

BUYLOG SECTION 11

Panelboards





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ReliaGear lighting panelboards

Applications

Standards

All ABB lighting panelboards meet the latest revision of the following standards.

- National Electrical Code-Ref. Article 384
- UL67 panelboards: UL50 cabinets and boxes
UL943 GFCI
- UL489 molded case circuit breakers
- cULus listing for ReliaGear lighting panelboards
- cULus listing for ReliaGear non-service entrance panelboards
- International Building Code Seismic Certification
- California Building Code Seismic Certification
- NEMA PB1
- Federal Specifications
 - Panelboards, W-P-115c
 - Type 1—Circuit breaker equipped
 - Class 1—Panelboards
 - Class 2—Load centers
 - Molded case circuit breakers, WC-375B/GEN

Application

The following classifications and limitations of panelboards have been established by the Underwriters Laboratories and the National Electrical Code. Note—“an overcurrent protective device is a circuit breaker pole or single fuse”. Panelboards have no fire wall ratings. All 50/60 Hz rated. There is no limitation as to the number and rating of branch circuits, except as determined by available enclosures.

Interrupting ratings—circuit breakers

Panelboards have integrated short circuit ratings. When fully rated, the rating is that of the lowest rated device in the panelboard. When series connected rated, the rating is that of the main device in panel (or remote line side protected device) and branch-tested/UL Listed combination.

Short-circuit ratings—fusible switch units

The interrupting rating of the fuse must equal or exceed the short-circuit rating of the switch. If it is lower, then the interrupting rating of the switch is the same as the fuse. Switches have no short-circuit rating if renewable fuses are used.

Seismic ratings

All ReliaGear Lighting Panelboards have been tested and certified to meet the seismic requirements of 2018 International Building Code (IBC) as well as the 2019 California Building Code (CBC)

Selective coordination

NFPA 70, the National Electrical Code (NEC), requires overcurrent devices to be selectively coordinated when applied in emergency standby systems (Article 700), legally required standby systems (Article 701), Critical Power Systems (Article 708) and when supplying multiple elevator circuits (620.62). The NEC defines the performance standard of selective coordination in Article 100, Definitions. Beginning with the definition in effect with the 2014 NEC, the



combinations of circuit breakers that can comply with this standard are limited. Those limitations include the number of circuit breaker poles, current ratings of either the line side or load side circuit breaker, and the maximum interrupting current that selective operation extends to. These limitations can affect the selection of circuit breakers used in a panelboard. ABB has documented selective pairs of their molded case circuit breakers in publication 1SDC210066D0201. This publication should be consulted when applying panelboards in the applications noted above.

Features

- Symmetrical design, no required top or bottom mountings
- Wide, easy-to-install galvanized enclosures with removable endwalls
- Flush or surface mounting
- Standard concealed mounting hardware and hinges
- Interiors that allow “straight-in” wiring
- Split neutral
- Branch-bus direct connection
- Captive hardware on branch circuit breakers
- Short circuit ratings allow up to 100KA @ 480Y/277Vac; 200KA @ 240Vac
- Main bus ratings of 125 to 800 amps¹ copper, 125 to 600 amps aluminum
- Tmax XT vertically mounted main circuit breakers with fixed thermal magnetic and adjustable trip units available
- Bus-connected SPD for maximum surge protection
- Optional door-in-door or front-hinged-to-box door
- Enclosures available in NEMA Type 1, Type 3R/12, Type 4/4X painted galvanneal or 316 grade stainless steel
- Optional metering features
- Front options: screw-on cover, screw front to box, stainless steel front
- Latch/lock options: best lock, national lock/corbin 60 key, corbin latch bolt 15767, yale lock, replacement locks

¹ Maximum of 600 amps for Canada

ReliaGear lighting panelboards

Types

Type RL

Service information:

1P, 3W-120/240 Vac
 3P, 3W-240 Vac
 3P, 4W-240/120 Vac, 208/120 Vac
 Fully rated: 65kAIC at 240V
 Series rated: 200kAIC at 240V

Main circuit breakers:

100A-THQB, THHQB, TEY
 125A-XT1
 225A-A2
 250A-XT4
 400A-XT5
 600A-XT5
 800A-XT6¹

Main lug:

125-800A

Branch circuit breakers (plug-in):

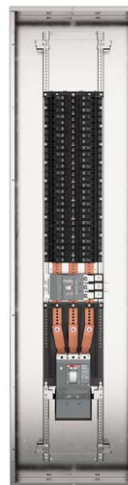
Amperage-15-100A
 Poles-1, 2, 3
 Types-THQL, THHQL, TXQL

Subfeeds:

Amperage-15-600A
 Poles-2, 3
 Types- A2, XT1, XT4, XT5

Enclosures

Height-25.5, 31.5, 37.5, 43.5, 49.5, 55.5, 64.5, 76.5, 82.5, 88.5
 Width-20"
 Depth-5.81"



Type RQ



Type RL

Type RQ

Service information:

1P, 3W-120/240 Vac
 3P, 3W-240 Vac
 3P, 4W-240/120 Vac, 208/120 Vac
 Fully rated: 65kAIC at 240V
 Series rated: 200kAIC at 240V

Main circuit breakers:

100A-THQB, THHQB, TEY
 125A-XT1
 225A-A2
 250A-XT4
 400A-XT5
 600A-XT5
 800A-XT6¹

Main lug:

125-800A

Branch circuit breakers (bolt-on):

Amperage-15-100A
 Poles-1, 2, 3
 Types-THQB, THHQB, TXQB

Subfeeds:

Amperage-15-600A
 Poles-2, 3
 Types- A2, XT1, XT4, XT5

Enclosures

Height-25.5, 31.5, 37.5, 43.5, 49.5, 55.5, 64.5, 76.5, 82.5, 88.5
 Width-20"
 Depth-5.81"

¹ Maximum of 600 amps for Canada

ReliaGear lighting panelboards

Types

Type RE

Service information:

1P, 3W-120/240 Vac, 125/250 Vdc
 3P, 3W-240 Vac
 3P, 4W-480/277 Vac, 208/120 Vac, 240/120 Vac
 Fully rated: 18kAIC at 480Y/277V, 65kAIC at 240V
 Series rated: Reference panel configuration in empower
 or DET-008

Main circuit breakers:

100A-TEY, TEYF
 125A-XT1
 250A-XT4
 400A-XT5
 600A-XT5
 800A-XT6¹

Main lug:

125-800A

Branch circuit breakers (bolt-on):

Amperage-15-100A
 Poles-1, 2, 3
 Types-TEY, TEYF

Subfeeds:

Amperage-15-600A
 Poles: 3*
 Types: XT1, XT4, XT5

*3 poles can be used as 2 poles

Enclosures

Height-25.5, 31.5, 37.5, 43.5, 49.5, 55.5, 64.5, 76.5, 82.5, 88.5
 Width-20"
 Depth-5.81"



Type RE



Type RS



Type RD

Type RS

Service information:

1P, 3W-120/240 Vac, 125/250 Vdc
 3P, 3W-240 Vac
 3P, 4W-480/277 Vac, 208/120 Vac, 240/120 Vac
 Fully rated: 65kAIC at 480Y/277V, 100kAIC at 240V
 Series rated: Reference panel configuration in empower
 or DET-008

Main circuit breakers:

100A-TEYD, TEYH, TEYL
 125A-XT1
 250A-XT4
 400A-XT5
 600A-XT5
 800A-XT6¹

Main lug:

125-800A

Branch circuit breakers (bolt-on):

Amperage-15-125A
 Poles- 1, 2, 3
 Types- TEYD, TEYH, TEYL

Subfeeds:

Amperage-15-600A
 Poles: 3*
 Types: XT1, XT4, XT5

*3 poles can be used as 2 poles

Enclosures

Height-25.5, 31.5, 37.5, 43.5, 49.5, 55.5, 64.5, 76.5, 82.5, 88.5
 Width-20"
 Depth-5.81"

Type RD

Service information:

3P, 3W-480 Vac, 600 Vac
 3P, 4W-208/120 Vac, 480/277 Vac, 600/347 Vac
 Fully rated: 42kAIC at 240V, 42 kAIC at 600Y/347V,
 42kAIC at 480V
 Series rated: Reference panel configuration in empower
 or DET-008

Main circuit breakers:

150A-XT4
 225A-XT4
 400A-XT5
 600A-XT5

Main lug:

125-600A¹

Branch circuit breakers (bolt-on):

Amperage-15-100A (FB 1P, 2P)
 15-125A (XT2 TMF, eKIP DIP, or eKIP Hi-Touch 3P)
 220A Max. double branch
 Types: FB, XT2 TMF, eKIP DIP, or eKIP Hi-Touch

Enclosures

Height-31.5, 37.5, 43.5, 49.5, 55.5, 64.5, 76.5, 82.5, 88.5
 Width-20"
 Depth-5.81"

¹ Maximum of 600 amps for Canada

ReliaGear lighting panelboards

Types

Panelboard types

Item	ReliaGear				
	RL Page 11-6	RQ Page 11-6	RE Page 11-7	RS Page 11-7	RD Page 11-7
Max. voltage	240Vac	240Vac	480Y/277Vac 125/250Vdc	480Y/277Vac 125/250Vdc	600Vac
Max. main lug amperes	800A	800A	800A	800A	600A
Max. main circuit breaker or switch amperes	800A	800A	800A	800A	600A
Main devices	THQB, THHQB, TEY	THQB, THHQB, A2,TEY	TEY, TEYF	TEYD, TEYH, TEYL	XT4, XT5
	A2, XT1, XT4, XT5, XT6		XT1, XT4, XT5, XT6		–
Branches max. amps	100A	100A	100A	125A	100A-1 ph, 2ph 125A-3ph
Branch devices	THQL, THHQL	THQB, THHQB, TXQB (Bolt-on)	TEY, TEYF	TEYD, TEYH, TEYL	FB, XT2
Subfeed circuit breaker types	A2, XT1, XT4, XT5	A2, XT1, XT4, XT5	XT1, XT4, XT5	XT1, XT4, XT5	XT4, XT5

ReliaGear standard main circuit breaker types and ratings¹

IC ratings	Voltage	Panel type															
		RQ/RL					RE/RS							RD			
		100A	225A	400A	600A	800A	100A	125A	225A	400A	600A	800A	150A	225A	400A	600A	
10	240	THQB	A2A	–	–	XT6N	–	–	–	–	–	–	–	–	–	–	
22	240	THHQB	A2N	–	XT5N	–	–	–	–	–	–	–	–	–	–	–	
65	240	TEY/ XT1S	XT4N	XT5N	XT5N	–	–	–	XT4N	XT5N	XT5N	–	–	–	–	–	
100	240	XT1H	XT4S	XT5S	XT5S	–	–	–	–	–	–	–	–	–	–	–	
200	240	–	XT4L	XT5L	–	–	–	–	–	–	–	–	–	–	–	–	
14	480Y/277	–	–	–	–	–	TEY	–	–	XT5N	XT5N	XT6N	XT4N	XT4N	XT5N	XT5N	
35	480Y/277	–	–	–	–	–	–	–	–	–	–	–	XT4S	XT4S	XT5N	XT5N	
18	480Y/277	–	–	–	–	–	–	–	–	–	–	–	XT4N	XT4N	XT5N	XT5N	
25	480Y/277	–	–	–	–	–	–	XT1N/ TEYD	XT4N	–	–	–	XT4N	XT4N	XT5N	XT5N	
65	480Y/277	–	–	–	–	–	–	XT1H/ TEYL	XT4H	XT5H	XT5H	–	–	–	–	–	
42	480Y/277	–	–	–	–	–	–	–	–	–	–	–	XT4H	XT4H	XT5S	XT5S	
100	480Y/277	–	–	–	–	–	–	XT1L	XT4L	–	–	–	–	–	–	–	
14	480	–	–	–	–	–	–	–	–	–	–	–	XT4N	XT4N	XT5N	XT5N	
42	480	–	–	–	–	–	–	–	–	–	–	–	XT4H	XT4H	XT5S	XT5S	
18	600	–	–	–	–	–	–	–	–	–	–	–	XT4N	XT4N	XT5N	XT5N	
25	600	–	–	–	–	–	–	–	–	–	–	–	XT4S	XT4S	XT5S	XT5S	
42	600Y/347	–	–	–	–	–	–	–	–	–	–	–	XT4L	XT4L	XT5L	XT5L	

¹ Maximum main circuit breaker or switch amperes for Canada is 600 amps.

ReliaGear lighting panelboards

Terminal lugs

Molded case circuit breakers

Frame	Poles	Lug kit number ¹	Cable(s) per lug	Cable Range
XT6	3	1SDA113070R1	3	Cu Al 3x2/0AWG-400kcmil
XT6 (750MCM)	3	1SDA115968R1	2	500kcmil - 750 kcmil ³
XT5	3	1SDA113066R1	2	Cu Al 2x2/0AWG-500kcmil
XT5 (750MCM)	3	1SDA115948R1	2	500kcmil - 750 kcmil ³
XT4-250A	3	1SDA075865R1	1	Cu Al 1x3/0 AWG-350 kcmil ²
XT4 (<250A)	3	1SDA075861R1	1	Cu Al 1x4 AWG-300 kcmil
XT1	3	1SDA075837R1	1	Cu Al 1x14-2/0 AWG
A2	3	1SDA069983R1 (3pole – 3pcs lug)	1	Cu 1x1 AWG-250kcmil Al 1x2/0 AWG-300
A2	2	1SDA069982R1 (2pole – 2pcs lug)	1	Cu 1x1 AWG-250kcmil Al 1x2/0 AWG-300

¹Kit contains 3pcs lug

²External solution: lugs to be mounted on EF terminals supplied in the kit

³The lug kit will come with 2 sets of cable set screws. One is for 600 MCM and smaller cable and the other is for cable greater than 600 MCM. Follow the instructions that are included with the kit. If you are upgrading the existing lugs to the 750 MCM lugs, the customer, AHJ (authority having jurisdiction) and/or inspector will need to make sure the panel is compliant with NEC and UL cable bending space. ABB is not responsible for the addition of these lugs in existing panels.

