

I-Line®

Circuit Breaker Panelboards

Catalog

05

Class 2110



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I-Line® Circuit Breaker Panelboards

Product Description

PRODUCT DESCRIPTION

Square D®-brand I-Line® circuit breaker power distribution panelboards are for use on AC or DC systems. The panels, labeled cULus (compliance to UL and CSA standards certified by UL) are also Underwriters Laboratories® (UL®) Listed under File E33139. The following are suitable for use as service entrance equipment:

- All main circuit breaker panelboards.
- All main lugs panelboards with branch-mounted, back-fed main circuit breaker. (For Canadian MLO service entrance, use HCP-SU and HCR-U only).
- All main lugs panelboards with six disconnects or less.
- A solid neutral that is insulated, but may be bonded to the box with a grounding strap.
- Service entrance panelboards meeting the requirements of CSA are available in Canada factory-assembled only.

I-Line circuit breaker panelboards are available as 225–1200 A main lugs only and 100–1200 A main circuit breakers. I-Line panelboards are designed to accept the following circuit breakers: FY, FA, FH, FC, FJ, FK, FI, HD, HG, HJ, HL, QB, QD, QG, QJ, QO, KA, KH, KC, KI, JD, JG, JJ, JL, LA, LH, LC, LI, LE, LX, LXI, MA, MH, MG, MJ, PG, PJ, PK*, PL, RG, RJ, RK*, and RL.

* *Canada only.*

Standards

I-Line circuit breaker panelboards are designed, manufactured, and tested to comply with the following standards:

Standard	Description
UL 50	Standard for enclosures for electrical equipment
UL 67	Standard for panelboards
CSA C22.2, Nos. 29 and 94—1989	Standard for panelboards and enclosed panelboards
NFPA 70	National Electrical Code (NEC)
NEMA PB 1	Standard for panelboards
W-P 115C Type 1 Class 1	Specification for circuit breaker panelboards
2000 IBC	US standard for seismic requirements
1995 NBCC	Canadian standard for seismic requirements

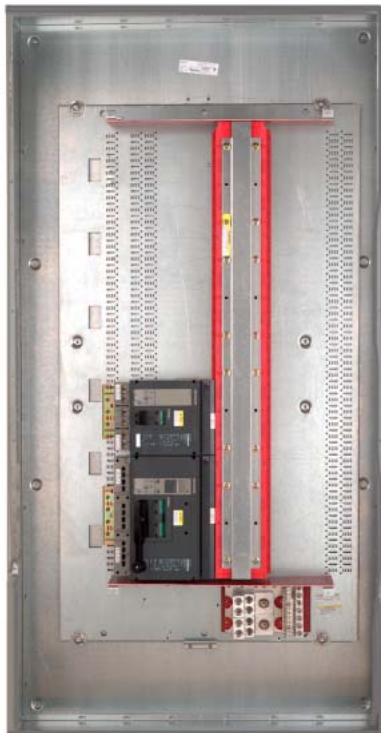
Service

I-Line circuit breaker panelboards can be used on the following system voltages:

- 120/240 VAC; 1-phase, 3-wire
- 240 VAC; 1-phase, 2-wire
- 240 VAC; 3-phase, 3-wire
- 240 VAC Ground, B-phase; 3-phase, 3-wire
- 208Y/120 VAC; 3-phase, 4-wire
- 480Y/277 VAC; 3-phase, 4-wire
- 480 VAC; 3-phase, 3-wire
- 600Y/347 VAC; 3-phase, 4-wire
- 600 VAC; 3-phase, 3-wire
- 125/250 VDC; 3-wire
- 250 VDC; 2-wire



Type HCR-U—1200 A Main Circuit Breaker



Type HCR-U—1200 A Main Circuit Breaker

I-Line® Circuit Breaker Panelboards

Product Description



Type HCP—600 A Main Circuit Breaker

Panelboard Types

Panelboard Type	Maximum Mains Ampacity		Maximum Branch Circuit Breaker Frame Size ❖		Enclosure Dimensions ■	
	Main Lugs	Main Circuit Breakers	Left	Right	Width IN (mm)	Depth IN (mm)
HCN	600 A	400 A	FA, QB, HD	FA, QB, HD	26 (660)	6.50 (165)
HCM	800 A	800 A	JD	JD	32 (813)	8.25 (210)/ 9.50 (241)
HCP-SU	800 A	800 A ♦	MG, PG	None	26 (600)	9.50 (241)
HCP	1200 A	800 A ♦	MG, PG	JD	42 (1067)	9.50 (241)
HCR-U	1200 A	1200 A ♦	RG	JD	44 (1118)	9.50 (241)

- ❖ For a complete listing of applicable circuit breaker types, refer to the dimensions section.
- Refer to the Dimensions section for standard panelboard heights.
- ♦ Available as a main circuit breaker panelboard when provided with a branch mounted back-fed main circuit breaker.



Type HCP-SU
800 A Main Circuit Breaker



Type HCM—400 A Main Lugs

I-Line® Circuit Breaker Panelboards

Product Description

Enclosure Types

Types	Environments	Provides Protection Against
Type 1	Indoor	Contact with the enclosed equipment
Type 2	Indoor	Falling water and dirt
Type 3R	Outdoor	Falling rain, sleet; undamaged by ice
Type 4/4X Stainless	Indoor/Outdoor	Corrosion, hose-directed water, dust
Type 5	Indoor	Settling dust, falling dirt, dripping liquids
Type 12	Indoor	Circulating dust, falling dirt, dripping liquids



Types 1 and 2 Enclosure with Optional Door



Flush Lock used on HCN, HCM, and HCP-SU Types 1 and 2 Fronts (Catalog No. PK4FL)



Sliding Vault Lock used on HCN, HCP, and HCR-U Types 1 and 2 Fronts (Catalog No. PK5FL)

Type 1 Enclosures	Fronts:	HCN, HCM, HCP, HCP-SU, and HCR-U surface and flush trims available as four-piece construction, standard (door not included). An optional four-piece trim with door is also available.
	Fronts:	Finished with gray-baked enamel electrodeposited over cleaned phosphatized steel (ANSI 49).
	Fronts:	Directory card holders provided with all fronts.
Type 3R, 5, and 12 Enclosures	Boxes:	Galvanized steel in 26, 32, 42, and 44-inch (660, 813, 1067, and 1118 mm) widths.
	Boxes:	Removable endwalls without knockouts.
		Gasketed door with vault handle and directory card holder.
		Three-point latching.
		End and side gutter trim.
Type 4X Enclosures (Factory-Assembled Only)		No knockouts.
		Removable drain screw for Type 3R.
		Finished with gray-baked enamel electrodeposited over cleaned phosphatized steel (ANSI 49).
		Corrosion-resistant, fiberglass-reinforced polyester.
		Watertight and dusttight.
		Gasketed door with trunk latches.
		Directory card located on inside of door.



