BUYLOG SECTION 11

Panelboards

Table of contents

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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 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 for NEMA Type 1 enclosures
- Standard concealed mounting hardware and hinges
- Interiors that allow "straight-in" wiring
- Split neutral for 400A and higher panelboards
- Branch-bus direct connection
- Captive hardware on branch circuit breakers
- Short circuit ratings allow up to 100KA @ 480Y/277Vac; 200KA @ 240Vac (depending on type of panelboard)
- Main bus ratings of 125 to 800 amps 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: stainless steel front
- Latch/lock options: best lock, national lock/corbin 60 key, corbin latch bolt 15767, yale lock, replacement locks

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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-XT6

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-XT6

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"

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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-XT6

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-XT6

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:
125-600A

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"

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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	480Y/277Vac	600Vac
			125/250Vdc	125/250Vdc	
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 ratings

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

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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

[1]Kit contains 3pcs lug
[2]External solution: lugs to be mounted on EF terminals supplied in the kit
[3]The 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

NEMA 1
Front options sold separately

NEMA 3R

NEMA 4/4X/12
painted galvaneal

NEMA 4/4X/12
stainless steel

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

Standard

Standard with quarter turn lock

Door within door

Front hinged to Box

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.

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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)
  - 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® Merchandised, unassembled panelboard
Total the following components:
   Step 1: Select Interior
   Step 2: Select Box
   Step 3: Select Front
   Step 4: Select main and/or sub-feed breaker kit(s)
   Step 5: Select main and/or sub-feed breaker(s)
   Step 6: Select main and/or feed-thru lug kit(s) and
            accessories
   Step 7: Select bolt-on branch circuit breakers

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

For additional details on selecting ReliaGear Merchandised panelboards, please refer to publication 1TQC173700E0051.

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ReliaGear lighting panelboards

ReliaGear Merchandised, unassembled lighting panels
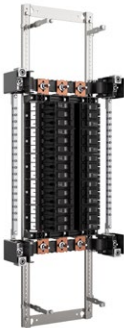
100-600A (600A main circuit breaker not available)
240 Vac 1 or 3 phase or 480y/277 vac 3 phase
Order by product number from the customer service center

Step 1: Select interior

Select the interior by voltage, number of circuits and ampacity.
Identify the box/front height for interior selected in steps 2 and 3.

Feed-thru copper bus

Voltage	Rating (amps)	No. of circuits	Ordering code[1]	Box/front height (in.)	No. of TGL2 ground bars required[2]
240 V AC, 1-Phase	100–225	30	AQU1302RCXAXT1B4	43.5	3
		42	AQU1422RCXAXT1B4	49.5	4
	400	42	AQU1424RCXAXT1B4	76.5	4
	600	42	AQU1426RCXAXT1B4	76.5	4
208Y/120 V AC, 3-Phase	100–225	30	AQU3302RCXAXT1B4	43.5	3
		42	AQU3422RCXAXT1B4	49.5	4
	400	42	AQU3424RCXAXT1B4	76.5	4
	600[3]	42	AQU3426RCXAXT1B4	76.5	4
480Y/277 V AC, 3-Phase	100–225	30	AEU3302RCXAXT1B4	43.5	3
		42	AEU3422RCXAXT1B4	49.5	4
	400	42	AEU3424RCXAXT1B4	76.5	4
	600[3]	42	AEU3426RCXAXT1B4	76.5	4

[1] See table below for TGL20 ground lug quantities.
[2] For isolated ground, use EGS12. When using the EGS12, 5 and 7 ground lugs (TGL20s) are required for 30 and 42 circuit panels respectively.
[3] 600 A available as main lug only.

TGL20 ground lugs required by panel type

Interior type	100–225 A	400 A	600 A
Main lug only	1	1	2
Main lug and sub-feed	2	2	4
Main lug and feed-thru	2	2	4
Main breaker only	1	1	–
Main breaker and sub-feed	2	2	–
Main breaker and feed-thru	2	2	–

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ReliaGear lighting panelboards

ReliaGear Merchandised, unassembled lighting panels

Steps 2–3: Select box and front

Select a 20" wide box of correct height based on interior selected in Step 1.
• Boxes come with blank endwalls.

NEMA 1   NEMA 3R

Box height (in.)	NEMA 1 ordering code	NEMA 3R ordering code
43.5	AB43B	AB433
49.5	AB49B	AB493
76.5	AB76B	AB763

For NEMA 1 enclosures only, select a 20" wide front of correct height based on interior selected in Step 1 and box selected above.
• Standard fronts are equipped with concealed hinges and trim adjusting screws hinges, trim adjusting screws and quarter-turn locks.
• Door within door fronts are convenient for easy access to equipment from the front of the panel because they allow access to the gutters without removing the front.
• Front hinged to box fronts are similar to door within door fronts for convenient access to gutters, but four screws must be removed to access the outer door.

Standard   Door within door   Standard with quarter-turn lock

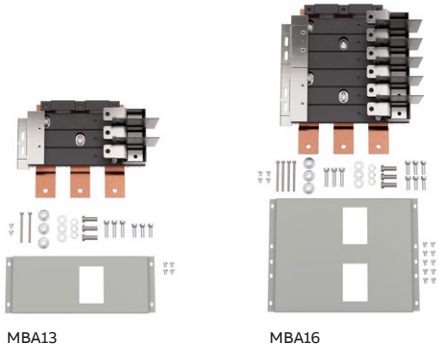| Front height (in.)	Standard	Standard	Door within door	Front hinged to box
	Flush ordering code	Surface ordering code	Surface ordering code	Surface ordering code
43.5	AF43F	AF43S	AF43SP	AF43SD
49.5	AF49F	AF49S	AF49SP	AF49SD
76.5[1]	AF76FT	AF76ST	AF76SPT	AF76SDT

[1] 76.5" fronts include quarter-turn lock, enabling applications with XT5 circuit breakers.

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ReliaGear lighting panelboards

ReliaGear Merchandised, unassembled lighting panels

Step 4: Select main and/or sub-feed breaker kit(s)

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

MBA13   MBA16

Interior type	Ordering code[1]	Rating (amps)	No. of poles	Breaker short circuit rating (kAIC)						
				10	14	22	25	35	50	65
AQU1: 240 V AC, 1-Phase	MB612	100	2	THQB	–	THHQB	–	–	–	–
	MB614	100	4	(x2) THQB	–	(x2) THHQB	–	–	–	–
	MBA12	225	2	A2A	–	A2N2	–	–	–	–
	MBM324	400	2	–	–	–	–	–	–	XT5N
AQU3: 208Y/120 V AC, 3-Phase	MB613	100	3	THQB	–	THHQB	–	–	–	–
	MB616[4]	100	6	(x2) THQB	–	(x2) THHQB	–	–	–	–
	MBA13	225	3	A2A	–	A2N[2]	–	–	–	–
	MBA16	400	6	(x2) A2A	–	(x2) A2N[2]	–	–	–	–
	MBB33	150	3	–	–	–	–	–	–	XT4N
	MBB33	225	3	–	–	–	–	–	–	XT4N
	MBB36[3]	400	6[3]	–	–	–	–	–	–	(x2) XT4N
	MBM334	400	3	–	–	–	–	–	–	XT5N
AEU3: 480Y/277 V AC, 3-Phase	MB423	100	3	–	TEY	–	–	–	–	–
	MB426	100	6	–	(x2) TEY	–	–	–	–	–
	MBC33	125	3	–	–	–	XT1N	XT1S	–	XT1H
	MBB33	150	3	–	–	–	XT4N	XT4S	–	XT4H
	MBB33	225	3	–	–	–	XT4N	XT4S	–	XT4H
	MBB36[3]	400	6[3]	–	–	–	(x2) XT4N	(x2) XT4S		(x2) XT4H
	MBM334	400	3	–	–	–	–	XT5N	XT5S	XT5H

[1] Breaker not included
[2] Actual breaker short circuit rating is 25 kAIC
[3] 6 poles of sub-feed applies only to 400 A and 600 A interiors
[4] Can use (2) 3-pole devices only, no 2-pole allowed

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ReliaGear lighting panelboards
ReliaGear Merchandised, unassembled lighting panels

Step 5: Select main and/or sub-feed circuit breaker(s)

To correlate breaker types with the kAIC rating in specific panelboards, see the table for Step 4. For THQB and TEY main breakers, see branch breakers tables in Step 7.

Tmax® XT breakers (3-pole) for use with appropriate main breaker or sub-feed breaker kit.

240 V kAIC	480 V kAIC	Breaker description	Ordering code	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	25	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 kcmi	2
65	65	XT5H 400 Ekip DIP 16–400 amps 3P	XT5HU340AFFN000XXX	Cu Al 2x2/0 AWG–500 kcmi	2

Main or sub-feed breakers for use with RQ panels (208Y/120 V AC 3-phase or 240 V AC 1-phase).

Amp rating	2-pole		3-pole	
	10 kAIC	22 kAIC	10 kAIC	22 kAIC
	Ordering code	Ordering code	Ordering code	Ordering code
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

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ReliaGear lighting panelboards
ReliaGear Merchandised, unassembled lighting panels

**Step 6: Select main and/or feed-thru lug kit(s)
           and accessories**

Select lug kit(s) for main lug and/or feed-thru applications,
if required.

Main lug kits

Lug type	Amp rating		Standard		Oversized	200% Neutral
		Ordering code	Wire range	Ordering code	Wire range	Ordering code
Mechanical	225	MLA1	6–350 kcmil	MLA2	1–600 kcmil or (2) 1/0–250 kcmil	NKA
	400	MLA41	2–600 kcmil or (2) 1/0–250 kcmil	MLA62	3/0–800 kcmil	NKA4[1]
	600	MLA61	(2) 2/0–500 kcmil	MLA62	3/0–800 kcmil	–

[1] For 200% neutral feed-thru, order NKA4FT, (GO-101P). Wire range (2) 2/0–600 kcmil or (4) 4–250 kcmil.

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ReliaGear lighting panelboards
ReliaGear Merchandised, unassembled lighting panels

Step 7: Select bolt-on branch circuit breakers

Select branch circuit breakers from the tables below.
- THQB and THHQB breakers are only compatible with RQ panels.
- TEY and TEYF breakers are only compatible with RE panels.