ReliaGear lighting panelboards

Enclosures



Enclosure

Box Height	NEMA 1	NEMA 1	NEMA 3R		NEMA 4, 4X & 12 Painted Galvaneal	NEMA 4, 4X & 12 Painted Galvaneal	NEMA 4, 4X & 12 Stainless Steel	
	20" Wide	30" Wide	20" Wide	30" Wide	20" Wide	30" Wide	20" Wide	30" Wide
25.5"	–	–	–	–	–	–	AB254S	AB254DWS
31.5"	AB31B	AB31BW	AB313	AB313DW	AB314	AB314DW	AB314S	AB314DWS
37.5"	AB37B	AB37BW	AB373	AB373DW	AB374	AB374DW	AB374S	AB374DWS
43.5"	AB43B	AB43BW	AB433	AB433DW	AB434	AB434DW	AB434S	AB434DWS
49.5"	AB49B	AB49BW	AB493	AB493DW	AB494	AB494DW	AB494S	AB494DWS
55.5"	AB55B	AB55BW	AB553	AB553DW	AB554	AB554DW	AB554S	AB554DWS
64.5"	AB64B	AB64BW	AB643	AB643DW	AB644	AB644DW	AB644S	AB644DWS
76.5"	AB76B	AB76BW	AB763	AB763DW	AB764	AB764DW	AB764S	AB764DWS
82.5"	AB82B	AB82BW	AB823	AB823DW	AB824	AB824DW	AB824S	AB824DWS
88.5"	AB88B	AB88BW	AB883	AB883DW	AB884	AB884DW	AB884S	AB884DWS



Enclosure front

Front Height	Standard (20" wide)		Door Within Door (20" wide)		Front Hinged To Box (20" wide)		Standard (30" Wide)	
	Flush	Surface	Flush	Surface	Flush	Surface	Flush	Surface
31.5"	AF31F	AF31S	AF31FP	AF31SP	AF31FD	AF31SD	AF31FW	AF31SW
37.5"	AF37F	AF37S	AF37FP	AF37SP	AF37FD	AF37SD	AF37FW	AF37SW
43.5"	AF43F	AF43S	AF43FP	AF43SP	AF43FD	AF43SD	AF43FW	AF43SW
49.5"	AF49F	AF49S	AF49FP	AF49SP	AF49FD	AF49SD	AF49FW	AF49SW
55.5"	AF55F	AF55S	AF55FP	AF55SP	AF55FD	AF55SD	AF55FW	AF55SW
64.5"	AF64F(T)	AF64S(T)	AF64FP(T)	AF64SP(T)	AF64FD(T)	AF64SD(T)	AF64FW(T)	AF64SW(T)
76.5"	AF76F(T)	AF76S(T)	AF76FP(T)	AF76SP(T)	AF76FD(T)	AF76SD(T)	AF76FW(T)	AF76SW(T)
82.5"	AF82F(T)	AF82S(T)	AF82FP(T)	AF82SP(T)	AF82FD(T)	AF82SD(T)	AF82FW(T)	AF82SW(T)
88.5"	AF88F(T)	AF88S(T)	AF88FP(T)	AF88SP(T)	AF88FD(T)	AF88SD(T)	AF88FW(T)	AF88SW(T)

(T) Fronts with quarter turn lock for applications with XT5 and XT6 circuit breakers. Applicable for NEMA 1 enclosures only.

ReliaGear lighting panelboards

Pricing and ordering through empower, distributors or sales

Information required to price and order a panelboard

- Short-circuit rating (10kA, 18kA, etc.)
- Service entrance label (Yes) or (No)
- Mark(s) (LPA, MDP, RPC, etc.)
- Service (3-ph, 4-w 208Y/120; 3-ph, 3-w 480 volts, etc.)
- Entrance of incoming line (top) or (bottom).
(Bottom supplied as standard)
- Trim (surface) or (flush)
- Incoming wire size (500kcmil, 250kcmil, etc.)
- Incoming number of wires per phase (1, 2, 3, etc.)
- Wire material (copper or aluminum)
- Main type (main lugs only, circuit breaker, fusible switch, etc.)
- Amperage of main bus
- Frame of main circuit breaker (XT5, XT6, etc.)
(if applicable)
- Options to mains (shunt trip, lighting contactor, etc.)
- Equipment ground (optional)
- Branches
 - Amp rating (20, 30, 50, etc.)
 - Poles (1, 2, or 3)
 - Frame (THQB, TEY, etc.)
 - Quantity (1, 10, 15, etc.)
- Options:
 - Interior (copper bus, 200% rated neutral, etc.)
 - Box (painted, increased gutter, etc.)
 - Front (door in door, etc.)
 - Ground fault protection (yes) or (no)
- Type of panel (RQ, RE, etc.)

Pricing and layout for factory assembled and unassembled panelboards through empower.

<https://electrification.us.abb.com/geempower>

How to select a ReliaGear Pro-Stock, unassembled panelboard

Total the following components:

- Interior
- Box (add ground bars as required)
- Front
- Main circuit breaker or lug kit
- Subfeed circuit breaker or feed thru lug kit (if required)
- Branch circuit breakers (from section 3)
- Accessories (200% neutral, service entrance etc.)

Please consult your local distributor for net pricing and current stock levels.

For additional details on selecting ReliaGear Pro-Stock panelboards, please refer to publication 1TQC173600E0001.

ReliaGear lighting panelboards

Pro-Stock, unassembled lighting panels

100-600A (600A main circuit breaker not available)

240 Vac 1 or 3 phase or 480y/277 vac 3 phase

Order by product number from the customer service center



1. Select interior

Select the interior by bus type, panel rating and number of circuits.

Identify the box/front height for use in Steps 2 and 3.

Copper bus

Voltage	Rating (Amps)	No. of circuits	Feed-thru		Non feed-thru		
			Product Number	Box/Front Height	Product Number	Box/Front Height	TGL2 Ground Bars ^{1,2}
240 Vac, 1 Phase	100-250	18	AQU1182RCXAXT1B4	37.5"	AQU1182RCXAXB4	31.5"	2
		30	AQU1302RCXAXT1B4	43.5"	AQU1302RCXAXB4	37.5"	3
		42	AQU1422RCXAXT1B4	49.5"	AQU1422RCXAXB4	43.5"	4
	400	18	AQU1184RCXAXT1B4	64.5"	–	–	2
		42	AQU1424RCXAXT1B4	76.5"	AQU1424RCXAXB4	64.5"	4
	600	18	AQU1186RCXAXT1B4	64.5"	–	–	2
208/120 Vac, 3 Phase	100-250	42	AQU1426RCXAXT1B4	76.5"	AQU1426RCXAXB4	64.5"	4
		18	AQU3182RCXAXT1B4	37.5"	AQU3182RCXAXB4	31.5"	2
		30	AQU3302RCXAXT1B4	43.5"	AQU3302RCXAXB4	37.5"	3
	400	42	AQU3422RCXAXT1B4	49.5"	AQU3422RCXAXB4	43.5"	4
		18	AQU3184RCXAXT1B4	64.5"	–	–	2
	600	42	AQU3424RCXAXT1B4	76.5"	AQU3424RCXAXB4	64.5"	4
480/277 Vac, 3 Phase	100-250	18	AQU3186RCXAXT1B4	64.5"	–	–	2
		42	AQU3426RCXAXT1B4	76.5"	AQU3426RCXAXB4	64.5"	4
		30	AEU3182RCXAXT1B4	37.5"	AEU3182RCXAXB4	31.5"	2
	400	42	AEU3302RCXAXT1B4	43.5"	AEU3302RCXAXB4	37.5"	3
		42	AEU3422RCXAXT1B4	49.5"	AEU3422RCXAXB4	43.5"	4
	600	18	AEU3184RCXAXT1B4	64.5"	–	–	2
		42	AEU3424RCXAXT1B4	76.5"	AEU3424RCXAXB4	64.5"	4
		18	AEU3186RCXAXT1B4	64.5"	–	–	2
		42	AEU3426RCXAXT1B4	76.5"	AEU3426RCXAXB4	64.5"	4
		30					
		42					

Note: Main bus rated 250A main breaker and 225A main lug

Aluminum bus

Voltage	Rating (Amps)	No. of circuits	Feed-thru Product Number	Box/Front Height	TGL2 Ground Bars ^{1,2}
240 Vac, 1 Phase	100-250	18	AQU1182RCXAXT1	37.5"	2
		30	AQU1302RCXAXT1	43.5"	3
		42	AQU1422RCXAXT1	49.5"	4
208/120 Vac, 3 Phase	100-250	18	AQU3182RCXAXT1	37.5"	2
		30	AQU3302RCXAXT1	43.5"	3
		42	AQU3422RCXAXT1	49.5"	4
480/277 Vac, 3 Phase	100-250	18	AEU3182RCXAXT1	37.5"	2
		30	AEU3302RCXAXT1	43.5"	3
		42	AEU3422RCXAXT1	49.5"	4

Note: Main bus rated 250A main breaker and 225A main lug

TGL20 ground lug quantities

Interior Type	No. of TGL20s Required by Panel Rating		
	100-250A	400A	600A
Main Lug Only	1	1	2
Main Lug and Feed-thru	2	2	4
Main Circuit breaker Only	1	1	–
Main Circuit breaker and Sub-feed	1	1	–
Main Circuit breaker and Feed-thru	2	2	–

¹ For TGL20 ground lug quantities, see TGL20 Ground Lug Quantities table above.

² For isolated ground, use EGS12. When using the EGS12, 3, 5 and 7 ground lugs (TGL20s) are required for 18, 30 and 42 circuits respectively.

ReliaGear lighting panelboards

Pro-Stock, unassembled lighting panels



NEMA 1
Front options sold separately



NEMA 3R



NEMA 4/4X/12
painted galvaneal



NEMA 4/4X/12
stainless steel

2. Select box

Select a box of the correct height (see Step 1). Boxes come with blank endwalls. If endwalls with knockouts are required, also order knockout endwall kit AKEW2.

Note: This is only available for NEMA 1 20" wide enclosures.

Box Height	NEMA 1	NEMA 3R	NEMA 4, 4X & 12 Painted Galvaneal	NEMA 4, 4X & 12 Stainless Steel
	20"	20"	20"	20"
31.5"	AB31B	AB313	AB314	AB314S
37.5"	AB37B	AB373	AB374	AB374S
43.5"	AB43B	AB433	AB434	AB434S
49.5"	AB49B	AB493	AB494	AB494S
64.5"	AB64B	AB643	AB644	AB644S
76.5"	AB76B	AB763	AB764	AB764S



Standard



Standard with quarter turn lock



Door within door



Front hinged to Box

3. Select front

Select a front of the correct height (see Step 1).

Front Height	Standard (20")		Door Within Door (20")		Front Hinged To Box (20")	
	Flush	Surface	Flush	Surface	Flush	Surface
31.5"	AF31F	AF31S	AF31FP	AF31SP	AF31FD	AF31SD
37.5"	AF37F	AF37S	AF37FP	AF37SP	AF37FD	AF37SD
43.5"	AF43F	AF43S	AF43FP	AF43SP	AF43FD	AF43SD
49.5"	AF49F	AF49S	AF49FP	AF49SP	AF49FD	AF49SD
64.5"	AF64F(T)	AF64S(T)	AF64FP(T)	AF64SP(T)	AF64FD(T)	AF64SD(T)
76.5"	AF76F(T)	AF76S(T)	AF76FP(T)	AF76SP(T)	AF76FD(T)	AF76SD(T)

(T) Fronts with quarter turn lock for applications with XT5 circuit breakers. Applicable for NEMA 1 enclosures only.

ReliaGear lighting panelboards

Pro-Stock, unassembled lighting panels

4. Select main and/or sub-feed circuit breaker kit

Select main circuit breaker kit appropriate for your interior type (see Step 1), amp rating and kAIC rating.
If a sub-feed circuit breaker is required, repeat the selection process.

Note: 400A circuit breaker kits cannot be used for sub-feed applications in Pro-Stock panelboards.

For additional details, see Section 6 of the BuyLog.