Type 3R, 5, and 12 Enclosures



Type 3R, 5, and 12 Enclosures



Vault Handle used on all Type 3R, 5, and 12 Enclosures (Catalog No. PK4NVL)

I-Line® Circuit Breaker Panelboards

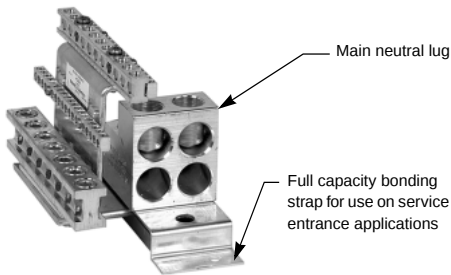
Product Description



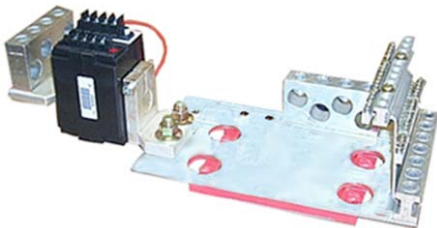
Main Circuit Breaker and Solid Neutral Compartment
(Canada service entrance not shown)



Main Lug and Solid Neutral Compartment



Typical Solid Neutral



Neutral with C/T for Use on HCR-U When Ground-Fault Protection is Required (Catalog No. HCR12SNCT)

Main Breaker Panelboards

- Accept a maximum 1200 A, 80% or 100% rated main breaker.
- Available factory-assembled or merchandised.*
- Factory-assembled main circuit breaker interiors are available bottom-feed or top-feed.
- Suitable for use as service entrance equipment, US and Canada.
- Accept plug-on I-Line circuit breakers.
- Available with a short circuit current rating (SCCR) up to 200 kA maximum (100 kA @ 600 VAC) when supplied by an I-Limiter® circuit breaker.
- Available with a silver-plated or tin-plated copper bus, or tin-plated aluminum bus.
- Solid neutral is mounted in the mains compartment with the main circuit breaker.
- Merchandised (RTA in Canada) main circuit breaker panelboards are provided bottom-feed as standard.

* Ready-to-Assemble (RTA) in Canada

Main Lugs Only Panelboards

- Available with main lug only interiors rated up to 1200 A.
- Available factory-assembled or merchandised (RTA in Canada).
- Suitable for use as service entrance equipment when provided with a main circuit breaker, US and Canada.
- Accept plug-on I-Line circuit breakers.
- Available with a short circuit current rating (SCCR) up to 200 kA maximum (100 kA @ 600 VAC) when supplied by an I-Limiter circuit breaker.
- Available with a silver-plated or tin-plated copper bus, or tin-plated aluminum bus.
- Solid neutral is mounted in the mains compartment with the main lugs.
- Hinged cover, isolated main lugs compartment.
- Main lug interiors are available as top-feed or bottom-feed.

Solid Neutral

- Mounts in main lug or main circuit breaker compartment.
- Does not take up interior circuit breaker mounting space.
- UL/CSA Listed for use with Al or Cu conductors.
- Copper or aluminum neutral available.
- 200% rated neutral available as a factory-assembled option.

I-Line® Circuit Breaker Panelboards

Features and Benefits

FEATURES AND BENEFITS

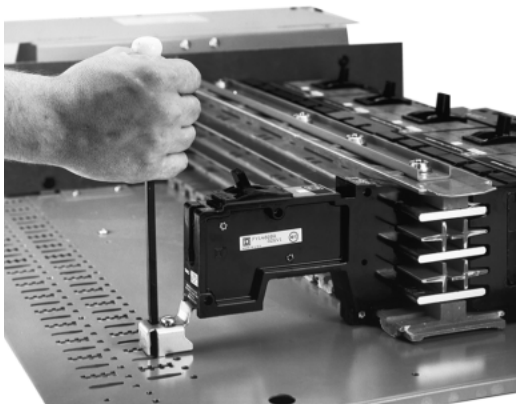
Featured below are just a few of the many features and benefits of Square D-brand I-Line circuit breaker panelboards.

Circuit Breakers

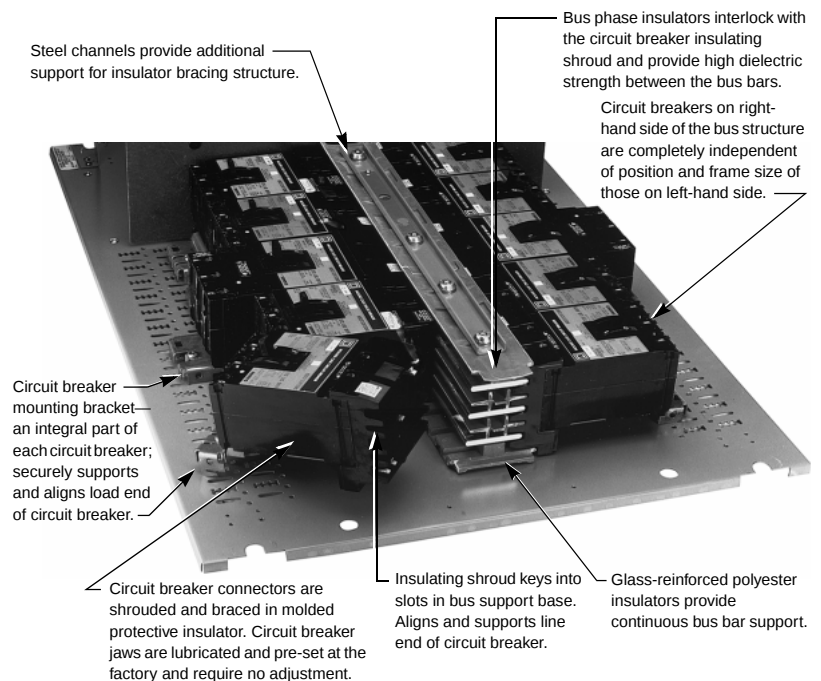
I-Line panelboards are available with a complete line of thermal magnetic, Micrologic®, and electronic circuit breakers. The I-Line circuit breakers, with their exclusive plug-on connection design provide superior reliability and performance advantages.

Circuit Breaker Mounting

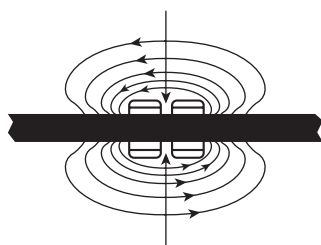
- 15–1200 A frame circuit breakers require only a screwdriver and are ratcheted firmly onto the bus stack. They are secured in place by a screw.
- The connectors are an integral part of the I-Line circuit breaker—eliminating the assembly of connectors to the bus bar.
- Pre-assembled hardware means reduced installation time.
- The unique line side connection requires no routine maintenance.