Branch circuit breakers for use with RQ panels (208Y/120 V AC 3-phase or 240 V AC 1-phase)

Amp rating	10 kAIC			22 kAIC		
	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[1,2,3,4]	THQB2115[1,4]	THQB32015	THHQB1115[1,2,3,4]	THHQB2115[1,4]	THHQB32015
20	THQB1120[1,2,3,4]	THQB2120[1,4]	THQB32020	THHQB1120[1,2,3,4]	THHQB2120[1,4]	THHQB32020
25	THQB1125[1]	THQB2125[1]	THQB32025	THHQB1125[1]	THHQB2125[4]	THHQB32025
30	THQB1130[1,4]	THQB2130[1,4]	THQB32030	THHQB1130[1,4]	THHQB2130[1,4]	THHQB32030
35	THQB1135	THQB2135	THQB32035	THHQB1135	THHQB2135	THHQB32035
40	THQB1140	THQB2140[4]	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

[1] For ground fault, add 'GFT' suffix to breaker SKU
[2] For AFCI, add 'AF2' suffix to breaker SKU
[3] For AFCI/GFCI, add 'DF' suffix to breaker SKU
[4] For equipment ground fault, add 'GFEP' suffix to breaker SKU

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

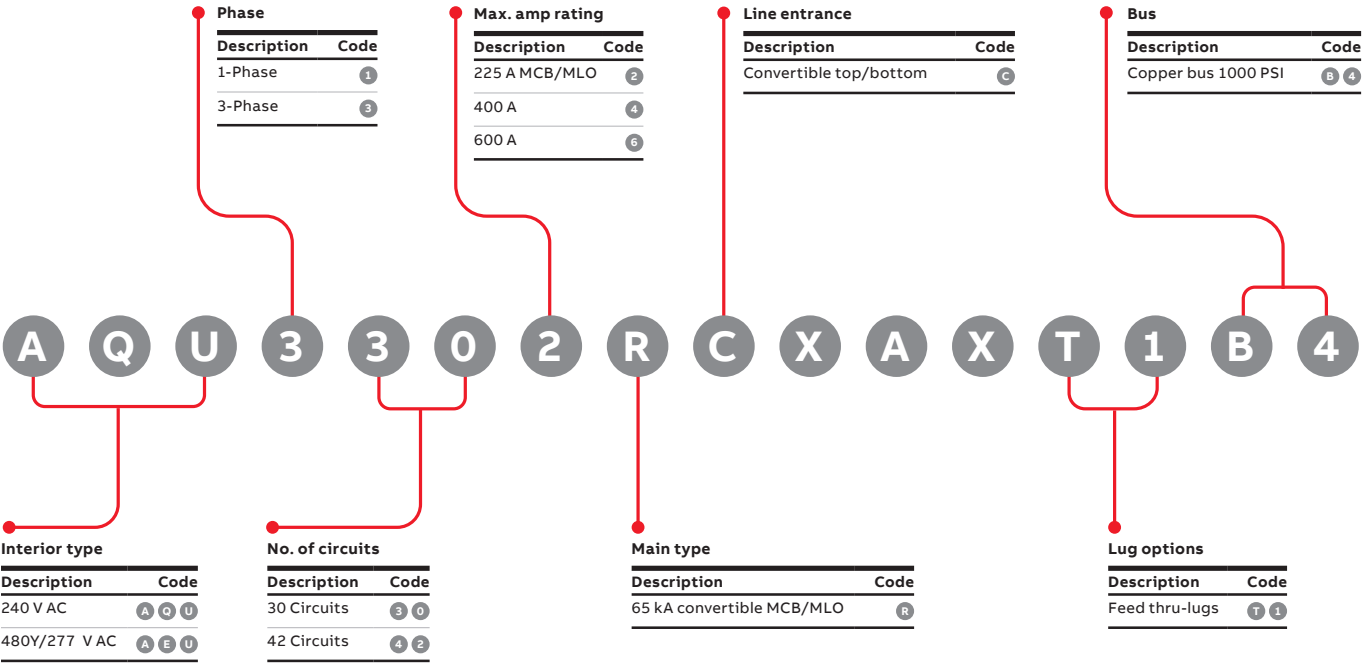| Amp rating	14 kAIC			18 KAIC		
	1-pole	2-pole	3-pole	1-pole	2-pole	3-pole
	Product number	Product number	Product number	Product number	Product number	Product number
15	TEY115	TEY215	TEY315	TEYF115	TEYF215	TEYF315
20	TEY120	TEY220	TEY320	TEYF120	TEYF220	TEYF320
25	TEY125	TEY225	TEY325	TEYF125	TEYF225	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	TEYF3100

ReliaGear lighting panelboards

ReliaGear Merchandised, unassembled lighting panels

ReliaGear® lighting panelboards are engineered for projects with short turnaround like those that come in an emergency situation or when natural disaster hits our customers' property. They are also a great option for small projects with standard technical requirements.

Lighting panelboards come unassembled, providing the flexibility to select interior, enclosure type, front, main and sub-breaker kit to meet most application requirements immediately.

Applications
- Emergency situations
  - Natural disasters
  - Property damage
- Storage units
- Strip malls
- Subways
- Small businesses
- Small buildings and more

Phase

Description	Code
1-Phase	1
3-Phase	3

Max. amp rating

Description	Code
225 A MCB/MLO	2
400 A	4
600 A	6

Line entrance

Description	Code
Convertible top/bottom	C

Bus

Description	Code
Copper bus 1000 PSI	B 4

A Q U 3 3 0 2 R C X A X T 1 B 4

Interior type

Description	Code
240 V AC	A Q U
480Y/277 V AC	A E U

No. of circuits

Description	Code
30 Circuits	3 0
42 Circuits	4 2

Main type

Description	Code
65 kA convertible MCB/MLO	R

Lug options

Description	Code
Feed thru-lugs	T 1

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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

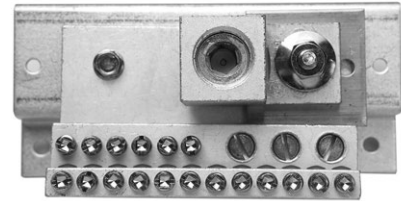| Description	Product number
T(HE)D/SE/FB (for legacy A series panels)	TEDFP1
XT2/FB (for ReliaGear panels) (contains 10 filler plates)	XT2FBFP10

Circuit breaker mounting[1] 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]

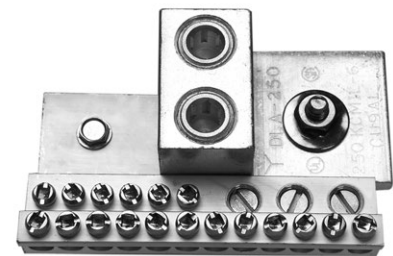[1] Use to mount circuit breaker in existing space.
[2] Includes screws, washers and ReliaGear panelboard connectors.
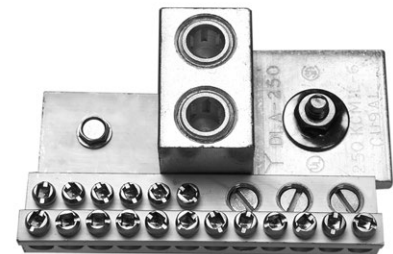

AEBG

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	ASPCORBNTEU1
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	Formua 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

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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 Lamicoid 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	ASP25AD65KA²
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

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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.
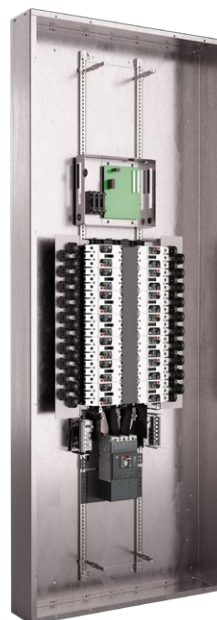
Features

- 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 125[1] Amp monitoring – the widest range available
- 1-, 2-, 3-pole circuit breaker support
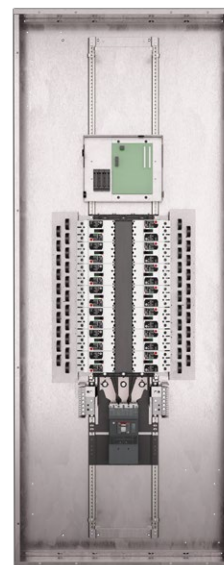- 5-year warranty
- Modbus RTU via RS485 communications

[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.
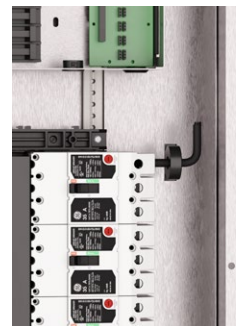
References

1TQC213600Z0001 for additional information	
empower for configuration/quotation purposes	

BCM Solid Core   BCM Split Core

BCM Split Core CT illustration, open and closed

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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 transformer[1]

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

Enclosure[2]

AMP1N4

Fuse Kit[3]

AMP1FUSE

[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.
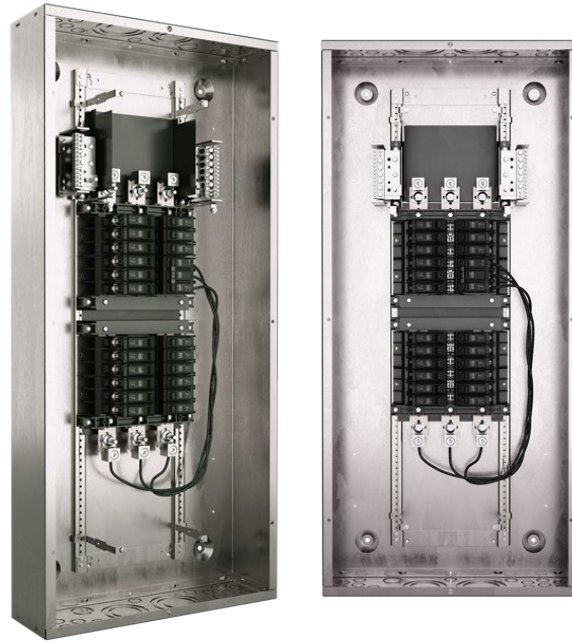[3] Qty 1 per meter required.

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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.

Split Bus

Split bus configurations

- Incoming type:
  Lighting contactor, main lug or main breaker
- Panelboard selections
    - RQ/RL up to 225A main breaker or main lug, max 22 KAIC at 240V
    - RE up to 125A main breaker or 225A main lug, max 18 KAIC at 480V
- Main breakers:
  Formula A2, XT1, THQB, TEY, TEY(D/H/L)
  Feeders: THQB, TEY
- Sub-feeds:
  Formula A2, THQB, TEY, TEY(D/H/L) TED, XT1 Max rating of 22 KAIC at 240V and 208/120V and 18 KAIC @480V.
- 9 configurations available in empower

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

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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.

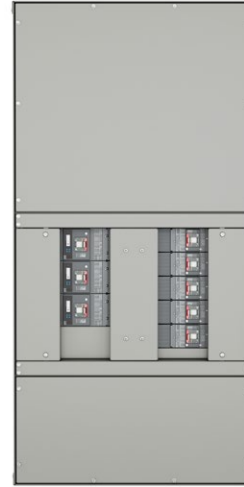### Short-circuit ratings—fusible switch units
The interrupting rating of the fuse must equal or exceed the short-circuit rating of the switch. If it is lower, then the interrupting rating of the switch is the same as the fuse. Switches have no short-circuit rating if renewable fuses are used.

Seismic ratings
All ReliaGear neXT and Spectra™ Panelboards have been tested and certified to meet the 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
125 V DC; 2-wire
250 V DC; 2-wire
Fully rated: 50kAIC at 250V DC
Fully rated: 200KAIC at 480/277V AC
Fully rated: 100kAIC at 600V AC

Main circuit breakers:
250A XT4
600A XT5
800A XT6
1200A XT7

Main lug:
250A - 1200A

Branch circuit breakers (plug-in):
Amperage - 15-1200A
Poles - 1, 2, 3
Types - Tmax XT1, XT2, XT4, XT5, XT6, XT7, Record Plus FB, TEY and Formula A2

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

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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, TEY, A2, XT1, XT2, XT4, XT5, XT6, 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
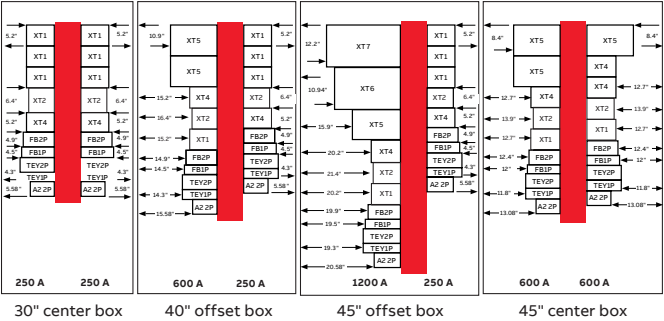BF: feedthrough, 2 sets of lug pads
BL: bolted lug pad

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,
Record Plus® FB, TEY and Formula A2 circuit breaker X-spaces.
Different circuit-breaker frame sizes require different
numbers of mounting positions on the bus stack.