MBM124WB	XT5NU340ABFN000XXX
MBB13WB	XT4NU3225AFJ000XXX
MBB16WB	XT4NU3225AFJ000XX ²
MBM134WB	XT5NU340ABFN000XXX
MBC33WB	XT1HU3125AFD000XXX
MBB33WB	XT4HU3225AFJ000XXX
MBB36WB	XT4HU3200AFJ000XXX ²
MBM334WB	XT5HU340ABFN000XXX
MBM324WB	XT5HU340ABFN000XXX

Interior Type	Cat. No. ¹	Rating (Amps)	No. of Poles	Circuit breaker Short Circuit Rating (kAIC)									
				10	14	22	25	35	50	65	100	150	200
AQU1: 240 VAC, 1 Phase	MB612	100	2	THQB	–	THHQB	–	–	–	–	–	–	–
	MB614	100	4	(x2) THQB	–	(x2) THHQB	–	–	–	–	–	–	–
	MBA12	225	2	A2A	–	A2N ²	–	–	–	–	–	–	–
	MBM324	400	2	–	–	–	–	–	–	XT5N	XT5S	XT5H	XT5L
	MBM124WB	400	2 ³	–	–	–	–	–	–	XT5N	–	–	–
AQU3: 208/120 VAC, 3 Phase	MB613	100	3	THQB	–	THHQB	–	–	–	–	–	–	–
	MB616	100	6	(x2) THQB	–	(x2) THHQB	–	–	–	–	–	–	–
	MBA13	225	3	A2A	–	A2N ²	–	–	–	–	–	–	–
	MBA16 ⁴	400	6	(x2) A2A	–	(x2) A2N ²	–	–	–	–	–	–	–
	MBB33	150	3	–	–	–	–	–	–	XT4N	XT4S	XT4H	XT4L
	MBB33	225	3	–	–	–	–	–	–	XT4N	XT4S	XT4H	XT4L
	MBB13WB	225	3	–	–	–	–	–	–	XT4N	–	–	–
	MBB36 ⁶	400	6 ⁶	–	–	–	–	–	–	(x2) XT4N	(x2) XT4S	(x2) XT4H	(x2) XT4L
	MBB16WB ⁶	400	6 ⁶	–	–	–	–	–	–	(x2) XT4N	–	–	–
	MBM334	400	3	–	–	–	–	–	–	XT5N	XT5S	XT5H	XT5L
	MBM134WB	400	3	–	–	–	–	–	–	XT5N	–	–	–
	MBM124WB ⁵	400	2 ³	–	–	–	–	–	–	XT5N	–	–	–
AEU3; 480/277 VAC, 3 phase	MB423	100	3	–	TEY	–	–	–	–	–	–	–	–
	MB426	100	6	–	(x2) TEY	–	–	–	–	–	–	–	–
	MBC33	125	3	–	–	–	XT1N	XT1S	–	XT1H	–	–	–
	MBC33WB	125	3	–	–	–	–	–	–	XT1H	–	–	–
	MBB33	150	3	–	–	–	XT4N	XT4S	–	XT4H	XT4L	XT4V	XT4X
	MBB33	225	3	–	–	–	XT4N	XT4S	–	XT4H	XT4L	XT4V	XT4X
	MBB33WB	225	3	–	–	–	–	–	–	XT4H	–	–	–
	MBB36 ⁶	400	6 ⁶	–	–	–	(x2) XT4N	(x2) XT4S	–	(x2) XT4H	–	–	–
	MBB36WB ⁶	400	6 ⁶	–	–	–	–	–	–	(x2) XT4H	–	–	–
	MBM334 ⁷	400	3	–	–	–	–	XT5N	XT5S	XT5H	–	–	–
	MBM334WB ⁷	400	3	–	–	–	–	–	–	XT5H	–	–	–
	MBM324WB ^{5,7}	400	2 ⁶	–	–	–	–	–	–	XT5H	–	–	–

¹ Circuit breaker not included except for “WB” kits (where product number ends in “WB”). “WB” kits include a circuit breaker, mounting kit and load-side lugs.

² Actual Circuit breaker Short Circuit Rating is 25kAIC

³ Use 2 outer poles for 3 pole applications.

⁴ Can use (2) 3 pole devices only, no 2 pole allowed

⁵ For Subfeed application only

⁶ 6 poles of subfeed applies only to 400A and 600A interiors.

⁷ Only compatible with standard fronts with a quarter turn lock. Order front part number with suffix “T” at the end of the SKU.

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Pro-Stock, unassembled lighting panels

5. Typical main circuit breakers

- Skip Step 5 if you selected a main circuit breaker kit ending in “WB” —no circuit breaker is required.
- To correlate circuit breaker types with the kAIC rating in specific panelboards, see the table for Step 4. For more rating details, see ReliaGear Lighting Panels Rating Series Labels (1TQC173100E0001).
- Use 2 outer poles for 3 pole applications
- For TEY and THQB main circuit breakers, see branch circuit breakers tables in Step 7.

Tmax XT Circuit breakers (3-pole) For use with appropriate main circuit breaker kit (see Step 4).

240V KAIC	480V KAIC	Breaker Description	Product Number	Wire Range (Cu/Al)	Cables per Lug
65	65	XT1H 125 TMF 30 AMPS 3P	XT1HU3030AFD000XXX	Cu Al 1x14–2/0 AWG	1
65	65	XT1H 125 TMF 60 AMPS 3P	XT1HU3060AFD000XXX	Cu Al 1x14–2/0 AWG	1
65	65	XT1H 125 TMF 100 AMPS 3P	XT1HU3100AFD000XXX	Cu Al 1x14–2/0 AWG	1
65	65	XT1H 125 TMF 125 AMPS 3P	XT1HU3125AFD000XXX	Cu Al 1x14–2/0 AWG	1
65	35	XT1S 125 TMF 100 AMPS 3P	XT1SU3100AFD000XXX	Cu Al 1x14–2/0 AWG	1
65	65	XT4H 250 TMF 150 AMPS 3P	XT4HU3150AFJ000XXX	Cu Al 1x4 AWG–300 kcmil	1
65	65	XT4H 250 TMF 200 AMPS 3P	XT4HU3200AFJ000XXX	Cu Al 1x4 AWG–300 kcmil	1
65	65	XT4H 250 TMF 225 AMPS 3P	XT4HU3225AFJ000XXX	Cu Al 1x4 AWG–300 kcmil	1
65	35	XT4S 250 TMF 175 AMPS 3P	XT4SU3175AFJ000XXX	Cu Al 1x4 AWG–300 kcmil	1
65	35	XT4S 250 TMF 200 AMPS 3P	XT4SU3200AFJ000XXX	Cu Al 1x4 AWG–300 kcmil	1
65	35	XT4S 250 TMF 225 AMPS 3P	XT4SU3225AFJ000XXX	Cu Al 1x4 AWG–300 kcmil	1
65	35	XT4S 250 TMF 250 AMPS 3P	XT4SU3250AFL000XXX	Cu Al 1x4 AWG–300 kcmil	1
65	35	XT4N 250 ekip DIP 60-150 AMPS 3P	XT4NU3150FFJ000XXX	Cu Al 1x4 AWG–300 kcmil	1
65	35	XT4S 250 ekip DIP 100-250 AMPS 3P	XT4SU3250FFL000XXX	Cu Al 1x4 AWG–300 kcmil	1
65	65	XT4H 250 ekip DIP 100-250 AMPS 3P	XT4HU3250FFL000XXX	Cu Al 1x4 AWG–300 kcmil	1
65	65	XT5H 400 TMA 400 AMPS 3P	XT5HU340ABFN000XXX	Cu Al 2x2/0 AWG–500 kcmi	2
65	50	XT5S 400 TMA 300 AMPS 3P	XT5SU330ABFN000XXX	Cu Al 2x2/0 AWG–500 kcmi	2
65	50	XT5S 400 TMA 400 AMPS 3P	XT5SU340ABFN000XXX	Cu Al 2x2/0 AWG–500 kcmi	2
65	35	XT5N 400 ekip DIP 16-400 AMPS 3P	XT5NU340AFFN000XXX	Cu Al 2x2/0 AWG–500 kcmil	2
65	65	XT5H 400 ekip DIP 16-400 AMPS 3P	XT5HU340AFFN000XXX	Cu Al 2x2/0 AWG–500 kcmil	2

Main or subfeed circuit breakers for use with RQ panels (208/120 Vac 3-phase or 240 Vac single phase). See Step 4.

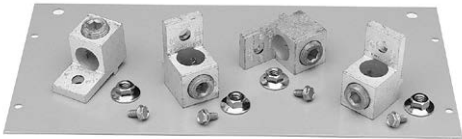
Amp Rating	2-pole		3-pole	
	10kAIC	22kAIC	10kAIC	22kAIC
	Product ³ Number	Product Number	Product Number	Product Number
125	A2A125TL-2	A2N125TL-2	A2A125TT	A2N125TT
150	A2A150TL-2	A2N150TL-2	A2A150TT	A2N150TT
175	A2A175TL-2	A2N175TL-2	A2A175TT	A2N175TT
200	A2A200TL-2	A2N200TL-2	A2A200TT	A2N200TT
225	A2A225TL-2	A2N225TL-2	A2A225TT	A2N225TT

ReliaGear lighting panelboards

Pro-Stock, unassembled lighting panels

6. Select main lug kit and accessories

Select lug kit(s) for main lug and/or feed-thru applications, if required.
(All lugs are suitable for interiors with either copper or aluminum bus.)
Also select any accessories required.



Main lug kits

Lug Type	Amp Rating	Standard		Oversized		200% Neutral
		Product Number	Wire Range	Product Number	Wire Range	Product Number
Pressure	225	MLA1	6-350 MCM	MLA2	1-600 MCM or (2) 1/0-250 MCM	NKA
	400	MLA41	2-600 MCM or (2) 1/0-250 MCM	MLA62	3/0-800 MCM	NKA4 ²
	600	MLA61	(2) 2/0-500 MCM	MLA62	3/0-800 MCM	–
Copper	225	MLR1	4-450 MCM	MLR2	1-600 MCM	NKR
	400	MLR41	1-600 MCM	MLR61	(2) 2/0-500 MCM	NKR4
	600	MLR61	(2) 2/0-500 MCM	–	–	–
Compression	225	MLT1	2/0-300 MCM	MLT2	4/0-500 MCM	NKT
	400	MLT42	250-600 MCM	MLT41	500-750 MCM ¹	NKT4
Dual	225	MLA2	2-600 MCM or (2) 1/0-250 MCM	–	–	–
Main	400	MLA61	(2) 2/0-500 MCM	–	–	–

¹ 500 MCM Cu, 750 MCM Al.
² For 200% neutral feed-thru, order NKA4FT, (GO-101P). Wire range (2) 2/0 – 600 MCM or (4) 4-250 MCM.

Accessories

Service Entrance ³	
Amp Rating	Product Number
225A	BNDKT
400A	BNDKT6
600A	BNDKT6

³ Service entrance kit includes a bonding strap with hardware and a service entrance label.

Main breaker service entrance lug cover kit

Breaker Type	Poles	Product Number
Formula A2	2	A2P2SB1
Formula A2	3	A2P3SB1
Tmax XT1	3	XT1P3SB1
Tmax XT4	3	XT4P3SB1
Tmax XT5	3	XT5P3SB1

Spare lugs

Frame	Poles	Product Number	Wire-Cu-Al (Unless otherwise specified)	
			Per Lug	Range
A2	2	1SDA069983R1 ⁵	1	Cu 1x1 AWG-250kcmil Al 1x2/0 AWG-300
A2	3	1SDA069982R1 ⁵	1	Cu 1x1 AWG-250kcmil Al 1x2/0 AWG-300
XT1 ⁴	3	1SDA075837R1 ⁵	1	Cu Al 1x14-2/0 AWG
XT4-250A ⁴	3	1SDA075865R1 ⁵	1	Cu Al 1x3/0 AWG-350kcmil ⁶
XT4 (<250A) ⁴	3	1SDA075861R1 ⁵	1	Cu Al 1x4 AWG-300kcmil
XT5 ⁴	3	1SDA113066R1 ⁵	2	Cu Al 2x2/0 AWG-500kcmil

⁴ 3 pole XT breakers can be used in 2 pole applications
⁵ Kits include 3pcs lug
⁶ External solution: lugs to be mounted on EF terminals in the kit

ProCare Kit ⁷	
Description	Product Number
ProCare Kit for Pro-Stock panelboard installation and maintenance	PROCARE

⁷ ProCare Kit includes: (5) filler plate hardware kits, (9) bus stud nuts, (5) MLA1 filler plates, (2) 225A phase barriers, (2) feed-thru barriers, (1) 400/600A phase barrier, (50) directory cards/rating books, (50) circuit number strips (1-48), (50) circuit number strips (43-84), (5) standard locks and keys, (50) deadfront screws, (10) RQ/RE front hardware kits, (10) AD front hardware kits, (50) service disconnect labels, (50) main labels.

ReliaGear lighting panelboards

Pro-Stock, unassembled lighting panels

7. Typical bolt-on branch circuit breakers

These tables show typical branch circuit breakers, but do not include all branch circuit breakers that can be used with Pro-Stock panelboards.

Branch circuit circuit breakers for use with RQ panels (208/120 Vac 3-phase or 240 Vac single phase)

Amp Rating	10kAIC			22kAIC		
	1-pole	2-pole	3-pole	1-pole	2-pole	3-pole
	Product Number	Product Number	Product Number	Product Number	Product Number	Product 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

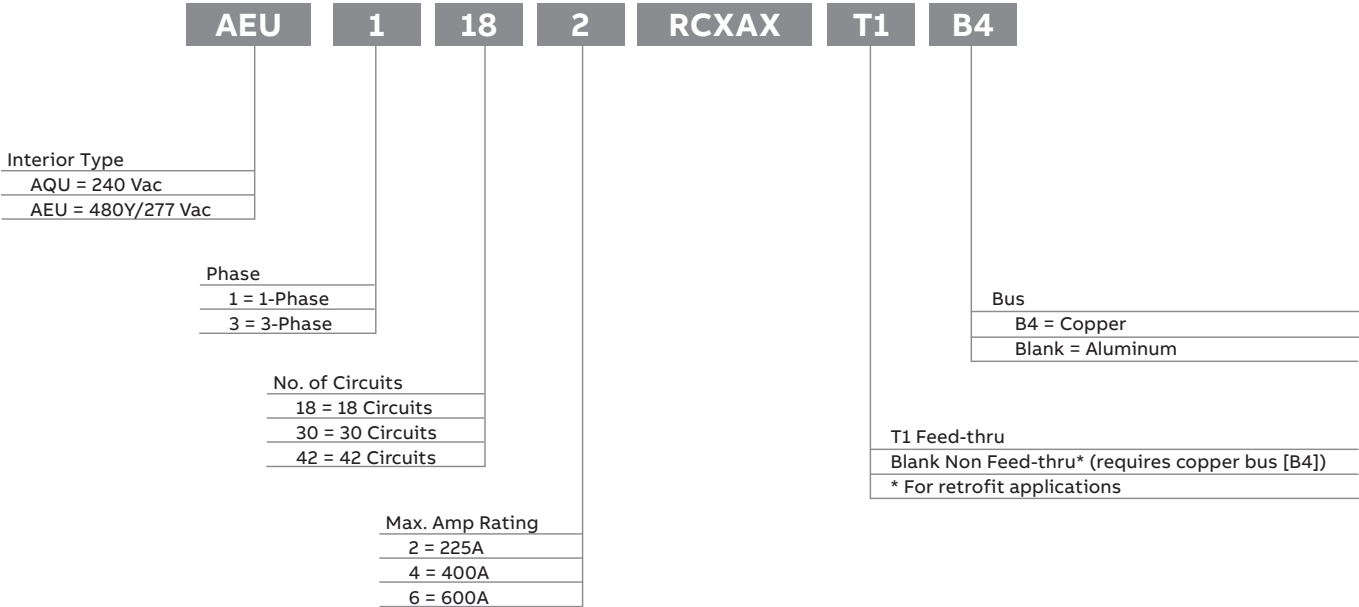
Branch circuit circuit breakers for use with RE panels (480/277 Vac 3-phase)

Amp Rating	14kAIC		
	1-pole	2-pole	3-pole
	Product Number	Product Number	Product Number
15	TEY115	TEY215	TEY315
20	TEY120	TEY220	TEY320
30	TEY130	TEY230	TEY330
40	TEY140	TEY240	TEY340
50	TEY150	TEY250	TEY350
60	TEY160	TEY260	TEY360
70	TEY170	TEY270	TEY370
80	TEY180	TEY280	TEY380
90	TEY190	TEY290	TEY390
100	TEY1100	TEY2100	TEY3100

ReliaGear lighting panelboards

Pro-Stock, unassembled lighting panels

Pro-Stock interiors product number structure



ReliaGear lighting panelboards

Product options

Enclosure options

Box extensions—For additional end gutter space or conduit skirt applications—see page 11-21.