Ratchet-Type Mounting



I-Line Bus Structure and Circuit Breaker Mounting



Blow-On Connections

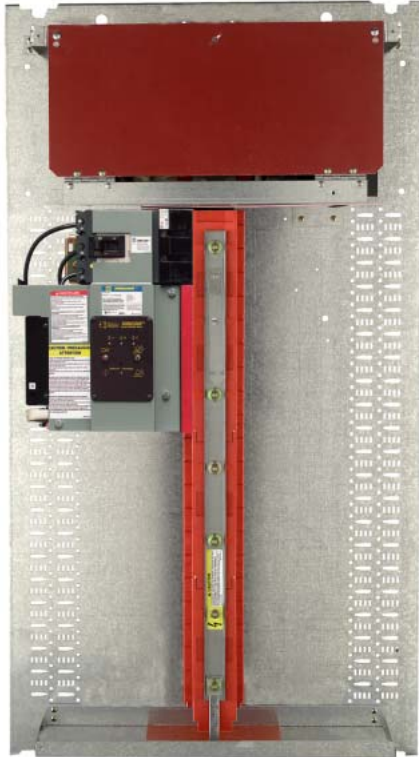
Push-to-Trip

Push-to-trip is a standard feature on all I-Line circuit breakers. It is useful for checking circuit breaker operation and for testing auxiliary devices. The circuit breaker is mechanically tripped by pressing the push-to-trip button in the circuit breaker case.

Blow-On Connections

All circuit breaker connections are “blow-on” type. Under high-level short circuit conditions, the magnetic forces developed tend to draw the connector jaws together, gripping the I-Line bus bar more firmly.

I-Line® Circuit Breaker Panelboards Features and Benefits



I-Line Plug-On Unit with SurgeLogic® TVSS



Equipment Ground Bar (Catalog No. PK32DGTA)



Typical Box Extensions



Blank Fillers (Catalog Nos. HNM4BL and HNM1BL)

Short Circuit Current Rating (SCCR)

- SCCR is equal to the lowest interrupting capacity of a branch or main circuit breaker installed in the panelboard.
- I-Line panelboards, with branch circuit breakers installed, are short-circuit tested as complete units.
- All tests are conducted in accordance with UL 67 and CSA C22.2 (Standards for Panelboards).

With I-Limiter main circuit breaker, I-Line main circuit breaker panelboards are UL/CSA Listed for use on systems with up to a 200,000 maximum RMS symmetrical amperes available fault current (100 kA @ 600 VAC).

I-Line Plug-on Unit with SurgeLogic® TVSS

- Plug-on design requires less cable and conduit than end gutter-mounted TVSS unit, saving labor time and material costs.
- Bus-connected design enhances performance.
- Meets the requirements of UL and CSA for retrofit applications in existing I-Line panelboards and switchboards.
- Integrated TVSS and circuit breaker disconnects feature compact design, requiring only 13.50 inches (343 mm) of branch mounting space.
- SCCR up to 200 kA rating (100 kA @ 600 VAC) meets a wide variety of customer applications.

ACCESSORIES

A wide variety of accessories are available for field or factory installation of I-Line panelboards.

Equipment Ground Bars

Equipment ground bars mount in the panelboard box to provide convenient termination of equipment grounding conductors. They are available in copper or aluminum.

Box Extensions

Box extensions provide additional end gutter for feeding cables into the end of the cabinet; they are UL/CSA Listed.

Blank Fillers

Blank fillers are required to cover unused mounting space in I-Line panelboards.

Backfed Main Breaker Barriers

Primarily for use in Canada, these barriers provide additional protection for backfed main breakers.

I-Line® Circuit Breaker Panelboards General and Application Information

GENERAL AND APPLICATION INFORMATION

Circuit Breaker Ratings

Circuit Breaker Frame Type	Maximum Voltage Rating	Number of Poles	Cont. Ampere Rating	UL/CSA Interrupting Rating—RMS Amperes (Symmetrical)					
				AC Volts, 50/60 Hz				DC Volts	
				120	240	480	600	125	250
FY ‡	277	1	15–30	18 K	14 K	—	—	—	—
FA 240 V	120 240 240	1 2 3	15–100	10 K	— 10 K 10 K	—	—	5 K — —	5 K
FA 480 V	277 480 480	1 2 3	15–100	25 K	18 K ■ 25 K 25 K	— 18 K 18 K	—	10 K — —	10 K 10 K
FA 600 V	600	2, 3	15–100	25 K	25 K	18 K	14 K	10 K	10 K
FH ♦	277 277 600	1 1 2, 3	15–30 35–100 15–100	65 K	65 K ■ 25 K ■ 65 K	— — 25 K	— — 18 K	10 K 10 K —	— — 10 K
FC	480	2, 3	15–100	100 K	100 K	65 K	—	—	—
FG	277	1	15–70	35 K	35 K	35 K	18 K ☼□	—	—
FJ	277	1	15–70	65 K	65 K	65 K	25 K ☼□	—	—
FK □	347	1	15–30	65 K	65 K	65 K	65 K	—	—
FI	600	2, 3	20–100	200 K	200 K	200 K	100 K	—	—
HD	600	2, 3	15–150	25 K	25 K	18 K	14 K	20 K	20 K
HG	600	2, 3	15–150	65 K	65 K	35 K	18 K	20 K	20 K
HJ	600	2, 3	15–150	100 K	100 K	65 K	25 K	20 K	20 K
HL	600	2, 3	15–150	125 K	125 K	100 K	50 K	20 K	20 K
QB	240	2, 3	70–225	10 K	10 K	—	—	—	—
QD	240	2, 3	70–225	25 K	25 K	—	—	—	—
QG	240	2, 3	70–225	65 K	65 K	—	—	—	—
QJ ♦	240	2, 3	70–225	100 K	100 K	—	—	—	—
KA	600	2, 3	70–250	42 K	42 K	25 K	22 K	10 K	10 K
KH ♦	600	2, 3	70–250	65 K	65 K	35 K	25 K	10 K	10 K
KC	480	2, 3	110–250	100 K	100 K	65 K	—	—	—
KI	600	2, 3	110–250	200 K	200 K	200 K	100 K	—	—
JD	600	2, 3	150–250	25 K	25 K	18 K	14 K	20 K	20 K
JG	600	2, 3	150–250	65 K	65 K	35 K	18 K	20 K	20 K
JJ	600	2, 3	150–250	100 K	100 K	65 K	25 K	20 K	20 K
JL	600	2, 3	150–250	125 K	125 K	100 K	50 K	20 K	20 K
LA	600	2, 3	125–400	42 K	42 K	30 K	22 K	10 K	10 K
LH ♦	600	2, 3	125–400	65 K	65 K	35 K	25 K	10 K	10 K
LC	480	2, 3	300–600	100 K	100 K	65 K	35 K	—	—
LI	480	2, 3	300–600	200 K	200 K	200 K	100 K	—	—
MA	600	2, 3	300–800	42 K	42 K	30 K	22 K	14 K	14 K
MH ♦	600	2, 3	300–800	65 K	65 K	65 K	25 K	14 K	14 K
MG	600	2, 3	300–800	65 K	65 K	35 K	18 K	—	—
MJ	600	2, 3	300–800	100 K	100 K	65 K	25 K	—	—
PG	600	2, 3	600–1200	65 K	65 K	35 K	18 K	—	—
PJ	600	2, 3	600–1200	100 K	100 K	65 K	25 K	—	—
PK □	600	2, 3	600–1200	65 K	65 K	50 K	50 K	—	—
PL	480	2, 3	600–1200	125 K	125 K	100 K	—	—	—
Micrologic Trip Circuit Breakers									
LX	600	3	100–600	100 K	100 K	65 K	35 K	—	—
LXI	600	3	100–600	200 K	200 K	200 K	100 K	—	—
LE	600	3	100–600	100 K	100 K	65 K	35 K	—	—
PG	600	2, 3	250–1200	65 K	65 K	35 K	18 K	—	—
PJ	600	2, 3	250–1200	100 K	100 K	65 K	25 K	—	—
PK □	600	2, 3	250–1200	65 K	65 K	50 K	50 K	—	—
PL	480	2, 3	250–1200	125 K	125 K	100 K	—	—	—
RG	600	2, 3	1000–1200	65 K	65 K	35 K	18 K	—	—
RJ	600	2, 3	1000–1200	100 K	100 K	65 K	25 K	—	—
RK □	600	2, 3	1000–1200	65	65 K	65 K	65 K	—	—
RL	600	2, 3	1000–1200	125 K	125 K	100 K	50 K	—	—