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.

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.

250 A	250 A	600 A	250 A	1200 A	250 A	600 A	600 A
30" center box		40" offset box		45" offset box		45" center box	

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	250 (XT4)	250 (XT4)
40	Offset	600 (XT5)	250 (XT4)
45	Center	600 (XT5)	600 (XT5)
45	Offset	1200 (XT7)	250 (XT4)

Horizontally mounted XT5 with 750 MCM lugs can fit only in 45" offset box
250A for XT4 available on the narrow side only with 350 MCM internal lugs (breaker digit 12 = "8")

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 or drip hood[1] 14.5" NEMA 2/3R[1,2] 14.8" NEMA 4/4X/12[2]			

[1] DiD and drip hood usable conduit space is 11".
[2] Depth for NEMA 3R/4/4X/12 does not include 0.9" of hanger bracket.
Refer to instruction sheet **1SQC900008M0201** for conduit space and detailed enclosure dimensions. Enclosure dimensions can also be
found on empower drawing. Dimensions above are general.

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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			XT2						XT4					
Frame size		**[A]**	**125**			**125**						**250**					
Poles		[No.]	3			3						3					
Rated voltage	(AC) 50–60 Hz	[V]	480 V Δ[2]			600						600					
Versions			Fixed			Fixed						Fixed					
			N	S	H	N	S	H[1]	L[1]	V[1]	X	N	S	H[1]	L[1]	V[1]	X
Interrupting ratings	240 V (AC)	[kA]	50	65	100	65	100	150	200	200	200	65	100	150	200	200	200
	480 V (AC)	[kA]	25	35	65	25	35	65	100	150	200	25	35	65	100	150	200
	600Y/347 V (AC)	[kA]	18	22	25	-	-	-	-	-	-	–	–	–	–	–	–
	600 V (AC)	[kA]	–	–	–	18	22	25	35	42	42	18	22	25	50	65	100
Mechanical life		[No. operations]	25,000			25,000						25,000					
		[No. hourly operations]	240			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]			[90 X 83.56 X 131.1] / [3.54 X 3.29 X 5.16]						[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]			[2.2] / [4.9]						[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

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ReliaGear neXT panelboards
Pricing and ordering through empower, distributors or sales

4. Tmax XT main and feeder configuration continued

Molded case circuit breakers (MCCB)

Frame size		[A]	XT5						XT6			XT7		
			400–600						**800**			**800–1000–1200**		
Poles		[No.]	3						3			3		
Rated voltage	(AC) 50–60 Hz	[V]	600						600			600		
Versions			Fixed						Fixed			Fixed		
			N	S	H[1]	L[1]	V	X	N	S	H	S	H	L
Interrupting ratings	240 V (AC)	[kA]	65	100	150	200	200	200	65	100	200	65	100	200
	480 V (AC)	[kA]	35	50	65	100	150	200	35	50	65	50	65	100
	600Y/347 V (AC)	[kA]	–	–	–	–	–	–	–	–	–	–	–	–
	600 V (AC)	[kA]	18	25	35	65	100	100	20	25	35	25	50	65
Mechanical life		[No. operations]	20,000						20,000			10,000		
		[No. hourly operations]	240						240			240		
Dimensions – fixed (width x depth x height)[3]	3 poles	[mm]/[in]	[140 x 103 x 205] / [5.51 x 4.05 x 8.07]						[210 x 103.5 x 268] / [8.27 x 4.07 x 10.55]			[210 x 167 x 268] / [8.27 x 6.57 x 10.55]		
Weight[3]	Fixed 3 poles	[kg]/[lb]	–						–			–		

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

—

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
XT7	800	75 °C
XT7	1000/1200	90 °C

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ReliaGear neXT panelboards
Pricing and ordering through empower, distributors or sales

4. Tmax XT main and feeder configuration continued

Tmax XT trip unit types
SACE Tmax XT trip units represent a new benchmark for molded case circuit breakers, being able to satisfy any performance requirement.

The Tmax XT trip units are designed to be used in a wide range of applications. These complete, flexible protection trip units can be adapted to the actual level of protection required, independently of the complexity of the system.

The range is available for three levels of performance to meet any requirement, from simple to advanced applications:

- TM thermal-magnetic trip unit
- Ekip DIP electronic trip unit
- Ekip Touch/Hi-Touch electronic trip units

Thermal magnetic trip unit

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.

The thermal-magnetic trip unit is an easy solution for protection against overloads and short circuits. Overload protection is ensured by the ABB thermal device, based on a temperature-dependent bimetal heated by current. Protection against short-circuit is realized with a magnetic device.

Rotary switch
Depending on the version, it is possible to set the desired thresholds for protection by turning the front rotary switch.

Field of application	Trip unit	L – overload protection		I – short-circuit protection	
		Current threshold	Trip time	Current threshold	Trip time
Power distribution protection	TMF	Fixed	Fixed	Fixed	Fixed instantaneous
	TMA	Adjustable	Fixed	Adjustable	Fixed instantaneous

TMF

In [A]	15	20	25	30	35	40	45	50	60	70	80	90	100	110	125	150	175	200	225	250
XT1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
XT2	•	•	•	•	•	•		•	•	•										
XT4			•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•

TMA

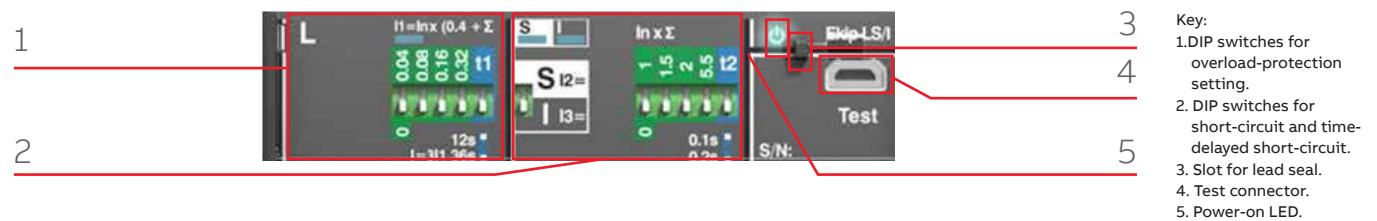| In [A]	80	90	100	110	125	150	175	200	225	250	300	400	500	600	800
XT2	•	•	•	•	•										
XT5											•	•	•	•	
XT6													•		•

—

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.

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

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	LSI	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Fixed

In [A]	25	40	60	100	125	150	250	400	600	800	1000	1200
XT2	●		●		●							
XT4		●	●	●		●	●					
XT5							●	●	●			
XT6										●		
XT7								●	●	●	●	●

Breaker frame	Sensor	Minimum trip amps
XT2 - 125A	25A	10A
	60A	30A
	125A	70A
XT4 - 250A	40A	15A
	60A	25A
	100A	40A
	150A	60A
	250A	100A
XT5 - 400A	250A	100A
	400A	175A
XT5 - 600A	600A	250A
XT6 - 800A	800A	350A
XT7 - 800A	600A	250A
	800A	350A
XT7 - 1000A	1000A	400A
XT7 - 1200A	1200A	500A

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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.

Key:
1. Power-on LED; pre-alarm LED; alarm LED.
2. Test and programming connector.
3. Display.
4. Home pushbutton to return to homepage.
5. Pushbutton for testing and tripping information.

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
[1] Please refer to the Tmax XT catalog 1SXU210248C0201 for more details.
Note: LSIG trip units not available for single phase applications

In [A]	40	100	125	150	250	400	600	800	1000	1200
XT2	●	●	●							
XT4		●		●	●					
XT5					●	●	●			
XT7						●	●	●	●	●

Breaker frame	Sensor	Minimum trip amps
	40A	15A
XT2 - 125A	100A	45A
	125A	110A
	100A	40A
XT4 - 250A	150A	60A
	250A	100A
XT5 - 400A	250A	100A
	400A	175A
XT5 - 600A	600A	250A
XT7 - 800A	600A	250A
	800A	350A
XT7 - 1000A	1000A	400A
XT7 - 1200A	1200A	500A

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ReliaGear neXT panelboards
Pricing and ordering through empower, distributors or sales

5. Select main and/or feeder circuit breaker – Record Plus FB, TEY and Formula A2

Record Plus FB, TEY and Formula A2 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

50 kA at 125/250V DC, 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 42kA at 125V DC, 18kA at 250V DC, 100 kA at 240 V AC and 65 kA at 480/277 V AC.

The Formula A2 line features true two-pole breaker construction from 125A to 250A. This line offers fixed (non-adjustable) thermal-magnetic trip units with two interrupt tiers - 10 kA and 25 kA at 240 V AC and 250V DC.

Record Plus FB

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

AC 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
		FBL	1	100	150	42	–	–
			2	–	–	–	150	42

DC interrupting ratings

Ampere rating	Type	Poles	UL listed interrupting rating ka DC voltage	
			125 V DC, 2-wire	250 V DC, 2-wire
15-100	FBV	2	25	25
	FBN	2	30	30
	FBH	2	42	42
	FBL	2	50	50

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

AC 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

DC interrupting ratings

Ampere rating	Type	Poles	UL listed interrupting rating ka DC voltage	
			125 V DC, 2-wire	250 V DC, 2-wire
15-70 (1-pole)	TEYL	1	14	-
15-125 (2-pole)	TEYL	2	42	18

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ReliaGear neXT panelboards
Pricing and ordering through empower, distributors or sales

Formula A2

Poles	2
Amperes	125, 150, 175, 200, 225, 250
Trip unit	Fixed thermal-magnetic

AC interrupting ratings

Ampere rating	Maximum voltage	Type	Poles	UL listed interrupting rating rms symmetrical kA AC voltage 240 V
125-250	240V	A2A	2	10
		A2N	2	25

DC interrupting ratings

Ampere rating		Type	Poles	UL listed interrupting rating ka DC voltage 250 V DC, 2-wire
125-250		A2A	2	10
		A2N	2	25

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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
XT2	125	3	3
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
A2	250	2	2
SPD	–	–	10
RELT	–	–	3
Main metering	–	–	4
Submetering	–	–	9 / 14

3 X-spaces

Single XT1

5 X-spaces

Two XT1
16% space saving

11 X-spaces

Five XT1
26% space saving

X-space fillers

Space to be filled	30" center	40" offset left	40" offset right	45" center	45" offset left	45" offset right
1X	SR01BB	SR01BF	SR01BB	SR01BF	SR01BF	SR01BB
2X	SR02BB	SR02BF	SR02BB	SR02BF	SR02BF	SR02BB
3X	SR03BB	SR03BF	SR03BB	SR03BF	SR03BF	SR03BB

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ReliaGear neXT panelboards
Pricing and ordering through empower, distributors or sales

Submetering
Empower selects the appropriate metering module based on:
• Number of metered breakers
• 2/3 pole breaker selection
• Voltage

Number of meters	Maximum number of 2 pole metered breakers[1]	Maximum number of 3 pole metered breakers	Maximum number of circuits	X-space required
1	6	4	12	9X
2	12	8	24	9X
3	18	12	36	14X
4	24	16	48	14X

[1] 2-pole available up to 240V
All modules include display for local monitoring
Available in 40" and 45" wide enclosures

For more information on submetering in ReliaGear neXT, refer to submetering brochure **1SQC900005B0201**

Each circuit breaker frame and current transformers in combination have specific requirements for the number of mounting positions (X-spaces).