Equipment grounds—factory supplied with panelboard

Description	Product Number
Field installed kits	
Standard bonded to box—for each 12 branch positions	TGL2
Copper bonded to box—for each 12 branch positions	TGC2
Standard-isolated/insulated—for each 12 branch positions	EGS12
Copper-isolated/insulated—for each 12 branch positions	EGC12
Main lug for above terminal kits	TGL20

Optional equipment grounds

Description	Product Number
Aluminum Extruded Bonded	AEBG
Copper Extruded Bonded	AEBGC
Aluminum Extruded Isolated	AEIG
Copper Extruded Isolated	AEIGC
Copper Isolated/Bonded	ASPGIBC

THQB/THHQB/THQL/THHQL/TEY filler plates

Product Number
TQLFP1

Filler plates

Description	Product number
T(HE)D/SE/FB (for legacy A series panels)	TEDFP1
XT2/FB (for ReliaGear panels) (contains 10 filler plates)	XT2FBFP10

Circuit breaker mounting¹ hardware kits

Description	Product Number
Circuit breaker type TED/THED4/SE	ASPTED3P
Circuit breaker type FB	ASPFBRD3P
Circuit breaker type Formula A2	ASPA23P
Circuit breaker type Tmax XT1— for mounting 3 poles	ASPXT13P ²
Circuit breaker type Tmax XT2— for mounting 3 poles	ASPXT23P ²
Circuit breaker type Tmax XT4— for mounting 3 poles	ASPXT43P ²

¹ Use to mount circuit breaker in existing space.

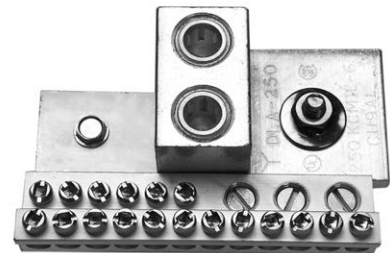
² Includes screws, washers and ReliaGear panelboard connectors.



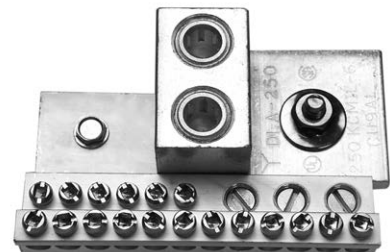
AEBG



AEBGC



AEIG



AEIGC



ASPGIBC

ReliaGear lighting panelboards

Accessories

Field installed kits/replacement parts

Order by product number from factory

Endwall kits

Field installed. For standard 20"w x 5.81"d boxes.

Product Number	Description	Qty.
ABEW2	Blank	1
AKEW2	Knockout	1

Panelboard locks

Description	Product Number
T-Handle Quarter Turn Kit ¹	ASPQTRT
Flush Quarter Turn Kit ¹	ASPQTRK
Replacement Lock with Std. Key	569B737P1
Additional Keys for Above Lock	569B737P5
Yale Lock Kit	ASPYALE47
Corbin Lock Kit	ASPCORBNTU1
Replacement Lock with ABB75 Key	569B737P2

¹ The quarter turn kits are only compatible with factory-built quarter turn fronts. They cannot be used to convert other locks (standard, Corbin, etc.) to quarter turn. Keys are interchangeable with standard, Corbin, etc.

Locking devices

Frame Style	Description	Product Number
Padlocking Device (single padlock)		
Q	THQB, THHQB, THQL, THHQL	THP100
E	TEY	TEYPLD1
Formula	Formula A2 3 pole	KA2LD
Formula	Formula A2 2 pole	KA2LDOR
Tmax XT	XT1	KXTBPLLOPCL
Tmax XT	XT2 and XT4	KXTCPLLOPCL
Tmax XT	XT5	KXT5PLLOPLC
Tmax XT	XT6	KXT6PLLOPLC
Handle Locking (nonpadlocking)		
Q	THQB, THHQB, THL, THHQL	THL103
E	TEY	TEYLD1
Q/E	Filler plate for Q and TEY breakers	TQLFP1
	Safety catch for trough covers	ACHK
	Gasketing Kit	AGSK

Main breaker service entrance lug cover kit

Breaker Type	Poles	Product Number
Formula A2	2	A2P2SB1
Formula A2	3	A2P3SB1
Tmax XT1	3	XT1P3SB1
Tmax XT4	3	XT4P3SB1
Tmax XT5	3	XT5P3SB1

Spare lugs

Frame	Poles	Product Number	Wire-Cu-Al (Unless otherwise specified)	
			Per Lug	Range
A2	2	1SDA069983R1 ³	1	Cu 1x1 AWG-250kcmil Al 1x2/0 AWG-300
A2	3	1SDA069982R1 ³	1	Cu 1x1 AWG-250kcmil Al 1x2/0 AWG-300
XT1 ²	3	1SDA075837R1 ³	1	Cu Al 1x14-2/0 AWG
XT4-250A ²	3	1SDA075865R1 ³	1	Cu Al 1x3/0 AWG-350kcmil ⁴
XT4 (<250A) ²	3	1SDA075861R1 ³	1	Cu Al 1x4 AWG-300kcmil
XT5 ²	3	1SDA113066R1 ³	2	Cu Al 2x2/0 AWG-500kcmil

² 3 pole XT breakers can be used in 2 pole applications

³ Kits include 3pcs lug

⁴ External solution: lugs to be mounted on EF terminals in the kit



T-Handle Quarter Turn Kit



Replacement Lock with Standard Key - Black



Corbin Lock



Replacement Lock with ABB75 Key - Red



Fixed padlock in the open position - PLL



Padlock in the open position - PLC



Handle locking THL103

ReliaGear lighting panelboards

Accessories

Field installed kits/replacement parts

Order by product number from factory

Panelboards parts

Description	Product Number
Directory Card	139C5612P3
Circuit Numbering Strips - 1-48	569B806G1
49-84	569B806G2
85-126	569B806G3
Adhesive Backed Lamicaid Nameplate 3/4 in. x 3 in.	315A7190P1
Metal Directory Card Holder	139C5491G1
Directory Card Holder	139C5491P4
Delta Hi-leg Conversion Kit, to Add B-Phase Plug on RL Panels	APHBL
Bolt on RE/RQ Panels	APHBQ
NEMA 3R/12 Tamper Proof Tork Screw Kit	NEMATRX
AD 25 to 65 kAIC Barrier kit	ASP25AD65KA ²
Service Entrance Kit	ASPSERENT
2 wire Relay Kit	ASP2WRelay
RQ/RL/RE Rail Bracket	ASPAQLEBKT
Front Flush Adjust Kit	ASPFLUSHADJ
RE Front Mounting Kit	139C5720G3
RQ/RL Front Mounting Kit	139C5720G6
AD Front Mounting Kit	139C5720G9
Front Hinge to Box Mounting Kit	139C5700G6
Front Extension Mounting Kit	139C5700G11
Can of Touch-up Paint	887878A00

² Included in factory assembled panels—AD panels with Spectra branch circuit breakers.

Permanent circuit number kits

Product Number		Description
RQ, RL, RE	AD	
APN48	APN48AD	No's 1-48
APN84	APN84AD	No's 43-84
APN126	APN126AD	No's 85-126

Box extensions

Bolts to ReliaGear box with or without box endwall in place. Extensions can be combined to obtain lengths greater than 18 and 24 inches.

Box Width and Depth	Box Mounting	Box Extension Length (Inches)	Box Extension Product Number
20 x 5.81	Flush	9	ABX2509F
		18	ABX2518F
		24	ABX2524F
	Surface	9	ABX2509S
		18	ABX2518S
		24	ABX2524S
		31	ABX2531S
		37	ABX2537S
		43	ABX2543S
		49	ABX2549S
		55	ABX2555S
		64	ABX2564S
		76	ABX2576S
30 x 5.81	Flush	18	ABX3518F
		24	ABX3524F
	Surface	18	ABX3518S
		24	ABX3524S
30 x 7.81	Flush	18	ABX3718F
		24	ABX3724F
	Surface	18	ABX3718S
		24	ABX3724S

Box Extensions Covers Only

10 covers per kit.

Description	Product Number
9" Covers Surface	ASPABX09S
9" Covers Flush	ASPABX09F
18" Covers Surface	ASPABX18S
18" Covers Flush	ASPABX18F
64" to 76" Covers Surface	ASPABX20S
64" to 76" Covers Flush	ASPABX20F

ReliaGear lighting panelboards

Branch circuit monitoring

The Branch Circuit Monitoring (BCM) unit provides a cost-effective integrated solution for ReliaGear Lighting Panelboard power monitoring and submetering applications. With exceptional performance, the BCM unit monitors key electrical parameters of the main circuit and various branch circuits coming into the panelboard. This information can be transmitted via the RS-485 communication system in order to analyze usage and identify potential cost saving measures and improve load management. Offering IEC Class 1 revenue grade metering accuracy, the revenue grade BCM meter can be used for tenant billing and cost allocation.

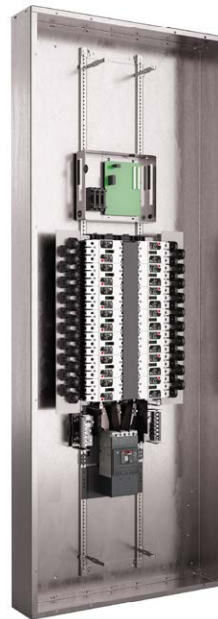
Features

- Solutions up to 800A
- IEC Class 1 revenue grade metering accuracy
- Offers Solid Core or Split Core BCM selection process
- Monitor up to 50 panelboards on one RS-485 drop
- Reports volts, amps, power, and energy for each circuit
- Solid Core monitors 42 circuits (and optional mains)
- Split Core monitors up to 66 circuits (and optional mains) configurable alarm thresholds improve load management
- Ability to set the orientation and numbering of the circuits
- 1/4 to 125¹ Amp monitoring – the widest range available
- 1-, 2-, 3-pole circuit breaker support
- 5-year warranty
- Modbus RTU via RS485 communications

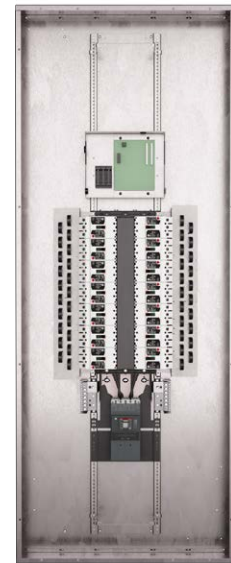
¹ Must use Split Core BCM for 110A and 125A monitoring.
Solid Core available for 42 circuits only, 100A max.
Split Core available up to 66 circuits max. and up to 125A max.

References

1TQC213600Z0001 for additional information
empower for configuration/quotation purposes



BCM Solid Core



BCM Split Core



BCM Split Core CT illustration, open and closed

ReliaGear lighting panelboards

AMP1 integrated power and energy

The AMP1 Power & Energy Meter provides a cost-effective integrated solution for ReliaGear Lighting panelboard power monitoring and submetering applications. With exceptional performance, the AMP1 monitors key electrical parameters of the main power coming into the panelboard. This information can then be transmitted to a building automation system (BAS), or similar system, to analyze usage and identify potential cost saving measures. Offering ANSI 12.20 0.5% accuracy, the revenue grade AMP1 meter can be used for tenant billing and cost allocation.