‡ 15 and 20 A are Switching Duty rated (SWD).

■ 277 VAC rated.

♦ Separate UL rating available for 240 V and 480 V grounded B phase systems. Circuit breakers must be ordered with 5861 suffix.

☼ FG and FJ 600Y/347 VAC @ 15–30 A only.

□ Canada only.

♦ QJ 3-pole is rated 100 KA@208Y/120 VAC.

I-Line® Circuit Breaker Panelboards

General and Application Information

Circuit Breaker Terminal Data

Circuit Breaker	Frame Size	Ampere Rating	Terminal Lug Wire Size
FY	100 A	15–30	#14-#4 Al/Cu
FA	100 A	15–30	#14-#4 Cu or #12-#4 Al
FA	100 A	35–100	#14-1/0 Cu or #12-1/0 Al
FC	100 A	15–30	#14-#10 Cu
FC	100 A	35–100	#14-#3 Cu or #12-#1 Al
FG, FJ, FK □	100 A	15–30	#14-#6 Cu or #12-#6 Al
FJ	100 A	35–70	#14-2/0 Cu or #12-2/0 Al
FH	100 A	15–30	#14-#4 Cu or #12-#4 Al
FH	100 A	35–100	#14-1/0 Cu or #12-1/0 Al
FI	100 A	20–30	#14-#4 Cu or #12-#4 Al
FI	100 A	35–100	#14-1/0 Cu or #12-1/0 Al
HD, HG, HJ, HL	150 A	15–150	#14-3/0 Al/Cu
QB	225 A	70–225	#4-300 kcmil Al/Cu
QD	225 A	70–225	#4-300 kcmil Al/Cu
QG	225 A	70–225	#4-300 kcmil Al/Cu
QJ	225 A	70–225	#4-300 kcmil Al/Cu
KA	250 A	125–250	(1) #6-350 kcmil Al/Cu
KC	250 A	110–175	(1) #6-350 kcmil Al/Cu
KC	250 A	200–250	(1) 1/0-350 kcmil Al/Cu
KH	250 A	125–250	(1) #6-350 kcmil Al/Cu
KI	250 A	110–175	(1) #6-350 kcmil Al/Cu
KI	250 A	200–250	(1) 1/0-350 kcmil Al/Cu
JD, JG, JJ, JL	250 A	150–175	#1/0-4/0 Al/Cu
JD, JG, JJ, JL	250 A	200–250	#3/0-350 kcmil Al/Cu
LA, LH	400 A	250–400	(1) #1-600 kcmil or (2) #1-250 kcmil Al/Cu
LC	600 A	300–600	(2) 4/0-500 kcmil Al/Cu
LE	600 A	100–250	(2) #1-350 kcmil Al/Cu
LE	600 A	300–600	(2) 4/0-500 kcmil Al/Cu
LI	400 A	300–400	(2) 4/0-500 kcmil Al/Cu
LI	600 A	450–600	(2) 4/0-500 kcmil Al/Cu
LX	600 A	100–250	(2) #1-350 kcmil Al/Cu
LX	600 A	300–600	(2) 4/0-500 kcmil Al/Cu
LXI	600 A	100–250	(2) #1-350 kcmil Al/Cu
LXI	600 A	300–600	(2) 4/0-500 kcmil Al/Cu
MA, MH	800 A	300–800	(3) 3/0-500 kcmil Al/Cu
MG, MJ	800 A	300–800	(3) 3/0-500 kcmil Al/Cu
PG, PJ, PK□, PL	1200 A	250–800	(3) 3/0-500 kcmil Al/Cu
PG, PJ, PK□, PL	1200 A	1000–1200	(4) 3/0-500 kcmil Al/Cu
RG, RJ, RK□, RL	1200 A	1000–1200	(4) 3/0-600 kcmil Al/Cu

NOTE: Lugs are rated for 75 °C wire, except FA (15–30 A) and FI (20–30 A), which are rated for 60/75 °C. Torque values are listed on the circuit breaker faceplate tables.

□ Canada only.

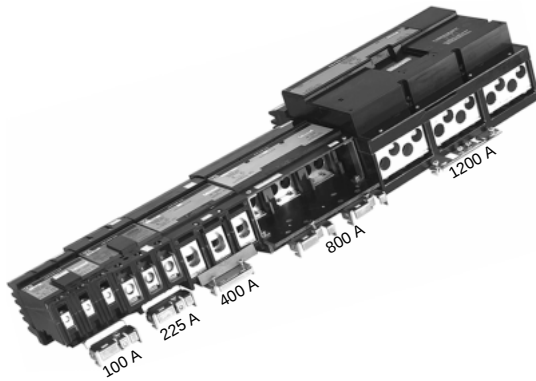
Circuit Breaker Accessories

- Shunt trip
- Undervoltage trip
- Alarm switch
- Auxiliary contacts
- Ground-fault shunt trip

I-Line® Circuit Breaker Panelboards General and Application Information

NOTE: All accessories, except for the Ground-fault shunt trip are field-installable for LA, LH, LC, LI, LX, LXI, LE, MA, and MH circuit breakers.