Breaker frame	CT current rating (A)	Ampacity (A)	X-spacerequired
FB 2P	50	0-50	2X
TEY 2P			2X
XT1			3X
XT2			3X
FB 2P	100	51-100	2X
TEY 2P			2X
XT1			3X
XT2			3X
TEY 2P	200	101-125	2X
A2		125-200	2X
XT2		101-125	3X
XT4		101-200	3X
A2	400	201-250	4X
XT4		201-250	5X
XT5		250-400	4X
XT5	800	401-600	6X
XT6/XT7		601-800	6X
XT7	1200	801-1200	10X

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ReliaGear neXT panelboards
Pricing and ordering through empower, distributors or sales

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
XT2	25	#14-1/0 (Cu)	1	Horizontal
XT2	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
XT5	600	500–750[2]	2	Horizontal/vertical
XT6	800	2/0-400	3	Horizontal
XT6	800	500–750	2	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
A2	125–250	#1–250, 2/0–300	1	Horizontal
A2	250	350 (Al)	1	Horizontal

[1] Max. two 750 kcmil cables allowed in horizontal installation due to wire-bending space limitation.
[2] XT5 with 750 kcmil lugs must go in 45" offset enclosure

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, Record Plus FB, TEY and Formula A2 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-XT2-XT4-XT5-XT6; 4 aux on XT7; 1 aux on 2-pole FB and TEY, and 2 aux on A2
• 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-XT2-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
A2	–	110–127 V AC/ 110–125 V DC	–

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ReliaGear neXT panelboards
Pricing and ordering through empower, distributors or sales

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-XT2-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-XT2-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 0.20-0.31" / Ø 5-8 mm
FB / TEY	1	Ø 0.25" / Ø 6.35 mm
A2	3	Ø 0.24-0.275" / Ø 6-7 mm

[1]Padlocks are not included in the kits.

Multiple models of keylock provisions are offered: Kirk KCAM00010 / KCAM00010S (XT5-XT7), Ronis 1228 (XT1-XT2-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 (type A) 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
• EthernNet/IP
• IEC 61850

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
• EthernNet/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.

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ReliaGear® neXT SuperBox power panelboards
Product overview

ReliaGear® neXT power panelboards, featuring ABB's Tmax® XT plug-in circuit breakers, are now ready to go!

The SuperBox offer is a preassembled combination of enclosures, interiors, ground, neutral, fronts and fillers available from inventory for immediate installation. One SKU includes everything needed for the power panelboard selection. Simply fill with Tmax XT plug-in circuit breakers and accessories required for the project, and you're ready to go.[1]

[1] Other ReliaGear neXT configurations are available as factory-assembled, made-to-order items. Contact your local ABB sales team for more information.

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ReliaGear® neXT SuperBox power panelboards
General characteristics

System voltages
- 240 V AC; 3-phase, 3-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

Short circuit rating
Equal to 200 kAIC at 240 V, 100 kAIC at 480 V or 65 kAIC at 600 V, or the lowest current interruption rating of any device installed, except as noted in the series rating listed with an integral or remote main breaker or fusible switch installed ahead of the power panel.

Enclosures
- NEMA 1 — For indoor use to provide a degree of protection to personnel against access to hazardous parts and to provide a degree of protection against ingress of solid foreign objects (falling dirt).
- NEMA 3R — For either indoor or outdoor use to provide a degree of protection to personnel against access to hazardous parts, falling dirt and harmful effects on the equipment due to the ingress of water (rain, sleet and snow); and that will be undamaged by the external formation of ice and snow with no damage to the external enclosure.

Bussing
Silver-plated copper

Certifications
- ANSI/NEMA PB 1, panelboards
- ANSI/NFPA 70, National Electrical Code
- Federal specification W-C-375, rev. B, amend. 1, circuit breakers, molded case; branch circuit and service
- Federal specification W-P 115, rev. C, panel, power distribution
- UL 489, molded case circuit breakers
- CSA 22.2 No. 5-13, molded case circuit breakers
- UL 50, enclosures for electrical equipment
- UL 67, panelboards
- cUL listed, low-voltage modular power panels
- Seismic certification according to ICC-ES AC15

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ReliaGear® neXT SuperBox power panelboards
Selection

1

Select main and branch feeder circuit breakers

Select the required accessories

2

Determine the X-space required to meet main and branch feeder circuit breaker selection

3

Select the SuperBox required based on maximum ampacity, main type, enclosure type and bus X-space required

4

Select the SuperBox required based on maximum ampacity, main type, enclosure type and bus X-space required

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ReliaGear® neXT SuperBox power panelboards
Selection

Step 1: Select main and branch feeder circuit breakers (XT1–XT4)[1,2]

Ordering code	Frame	Int. rating at 480 V AC	Trip unit	Poles	Amps	Load side lugs (AWG or kcmil)
XT1NU3015AYD000XXX	XT1[3]	N (25 kA)	TMF	3	15	1x #10–2/0
XT1NU3020AYD000XXX	XT1[3]	N (25 kA)	TMF	3	20	1x #10–2/0
XT1NU3030AYD000XXX	XT1[3]	N (25 kA)	TMF	3	30	1x #10–2/0
XT1NU3040AYD000XXX	XT1[3]	N (25 kA)	TMF	3	40	1x #10–2/0
XT1NU3050AYD000XXX	XT1[3]	N (25 kA)	TMF	3	50	1x #10–2/0
XT1NU3060AYD000XXX	XT1[3]	N (25 kA)	TMF	3	60	1x #10–2/0
XT1NU3070AYD000XXX	XT1[3]	N (25 kA)	TMF	3	70	1x #10–2/0
XT1NU3100AYD000XXX	XT1[3]	N (25 kA)	TMF	3	100	1x #10–2/0
XT1NU3125AYD000XXX	XT1[3]	N (25 kA)	TMF	3	125	1x #10–2/0
XT1SU3015AYD000XXX	XT1[3]	S (35 kA)	TMF	3	15	1x #10–2/0
XT1SU3020AYD000XXX	XT1[3]	S (35 kA)	TMF	3	20	1x #10–2/0
XT1SU3030AYD000XXX	XT1[3]	S (35 kA)	TMF	3	30	1x #10–2/0
XT1SU3040AYD000XXX	XT1[3]	S (35 kA)	TMF	3	40	1x #10–2/0
XT1SU3050AYD000XXX	XT1[3]	S (35 kA)	TMF	3	50	1x #10–2/0
XT1SU3060AYD000XXX	XT1[3]	S (35 kA)	TMF	3	60	1x #10–2/0
XT1SU3070AYD000XXX	XT1[3]	S (35 kA)	TMF	3	70	1x #10–2/0
XT1SU3100AYD000XXX	XT1[3]	S (35 kA)	TMF	3	100	1x #10–2/0
XT1SU3125AYD000XXX	XT1[3]	S (35 kA)	TMF	3	125	1x #10–2/0
XT1HU3015AYD000XXX	XT1[3]	H (65 kA)	TMF	3	15	1x #10–2/0
XT1HU3020AYD000XXX	XT1[3]	H (65 kA)	TMF	3	20	1x #10–2/0
XT1HU3030AYD000XXX	XT1[3]	H (65 kA)	TMF	3	30	1x #10–2/0
XT1HU3040AYD000XXX	XT1[3]	H (65 kA)	TMF	3	40	1x #10–2/0
XT1HU3050AYD000XXX	XT1[3]	H (65 kA)	TMF	3	50	1x #10–2/0
XT1HU3060AYD000XXX	XT1[3]	H (65 kA)	TMF	3	60	1x #10–2/0
XT1HU3070AYD000XXX	XT1[3]	H (65 kA)	TMF	3	70	1x #10–2/0
XT1HU3100AYD000XXX	XT1[3]	H (65 kA)	TMF	3	100	1x #10–2/0
XT1HU3125AYD000XXX	XT1[3]	H (65 kA)	TMF	3	125	1x #10–2/0
XT4NU3150AY8000XXX	XT4	N (25 kA)	TMF	3	150	1x 3/0–350
XT4NU3175AY8000XXX	XT4	N (25 kA)	TMF	3	175	1x 3/0–350
XT4NU3200AY8000XXX	XT4	N (25 kA)	TMF	3	200	1x 3/0–350
XT4NU3225AY8000XXX	XT4	N (25 kA)	TMF	3	225	1x 3/0–350
XT4NU3250AY8000XXX	XT4	N (25 kA)	TMF	3	250	1x 3/0–350
XT4SU3150AY8000XXX	XT4	S (35 kA)	TMF	3	150	1x 3/0–350
XT4SU3175AY8000XXX	XT4	S (35 kA)	TMF	3	175	1x 3/0–350
XT4SU3200AY8000XXX	XT4	S (35 kA)	TMF	3	200	1x 3/0–350
XT4SU3225AY8000XXX	XT4	S (35 kA)	TMF	3	225	1x 3/0–350
XT4SU3250AY8000XXX	XT4	S (35 kA)	TMF	3	250	1x 3/0–350
XT4HU3150AY8000XXX	XT4	H (65 kA)	TMF	3	150	1x 3/0–350
XT4HU3175AY8000XXX	XT4	H (65 kA)	TMF	3	175	1x 3/0–350
XT4HU3200AY8000XXX	XT4	H (65 kA)	TMF	3	200	1x 3/0–350
XT4HU3225AY8000XXX	XT4	H (65 kA)	TMF	3	225	1x 3/0–350
XT4HU3250AY8000XXX	XT4	H (65 kA)	TMF	3	250	1x 3/0–350

[1]Additional Tmax® XT plug-in circuit breakers and accessories are available. Contact your local ABB sales team for more information.
[2]All breakers are standard rated (standard circuit breakers design considers 80% of the rated load). In case a 100% rated breaker is needed, a factory assembled ReliaGear neXT configuration will be required.
[3]Separate mounting rail required. See details in accessories table.

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ReliaGear® neXT SuperBox power panelboards
Selection

Step 1: Select main and branch feeder circuit breakers (XT5–XT7)[1,2,3]