Features

- Solutions up to 800A
- Revenue Grade, ANSI 12.20 0.2% accuracy
- Monitors voltage, amperage, power, and energy
- Backlit LCD Display
- Data logging option to ensure data is still preserved locally
- Communicates via Modbus RTU or BACnet – Versatile and widely used protocols.
- User-enabled password protection
- UL-67 approved
- 5-Year warranty
- Earn points towards LEED Certification



Meter

Type	Product Number
Pulse	AMP1B1
Modbus	AMP1C2
Modbus & data logger	AMP1C3
Bacnet & data logger	AMP1H5

ReliaGear lighting panelboard ratings & capabilities

	TYPE RQ	TYPE RE	TYPE RS
Max Voltage	240V	480Y/277V, 125/250 Vdc	480Y/277V, 125/250 Vdc
Max Amperage	800A	800A	800A
Fully Rated	65kAIC at 240V	18kAIC at 480Y/277V, 65kAIC at 240V	65kAIC at 480Y/277V, 100kAIC at 240V
Series Rated	200kAIC at 240V	100kAIC at 480V	100kAIC at 480V
Main Lug	600 Amp Max	600 Amp Max	600 Amp Max
Main Circuit breakers	THQB, TEY, XT1, XT4, XT5, XT6	TEY, TEYF, XT1, XT4, XT5, XT6	TEYD/H/L, XT1, XT4, XT5, XT6
Branch Circuit breakers	15A-100A, 1P, 2P, 3P THQB	15A-100A, 1P, 2P, 3P TEY or TEYF	15A-125A, 1P, 2P, 3P TEYD/H/L

Optional accessories

To add an AMP1 meter to an existing/non-metering panel, enclosure, CTs and fuse kit can be ordered separately.

Current transformer¹

Amp Rating	Product Number
100	AMP1V100A
200	AMP1V200A
300	AMP1V300A
400	AMP1V400A
600	AMP1V600A
800	AMP1V800A
1000	AMP1V1000A
1200	AMP1V1200A
2000	AMP1V2000A

Enclosure²

AMP1N4	AMP1FUSE
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Fuse Kit³

¹ Qty 3 per meter required for three pole circuit breaker applications; qty 2 per meter required for two pole circuit breaker applications.

² Qty 1 per meter required.

³ Qty 1 per meter required.

ReliaGear lighting panelboards

Title 24 solutions

California's Title 24, Part 6, Building Energy Efficiency Standards, §130.5(b) requires electrical systems are to be arranged to allow metering of electrical loads by load type or other classifications. While the meters themselves do not need to be installed, electrical equipment that is an intended location for this metering must be able to allow future current and voltage sensing. Section 130.5(b) applies to new electrical system installations or when complete electrical systems are replaced. The requirement does not apply to modifications made in existing electrical systems, such as adding a new circuit breaker to an electrical panel

Branch Circuit Monitoring (BCM) upgradable panels are a practical, cost effective way to meet Title 24 Part 6 §130.5(b) requirements. This method provides freedom to place branch devices anywhere in a panel regardless of load type. This means that panels can be installed with less labor since there is no further time dedicated to validating the construction of a complex layout.

Branch Circuit Monitoring (BCM) upgradable panelboards allow the ability to meter each branch circuit individually without the complexity and cost of physically grouping similar branch devices together within the panel. Title 24 compliance can be attained with BCM upgradable panels no matter where a branch device is located in the panel, provided a single load type is wired per branch. The BCM upgradable panelboards provide more installation flexibility and better density per panel than disaggregated load monitoring. The field upgrade kit can be installed after the panel is commissioned. The kit includes a meter and split core CTs. BCM upgradable panels retain density and flexibility when adding additional branch devices regardless if metering has been implemented.

Split bus panels are another cost-effective solution for disaggregating multiple type of loads that can be metered separately in the future using additive/subtractive current transformer wiring techniques. Up to seven sections can be configured in the panel, with space in between each section for future CTs. The quantity of the branches in each section is flexible and can be any multiple of six 1-pole branches. The accurate and inexpensive AMP1 meter can be used for the future metering, which must be separately mounted.

Features

- Solutions up to 800A
- Offers 3 solutions: BCM upgradable panels, field upgrade kits or split bus panels
- 1, 2, 3 pole circuit breaker support

ReliaGear neXT panelboards

Applications

Standards

All ABB power panelboards meet the latest revision of the following standards.

- National Electrical Code-Ref. Article 384
- UL67 panelboards: UL50 cabinets and boxes UL943 GFCI
- UL489 molded case circuit breakers
- cUL listing
- International Building Code Seismic Certification
- NEMA PB1

Application

The following classifications and limitations of panelboards have been established by the Underwriters Laboratories and the National Electrical Code. Note— “an overcurrent protective device is a circuit breaker pole or single fuse”. Panelboards have no fire wall ratings. All 50/60 Hz rated. There is no limitation as to the number and rating of branch circuits, except as determined by available enclosures.

Interrupting ratings—circuit breakers

Panelboards have integrated short circuit ratings. When fully rated, the rating is that of the lowest rated device in the panelboard. When series connected rated, the rating is that of the main device in panel (or remote line side protected device) and branch-tested/UL Listed combination.

Short-circuit ratings—fusible switch units

The interrupting rating of the fuse must equal or exceed the short-circuit rating of the switch. If it is lower, then the interrupting rating of the switch is the same as the fuse. Switches have no short-circuit rating if renewable fuses are used.

Seismic ratings

All ReliaGear neXT and Spectra™ Panelboards have been tested and certified to meet the seismic requirements of International Building Code (IBC)

Selective coordination

NFPA 70, the National Electrical Code (NEC), requires overcurrent devices to be selectively coordinated when applied in emergency standby systems (Article 700), legally required standby systems (Article 701), Critical Power Systems (Article 708) and when supplying multiple elevator circuits (620.62). The NEC defines the performance standard of selective coordination in Article 100, Definitions. Beginning with the definition in effect with the 2014 NEC, the combinations of circuit breakers that can comply with this standard are limited. Those limitations include the number of circuit breaker poles, current ratings of either the line side or load side circuit breaker, and the maximum interrupting current that selective operation extends to. These limitations can affect the selection of circuit breakers used in a panelboard. ABB has documented selective pairs of their molded case circuit breakers in publication 1SDC210066D0201. This publication should be consulted when applying panelboards in the applications noted above.



ReliaGear neXT

ReliaGear neXT features

- Completely field modifiable
- Quick connect component design that creates fast and secure connection
- IP20 interior features
- Factory assembled interior and bulk pack interior options
- Tmax XT vertically mounted main circuit breakers with fixed thermal magnetic and adjustable trip units available
- ABB Ability™

ReliaGear neXT panelboards

Types

ReliaGear neXT

Service information:

240 V AC; 3-phase, 3-wire
240/120 V AC Delta Hi-Leg; 3-phase, 4-wire
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
Fully rated: 100KAIC at 480/277Vac
Fully rated: 65kA at 600Vac

Main circuit breakers:

250A-XT4
600A-XT5
1200A-XT7

Main lug:

250A - 1200A

Branch circuit breakers (plug-in):

Amperage-15-1200A
Poles-1, 2, 3
Types- Tmax XT1, XT4, XT5, XT7, Record Plus FB

Enclosures

Heights - 60", 72", 84", 96"
Widths - 30", 40", 45"
Depths - 10.8" for NEMA 1 and 14.5" for all other NEMA types

Features

- Main bus is IP20 compliant, 250-1200 amp, copper or aluminum
- Enclosures available in NEMA Type 1, Type 3R/12, Type 4/4X
- 3 box widths simplify installation and design
- Panelboard is modular and completely field modifiable
- Hinged gutter covers standard for easy access to wire way
- Circuit breakers have small form factor and enable increased density within the panelboard
- Circuit breakers and accessories plug in quickly with line side connector and secure with bolted connection.
- Vertically mounted main circuit breakers available
- Captive hardware on branch circuit breakers
- Front accessible main lug assembly
- 100% rated circuit breakers available
- Individual circuit breaker cover plates



ReliaGear neXT

ReliaGear neXT panelboards

Pricing and ordering through empower, distributors or sales

Information required to price and order a panelboard

- Short-circuit rating (KAIC)
- Service entrance (Yes) or (No)
- Mark(s) (LPA, MDP, RPC, etc.)
- Service (3-ph, 4-w 600 volts; 3-ph, 3-w 480 volts, etc.)
- Entrance of incoming line (top) or (bottom)
- Interiors can arrive assembled (Factory Assembled) or can be assembled on the job site (Bulk Pack). Bulk Pack is the default.
- Incoming wire size (500kcmil, 750 kcmil, etc.)
- Incoming number of wires per phase (1, 2, 3, etc.)
- Wire material (copper or aluminum)
- Main type (main lugs only, circuit breaker, fusible switch, etc.)
- Amperage of main bus
- Frame of main circuit breaker (XT5, XT6, etc.) (if applicable)
- Main circuit breaker options (shunt trip, pad lock, etc.)
- ABB Ability (EKIP signaling and Cloud gateway)
- Equipment ground (optional)
- Branches
 - Amp rating (20, 30, 50, etc.)
 - Poles (1, 2, or 3)
 - Frame (FB, XT1, XT4, XT5, XT7)
 - Quantity (1, 10, 15, etc.)
- Options:
 - Interior (bus material, neutral rating, etc.)
 - Front (door in door, etc.)
 - Ground fault protection (yes) or (no)
- Type of panel (ReliaGear neXT, Spectra ADS, etc.)

Pricing and layout for factory assembled and unassembled panelboards through empower.

- Collect the information required to price and order a panelboard
- Have your distributor, sales or customer service contact visit **empower.abb.com** to configure.
- Configure and price your power panel
- View Bill of Material, Drawing, and relevant submittals documentation
- Select factory assembled or bulk pack interiors before creating your new order
- For additional details on selecting ReliaGear next panelboards, please refer to publication 1SQC900001C0201.

ReliaGear neXT panelboards

Pricing and ordering through empower, distributors or sales

The following provides useful information about design logic driving the configurations in empower.

1. Interior configurations

Interior generated by bus type, material, panel rating and X space.

Possible combinations of bus stack and enclosures

Bus height	16X			24X			32X			40X		
Bus type	NN	BL	BF	NN	BL	BF	NN	BL	BF	NN	BL	BF
Enclosure height (in.)												
60	•	•	•	•	•	•						
72		•	•		•	•	•	•	•			
84		•	•		•	•	•	•	•	•		
96					•	•		•	•		•	•

NN: clean bus, no lug pads

BF: feedthrough, 2 sets of lug pads

BL: bolted lug pad



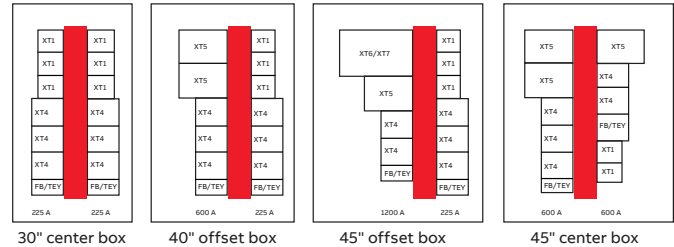
2. Panel configurations

Once the main bus ampacity is determined, the height of the bus determines both the height of the panelboard and the maximum number of available outgoing branch Tmax XT and Record Plus® FB circuit breaker X-spaces. Different circuit-breaker frame sizes require different numbers of mounting positions on the bus stack.

The bus stack can either be mounted in the center of the box or be offset to the right (default) or to the left. With an offset configuration, the maximum ampacity of the branch circuit breakers mounted on the narrow and wide sides is different. This allows the panelboard to comply with the wire-bending space requirements per UL 67.

Main lugs and main circuit breaker options are both available up to 1200 A. The main circuit breaker can be either vertically or horizontally mounted. For vertical circuit-breaker mounting, XT5 or XT7 mounting kits are required.

All ReliaGear neXT panelboards are double sided, with branch circuit breakers that can fit on both the left and right sides of the bus stack. The maximum ampacity of the circuit breakers selected will determine the width of the panelboard needed.



Available orientations

Panelboard width (in.)	Bus stack position inside the box	Max. branch circuit breaker ampacity on wide side (A)	Max. branch circuit breaker ampacity on narrow side (A)
30	Center	225 (XT4)	225 (XT4)
40	Offset	600 (XT5)	225 (XT4)
45	Center	600 (XT5)	600 (XT5)
45	Offset	1200 (XT7)	225 (XT4)

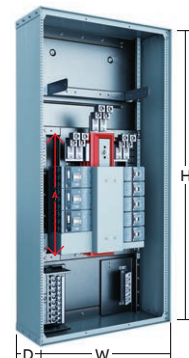
3. Enclosure configurations

empower defaults to smallest enclosure. Manually adjust by adding circuit breaker spaces.

Panelboard dimensions

H	60"	72"	84"	96"
A	16X	24X	32X	40X
W	–	30"	40"	45"
D	11" NEMA 1 14.5" NEMA 1 + DiD 14.5" NEMA 2/3R ¹ 14.8" NEMA 4/4X/12 ¹			

¹Depth for NEMA 3R/4/4X/12 does not include 0.9" of hanger bracket.



ReliaGear neXT panelboards

Pricing and ordering through empower, distributors or sales

4. Tmax XT main and feeder configuration

Select main circuit breaker kit appropriate for your application, amp rating and kAIC rating.

Combined with precise electronic trip units in small frames, the new range delivers significant time savings and enhances installation quality. Reliability is further increased, and speed of installation reduced, thanks to Bluetooth and Ekip connectivity for mobile devices. Tmax XT circuit breakers and their accessories are constructed in compliance with UL 489 and CSA C22.2 standards.