For detailed information on circuit breakers and accessories, refer to the Digest.



Plug-On Lugs

Circuit Breaker	Class
HD, HG, HJ, HL	611
FI	820
QB, QD, QG, QJ	734
JD, JG, JJ, JL	611
KI	825
LA, LH, LC	660

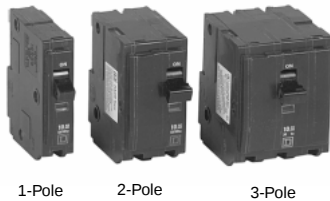
Circuit Breaker	Class
LI	830
LE, LX	661
MG, MJ	612
PG, PJ, PK, PL	612
RG, RJ, RK, RL	612

□ Canada only.

Plug-On Lugs Terminal Data

Amperage Rating	Frame Size	Catalog No.	Terminal Lug Wire Size
100 A	100 A	SL100	#14-1/0 Cu or #12-1/0 Al
250 A	250 A	SL250	(1) #4-300 kcmil Al/Cu
400 A	400 A	SL400	(1) #1-600 kcmil or (2) #1-250 kcmil Al/Cu
800 A	800 A	SL800	(3) 3/0-500 kcmil Al/Cu
1200 A	1200 A	S33931	(4) 3/0-500 kcmil Al/Cu
1200 A ‡	1200 A	S33930	(4) 3/0-600 kcmil Al/Cu

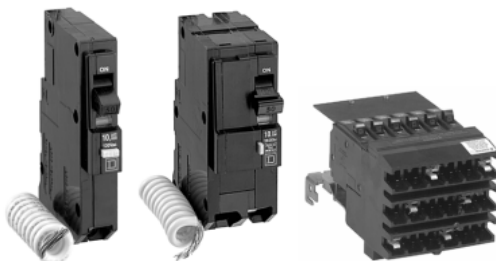
‡ For 100% rated applications ("R" frame breakers).



QO with Visi-Trip® Indicator

Plug-On QO® Distribution Panel (Catalog No. HQO306)

- Six-pole, 240 VAC maximum
- Use with QO®, QO-H, QO-VH, QH, and Qwik-Gard® plug-on circuit breakers through 30 A. For detailed information, refer to DP Catalog Class 730 and 910.
- Mounts in all I-Line panelboards.



Qwik-Gard® Circuit Breaker with Ground Fault Circuit Interrupter

QO Distribution Panel Branch Circuit Breakers

Distribution Channel Type	Number of Poles & Amperages
10 k AIR, QO	1-Pole 10–30 A 2-Pole 10–30 A 3-Pole 10–30 A
10 k AIR, QO-GFI	1-Pole 15–30 A ‡ 2-Pole 15–30 A ‡
22 k AIR, QO-VH	1-Pole 15–30 A 2-Pole 15–30 A 3-Pole 15–30 A
22 k AIR, QO-VHGF	1-Pole 15–30 A ‡
65 k AIR, QH	1-Pole 15–30 A 2-Pole 15–30 A 3-Pole 15–30 A

‡ Maximum of three GFI-suffix circuit breakers can be installed.

I-Line® Circuit Breaker Panelboards

General and Application Information

Circuit Breaker Types



FY
1-Pole; 15–30 A



FA, FH
1-, 2-, and 3-Pole; 15–100 A



FI
2- and 3-Pole; 20–100 A



QB, QD, QG, QJ
2- and 3-Pole; 70–225 A



HD, HG, HJ, HL
2- and 3-Pole; 15–150 A



JD, JG, JJ, JL
2- and 3-Pole; 150–250 A



KI
2- and 3-Pole; 110–250 A



LC, LI
2- and 3-Pole; 300–600 A



LE, LX
2- and 3-Pole; 100–600 A



MG, MJ
2- and 3-Pole; 300–800 A



PG, PJ, PK, PL
2- and 3-Pole; 250–1200 A



RG, RJ, RK, RL
2- and 3-Pole; 1000–1200 A

I-Line® Circuit Breaker Panelboards

General and Application Information

Main Lugs and Main Circuit Breaker Ratings and Lug Sizes

Mains Ampere Rating	Main Lugs		Main Circuit Breaker	
	Actual Lug Size	Cable Size Per UL/CSA Wire Bending Space	Actual Lug Size	Cable Size Per UL/CSA Wire Bending Space
Mechanical Lug Sizes				
100	—	—	(1) #14-1/0 Al/Cu	(1) #14-#1 Al/Cu
225	(1) #6-300 kcmil Al/Cu	(1) #6-300 kcmil Al/Cu	(1) #4-300 kcmil Al/Cu	(1) #4-300 kcmil Al/Cu
400	(2) #2-600 kcmil Al/Cu	(1) #2-600 kcmil Cu or (2) #2-500 kcmil Al/Cu	(1) #1-600 kcmil Al/Cu (2) #1-250 kcmil Al/Cu	(1) #1-600 kcmil Cu or (2) #1-250 kcmil Al/Cu
600	(2) #2-600 kcmil Al/Cu	(2) #2-500 kcmil Al/Cu	(3) 3/0-500 kcmil Al/Cu	(3) 3/0-500 kcmil Al/Cu
800	(4) 3/0-750 kcmil Al/Cu	(3) 3/0-500 kcmil Al/Cu	(4) 3/0-500 kcmil Al/Cu	(3) 3/0-500 kcmil Al/Cu
1200	(4) 3/0-750 kcmil Al/Cu	(4) 3/0-500 kcmil Al/Cu	(4) 3/0-600 kcmil Al/Cu	(4) 3/0-500 kcmil Al/Cu
VCEL Lug Sizes ■				
100	—	—	(1) #8-1/0 Al/Cu	(1) #8-#1 Al/Cu
225	(1) #4-300 kcmil Al/Cu	(1) #4-300 kcmil Al/Cu	(1) #4-300 kcmil Al/Cu	(1) #4-300 kcmil Al/Cu
400	(1) 2/0-500 kcmil Al/Cu or (1) 500-750 kcmil Al or (2) #4-300 kcmil Al/Cu	(1) 2/0-500 kcmil Al/Cu or (1) 500-750 kcmil Al or (2) #4-250 kcmil Al/Cu	(1) 500 kcmil Cu or (1) 500-750 kcmil Al	(1) 500 kcmil Cu or (1) 500-750 kcmil Al
600	(2) 2/0-500 kcmil Al/Cu	(2) 2/0-500 kcmil Al/Cu	(2) 2/0-500 kcmil Al/Cu	(2) 2/0-500 kcmil Al/Cu
800	(3) 2/0-500 kcmil Al/Cu	(3) 2/0-500 kcmil Al/Cu	(2) 500 kcmil Cu or (2) 500-750 kcmil Al	(2) 500 kcmil Cu or (2) 500-750 kcmil Al
1200	(4) 500 kcmil Cu or (4) 500-750 kcmil Al	(4) 500 kcmil Cu or (4) 600 kcmil Al	—	—

■ Compression lugs vary depending on interior type used; contact your local Schneider Electric sales office for assistance.