Frame	Int. rating at 480 V	Trip unit	Poles	Amps	Load side lugs (AWG or kcmil)	RELT compatible	Ordering code
XT5	N (25 kA)	TMA	3	300	2x 2/0-500	No	XT5NU330ABYN000XXX
XT5	N (25 kA)	TMA	3	400	2x 2/0-500	No	XT5NU340ABYN000XXX
XT5	N (25 kA)	TMA	3	500	2x 2/0-500	No	XT5NU350BBYN000XXX
XT5	N (25 kA)	TMA	3	600	2x 2/0-500	No	XT5NU360BBYN000XXX
XT5	S (35 kA)	TMA	3	300	2x 2/0-500	No	XT5SU330ABYN000XXX
XT5	S (35 kA)	TMA	3	400	2x 2/0-500	No	XT5SU340ABYN000XXX
XT5	S (35 kA)	TMA	3	600	2x 2/0-500	No	XT5SU360BBYN000XXX
XT5	H (65 kA)	TMA	3	300	2x 2/0-500	No	XT5HU330ABYN000XXX
XT5	H (65 kA)	TMA	3	400	2x 2/0-500	No	XT5HU340ABYN000XXX
XT5	H (65 kA)	TMA	3	500	2x 2/0-500	No	XT5HU350BBYN000XXX
XT5	H (65 kA)	TMA	3	600	2x 2/0-500	No	XT5HU360BBYN000XXX
XT5	L (100 kA)	TMA	3	300	2x 2/0-500	No	XT5LU330ABYN000XXX
XT5	L (100 kA)	TMA	3	400	2x 2/0-500	No	XT5LU340ABYN000XXX
XT5	L (100 kA)	TMA	3	600	2x 2/0-500	No	XT5LU360BBYN000XXX
XT5	N (25 kA)	Ekip DIP LSI	3	400	2x 2/0-500	No	XT5NU340AFYN000XXX
XT5	N (25 kA)	Ekip DIP LSI	3	600	2x 2/0-500	No	XT5NU360BFYN000XXX
XT5	S (35 kA)	Ekip DIP LSI	3	400	2x 2/0-500	No	XT5SU340AFYN000XXX
XT5	S (35 kA)	Ekip DIP LSI	3	600	2x 2/0-500	No	XT5SU360BFYN000XXX
XT5	H (65 kA)	Ekip DIP LSI	3	400	2x 2/0-500	No	XT5HU340AFYN000XXX
XT5	H (65 kA)	Ekip DIP LSI	3	600	2x 2/0-500	No	XT5HU360BFYN000XXX
XT5	L (100 kA)	Ekip DIP LSI	3	400	2x 2/0-500	No	XT5LU340AFYN000XXX
XT5	L (100 kA)	Ekip DIP LSI	3	600	2x 2/0-500	No	XT5LU360BFYN000XXX
XT6	N (25 kA)	TMA	3	800	3x 2/0-400	No	XT6NU3800BYU000XXX
XT6	S (35 kA)	TMA	3	800	3x 2/0-400	No	XT6SU3800BYU000XXX
XT6	H (65 kA)	TMA	3	800	3x 2/0-400	No	XT6HU3800BYU000XXX
XT6	N (25 kA)	Ekip DIP LSI	3	800	3x 2/0-400	No	XT6NU3800FYU000XXX
XT6	H (65 kA)	Ekip DIP LSI	3	800	3x 2/0-400	No	XT6HU3800FYU000XXX
XT7	S (35 kA)	Ekip DIP LSI	3	1000	4x 4/0-500	No	XT7SU310DFYW000XXX
XT7	S (35 kA)	Ekip DIP LSI	3	1200	4x 4/0-500	No	XT7SU312EFYW000XXX
XT7	H (65 kA)	Ekip DIP LSI	3	800	4x 4/0-500	No	XT7HU380CFYW000XXX
XT7	H (65 kA)	Ekip DIP LSI	3	1000	4x 4/0-500	No	XT7HU310DFYW000XXX
XT7	H (65 kA)	Ekip DIP LSI	3	1200	4x 4/0-500	No	XT7HU312EFYW000XXX
XT7	S (35 kA)	Ekip Touch LSI	3	1000	4x 4/0-500	Yes	XT7SU310DPYW000XXR
XT7	S (35 kA)	Ekip Touch LSI	3	1200	4x 4/0-500	Yes	XT7SU312EPYW000XXR
XT7	H (65 kA)	Ekip Touch LSI	3	1000	4x 4/0-500	Yes	XT7HU310DPYW000XXR
XT7	H (65 kA)	Ekip Touch LSI	3	1200	4x 4/0-500	Yes	XT7HU312EPYW000XXR
XT7	L (100 kA)	Ekip Touch LSI	3	1200	4x 4/0-500	Yes	XT7LU312EPYW000XXR
XT7	S (35 kA)	Ekip Touch LSIG	3	1200	4x 4/0-500	Yes	XT7SU312EQYW000XXR
XT7	H (65 kA)	Ekip Touch LSIG	3	1200	4x 4/0-500	Yes	XT7HU312EQYW000XXR
XT7	L (100 kA)	Ekip Touch LSIG	3	1200	4x 4/0-500	Yes	XT7LU312EQYW000XXR

[1] Additional Tmax® XT plug-in circuit breakers and accessories are available. Contact your local ABB sales team for more information.
[2] All breakers are standard rated (standard circuit breakers design considers 80% of the rated load). In case a 100% rated breaker is needed, a factory assembled ReliaGear neXT configuration will be required.
[3] If 750 kcmil lugs are needed, a factory assembled ReliaGear neXT configuration will be required.
[4] Breakers installed in panel must adhere to UL/NEC WBS requirements.

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ReliaGear® neXT SuperBox power panelboards
Selection

Step 1: Select main and branch feeder circuit breakers (TEY–FB)[1,2]

1-pole FB   2-pole FB   1-pole TEY   2-pole TEY

Ordering code	Frame	Int. rating at 480 V	Trip unit	Poles	Amps	Phase	Load side lugs (AWG or kcmil)
TEYADED0AAXXXXXX	TEY	D (25 kA)	TMF	1	20	A	1x #14–10
TEYADED0BAXXXXXX	TEY	D (25 kA)	TMF	1	20	B	1x #14–10
TEYADED0CAXXXXXX	TEY	D (25 kA)	TMF	1	20	C	1x #14–10
TEYAHED0AAXXXXXX	TEY	H (35 kA)	TMF	1	20	A	1x #14–10
TEYAHED0BAXXXXXX	TEY	H (35 kA)	TMF	1	20	B	1x #14–10
TEYAHED0CAXXXXXX	TEY	H (35 kA)	TMF	1	20	C	1x #14–10
TEYALED0AAXXXXXX	TEY	L (65 kA)	TMF	1	20	A	1x #14–10
TEYALED0BAXXXXXX	TEY	L (65 kA)	TMF	1	20	B	1x #14–10
TEYALED0CAXXXXXX	TEY	L (65 kA)	TMF	1	20	C	1x #14–10
TEYADFDABAXXXXXX	TEY	D (25 kA)	TMF	2	20	AB	1x #14–10
TEYADFHABBXXXXXX	TEY	D (25 kA)	TMF	2	40	AB	1x #10–4
TEYADFQABDXXXXXX	TEY	D (25 kA)	TMF	2	100	AB	1x #4–2/0
TEYADFSABDXXXXXX	TEY	D (25 kA)	TMF	2	125	AB	1x #4–2/0
TEYADFDBCAXXXXXX	TEY	D (25 kA)	TMF	2	20	BC	1x #14–10
TEYADFHBCBXXXXXX	TEY	D (25 kA)	TMF	2	40	BC	1x #10–4
TEYADFQBCDXXXXXX	TEY	D (25 kA)	TMF	2	100	BC	1x #4–2/0
TEYADFSBCDXXXXXX	TEY	D (25 kA)	TMF	2	125	BC	1x #4–2/0
TEYADFDACAXXXXXX	TEY	D (25 kA)	TMF	2	20	AC	1x #14–10
TEYADFHACBXXXXXX	TEY	D (25 kA)	TMF	2	40	AC	1x #10–4
TEYADFQACDXXXXXX	TEY	D (25 kA)	TMF	2	100	AC	1x #4–2/0
TEYADFSACDXXXXXX	TEY	D (25 kA)	TMF	2	125	AC	1x #4–2/0
NEFBV16TE020R2A	FB	V (35 kA)[3]	TMF	1	20	A	1x #14–10
NEFBV16TE020R2B	FB	V (35 kA)[3]	TMF	1	20	B	1x #14–10
NEFBV16TE020R2C	FB	V (35 kA)[3]	TMF	1	20	C	1x #14–10
NEFBN16TE020R2A	FB	N (65 kA)[3]	TMF	1	20	A	1x #14–10
NEFBN16TE020R2B	FB	N (65 kA)[3]	TMF	1	20	B	1x #14–10
NEFBN16TE020R2C	FB	N (65 kA)[3]	TMF	1	20	C	1x #14–10
NEFBH16TE020R2A	FB	H (100 kA)[3]	TMF	1	20	A	1x #14–10
NEFBH16TE020R2B	FB	H (100 kA)[3]	TMF	1	20	B	1x #14–10
NEFBH16TE020R2C	FB	H (100 kA)[3]	TMF	1	20	C	1x #14–10
NEFBV26TE100R2AB	FB	V (35 kA)	TMF	2	100	AB	1x #1–1/0
NEFBV26TE100R2AC	FB	V (35 kA)	TMF	2	100	AC	1x #1–1/0
NEFBV26TE100R2BC	FB	V (35 kA)	TMF	2	100	BC	1x #1–1/0

[1]Additional TEY and FB plug-in circuit breakers and accessories are available. Contact your local ABB sales team for more information.
[2]All breakers are standard rated (standard circuit breakers design considers 80% of the rated load). In case a 100% rated breaker is needed, a factory assembled ReliaGear neXT configuration will be required.
[3]Interrupt rating at 240 V AC.

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ReliaGear® neXT SuperBox power panelboards
Selection

Step 1: Select main and branch feeder circuit breakers (Formula A2)[1,2,3]

2-pole Formula A2

Ordering code	Frame	Int. rating at 240 V	Trip unit	Poles	Amps	Phase	Cu load side lugs (AWG or kcmil)	Al load side lugs (AWG or kcmil)
A2A2125ABDXXXX	A2	A (10 kA)	TMF	2	125	AB	1x 1–250	1x 2/0–300
A2A2125ACDXXXX	A2	A (10 kA)	TMF	2	125	AC	1x 1–250	1x 2/0–300
A2A2150ABDXXXX	A2	A (10 kA)	TMF	2	150	AB	1x 1–250	1x 2/0–300
A2A2150ACDXXXX	A2	A (10 kA)	TMF	2	150	AC	1x 1–250	1x 2/0–300
A2A2200ABDXXXX	A2	A (10 kA)	TMF	2	200	AB	1x 1–250	1x 2/0–300
A2A2200ACDXXXX	A2	A (10 kA)	TMF	2	200	AC	1x 1–250	1x 2/0–300
A2N2125ABDXXXX	A2	A (10 kA)	TMF	2	125	AB	1x 1–250	1x 2/0–300
A2N2125ACDXXXX	A2	N (25 kA)	TMF	2	125	AC	1x 1–250	1x 2/0–300
A2N2150ABDXXXX	A2	N (25 kA)	TMF	2	150	AB	1x 1–250	1x 2/0–300
A2N2150ACDXXXX	A2	N (25 kA)	TMF	2	150	AC	1x 1–250	1x 2/0–300
A2N2200ABDXXXX	A2	N (25 kA)	TMF	2	200	AB	1x 1–250	1x 2/0–300
A2N2200ACDXXXX	A2	N (25 kA)	TMF	2	200	AC	1x 1–250	1x 2/0–300
A2N2250ABDXXXX	A2	N (25 kA)	TMF	2	250	AB	1x 1–250	–

[1] Additional Formula A2 plug-in circuit breakers are available. Contact your local ABB sales team for more information.
[2] All breakers are standard rated (standard circuit breakers design considers 80% of the rated load). In case a 100% rated breaker is needed, a factory-assembled ReliaGear neXT configuration will be required.
[3] 250 A Formula A2 plug-in breakers with 350 kcmil Al load side lugs available. Contact your local ABB sales team for more information.