Molded case circuit breakers (MCCB)

			XT1			XT4				
Frame size		[A]	125			250				
Poles		[No.]	3			3				
Rated voltage	(AC) 50–60 Hz	[V]	480 V Δ^2			600				
Versions			Fixed			Fixed				
			N	S	H	N	S	H ¹	L ¹	V ¹
Interrupting ratings	240 V (AC)	[kA]	50	65	100	65	100	150 ⁴	200 ⁴	200 ⁴
	480 V (AC)	[kA]	25	35	65	25	35	65	100	100 ⁴
	600Y/347 V (AC)	[kA]	18	22	25	–	–	–	–	–
	600 V (AC)	[kA]	–	–	–	18	22	25	50	65
Mechanical life		[No. operations]	25000			25000				
		[No. hourly operations]	240			240				
Dimensions – fixed (width x depth x height) ³	3 poles	[mm]/[in]	[76.2 x 70 x 130] / [3 x 2.75 x 5.12]			[105 x 82.5 x 160] / [4.13 x 3.25 x 6.3]				
Weight ³	Fixed 3 poles	[kg]/[lb]	[1.1] / [2.43]			[2.5] / [5.51]				

Trip units for power distribution

TMF	•	•
TMA		•
Ekip DIP		•
Ekip Touch		•

¹ Current-limiting circuit breaker in 480 V AC and 600 V AC

² 600Y/347

³ Without line-side connectors

⁴ The max. interrupting rating of circuit breakers into the neXT power panelboard is 100 kA

Table continued on next page.



ReliaGear neXT panelboards

Pricing and ordering through empower, distributors or sales

4. Tmax XT main and feeder configuration continued

100% rated circuit breakers

All Tmax XT circuit breakers are available both as standard versions and as 100% rated versions. Because of the additional heat generated at 100% of continuous current rating, the use of specific 90 °C rated wires sized per 75 °C ampacity maybe required.

Frame	Max. ampacity (A)	Wires
XT4	200	75 °C
XT5	400	75 °C
XT6	600	75 °C
XT7	800	75 °C
XT7	1000/1200	90 °C

ReliaGear neXT panelboards

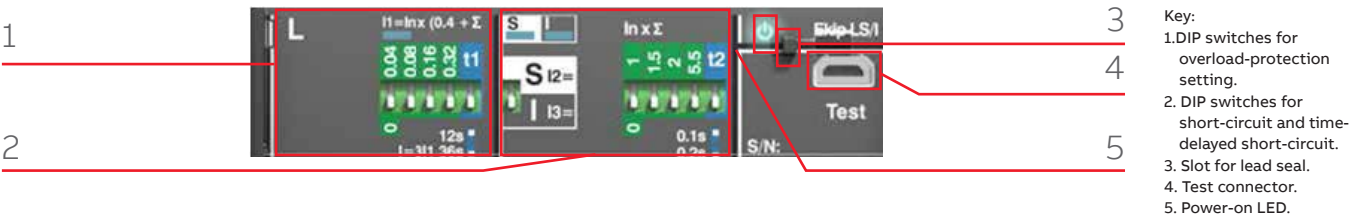
Pricing and ordering through empower, distributors or sales

4. Tmax XT main and feeder configuration continued

Tmax XT trip unit types

The first level of electronic trip units, Ekip DIP trip units, are based on microprocessor technologies and guarantee high reliability, protection adjustability and coordination.

They provide protection against overloads, selective short circuits, short circuits and ground faults. The power required for their operation is provided directly from the current sensors.



Field of application	Trip unit		L – overload protection		S – selective short-circuit protection		I – short-circuit protection	
			Current threshold	Trip time	Current threshold	Trip time	Current threshold	Trip time
Power distribution protection	Ekip DIP	LS/I	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Fixed
		LIG	Adjustable	Adjustable	–	–	Adjustable	Fixed
		LSI	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Fixed
		LSIG	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Fixed

In [A]	10	25	40	60	100	125	150	225	250	300	400	600	800	1000	1200
XT4			•	•	•		•	•	•		•	•			
XT5									•	•	•	•	•		
XT6												•	•		
XT7												•	•	•	•

ReliaGear neXT panelboards

Pricing and ordering through empower, distributors or sales

4. Tmax XT main and feeder configuration continued

Tmax XT trip unit types

Ekip Touch/Hi-Touch trip units provide a wide series of protections and high accuracy measurements of all electrical parameters. They are intended to integrate perfectly with most common automation and supervision systems.



Trip unit	Current measurement and protection	Voltage, power, energy measurements	Voltage, power, energy protections	Embedded functions ¹
Ekip Touch LSI	•	○	○	○
Ekip Touch LSIg	•	○	○	○
Ekip Touch Measuring LSI	•	•	○	○
Ekip Touch Measuring LSIg	•	•	○	○
Ekip Hi-Touch LSI	•	•	•	•
Ekip Hi-Touch LSIg	•	•	•	•

• Default available

○ Additional features

¹Please refer to the Tmax XT catalog 1SXU210248C0201 for more details.

In [A]	40	60	100	125	150	225	250	300	400	600	800	1000	1200
XT4			•		•	•	•						
XT5							•	•	•	•			
XT7										•	•	•	•

ReliaGear neXT panelboards

Pricing and ordering through empower, distributors or sales

5. Select main and/or feeder circuit breaker – Record Plus FB and TEY

ABB Record Plus FB and TEY circuit breakers complete the circuit breakers offering for the ReliaGear neXT panelboard.

The Record Plus FB line features true one- and two-pole construction, has a double-break contact system for fast response and current limitation to help with arc flash and coordination. This non-adjustable thermal-magnetic circuit breaker up to 100 A offers four interrupt tiers — through 100 kA at 480 V AC and 35 kA at 600/347 V AC.

TEY also offers true one-pole construction up to 70A and two-pole construction up to 125A. This line offers non-adjustable thermal-magnetic trip units with three interrupt tiers - through 100 kA at 240 V and 65 kA at 480/277 V AC.



Record Plus FB

Poles	1, 2
Amperes	15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100

Interrupting ratings

Ampere rating	Maximum voltage	Type	Poles	UL listed interrupting rating rms symmetrical kA AC voltage				
				240 V	277 V	347 V	480 V	600 V
15-100	600Y/347 V AC	FBV	1	35	35	22	–	–
			2	65	–	–	35	22
		FBN	1	65	65	25	–	–
			2	150	–	–	65	25
		FBH	1	100	100	35	–	–
			2	200	–	–	100	35

TEY

Poles	1-2
Amperes	15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125
Trip unit	Fixed thermal-magnetic

Interrupting ratings

Ampere rating	Maximum voltage	Type	Poles	UL listed interrupting rating rms symmetrical kA AC voltage	
				120/240 V	480/277 V
15-70 (1-pole)	277V AC (1-pole)	TEYD	1-2	65	25
15-125 (2-pole)	480Y/277V AC (2-pole)	TEYH	1-2	65	35
		TEYL	1-2	100	65

ReliaGear neXT panelboards

Pricing and ordering through empower, distributors or sales

6. Mounting space requirements, accessories and connection options

For molded case circuit breakers

Each circuit breaker frame has specific requirements for the number of mounting positions (X-spaces). Thanks to the optimized dimensions of the XT1, the mounting positions required are lower when two or five circuit breakers are mounted close to one another. SPD, metering and RELT also require X-space, since they are plug-in modules. Refer to the table below. In main lugs configuration, each set of lug pads occupies 4 X-spaces. A set of lug pads is needed also with a vertical main circuit breaker.

Frame	Max. ampacity (A)	Poles	X-spaces
Single XT1	125	3	3
Two XT1	125	3	5
Five XT1	125	3	11
XT4	250	3	3
XT5	600	3	4
XT6	800	3	6
XT7	1200	3	6
FB	100	1	1
FB	100	2	2
TEY	70	1	1
TEY	125	2	2
SPD	–	–	10
RELT	–	–	3
Metering	–	–	4
Metering	–	–	4

Line-side connectors

Each circuit breaker horizontally mounted on the bus stack is provided with a line-side connector (LSC) and a mounting bracket. The LSC is designed to ensure an easy and accurate connection between the circuit breakers and the conductive busbars. A patented clip design with a loaded spring ensures full contact in any circumstance. Each circuit breaker frame has a specific LSC with the right number of clips to ensure the highest performance.

Circuit breaker lugs offering

All ReliaGear neXT circuit breakers are provided with a set of lugs on the load side. All lugs accept either copper or aluminum wires.

Circuit breaker lugs

Frame	Ampacity (A)	Wire size (AWG or kcmil) Cu or Al	Number of cables per lug	Installation
XT1	125	#10–2/0	1	Horizontal
XT4	25–70	#14–1/0	1	Horizontal
XT4	80–225	#4–300	1	Horizontal
XT4	250	3/0–350	1	Horizontal
XT5	600	2/0–500	2	Horizontal/vertical
XT6	800	2/0–400	3	Horizontal
XT7	1200	4/0–500	4	Horizontal/vertical
XT7	1200	500–750	2 ¹ /3	Horizontal/vertical
STEY	70–125	#4–2/0	1	Horizontal
FB	15–20	#14–#10	1	Horizontal
FB/TEY	25–60	#10–#4	1	Horizontal
FB/TEY	70–100	#1–1/0	1	Horizontal

¹ Max. two 750 kcmil cables allowed in horizontal installation due to wire-bending space limitation.

ReliaGear neXT panelboards

Pricing and ordering through empower, distributors or sales

Internal accessories

Common internal accessories (shunt trips, undervoltage releases, auxiliary switches, etc.) are available in common voltage ratings and are UL listed for field assembly.

Auxiliary contacts — AUX

The SACE Tmax XT and Record Plus FB circuit breakers can be equipped with auxiliary contacts that signal the status of the circuit breaker and can be routed outside the circuit breaker itself. The following information is available:

- Open/closed (Q): indication of the status of the circuit-breaker power contacts
- Options for 1 or 2 aux on XT1-XT4-XT5-XT6; 4 aux on XT7; 1 aux on 2-pole TEY and FB
- Trip (SY): signals that the circuit breaker is opening due to the intervention of the trip unit, or to the opening of undervoltage/shunt opening releases, or to the use of the test button

Shunt opening release — SOR/YO

This allows the circuit breaker to open by means of a non-permanent electrical control. Release operation is guaranteed for voltage between 70% and 110% of the rated power supply voltage (Un), in both alternating and direct current. The SOR is equipped with a built-in limit contact to shut off the power supply in the open position with the trip unit tripped. A remote-controlled emergency opening command can be generated by connecting an opening button to the SOR.

Frame	Voltage		
XT1-XT4-XT5-XT6	24–30 V AC/DC	110–127 V AC/ 110–125 V DC	220–240 V AC/ 220–250 V DC
XT7	24 V AC/DC	110–120 V AC	220–240 V AC
FB (2-pole only)	24 V AC/DC	110–130 V AC/ 110–125 V DC	220–240 V AC/ 250 V DC
TEY (2-pole only)	24V AC	120V AC	240V AC

Undervoltage release — UVR/YU

This allows the circuit breaker to open when the release is subject either to a power failure or a voltage drop. As prescribed in the standards, opening is guaranteed when the voltage is between 70% to 35% Un. After tripping, the circuit breaker can be closed again if the voltage exceeds 85% of Un. When the undervoltage release is not energized, neither the circuit breaker nor the main contacts can be closed. A remote-controlled emergency opening command can be generated by connecting an opening button to the UVR.

Frame	Voltage		
XT1-XT4-XT5-XT6	24–30 V AC/DC	110–127 V AC/ 110–125 V DC	220–240 V AC/ 220–250 V DC
XT7	24 V AC/DC	110–120 V AC	220–240 V AC
FB (2-pole only)	24 V AC/DC	110–130 V AC/ 110–125 V DC	220–240 V AC/ 250 V DC

Padlocks and key locks

Padlocks or key locks prevent the circuit breaker from being closed and/or opened. Maximum number of padlocks (PLL) and maximum stem dimensions are the following:

Frame	Padlocks ¹	Stem min.+max.
XT1-XT4	3	Ø 0.24"÷0.275" / Ø 6÷7 mm
XT5-XT7	3	Ø 0.24÷0.315" / Ø 6÷8 mm
XT6	3	Ø 0.2-0.31"/5-8mm
FB / TEY	1	Ø 0.25" / Ø 6.35 mm

¹Padlocks are not included in the kits.

Multiple models of keylock provisions are offered: Kirk KCAM00010 / KCAM00010S (XT5-XT7), Ronis 1228 (XT1-XT4-XT5-XT7) and Castell (XT7). Kirk and Castell locks are at customer expense and not provided in the kit. Two options are available for Ronis: same keys and different keys. This allows the customer to create interlocking logics.

Internal modules

Available with several different communication protocols, the Ekip Com internal module is installed directly inside the circuit breaker. It allows the circuit breaker to be integrated in a communication network for supervision and control. Ekip Com internal modules can be used for XT4 and XT5. They can be connected to the trip unit when Ekip Touch is used.

Protocols supported include:

- Modbus RTU
- Modbus TCP/IP
- Profinet
- Ethernet/IP
- IEC 61850

ReliaGear neXT panelboards

Pricing and ordering through empower, distributors or sales

Cartridge modules

Cartridge Ekip Com modules, along with the internal modules, allow integration in any communication network. They can be used only on the XT7 circuit breaker equipped with an Ekip Touch/Hi-Touch trip unit, mounted directly on the terminal box. Several modules can be used simultaneously, enabling systems with different protocols. Modbus RTU, Profibus-DP and DeviceNet modules contain a terminating resistor and two DIP switches for optional activation to terminate the serial network or bus. The Profibus-DP module also contains a polarization resistor and two DIP switches for its activation.

- Modbus RTU
- Modbus TCP/IP
- Profinet
- Profibus
- Ethernet/IP
- DeviceNet
- IEC 61850

Ekip Com hub

The Ekip Com hub is the new communication module for cloud connectivity. A circuit breaker equipped with the Ekip Com hub can establish a connection with the ABB Ability Electrical Distribution Control System (EDCS) for the low-voltage power distribution panel. This dedicated module is available for the XT7 circuit breaker even when other modules are present.

For further information on ABB Ability EDCS, please visit new.abb.com/low-voltage/launches/abb-ability-edcs.

Signalling modules

The Ekip 2K signalling cartridge modules, available for XT7, supply two input and two output contacts for control and remote signalling of alarms and circuit breaker trips.

