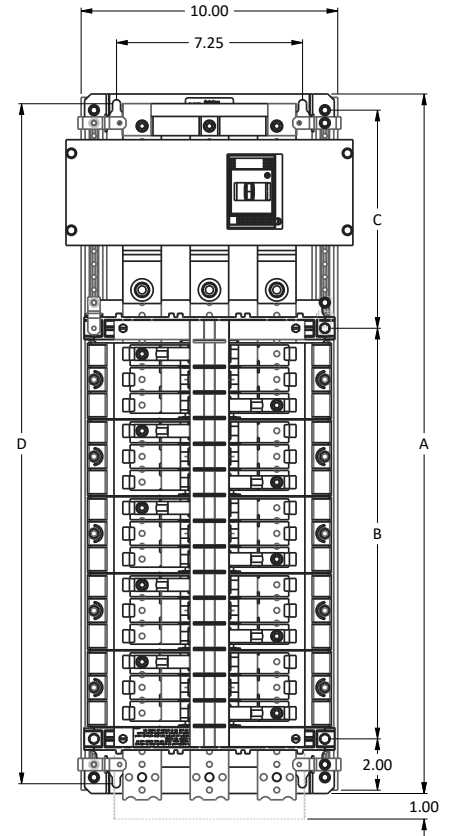
In terms of sizing, the main drivers of overall length are the ampacity, branch circuit count and line and load spacing of the interior. The 2D drawings below showcase the following dimensions:

- A. Total rail length: Top to bottom measurement of panel interior
- B. Branch section length: Branch section measurement
- C. Line end length: Length measurement driven by main device
- D. Mounting length: Total length for mounting

Note: Mounting width is 7.25 inches.



Type L: Main lug interior



Type L: Main breaker interior

Panel	Main device	Ampacity	Branch circuits	A (in.)	B (in.)	C (in.)	D (in.)
AQ, AE, AS	Main lug/ main stud	125 A	30	20.26	16.00	2.00	19.50
			42	26.26	22.00	2.00	25.50
		225 A	30	20.26	16.00	2.00	19.50
			42	26.26	22.00	2.00	25.50
		400 A	30	20.26	16.00	2.00	19.50
			42	26.26	22.00	2.00	25.50
	600 A	30	20.26	16.00	2.00	19.50	
		42	26.26	22.00	2.00	25.50	
	XT1	125 A	30	27.26	16.00	8.50	26.50
			42	35.26	22.00	10.50	34.50
	A2/XT4	225 A	30	29.26	16.00	11.00	28.50
			42	35.26	22.00	11.00	34.50
XT5 400 A	400 A	30	35.26	16.00	17.00	34.50	
		42	41.26	22.00	17.00	40.50	
XT5 600 A	600 A	30	35.26	16.00	17.00	34.50	
		42	41.26	16.00	17.00	40.50	





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