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ReliaGear® neXT SuperBox power panelboards
Selection

Step 2: Select the required accessories[3]

Auxiliary contacts	Shunt trip	Fixed padlock	RELT	Mounting rail

Group	Type	Volts AC	XT1	XT2	XT4	XT5[2]	XT6	XT7	TEY	FB	A2
Auxiliary contacts Q = Indication of the status of the circuit breaker SY = Bell alarm	AUX-C 1 Q + 1 SY	250	KXTAAXCQSYFP					–	–	–	–
	AUX-C 2 Q + 1 SY	250	KXTAAXC2QSYFP					–	–	–	–
	AUX-C 1 Q + 1 SY	24	KXTAAXCDQSYFP					–	–	–	–
	AUX-C 3 Q + 1 SY	24	–	KXTDAXCD3QSYFP				–	–	–	–
	AUX 4Q	24	–					ZE1AUX4D	–	–	–
	AUX 4Q	400	–					ZE1AUX4	–	–	–
	AUX 1 SY	24	–					ZE1BAD	–	–	–
	AUX 1 SY	250	–					ZE1BA	–	–	–
Shunt trip	Pre-cabled (except for XT7)	24	KXTASORCFPB			KXTFYOCFPD		ZEZSZ	–	–	–
	Pre-cabled (except for XT7)	110	KXTASORCFPD			KXTFYOCFPD		ZEASE	–	–	–
	Pre-cabled (except for XT7)	220	KXTASORCFPE					ZEASG	–	–	–
Undervoltage release	Pre-cabled (except for XT7)	24	KXTAUVRCFP1			KXTFYUC1		ZEAUA	–	–	–
	Pre-cabled (except for XT7)	110	KXTAUVRCFP4			KXTFYUC4		ZEAUE	–	–	–
	Pre-cabled (except for XT7)	220	KXTAUVRCFP5			KXTFYUC5		ZEAUG	–	–	–
Fixed padlock[1]	Open position	–	KXTBPLLOP	KXTCPLLOP		KXT5PLLOP	KXT6PLLOP	KXT7PLLOP	–	–	–
	Open/closed position	–	KXTBLLOPL	KXTCPLLOPCL		KXT5PLLOPLC	KXT6PLLOPLC	–	TEYXPLD1	FB1PF	–
Removable padlock	Open position: KA2LD	–	–	–	–	–	–	–	–	–	KA2LDOR
RELT	RELT kit[4]	120/240	–	–	–	–	–	RT04A	–	–	–
	RELT kit[4]	480	–	–	–	–	–	RT04B	–	–	–
	RELT kit[4]	600	–	–	–	–	–	RT04C	–	–	–
	RELT wire connector for XT7 2K-1	–	–	–	–	–	–	CN003[5]	–	–	–
	RELT wire connector for XT7 2K-3	–	–	–	–	–	–	CN004[5]	–	–	–
Mounting rail	1 single Tmax® XT1	–	SR1XBF	–	–	–	–	–	–	–	–
	2 adjacent Tmax® XT1	–	SR2XBF	–	–	–	–	–	–	–	–
	5 adjacent Tmax® XT1	–	SR5XBF	–	–	–	–	–	–	–	–
Blank and fillers	1X blank + filler	–	–	–	–	–	–	–	–	–	SR01BF
	1X blank only	–	–	–	–	–	–	–	–	–	SR01BB
	2X blank + filler	–	–	–	–	–	–	–	–	–	SR02BF
	2X blank only	–	–	–	–	–	–	–	–	–	SR02BB
	3X blank + filler	–	–	–	–	–	–	–	–	–	SR03BF
	3X blank only	–	–	–	–	–	–	–	–	–	SR03BB
	XT1 blank only	–	SRT1BB	–	–	–	–	–	–	–	–
Service entrance barriers	3-pole breakers	–	SBX1W02P3	SBX2WT2P3[6] SBX2WE2P3[6]	SBX4W30P3[7] SBX4W35P3[7]	SBX5W50P3	SBX6W40P3	SBX7W50P3	–		–

[1] Padlocks are not included in the kit.

[2] Tmax XT5 electrical accessories require 1 (one) extra X-space for installation.

[3] Additional Tmax XT accessories are available. Contact your local ABB sales team for more information.

[4] Requires XT7 equipped with Ekip Touch or above trip unit, 3 X-space factor required.

[5] CN003 includes Ekip 2K-1 signaling and Ekip supply. CN004 includes Ekip 2K-3 signaling and Ekip supply. CN004 is ONLY compatible with firmware version 3.10.00 or higher. Refer to 9AKK107991A2520 to validate firmware version.

[6] SBX2WT2P3 for XT2 thermo mag, SBX2WE2P3 for XT2 Ekip

[7] SBX4W30P3 for 300 kcmil, SBX4W35P3 for 350 kcmil

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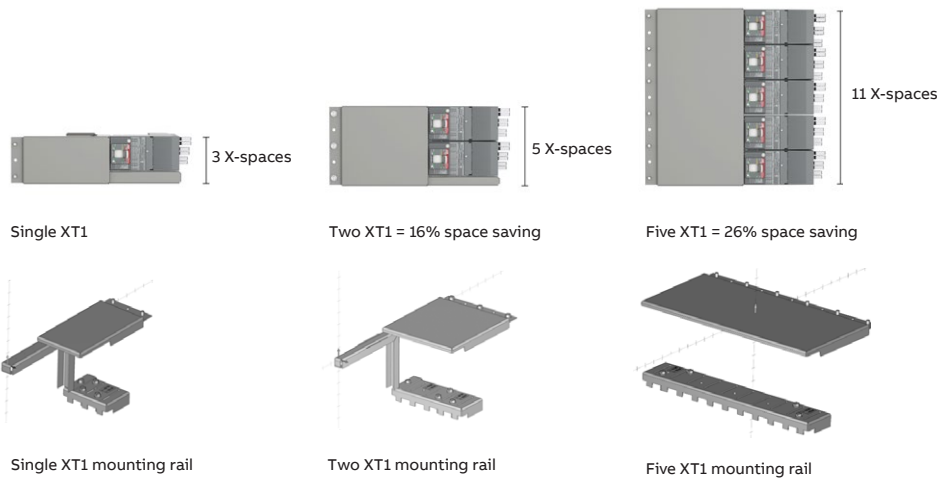## ReliaGear® neXT SuperBox power panelboards
Selection

Step 3: Determine the **X-space** required

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 breakers are mounted close to one another. RELTs also require **X-space**, since they are plug-in modules. Refer to the table below and add up the number of **X-spaces** required for each breaker frame.

Frame	Max. ampacity (A)	Poles	X-spaces
Single XT1	125	3	3
Two XT1	125	3	5
Five XT1	125	3	11
XT2	125	3	3
XT4	250	3	3
XT5[1]	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
A2	250	2	2
RELT	–	–	3
SPD	–	–	10

[1] Tmax® XT5 with electrical accessories requires 1 (one) additional X-space.

3 X-spaces

Single XT1

5 X-spaces

Two XT1 = 16% space saving

11 X-spaces

Five XT1 = 26% space saving

Single XT1 mounting rail

Two XT1 mounting rail

Five XT1 mounting rail

The small footprint of the XT1 allows this panel to offer multiple options to improve circuit breaker density. As you configure and order ReliaGear neXT panelboards, you'll notice that XT1 are grouped in quantities of one, two or five. As part of this feature, unique mounting brackets are required when adding XT1 breaker assemblies. See above for X-space and mounting brackets required. These additional rails are not included with SuperBox configurations and must be ordered as accessories.

Order codes for XT1 mounting rails
- SR1XBF for 1 single XT1 breaker
- SR2XBF for 2 adjacent XT1 breakers
- SR5XBF for 5 adjacent XT1 breakers

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ReliaGear® neXT SuperBox power panelboards
Selection

Step 4: Select the SuperBox required

Description	Amps	Enclosure type	Main	Ground fault on main compatible	Dimensions (H x W x D inches)	X-space left	X-space right	Ordering code
600A MLO NEMA 1 60 x 40 16X no breakers	600 A	NEMA 1	Main lugs (2x #2–600 kcmil)	No	60.3 x 40.7 x 11	12	12	RNSB06L6040A
600A MCB NEMA 1 60 x 40 16X no breakers	600 A	NEMA 1	Main breaker[1]	No	60.3 x 40.7 x 11	16	16	RNSB06B6040A
600A MLO NEMA 3R 60 x 40 16X no breakers	600 A	NEMA 3R	Main lugs (2x #2–600 kcmil)	No	61 x 43.5 x 16.7[2]	12	12	RNSB06L6040R
600A MCB NEMA 3R 60 x 40 16X no breakers	600 A	NEMA 3R	Main breaker[1]	No	61 x 43.5 x 16.7[2]	16	16	RNSB06B6040R
800A MLO NEMA 1 72 x 45 24X no breakers	800 A	NEMA 1	Main lugs (4x #2–600 kcmil)	No	72.3 x 45.7 x 11	20	20	RNSB08L7245A
800A MCB NEMA 1 72 x 45 24X no breakers	800 A	NEMA 1	Main breaker[1]	No	72.3 x 45.7 x 11	24	24	RNSB08B7245A
800A MLO NEMA 3R 72 x 45 24X no breakers	800 A	NEMA 3R	Main lugs (4x #2–600 kcmil)	No	73 x 48.5 x 16.7[2]	20	20	RNSB08L7245R
800A MCB NEMA 3R 72 x 45 24X no breakers	800 A	NEMA 3R	Main breaker[1]	No	73 x 48.5 x 16.7[2]	24	24	RNSB08B7245R
1200A MLO NEMA 1 84 x 45 32X no breakers	1200 A	NEMA 1	Main lugs (4x #2–600 kcmil)	No	84.3 x 45.7 x 11	28	28	RNSB12L8445A
1200A MCB NEMA 1 84 x 45 32X no breakers	1200 A	NEMA 1	Main breaker[1]	No	84.3 x 45.7 x 11	32	32	RNSB12B8445A
1200A MCB GF NEMA 1 96X45 32X no breakers	1200 A	NEMA 1	Main breaker[1]	Yes[4]	96.3 x 45.7 x 11	28	28	RNSB12G9645A
1200A MLO NEMA 3R 84 x 45 32X no breakers	1200 A	NEMA 3R	Main lugs (4x #2–600 kcmil)	No	85 x 48.5 x 16.7[2]	28	28	RNSB12L8445R
1200A MCB NEMA 3R 84 x 45 32X no breakers	1200 A	NEMA 3R	Main breaker[1]	No	85 x 48.5 x 16.7[2]	32	32	RNSB12B8445R
1200A MCB GF NEMA 3R 96X45 32X no breakers	1200 A	NEMA 3R	Main breaker[1]	Yes[4]	97 x 48.5 x 16.7[2]	32	32	RNSB12G9645R

[1] X-space required for main breaker must be accounted for based on specific breaker selected.
[2] Depth includes 0.9" of hanger bracket.
[3] Breakers installed in panel must adhere to UL/NEC wire bending space requirements.
[4] Compatible with XT7 Ekip Touch LSIG or higher.

Available configurations and wire bending space

40" offset enclosure

45" offset enclosure

All ReliaGear Merchandised neXT panelboards are double sided. Wire bending space requirements restrict XT5–XT7 mounting to the left side of the interior.

Wire bend space

Breaker	Left mount space (in)	Right mount space (in)
40" offset enclosure		
XT5	10.9	–
XT4	15.2	5.2
XT2	16.4	6.4
XT1	15.2	5.2
FB 1-pole	14.5	4.5
FB 2-pole	14.9	4.9
TEY 1-pole	14.3	4.3
TEY 2-pole	14.3	4.3
A2 2-pole	15.58	5.58
45" offset enclosure		
XT7	12.2	–
XT6 with 400 kcmil lug	13.4	–
XT5	15.9	–
XT4	20.2	5.2
XT2	21.4	6.4
XT1	20.2	5.2
FB 1-pole	19.5	4.5
FB 2-pole	19.9	4.9
TEY 1-pole	19.3	4.3
TEY 2-pole	19.3	4.3
A2 2-pole	20.58	5.58

—
ReliaGear neXT catalog number nomenclature

XT circuit breakers

XT 1 N U 3 015 A Y D 00 X X X X

Part identifier

XT =	Circuit breaker family

Frame

1 = XT1
2 = XT2
4 = XT4
5 = XT5
6 = XT6
7 = XT7

Interrupting rating

N = N
S = S
H = H
L = L
V = V
X = X

kAIC rating depending on voltage level; refer to performance table.