The Ekip 1K signalling module, available for the XT5, supplies one input contact and one output contact for control and remote signalling. It is installed inside the circuit breaker in the housing provided on the left down side of the circuit breaker and can be used when an Ekip Touch/Hi-Touch trip unit is present.

Ekip signalling modules can be programmed from the trip unit display or via the Ekip Connect software and app. When using Ekip Connect, combinations of events can be freely configured.

Ekip power supply

The Ekip power supply module supplies all Ekip trip units and modules present on the XT7 with several auxiliary power sources (in AC or DC). The cartridge module permits the installation of other advanced modules. It can be field installed at any time. Two versions are available according to the control voltage:

- Ekip supply 110–240 V AC/DC
- Ekip supply 24–48 V DC

This module is always needed with any Ekip Com module or the signalling 2K module.

XT circuit breakers

[illegible]

ReliaGear neXT renewal parts catalog numbers

XT circuit breakers (continued)



XT1NU3015AYD000XXX													
Line-side terminals (top)										Additional certifications			
										X = None			
Load-side terminal (bottom)										Advanced functionalities			
D = XT1 10–2/0 AWG					N = XT5 2x2/0 AWG-500kcmil					X = None			
G = XT4 14–1/0 AWG, 100 A					U = XT6 3x2/0 AWG-400kcmil								
J = XT4 4 AWG– 300 kcmil, 225 A					W = XT7 4x4/0 AWG-500kcmil								
L = XT4 3/0 AWG–350 kcmil, 250 A					X = XT7 3x500-750kcmil								
Accessories combination										Key locks			
00 = None										X = None			
Aux.										A = Ronis key lock – A type key			
Bell alarm										E = Ronis key lock – Different keys			
Shunt opening release										G = Kirk key lock XT5-XT7			
Undervoltage release										K = Castell key lock XT5-XT7			
Communication modules													
										Front accessories			
										0 = None			
										G = Padlock			

Please refer to Tmax XT technical catalog for more information.

ReliaGear neXT renewal parts catalog numbers

FB circuit breakers



NEFB	V	1	6	TE	015	R2A
Part identifier						Phase
NEFB = neXT FB circuit breakers						R2A = A phase (1p)
Interrupting rating						R2B = B phase (1p)
V = V						R2C = C phase (1p)
N = N						2AB = AB phases (2p)
H = H						2AC = AC phases (2p)
kAIC rating depending on voltage level; refer to performance table.						2BC = BC phases (2p)
Poles						Rated current
1 = 1 pole						015 = 15 A 050 = 50 A
2 = 2 poles						020 = 20 A 060 = 60 A
Voltage rating						025 = 25 A 070 = 70 A
6 = 600/347 V						030 = 30 A 080 = 80 A
Trip unit						035 = 35 A 090 = 90 A
TE = Fixed thermal magnetic						040 = 40 A 100 = 100 A
						045 = 45 A

TEY circuit breakers

TEYA	D	E	C	0A	A	X	X	X	X	X	X
Part identifier										Other	
TEYA = neXT TEY circuit breakers										X = None	
Interrupting rating										PDL	
D = D										X = None C = Padlock	
H = H										Other	
L = L										X = None	
kAIC rating depending on voltage level; refer to performance table.										Bell alarm	
Poles										X = None A = Bell alarm	
E = 1 pole										Aux	
F = 2 poles										X = None D = 277V	
Rated Current										Shunt trip	
C = 015 L = 060										X = None M = 120V	
D = 020 M = 070										K = 24V N = 240V	
E = 025 N = 080										Load lug	
F = 030 P = 090										A = (1) #14-10. 15-20A	
G = 035 Q = 100										B = (1) #10-4. 25-60A	
H = 040 R = 110										C = #4-2/0. 70-125A	
J = 045 S = 125										Phase	
K = 050										0A = A phase (1p) AB = AB phases (2p)	
										0B = B phase (1p) AC = AC phases (2p)	
										0C = C phase (1p) BC = BC phases (2p)	

ReliaGear neXT renewal parts catalog numbers

Enclosures

ER

60

30

A

Part identifier

ER = Enclosure

Height

60 = 60"

72 = 72"

84 = 84"

96 = 96"

NEMA type

A = NEMA 1

H = NEMA 2

R = NEMA 3R

C = NEMA 4

S = NEMA 4X

D = NEMA 12

Width

30 = 30"

40 = 40"

45 = 45"



Bus stack

IN

16

02

BL

3

H1

Part identifier

IN = Interior

X height

16 = 16X

24 = 24X

32 = 32X

40 = 40X

Ampacities

02 = 250 A 08 = 800 A

04 = 400 A 10 = 1000 A

06 = 600 A 12 = 1200 A

Bus material

H1 = Heat-rated aluminum

H2 = Heat-rated copper

B3 = 1000 PSI rated copper

Number of phases

3 = 3

Type

BL = Bolted lug pad

BF = Bolted feed-through

NN = Clean bus



ReliaGear neXT renewal parts catalog numbers

Interior frame



Part identifier

IF = Interior frame

X-Spaces

16 = 16X
24 = 24X
32 = 32X
40 = 40X

IF 16 30 C

Orientation

C = Center
F = Offset

Width

30 = 30"
40 = 40"
45 = 45"

Main lugs



Part identifier

LG = Main lug

Lug type

ML = Mechanical
FL = Mechanical with feed-through
DL = Dual mechanical
CL = Compression
EC = Compression with feed-through
PC = Dual compression
TX = Vertical main CB with feed-through
RX = Horizontal main CB with feed-through

LG ML 4 7

Wire size

7 = 750 kcmil	40 = 4/0
6 = 600 kcmil	30 = 3/0
5 = 500 kcmil	20 = 2/0
4 = 400 kcmil	10 = 1/0
35 = 350 kcmil	
3 = 300 kcmil	
2 = 250 kcmil	

Number of lugs

1 = 1
2 = 2
4 = 4

ReliaGear neXT renewal parts catalog numbers

Gutter covers

GC

30C

16

BL

A

Part identifier

GC = Gutter cover

Width and orientation

30C = 30" center

40F = 40" offset

45C = 45" center

45F = 45" offset

X height

16 = 16X

24 = 24X

32 = 32X

40 = 40X

NEMA type

A = NEMA 1 with no locking covers

S = NEMA 1 with locking covers, standard lock

L = NEMA 1 with locking covers, Corbin TEU-1 key

Type

BL = Bolted lug pad

BF = Bolted feed-through

NN = Clean bus



Fronts

FT

30

S

0

0

7

5

Part identifier

FT = Front

Width

30 = 30"

40 = 40"

45 = 45"

Category

S = Standard

VM = Vertical main

VF = Vertical filler

Height

Last three digits in inches with a decimal before last digit, i.e. 155 is 15.5 inches tall.

Type

0 = Standard front

1 = Vented front



Note: Vented fronts to be used with 100% rated circuit breakers

ReliaGear neXT renewal parts catalog numbers

Spacers

SR

01

BF

Part identifier

SR = Spacer

X height

01 = 1"10 = 10"

02 = 2"1X = Single XT1 spacer

03 = 3"2X = Double XT1 spacer

04 = 4"T1 = XT1

06 = 6"

Filler

BF = Blank and filler

BB = Blank only

EF = Filler only

RF = RELT filler

SF = SPD filler



Barrier post

BP

30

C

Part identifier

BR = Barrier post

Width

30 = 30"

40 = 40"

45 = 45"

Orientation

C = Center

F = Offset



Vertical main kits

VM

X7

30

C

Part identifier

VM = Vertical main kit

Frame

X5 = XT5

X7 = XT7

Orientation

C = Center

F = Offset

Width

30 = 30"

40 = 40"

45 = 45"



ReliaGear neXT renewal parts catalog numbers

Door-in-door

DD	30	60	AH	C	S
Part identifier			Lock type		
DD = Door in door			S = Standard		
Enclosure width			Orientation		
30 = 30"			C = Center		
40 = 40"			F = Offset		
45 = 45"					
Enclosure height			Type		
60 = 60"			AH = NEMA 1 hinged cover		
72 = 72"					
84 = 84"					
96 = 96"					



Door-in-door filler

DD	FIL	30	XX	03	SC
Part identifier			Main/orientation		
DD = Door in door			SC = Standard center		
FIL = Filler			SF = Standard offset		
			VC = Vertical center		
			VF = Vertical offset		
Width			Height		
30 XX = 30" center			03 = 3"		
40 XX = 40" offset with vertical main circuit breaker			09 = 9"		
45 XX = 45" center			15 = 15"		
40 45 = 40" or 45" offset			21 = 21"		
			27 = 27"		
			33 = 33"		
			39 = 39"		



ReliaGear neXT renewal parts catalog numbers

Door-in-door filler support



DD		SUP		08	
Part identifier		X Length			
DD = Door in door		08 = 8"			
		12 = 12"			
		16 = 16"			
		20 = 20"			
		24 = 24"			
		32 = 32"			
		36 = 36"			
		40 = 40"			

Grounds



GD		BG		10		AL	
Part identifier		Material					
GD = Ground		AL = Aluminum					
		CU = Copper					
Bonded or isolated		Number of wires					
BG = Bonded		10 = 10					
IG = Isolated		47 = 47					

ReliaGear neXT renewal parts catalog numbers

Neutrals

NL

04

I

0

N

STND

AL

Part identifier

NL = Neutral

Ampacity

02 = 250 A 08 = 800 A

04 = 400 A 10 = 1000 A

06 = 600 A 12 = 1200 A

Isolation

I = Isolated neutral with grounding kit

Number of GF feeders

0 = 0

Main GF

N = No ground fault

G = With ground fault

Material

AL = Aluminum

CU = Copper

Main type

STND = Standard neutral

7X7X = 750 kcmil lugs, no GF

COMP = Comp main lugs

DCOM = Dual mech lugs, 500 kcmil

D5X7 = Dual mech lugs, 750 kcmil

XT4/B = XT4 main (GF) top/ bottom

XT5T/B = XT5 main (GF) top/bottom

5X7T/B = XT7 main, 500 kcmil (GF) top/bottom

7X7T/B = XT7 main, 750 kcmil (GF) top/bottom

V47T/B = Vert. main, 750 kcmil (no GF) top/bottom



Note 1: All neutrals include a bonding kit
Note 2: Neutral compression lugs required

Neutral compression lugs

LGN

750

Part identifier

LGN = Neutral compression lug

Wire size

010 = 1/0 350 = 350 kcmil

020 = 2/0 400 = 400 kcmil

030 = 3/0 500 = 500 kcmil

040 = 4/0 600 = 600 kcmil

250 = 250 kcmil 750 = 750 kcmil

300 = 300 kcmil



ReliaGear neXT renewal parts catalog numbers

Service entrance barrier



Surge protection device (SPD)

SP		120		Y		06		X4		01							
Part identifier						SPD type											
SP = SPD						01 = Type 1											
						02 = Type 2											
Voltage type						Disconnect device											
120 Y = 120 V AC Wye						06 = 65 kA						15 = 150 kA					
277 Y = 277 V AC Wye						08 = 80 kA						20 = 200 kA					
347 Y = 347 V AC Wye						12 = 125 kA						30 = 300 kA					
480 Y = 480 V AC Delta																	





ReliaGear neXT renewal parts catalog numbers

RELT

RT 04 A

Part identifier

RT = RELT

Enclosure width

04 = 40"-45"

Voltage

- A = 120/240 V, 208/120 V and 240 V Delta
- B = 480 V, 480 V Delta and 480/277
- C = 600 V, 600 V Delta and 600/347



Notes:
RELT is available for the 40"W and 45"W enclosures only.
When RELT is selected:
• For XT7, Ekip supply and Ekip signalling 2k are also required.
• For XT5, Ekip signalling 1K is also required.

Wire connector kit for RELT module

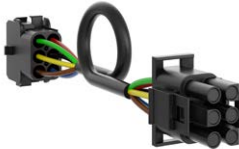
CN 001

Part identifier

CN = Wire connector kit

For use with

- 001 = XT5, XT7 vertical main
- 002 = XT5 main (VR or HR)
- 003 = XT7 main (VR or HR)



ReliaGear neXT renewal parts catalog numbers

Single-point metering – AMP1



	MT	04	AP	
Part identifier				Meter options
MT = Single-point metering – AMP1				AP = Pulse
				AM = AMP1, Modbus
Enclosure width				AD = AMP1, Modbus data log
04 = 40"–45"				AB = AMP1, BACnet

Note: Please also select a current transformer kit and a mounting kit.

Meter current transformer kit



	MT	A	03	02	CT	
Part identifier						Wire size
MT = Meter current transformer kit						For CTs only
Meter used						Ampacity
A = AMP1						02 = 250 A
						04 = 400 A
Phase						06 = 600 A
03 = 3-phase						08 = 800 A
						10 = 1000 A
						12 = 1200 A

ReliaGear neXT renewal parts catalog numbers

Meter CTs mounting kit

MT

40F

M

MK

Part identifier

MT = Meter CTs mounting kit

Enclosure width and orientation

40F = 40" offset

45C = 45" center

45F = 45" offset

Designation

MK = Mounting kit only

Meter type

M = Main



Drip hood

DH

030

Part identifier

DH = Drip hood

Width

030 = 30" wide

040 = 40" wide

045 = 45" wide



ReliaGear neXT panelboards

Available publications

Additional technical information, instructions and installation manuals can be found in the following documents:

Power panelboard

1SQC900003M0201	Low-voltage power panel installation manual – Bulk pack
1SQC900004M0201	Low-voltage power panel installation manual – Assembled interior

Accessories

1SQC900001M0201	AMP1 main circuit breaker meter
1SQC900002M0201	Door-in-door front
1SQC900005M0201	RELT unit
1SQC900006M0201	SPD unit
1SQC900007M0201	Solid neutral and ground fault neutral
1SQC900008M0201	Enclosures (NEMA 1, 3R, 4/4X, 12)
1SQC900009M0201	Dual main lug
1SQC900010M0201	Service entrance kit

ReliaGear neXT OEM power panelboards

Codes and standards application information

Your customers have unique requirements that get passed to you. ABB partners with you to make sure the end results satisfy both. Choose your level of support from ABB — your design, your business defines the model.