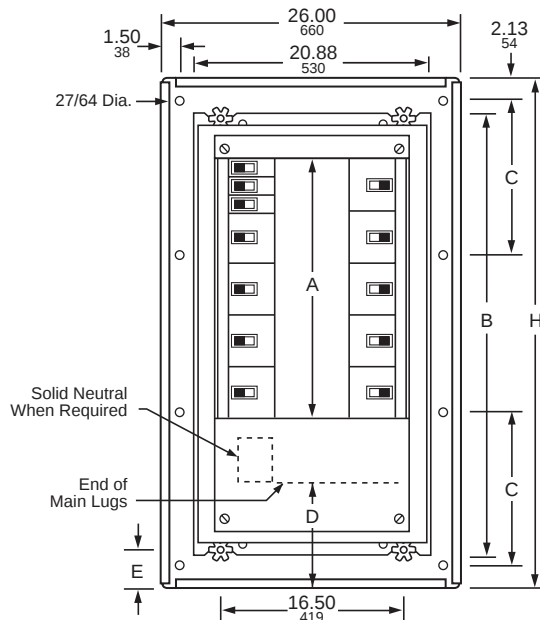
NOTE: All lugs are suitable for 75 °C wire. Torque values are included on the neutral diagram.

I-Line® Circuit Breaker Panelboards

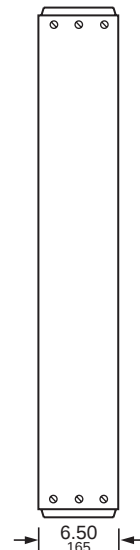
Dimensions

DIMENSIONS

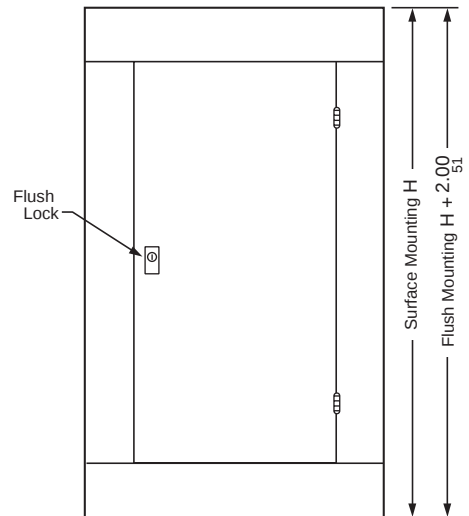
Type HCN—600 A Maximum Main Lugs



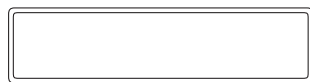
Typical Box with Interior



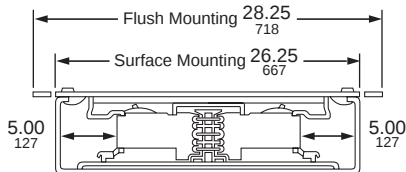
Typical Box Side View



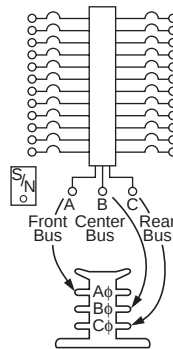
Typical 4-Piece Trim with Optional Door



Typical Endwall

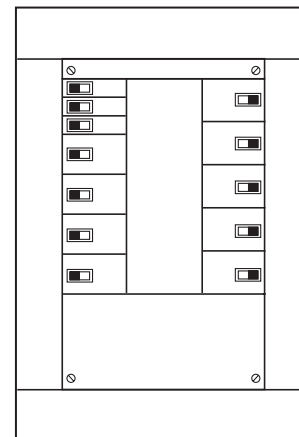


Typical Mounting of FA, FC, FH, FK, FY, HD, HG, HJ, HL, QB, QD, QG, QJ, or QO Circuit Breakers



Typical Wiring Diagram

Branch connection phasing is determined by circuit breaker selection.



Typical 4-Piece Trim without Optional Door

Dual Dimensions: INCHES
Millimeters

Main Lugs Ampere Rating	Catalog Number				H		A		B		C		D		E	
	Interior	Box	4-Piece Trim without Door ‡	4-Piece Trim with Door ‡	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
225	HCN1452-2N ❖	HC2652B	HCN52T()	HCN52T()D	52.00	1321	13.50	343	29.50	749	23.85	606	15.56	395	11.50	292
	HCN2365-2N	HC2665B	HCN65T()	HCN65T()D	65.00	1651	22.50	572	38.50	978	30.35	771	17.56	446	13.50	343
	HCN3274-2N	HC2674B	HCN74T()	HCN74T()D	74.00	1880	31.50	800	47.50	1207	23.20	589	17.56	446	13.50	343
	HCN4183-2N	HC2683B	HCN83T()	HCN83T()D ■	83.00	2108	40.50	1029	56.50	1435	26.20	666	17.56	446	13.50	343
	HCN5092-2N	HC2692B	HCN92T()	HCN92T()D ■	92.00	2337	49.50	1257	65.50	1664	29.20	742	17.56	446	13.50	343
400	HCN1452-4 ❖	HC2652B	HCN52T()	HCN52T()D	52.00	1321	13.50	343	29.50	749	23.85	606	16.03	407	11.50	292
	HCN2365-4	HC2665B	HCN65T()	HCN65T()D	65.00	1651	22.50	572	38.50	978	30.35	771	18.03	458	13.50	343
	HCN3274-4	HC2674B	HCN74T()	HCN74T()D	74.00	1880	31.50	800	47.50	1207	23.20	589	18.03	458	13.50	343
	HCN4183-4	HC2683B	HCN83T()	HCN83T()D ■	83.00	2108	40.50	1029	56.50	1435	26.20	666	18.03	458	13.50	343
	HCN5092-4	HC2692B	HCN92T()	HCN92T()D ■	92.00	2337	49.50	1257	65.50	1664	29.20	742	18.03	458	13.50	343
600	HCN1452-6	HC2652B	HCN52T()	HCN52T()D	52.00	1321	13.50	343	29.50	749	23.85	606	16.59	421	11.50	292
	HCN2365-6	HC2665B	HCN65T()	HCN65T()D	65.00	1651	22.50	572	38.50	978	30.35	771	18.59	472	13.50	343
	HCN3274-6	HC2674B	HCN74T()	HCN74T()D	74.00	1880	31.50	800	47.50	1207	23.20	589	18.59	472	13.50	343
	HCN4183-6	HC2683B	HCN83T()	HCN83T()D ■	83.00	2108	40.50	1029	56.50	1435	26.20	666	18.59	472	13.50	343
	HCN5092-6	HC2692B	HCN92T()	HCN92T()D ■	92.00	2337	49.50	1257	65.50	1664	29.20	742	18.59	472	13.50	343