Standard

U = UL 80% rated
Q = UL 100% rated

Poles

3 = 3 poles

Trip unit

A = TMF
B = TMA
C = Ekip DIP LIG
D = Molded Case Switch
E = Ekip DIP LS/I
F = Ekip DIP LSI
G = Ekip DIP LSIG
P = Ekip Touch LSI
Q = Ekip Touch LSIG
R = Ekip Touch Measuring LSI
S = Ekip Touch Measuring LSIG
T = Ekip Hi-Touch LSI
U = Ekip Hi-Touch LSIG

Frame amps

015 = 15A	080 = 80A	25A = 250A (XT5)
020 = 20A	090 = 90A	30A = 300A
025 = 25A	100 = 100A	40A = 400A
030 = 30A	110 = 110A	50B = 500A
035 = 35A	125 = 125A	60B = 600A (XT5)
040 = 40A	150 = 150A	600 = 600A (XT6)
045 = 45A	175 = 175A	80C = 800A (XT7)
050 = 50A	200 = 200A	800 = 800A (XT6)
060 = 60A	225 = 225A	10E = 1000A
070 = 70A	250 = 250A (XT4)	12E = 1200A

Note: Tmax XT1 circuit breakers require a rail for installation in ReliaGear neXT power panelboards and ReliaGear SB switchboards if not already installed in your existing ReliaGear neXT or SB equipment.

	30" center	40" offset left	40" offset right	45" center	45" offset left	45" offset right
Single XT1	SR1XBR	SR1XBF	SR1XBR	SR1XBF	SR1XBF	SR1XBR
Two XT1 group mount	SR2XBR	SR2XBF	SR2XBR	SR2XBF	SR2XBF	SR2XBR
Five XT1 group mount	SR5XBR	SR5XBF	SR5XBR	SR5XBF	SR5XBF	SR5XBR

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ReliaGear neXT catalog number nomenclature

XT circuit breakers (continued)

XT **1 N U 3 015 A** Y D 00 0 X X X

Line-side terminals (top)

Y =	Line-side connectors

Load-side terminal (bottom)

A =	XT2 14-1/0 AWG (CU), 25A	O =	XT6 2x500-750 kcmil
D =	XT1 10–2/0 AWG		
	XT2 10–2/0 AWG	S =	XT5 2x500-750 kcmil
G =	XT4 14-1/0 AWG, 70A	U =	XT6 3x2/0 AWG-400 kcmil
J =	XT4 4 AWG– 300 kcmil, 225A	W =	XT7 4x4/0 AWG-500 kcmil
L =	XT4 3/0 AWG–350 kcmil, 250A	X =	XT7 3x500-750 kcmil
N =	XT5 2x2/0 AWG-500 kcmil		

Accessories combination

00 =	None
	Aux.
	Bell alarm
	Shunt opening release
	Undervoltage release
	Communication modules

Additional certifications

X =	None

Advanced functionalities

X =	None

Key locks

X =	None
A =	Ronis key lock – A type key
E =	Ronis key lock – Different keys
G =	Kirk key lock XT5-XT7
K =	Castell key lock XT5-XT7

Front accessories

0 =	None
G =	Padlock

Please refer to Tmax XT technical catalog for more information.

Note: Tmax XT1 circuit breakers require a rail for installation in ReliaGear neXT power panelboards and ReliaGear SB switchboards if not already installed in your existing ReliaGear neXT or SB equipment. See table on previous page for rail ordering codes.

ReliaGear neXT catalog number nomenclature

FB circuit breakers

| NEFB | V | 1 | 6 | TE | 015 | R2A |

Part identifier

| NEFB = neXT FB circuit breakers |

Interrupting rating

| V = V |
| N = N |
| H = H |
| L = L |

kAIC rating depending on voltage level; refer to performance table.

Poles

| 1 = 1 pole |
| 2 = 2 poles |

Voltage rating

| 6 = 600/347 V |

Trip unit

| TE = Fixed thermal magnetic |

Phase

| R2A = A phase (1p) |
| R2B = B phase (1p) |
| R2C = C phase (1p) |
| R2AB = AB phases (2p) |
| R2AC = AC phases (2p) |
| R2BC = BC phases (2p) |

Rated current

015 = 15A	050 = 50A
020 = 20A	060 = 60A
025 = 25A	070 = 70A
030 = 30A	080 = 80A
035 = 35A	090 = 90A
040 = 40A	100 = 100A
045 = 45A	

TEY circuit breakers

| TEYA | D | E | C | 0A | A | X | X | X | X | X | X |

Part identifier

| TEYA = neXT TEY circuit breakers |

Interrupting rating

| D = D |
| H = H |
| L = L |

kAIC rating depending on voltage level; refer to performance table.

Poles

| E = 1 pole |
| F = 2 poles |

Rated Current

C = 15A	L = 60A
D = 20A	M = 70A
E = 25A	N = 80A
F = 30A	P = 90A
G = 35A	Q = 100A
H = 40A	R = 110A
J = 45A	S = 125A
K = 50A	

Phase

0A = A phase (1p)	AB = AB phases (2p)
0B = B phase (1p)	AC = AC phases (2p)
0C = C phase (1p)	BC = BC phases (2p)

Load lug

| A = (1) #14-10, 15-20A |
| B = (1) #10-4, 25-60A |
| C = (1) #4-2/0, 70-125A |

Shunt trip

X = None	M = 120V
K = 24V	N = 240V

Aux

| X = None | D = 277V |

Bell alarm

| X = None | A = Bell alarm |

Other

| X = None |

PDL

| X = None | C = Padlock |

Other

| X = None |

—
ReliaGear neXT catalog number nomenclature

Formula A2 circuit breakers

| A2 | A | 2 | 125 | AB | D | X | X | X | X |

Part identifier

A2 = neXT A2 circuit breakers

Interrupting rating

A = 10 kA
N = 25 kA

Poles

2 = 2 poles

Frame amps

125 = 125A
150 = 150A
175 = 175A
200 = 200A
225 = 225A
250 = 250A

Phase

AB = AB phases
AC = AC phases
BC = BC phases

Service entrance

X = None
E = Service entrance barriers

Aux/Bell alarm

X = None
A = Aux/bell alarm

Shunt trip

X = None
S = Shunt trip

Padlock

X = None
P = Padlock

Lug size

D = 300 MCM
L = 350 MCM (250A only)

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ReliaGear neXT catalog number nomenclature

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	= 250A	08	= 800A
04	= 400A	10	= 1000A
06	= 600A	12	= 1200A

Bus material

| B3 = 1000 PSI rated copper |
| B4 = Tin density-rated copper |
| H1 = Heat-rated aluminum |
| H2 = Heat-rated copper |
| H3 = Tin heat-rated aluminum |
| H4 = Tin heat-rated copper |

Number of phases

| 1 | = 1 |
| 3 | = 3 |

Type

BL	= Bolted lug pad
BF	= Bolted feed-through
NN	= Clean bus

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ReliaGear neXT catalog number nomenclature

Interior frame

| IF | 16 | 30 | C |

Part identifier

| IF = Interior frame |

X-Spaces

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

Orientation

| C = Center |
| F = Offset |

Width

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

Main lugs – mechanical

| LG | ML2 | 75 | A |

Part identifier

| LG = Main lug |

Lug type and number of wires

| ML2 = Standard mechanical 2 wire lug |

Material

| A = Aluminum |
| C = Copper |

Wire size

| 60 = 600 MCM |
| 75 = 750 MCM |

Note: * Each catalog contains a single lug. The quantity should be multiplied by the number of phases (2X for single phase, 3X for 3 phase, and the quantity is doubled if feedthrough is needed). Also, this total quantity should be multiplied by 2 if there are 2 lugs needed per phase.

—

ReliaGear neXT catalog number nomenclature

Main lugs – compression

LG **CL** **2** **75** **A**

Part identifier

LG = Main lug

Lug type

CL = Compression standard

Number of wires

1 = 1 wire lug
2 = 2 wire lug
4 = 4 wire lug

Material

A = Aluminum

Wire size

01 = 1/0	30 = 350 MCM
02 = 2/0	40 = 400 MCM
03 = 3/0	50 = 500 MCM
04 = 4/0	60 = 600 MCM
25 = 250 MCM	75 = 750 MCM

Note: * Each catalog generally contains the lugs for a single phase. The quantity should be multiplied by the number of phases (2X for single phase, 3X for 3 phase, and the quantity is doubled if feedthrough is needed).

Main lugs – dual

LG **M** **D** **4** **75** **A**

Part identifier

LG = Main lug

Lug type

M = Mechanical
C = Compression

Configuration

D = Dual main, 3 phase, silver plated
P = Dual main, 1 phase, silver plated
T = Dual main , 3 phase, tin plated
S = Dual main , 1 phase, tin plated

Material

A = Aluminum
C = Copper

Wire size

25 = 250 MCM	50 = 500 MCM
30 = 350 MCM	60 = 600 MCM
40 = 400 MCM	75 = 750 MCM

Number of wires

4 = 4 wire lug

Note: * Each catalog contains all lugs/components needed for dual main lugs. Quantity should always be 1.

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ReliaGear neXT catalog number nomenclature

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

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 catalog number nomenclature

Fillers and blanks

| SR | 01BF |

Part identifier

| SR = Spacer |

Breaker frame	Filler needed
TEY 1-pole	SR01EF
FB 1-pole	SR01EF
TEY 2-pole	SR02EF
FB 2-pole	SR02EF
Single XT1	SR1XEF
Two XT1 group mount	SR2XEF
Five XT1 group mount	SR5XEF
XT2	SR03EF
XT4	SR03EF
XT5	SR04EF
XT6	SR06EF
XT7	–
RELT	SR06RF
SPD	SR10SF
Metering	SR04EF
Submetering 9X	SR09MF
Submetering 14X	SR14MF

Note: Tmax XT1 circuit breakers require a rail for installation in ReliaGear neXT power panelboards and ReliaGear SB switchboards if not already installed in your existing ReliaGear neXT or SB equipment. This rail and associated hardware comes standard with the different spacer options.

X height and filler

01BF	= 1X Blank and filler
01BB	= 1X Blank only
01EF	= 1X Filler only
02BF	= 2X Blank and filler
02BB	= 2X Blank only
02EF	= 2X Filler only
03BF	= 3X Blank and filler
03BB	= 3X Blank only
03EF	= 3X Filler only
04EF	= 4X Filler only
06RF	= 3X RELT filler
06EF	= 6X Filler only
10SF	= 10X SPD filler
T1BB	= XT1 blank only
1XBB	= Single XT1 spacer blank only
1XBF	= Single XT1 spacer blank, rail and filler
1XBR	= Single XT1 spacer blank and rail
1XEF	= Single XT1 spacer filler only
2XBB	= Two XT1 spacer blank only
2XBF	= Two XT1 spacer blank, rail and filler
2XBR	= Two XT1 spacer blank and rail
2XEF	= Two XT1 spacer filler only
5XBF	= Five XT1 spacer blank, rail and filler
5XBR	= Five XT1 spacer blank and rail
5XEF	= Five XT1 spacer filler only

Note:
Blank = A spacer to fill the area occupied by a circuit breaker when plugged-in to the interior bus stack.
Filler = A spacer to fill the area between a plugged-in circuit breaker and the gutter.

XT1 rail table

	30" center	40" offset left	40" offset right	45" center	45" offset left	45" offset right
Single XT1	SR1XBR	SR1XBF	SR1XBR	SR1XBF	SR1XBF	SR1XBR
Two XT1 group mount	SR2XBR	SR2XBF	SR2XBR	SR2XBF	SR2XBF	SR2XBR
Five XT1 group mount	SR5XBR	SR5XBF	SR5XBR	SR5XBF	SR5XBF	SR5XBR

X-space fillers

Space to be filled	30" center	40" offset left	40" offset right	45" center	45" offset left	45" offset right
1X	SR01BB	SR01BF	SR01BB	SR01BF	SR01BF	SR01BB
2X	SR02BB	SR02BF	SR02BB	SR02BF	SR02BF	SR02BB
3X	SR03BB	SR03BF	SR03BB	SR03BF	SR03BF	SR03BB

—

ReliaGear neXT catalog number nomenclature

Barrier post

BP	30	C

Part identifier

BP = Barrier post

Width

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

Orientation

C = Center
F = Offset

Vertical main kits

VM	XT7	3P	S

Part identifier

VM = Vertical main kit

Frame

XT5 = XT5
XT7 = XT7

Plating type

S = Silver
T = Tin

Poles

3P = 3-phase
2P = 1-phase

Note: If you need full kit, you should order both the vertical main kit and the vertical main rail kit.