**Option 1 — Maximum ABB support**

You purchase everything from ABB. Everything is UL listed or recognized and provided for you to assemble into assemblies at your convenience. No UL file extensions to obtain, no design work required.

**Option 2 — Minimum ABB support**

You purchase the bus stack and plug-in circuit breakers from ABB and install them into an assembly of your design. ABB's UL listed/recognized components are available to be incorporated into your design and your UL file. Your product, built on ABB's neXT plug-in technology, can be as unique as you are.

**Option 3 — You decide**

You decide the level of design ownership and fabrication that works for you.

If sheet metal design is your strong suit, you can design your own enclosures, use ABB fillers and frames with the bus stack and circuit breakers and provide a semi-custom solution.

If you would like to fabricate but not design, you can fabricate the ABB design in your own shop for as much vertical integration as you need. In this case, the UL file extension is needed.

ReliaGear neXT OEM power panelboards

Standards

ReliaGear distribution panelboards are designed, tested and constructed in accordance with the following industry standards:

- Underwriters Laboratories UL®: UL 67, File # E2366
- Canadian Standards Association (CSA®): CSA C22.2 No. 29

ReliaGear switchboard interiors are designed, tested and constructed in accordance with the following industry standards:

- Underwriters Laboratories UL®: UL 891, File # E466042
- Canadian Standards Association (CSA®): CSA C22.2 No. 244

ABB UL file extension process overview

1**Step 1**

ABB has designed and tested switchboard and panelboard solutions in accordance with the above UL files using the ABB molded case circuit breaker families Tmax XT, Record Plus FB and TEY.

2**Step 2**

OEM to submit a file extension request to UL/CSA referencing the appropriate UL file from the above list.

3**Step 3**

ABB to review and approve file extension request with UL/CSA. OEM will be listed as an approved assembler in ABB file.

4**Step 4**

OEM to obtain any required component drawings from ABB.com.

- Drawings of circuit breaker assemblies, interiors and other components
- STP files of circuit breaker assemblies, interiors and other components
- Assembly instructions with torque values
- Video installation manuals

5**Step 5**

The OEM purchases bus stacks and circuit breaker assemblies and has the option to build the sheet metal required for installation.

ReliaGear neXT OEM power panelboards

Product design and selection

Getting started

Would you like to build UL 67 and UL 891 distribution products with ABB's ReliaGear design? Wondering where to begin? 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**

Compile pertinent information about the lineup or section such as incoming service, voltage, panel ampacity and main/feeder information.

2**Step 2**

Use the Quote feature of empower.abb.com to configure a panelboard or switchboard. If you have a panel schedule, you can use the "panel scan" feature of empower for quick entry and configuration. Once configured in the quote feature of empower.abb.com, navigate to the BOM or Drawing tabs to retrieve information such as standard enclosure dimensions, frame mounting locations and a list of catalog numbers in the BOM.

3**Step 3**

Navigate to the Flow feature of empower.com, or the empower home screen. Use the catalog numbers from the BOM to enter an order for the components you require.

4**Step 4**

Navigate to <http://reliagear-drawingselector.com/>. Download any required STP models.

5**Step 5**

Ensure that codes and standards requirements are met. Purchase ReliaGear components from ABB. Begin assembly.

Spectra (obsoleted) bolt-on panelboard mounting hardware

Renewal parts

Mounting hardware

Order from the customer service center

Mounting hardware bolt-on Spectra

- Mounting kit includes: hardware, straps, and brackets
- Filler Plate includes: filler plate and associated hardware
- Please order (1) Mounting kit & (1) Filler Plate per installation

Mounting Arrangement	Circuit Breaker	Poles	Box Width Range	X Height	Mounting Kit	Filler Plate
Dual Mounted	TEB, TED	2-pole	27"-44"	2X	AMCB4EB	AFP2TED
Dual Mounted	TEY	2-pole	27"-44"	3X	AMCB4EY	AFP3EYD
Dual Mounted	FBV, FBN, FBH, or FBL	2-pole	27"-44"	2X	AMCB4FB	AFP2FBD
Dual Mounted	THED, SED, SEH, SEL, SEP	2-pole	27"-44"	3X	AMCB4SE	AFP3SED
Dual Mounted	TEB, TED, THED, SED, SEH, SEL, SEP	3-pole	27"-44"	3X	AMCB6EB	AFP3SED
Dual Mounted	TEY	3-pole	27"-44"	3X	AMCB6EY	AFP3EYD
Dual Mounted	FBV, FBN, FBH, or FBL	3-pole	27"-44"	3X	AMCB6FB	AFP3FBD

Mounting hardware with filler plate, straps and brackets bolt-on Spectra™

- Mounting kit with filler plate includes hardware straps, brackets and filler plate.
- Filler plate kit includes filler plate and associated hardware only.

Mounting Arrangement	Breaker Frame	Number of Poles	Box Width Range	X Height	Product Number
Dual Mounted	TEB, TED	2-pole	27"-44"	2X	AMCB4EBFP
Dual Mounted	TEY	2-pole	27"-44"	3X	AMCB4EYFP
Dual Mounted	FBV, FBN, FBH, or FBL	2-pole	27"-44"	2X	AMCB4FBFP
Dual Mounted	THED, SED, SEH, SEL, SEP	2-pole	27"-44"	3X	AMCB4SEFP
Dual Mounted	TEB, TED, THED, SED, SEH, SEL, SEP	3-pole	27"-44"	3X	AMCB6EBFP
Dual Mounted	XT1	3-pole	27"-44"	3X	SRFB6XT1FPX
Dual Mounted	XT1	3-pole	27"-44"	3X	SRFB6XT1FPK
Dual Mounted	TEY	3-pole	27"-44"	3X	AMCB6EYFP
Dual Mounted	FBV, FBN, FBH, or FBL	3-pole	27"-44"	3X	AMCB6FBFP
Dual Mounted	XT4	3-pole	31"-44"	3X	SRFB6XT4FPX ¹
Dual Mounted	XT4	3-pole	31"-44"	3X	SRFB6XT4FPK ¹
Dual Mounted	XT5	3-pole	40"-44"	4X	SRFB6XT5BFPX ¹
Dual Mounted	XT5	3-pole	40"-44"	4X	SRFB6XT5BFPK ¹
Single Mounted	XT4	3-pole	27"-44"	3X	SRFB3XT4FPX ¹
Single Mounted	XT4	3-pole	27"-44"	3X	SRFB3XT4FPK ¹
Single Mounted	XT5	3-pole	27"-44"	4X	SRFB3XT5MFPX ¹
Single Mounted	XT5	3-pole	27"-44"	4X	SRFB3XT5MFPK ¹
Single Mounted	XT7	3-pole	40"-44"	6X	SRFB3XT7MFPX ¹
Single Mounted	XT7	3-pole	40"-44"	6X	SRFB3XT7MFPK ¹

¹Maximum of two XT4, XT5, XT7 kits may be stacked beside each other.

NOTE: Spectra has been obsoleted but these kits are still available to support existing installations.

Spectra (obsoleted) bolt-on panelboard mounting hardware

Renewal parts
Mounting hardware
Order from the customer service center

Filler plates bolt-on Spectra™
- Filler plate kit includes filler plate and associated hardware only.

Mounting Arrangement	Breaker Frame	Number of Poles	Box Width Range	X Height	Product Number
Dual Mounted	TQD, THQD	2-pole	27"-44"	2X	AFP2QDD
Dual Mounted	TEB, TED	2-pole	27"-44"	2X	AFP2TED
Dual Mounted	TEY	2-, 3-pole	27"-44"	3X	AFP3EYD
Dual Mounted	FBV, FBN, FBH, or FBL	2-pole	27"-44"	2X	AFP2FBD
Dual Mounted	FBV, FBN, FBH, or FBL	3-pole	27"-44"	3X	AFP3FBD
Dual Mounted	TQD, THQD	3-pole	27"-44"	3X	AFP3QDD
Dual Mounted	TEB, TED, THED, SED, SEH, SEL, SEP	2-, 3-pole	27"-44"	3X	AFP3SED
Dual Mounted	SFH, SFL, SFP	2-, 3-pole	31"-44"	3X	AFP3SFD
Dual Mounted	TFJ, TFK, THFK	2-, 3-pole	36"-44"	2X, 3X	AFP3TFD
Dual Mounted	FGV, FGN, FGH or FGP	3-pole	40",44"	4X	AFP4FGD
Dual Mounted	SGH, SGL, SGP	2-, 3-pole	40"-44"	4X	AFP4SGD
Single Mounted	SFH, SFL, SFP	2-, 3-pole	27"-44"	3X	AFP3SFS
Single Mounted	TFJ, TFK, THFK	2-, 3-pole	27"-44"	3X	AFP3TFS
Single Mounted	FGV, FGN, FGH or FGP	2-, 3-pole	27", 31", 36", 40", 44"	4X	AFP4FGS
Single Mounted	SGH, SGL, SGP	2-, 3-pole	27"-44"	4X	AFP4SGS
Single Mounted	SKP	2-pole	27"-44"	6X	AFP5LCS
Single Mounted	SKP, SKH, SKL, TKM, THKM	3-pole	44"-44"	6X	AFP6SKS

Notes: 1X = 1 3/8" vertical space. THLC 1/2/4 breaker no longer available.

Filler plates plug-in or bolt-on Spectra™
Use to cover unused spaces.
Includes filler plate support brackets and hardware.

Space X Height¹	Box Width Range	Switchboard Section Widths	Product Number
1X	27", 31"	35	APP1S
2X	27", 31"	35	APP2S
3X	27", 31"	35	APP3S
4X	27", 31"	35	APP4S
5X	27", 31"	35	APP5S
6X	27", 31"	35	APP6S
1X	36", 40"	40	APP1
2X	36", 40"	40	APP2
3X	36", 40"	40	APP3
4X	36", 40"	40	APP4
5X	36", 40"	40	APP5
6X	36", 40"	40	APP6
1X	44"	45	APP1W
2X	44"	45	APP2W
3X	44"	45	APP3W
4X	44"	45	APP4W
5X	44"	45	APP5W
6X	44"	45	APP6W

¹X-height: 1X = 1 3/8"

NOTE: Spectra has been obsoleted but these kits are still available to support existing installations.

Spectra (obsoleted) bolt-on panelboard mounting hardware

Renewal parts

Mounting hardware

Order from the customer service center

Mounting hardware plug-in or bolt-on Spectra™ ADS switch Replacement load base kits

Includes load base, clips and lugs.

Replacement for Load Base Part Number	Load Base Ampere Rating	Load Base - No. of Poles	Load Base Voltage	Product Number
ADS22030HD	—	—	—	331A1519G1
ADS32030HD	—	—	—	331A1519G2
ADS322060HD	—	—	—	331A1519G3
ADS32060HD	—	—	—	331A1519G4
ADS26030HD	—	—	—	331A1519G5
ADS36030HD	—	—	—	331A1519G6
ADS26060HD	—	—	—	331A1519G7
ADS36060HD	—	—	—	331A1519G8
ADS36200JD	—	—	—	331A1519G12
ADS26200JD	—	—	—	331A1519G16
ADS36200JM	—	—	—	331A1519G20
ADS26200JM	—	—	—	331A1519G22
—	100A	2-pole	240V & 600V	331A1519G9
—	100A	3-pole	240V & 600V	331A1519G10
—	100A	3-pole	240V & 600V	331A1519G14
—	100A	2-pole	240V & 600V	331A1519G18
—	200A	3-pole	240V & 600V	331A1519G11
—	200A	2-pole	240V & 600V	331A1519G13
—	200A	2-pole	240V & 600V	331A1519G15
—	200A	2-pole	240V & 600V	331A1519G17
—	200A	3-pole	240V & 600V	331A1519G19
—	200A	2-pole	240V & 600V	331A1519G21
—	400A	2-pole	240V & 600V	331A1545G1
—	400A	3-pole	240V & 600V	331A1545G3
—	400A	2-pole	240V & 600V	331A1545G5
—	400A	3-pole	240V & 600V	331A1545G7
—	600A	2-pole	240V & 600V	331A1545G2
—	600A	3-pole	240V & 600V	331A1545G4
—	600A	2-pole	240V & 600V	331A1545G6
—	600A	3-pole	240V & 600V	331A1545G8
—	400-1200A	—	—	331A1543G1

Mounting hardware single circuit breaker plug-in Spectra™

Included when ordering AMC module. Only required when mounting circuit breaker on existing module.

Kit contains screws and washers to mount one circuit breaker on AMC circuit breaker mounting module.

Circuit Breaker Mounting Module Part Number	Product Number
AMC6EB	AHKE1
AMC4SE	
AMC4EB	
AMC6EBS	
AMC6EL	AHKEL1
AMC2FLS	AHKF1
AMC6FJ	
AMC4FJ	
AMC3FJ	
AMC2FJ	
AMC6FLS	
AMC3FLS	
AMC4FLS	
AMC2GM	AHKG1
AMC6GB	
AMC4GB	
AMC3GM	
AMC2JK	AHKJ1
AMC6JK	
AMC4JK	
AMC3JK	
AMC3LB	AHKLB1
AMC6LB	

Mounting hardware—hardware only; no brackets or straps bolt-on Spectra™

Circuit Breaker Mounting Module Part Number	Product Number
FB	AHKBFB1

NOTE: Spectra has been obsoleted but these kits are still available to support existing installations.



Notes

Lined area for notes, consisting of multiple horizontal lines.