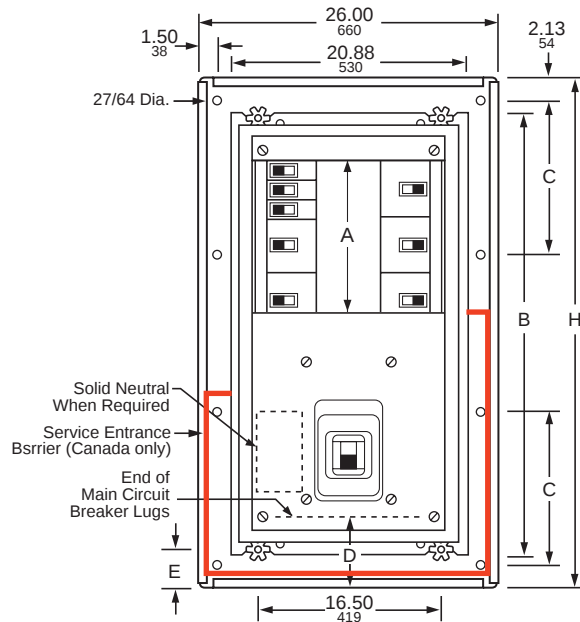
‡ Replace parentheses with "F" for flush or "S" for surface.

■ Vault lock is supplied in lieu of flush lock.

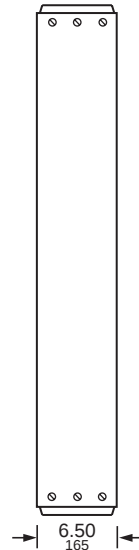
❖ Add Cu to suffix for copper bus.

I-Line® Circuit Breaker Panelboards Dimensions

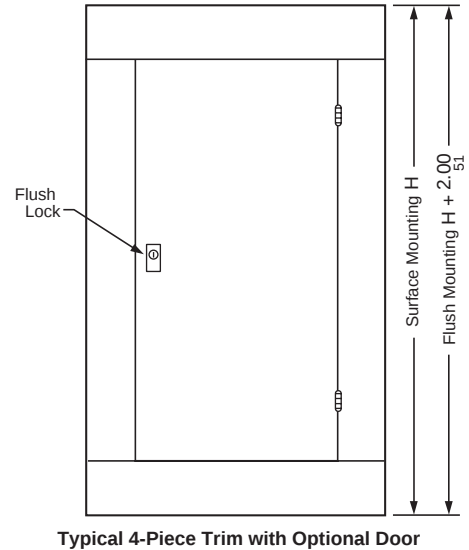
Type HCN—400 A Maximum Main Circuit Breaker



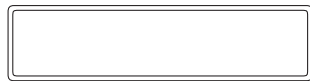
Typical Box with Interior



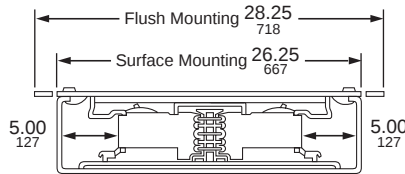
Typical Box Side View



Typical 4-Piece Trim with Optional Door

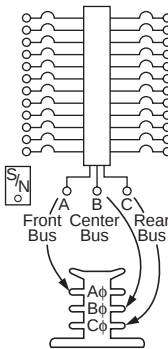


Typical Endwall

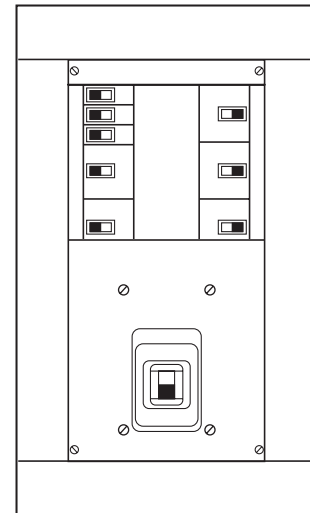


Typical Mounting of FA, FC, FH, FK, FY, HD, HG, HJ, HL, QB, QD, QG, QJ, or QO Circuit Breakers

Dual Dimensions: INCHES
Millimeters



Typical Wiring Diagram
Branch connection phasing is determined by circuit breaker selection.



Typical 4-Piece Trim without Optional Door

Main Circuit Breaker Ampere Rating	Catalog Number				H		A		B		C		D		E	
	Interior	Box	4-Piece Trim without Door ‡	4-Piece Trim with Door ‡	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
100	HCN0952-1MN	HC2652B	HCN52T()	HCN52T()D	52.00	1321	9.00	229	29.50	749	23.85	606	14.78	375	11.50	292
	HCN1865-1MN	HC2665B	HCN65T()	HCN65T()D	65.00	1651	18.00	457	38.50	978	30.35	771	16.78	426	13.50	343
	HCN2774-1MN	HC2674B	HCN74T()	HCN74T()D	74.00	1880	27.00	686	47.50	1207	23.20	589	16.78	426	13.50	343
225	HCN0952-2MN ♦	HC2652B	HCN52T()	HCN52T()D	52.00	1321	9.00	229	29.50	749	23.85	606	13.31	338	11.50	292
	HCN1865-2MN	HC2665B	HCN65T()	HCN65T()D	65.00	1651	18.00	457	38.50	978	30.35	771	15.31	389	13.50	343
	HCN2774-2MN	HC2674B	HCN74T()	HCN74T()D	74.00	1880	27.00	686	47.50	1207	23.20	589	15.31	389	13.50	343
	HCN3283-2MN	HC2683B	HCN83T()	HCN83T()D ■	83.00	2108	31.50	800	56.50	1435	26.20	666	15.31	389	13.50	343
	HCN4592-2MN	HC2692B	HCN92T()	HCN92T()D ■	92.00	2337	45.00	1143	65.50	1664	29.20	742	15.31	389	13.50	343
400	HCN1465-4M	HC2665B	HCN65T()	HCN65T()D	65.00	1651	13.50	343	38.50	978	30.35	771	16.87	428	13.50	343
	HCN2374-4M	HC2674B	HCN74T()	HCN74T()D	74.00	1880	22.50	572	47.50	1207	23.20	589	16.87	428	13.50	343
	HCN3283-4M	HC2683B	HCN83T()	HCN83T()D ■	83.00	2108	31.50	800	56.50	1435	26.20	666	16.87	428	13.50	343
	HCN4192-4M	HC2692B	HCN92T()	HCN92T()D ■	92.00	2337	40.50	1029	65.50	1664	29.20	742	16.87	428	13.50	343

‡ Replace parentheses with "F" for flush or "S" for surface.