Vertical main rail kits

VMR	45	F

Part identifier

VMR = Vertical main rail kit

Width

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

Orientation

C = Center
F = Offset

—

ReliaGear neXT catalog number nomenclature

Door-in-door

DD	30	60	AH	C	S

Part identifier

DD = Door in door

Enclosure width

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

Enclosure height

60 = 60"
72 = 72"
84 = 84"
96 = 96"

Lock type

S = Standard

Orientation

C = Center
F = Offset

Type

AH = NEMA 1 hinged cover

Door-in-door filler

DD	FIL	30	XX	03	SC

Part identifier

DD = Door in door
FIL = Filler

Width

30 XX = 30" center
40 XX = 40" offset with vertical main circuit breaker
45 XX = 45" center
40 45 = 40" or 45" offset

Main/orientation

SC = Standard center
SF = Standard offset
VC = Vertical center
VF = Vertical offset

Height

03 = 3X
09 = 9X
15 = 15X
21 = 21X
27 = 27X
33 = 33X
39 = 39X

—

ReliaGear neXT catalog number nomenclature

Door-in-door filler support

| DD | SUP | 08 |

Part identifier

DD = Door in door

Support prefix

SUP = Support

X Length

08 = 8"
12 = 12"
16 = 16"
20 = 20"
24 = 24"
32 = 32"
36 = 36"
40 = 40"

Grounds

| GD | BG | 10 | AL |

Part identifier

GD = Ground

Bonded or isolated

BG = Bonded
IG = Isolated

Material

AL = Aluminum
CU = Copper

Number of wires

10 = 10
47 = 47

—

ReliaGear neXT catalog number nomenclature

Neutrals

NL	04	I	0	N	STND	AL

Part identifier

NL = Neutral

Ampacity

02 = 250A	08 = 800A
04 = 400A	10 = 1000A
06 = 600A	12 = 1200A

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
XT4T/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
D240 = 200% dual main lugs, 40" wide panel
D245 = 200% dual main lugs, 45" wide panel
M240 = 200% main lugs, 40" wide panel
M245 = 200% main lugs, 45" wide panel

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

ReliaGear neXT catalog number nomenclature

Ground fault neutrals

| NL | 04 | I | 0 | N | DH40 | AL |

Part identifier

| NL = Neutral |

Material

| AL = Aluminum |
| CU = Copper |

Ampacity

02 = 250A	08 = 800A
04 = 400A	10 = 1000A
06 = 600A	12 = 1200A

Main type

| DH40 = Dual mech main/horizontal main breaker, 40" W |
| MH40 = Main lug/horizontal main breaker, 40" W |
| DH45 = Dual mech main/horizontal main breaker, 45" W |
| MH45 = Main lug/horizontal main breaker, 45" W |
| X440 = XT4 main (GF), 40" W |
| X445 = XT4 main (GF), 45" W |
| 5540 = XT5 main, 500 MCM (GF), 40" W |
| 5545 = XT5 main, 500 MCM (GF), 45" W |
| 7540 = XT5 main, 750 MCM (GF), 40" W |
| 7545 = XT5 main, 750 MCM (GF), 45" W |
| 5745 = XT7 main, 500 MCM (GF), 45" W |
| 7745 = XT7 main, 750 MCM (GF), 45" W |

Isolation

| I = Isolated neutral with grounding kit |

Number of GF feeders

| 0 = 0 |
| 4 = 4 |
| 6 = 6 |

Main GF

| N = No ground fault |
| G = With ground fault |

Note: These ground fault neutrals are not orderable as loose units, only factory assembled

Ground fault on feeder neutral current sensor kits

| NL | CT | XT2 | 60 |

Part identifier

| NL = Neutral |

Number of poles

| 60 = XT2 ≤ 60 A sensor |
| 100 = XT2 ≥ 100 A sensor |
| 350 = XT4 350 kcmil |
| 500 = XT5 500 kcmil |
| 750 = XT5 750 kcmil |

Current sensor

| CT = Current sensor |

Breaker frame

| XT2 = XT2 |
| XT4 = XT3 |
| XT5 = XT5 |

Note: These ground fault on feeder neutral current sensor kits are not orderable as loose units, only factory assembled

ReliaGear neXT catalog number nomenclature

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	

Service entrance barrier

| **SB** | **X4** | **W35** | **P3** |

Part identifier

SB = Service entrance barrier

Circuit breaker frame

X1 = XT1
X2 = XT2
X4 = XT4
X5 = XT5
X6 = XT6
X7 = XT7

Number of poles

P2 = 2
P3 = 3

Wire size

W02 = 2/0 AWG
WT2 = 2/0 AWG XT2 Thermo Mag
WE2 = 2/0 AWG XT2 Electronic
W30 = 300 kcmil
W35 = 350 kcmil
W40 = 400 kcmil
W50 = 500 kcmil
W75 = 750 kcmil

Surge protection device (SPD)

| **SP** | **120** | **Y** | **06** | **X4** | **01** |

Part identifier

SP = SPD

Voltage type

120 Y = 120 V AC Wye
277 Y = 277 V AC Wye
347 Y = 347 V AC Wye
480 Y = 480 V AC Delta

SPD type

01 = Type 1
02 = Type 2

Disconnect device

X4 = XT4

Impulse current

06 = 65 kA	15 = 150 kA
08 = 80 kA	20 = 200 kA
12 = 125 kA	30 = 300 kA

ReliaGear neXT catalog number nomenclature

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 supplied.

Wire connector kit for RELT module

CN	001

Part identifier

CN	=	Wire connector kit

For use with

001	=	XT7 connector extension kit
003	=	XT7 2k-1 kit
004	=	XT7 2k-3 kit

Notes:
For replacement wire connector kits, an exact replacement must be used (i.e., a 2K-1 kit must be used to replace an existing 2K-1 kit). Failure to do so may result in incorrect RELT functionality or require the breaker to be re-programmed. Refer to 9AKK107991A2520 and 1SQC900005M0201 for more information.

CN003 includes Ekip 2K-1 signaling and Ekip supply.

CN004 includes Ekip 2K-3 signaling and Ekip supply. CN004 is ONLY compatible with firmware version 3.10.00 or higher. Refer to 9AKK107991A2520 to validate firmware version.

CN001 is a cable extension for use with XT7 vertical mains. When vertical main is used, you must order CN001 and CN003 or CN001 and CN004.

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ReliaGear neXT catalog number nomenclature

Single-point metering – RGM40

RGM40	V1	1	X

Part identifier

RGM40 = Main meter

Version

V1 = Standard
V2 = Standard + basic datalog
V6 = Advanced: datalog, PQ, waveform

Advanced: data logging, harmonic analysis,
512 samples per cycle waveform recorder.

Meter options

M = Modbus RTU
T = Modbus TCP
B = BacNet

Voltage

X = Transformer 120/240 V single phase, 120/240V Delta high-leg, 208/120 V Wye, 480/277 V Wye
T = With transformer 240c 480, 600 V Delta, 600/347 V Wye

Single-point metering – AMP1

MT	04	AP

Part identifier

MT = Single-point metering – AMP1

Enclosure width

04 = 40"–45"

Meter options

AP = Pulse
AM = AMP1, Modbus
AD = AMP1, Modbus data log
AB = AMP1, BACnet

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

—

ReliaGear neXT catalog number nomenclature

Meter current transformer kit

| MT | A | 03 | 02 | CT |

Part identifier

MT = Meter current transformer kit

Meter used

A = AMP1

Phase

03 = 3-phase

Wire size

For CTs only

Ampacity

02	=	250A
04	=	400A
06	=	600A
08	=	800A
10	=	1000A
12	=	1200A

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 catalog number nomenclature

Submetering modules

RGM	4500Q	1X6DU	X

Part identifier

RGM = RGM

Model

4500Q = 4500 Qbrick

[1] Qbrick 6 can only be used on 240V and lower circuits.
Note: Submetering modules are not orderable as loose units, only available through factory assembled option.

Voltage

X = Without transformer (≤240V)
T = With current transformer (>240V)

Circuits

1X6DU = One Qbrick 6[1] with display unit
2X6DU = Two Qbrick 6[1] with display unit
3X6DU = Three Qbrick 6[1] with display unit
4X6DU = Four Qbrick 6[1] with display unit
1X4DU = One Qbrick 4 with display unit
2X4DU = Two Qbrick 4 with display unit
3X4DU = Three Qbrick 4 with display unit
4X4DU = Four Qbrick 4 with display unit

Submetering CTs

RGMSCT	0050	C1	SO

Part identifier

RGMSCT = RGMSCT

Breaker amps served (max.)

0050 = 0-50A
0100 = 51-100A
0200 = 101-200A
0400 = 201-400A
0800 = 401-800A
1200 = 801-1200A

Core type

SO = Solid core

Accuracy

C1 = 0.1% accuracy class
S2 = 0.2% accuracy class

Note: Submetering CTs are not orderable as loose units, only available through factory assembled option.

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ReliaGear neXT catalog number nomenclature

Replacement parts

| RGRP | RGRS |

Part identifier

RGRP = ReliaGear replacement parts

Note: For additional information, please refer to the replacement parts instruction sheet **1SQC900015M0201**

Replacement part type

RGRS =	Rheolube 368 50ml - clip grease – 1pc Grease used to apply on breaker clips to plug into bus stack
DPIN =	Door hinge pins – 6pcs Door hinge pins used to secure gutter doors and standard locking doors to enclosure
TSCR =	1/4-20 thread-forming screws – 20pcs Standard panel screws that come in two lengths, qty 10 of 3/8", qty 10 of 1.25"
SKEY =	Standard C135 key – DID and SLD – 1pc Standard key for door within door and standard locking doors

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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
1SQC900013M0201	Drip hood installation
1SQC900015M0201	Replacement part kits
1SQC900016M0201	Submetering
1SQC900017M0201	Lifting bar instructions
1SQC900021M0201	RGM40 main circuit breaker meter

Installation videos and documents

Product installation videos
ReliaGear neXT — Bus stack installation
ReliaGear neXT — Fronts and gutter doors installation
ReliaGear neXT — Branch circuit breaker installation
ReliaGear neXT — Ground and neutral installation
ReliaGear neXT — Interior frame installation
ReliaGear neXT — Field modification — top feed to bottom
ReliaGear neXT — Lug wire post installation
Resource documents
Brochure — 1SQC900001B0201
Catalog — 1SQC900001C0201
Typicals brochure — 1SXU900300G0201
White paper — 1SQC900001G0201
Instruction sheet — RELT — 1SQC900005M0201
Instruction sheet — Grounds and neutral — 1SQC900007M0201
Instruction sheet — ReliaGear® neXT SuperBox panelboard — 1SQC900014M0201

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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.

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

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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.

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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]

[1]Maximum 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.

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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 Height[1]	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

[1]X-height: 1X = 1 3/8"

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

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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 AMC4SE AMC4EB AMC6EBS	AHKE1
AMC6EL	AHKEL1
AMC2FLS AMC6FJ AMC4FJ AMC3FJ AMC2FJ AMC6FLS AMC3FLS AMC4FLS	AHKF1
AMC2GM AMC6GB AMC4GB AMC3GM	AHKG1
AMC2JK AMC6JK AMC4JK AMC3JK	AHKJ1
AMC3LB AMC6LB	AHKLB1

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.