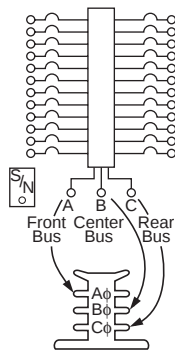
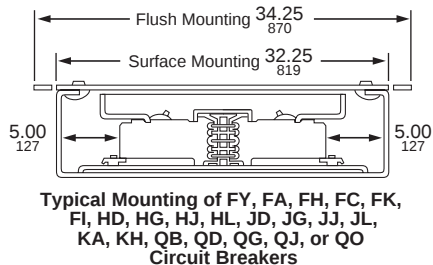
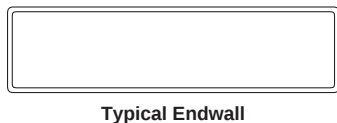
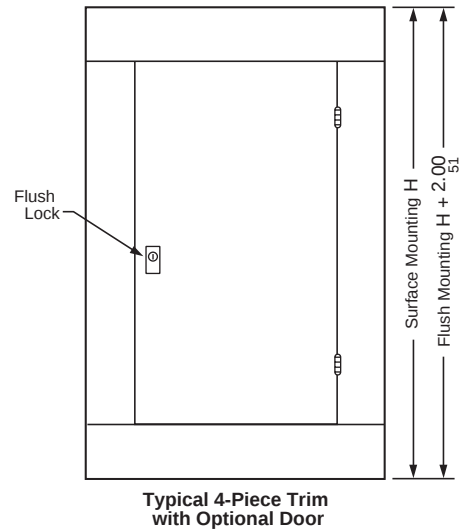
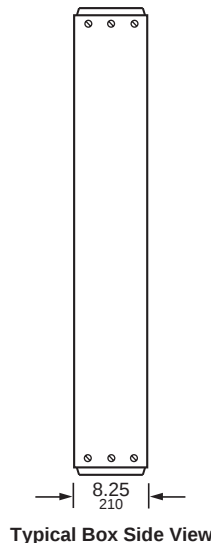
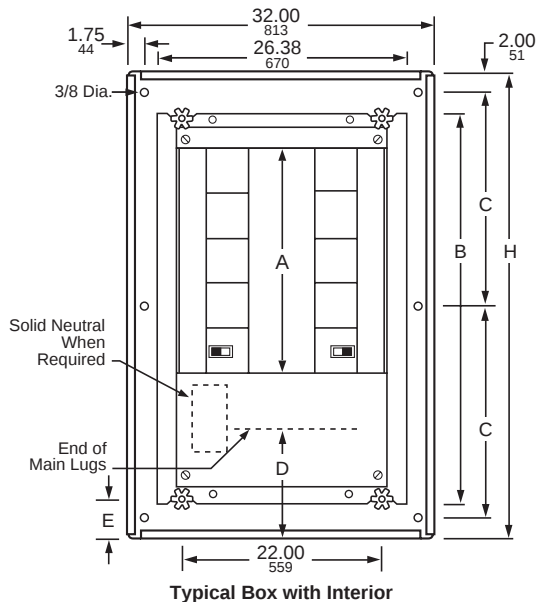
■ Vault lock is supplied in lieu of flush lock.

♦ Add Cu to suffix for copper bus.

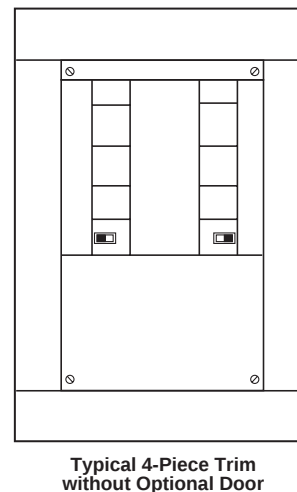
I-Line® Circuit Breaker Panelboards

Dimensions

Type HCM—800 A Maximum Main Lugs



Branch connection phasing is determined by circuit breaker selection.



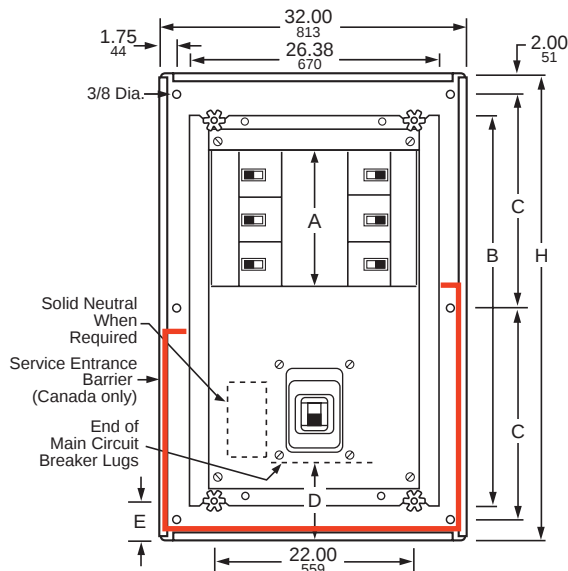
Dual Dimensions: INCHES
Millimeters

Main Lugs Ampere Rating	Catalog Number				H		A		B		C		D		E	
	Interior	Box	4-Piece Trim without Door ‡	4-Piece Trim with Door ‡	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
225	HCM1448-2N ♦	HC3248B	HCM48T()	HCM48T()D	48.00	1219	13.50	343	30.00	762	21.85	555	14.43	367	9.30	236
	HCM2364-2N	HC3264B	HCM64T()	HCM64T()D	64.00	1626	22.50	572	39.00	991	29.85	758	17.93	455	12.80	325
	HCM3273-2N	HC3273B	HCM73T()	HCM73T()D ♦	73.00	1854	31.50	800	48.00	1219	22.90	582	17.93	455	12.80	325
	HCM5091-2N	HC3291B	HCM91T()	HCM91T()D ♦	91.00	2311	49.50	1257	66.00	1676	28.90	734	17.93	455	12.80	325
400	HCM1448-4 ♦	HC3248B	HCM48T()	HCM48T()D	48.00	1219	13.50	343	30.00	762	21.85	555	14.90	378	9.30	236
	HCM2364-4	HC3264B	HCM64T()	HCM64T()D	64.00	1626	22.50	572	39.00	991	29.85	758	18.40	467	12.80	325
	HCM3273-4 ♦	HC3273B	HCM73T()	HCM73T()D ♦	73.00	1854	31.50	800	48.00	1219	22.90	582	18.40	467	12.80	325
	HCM5091-4	HC3291B	HCM91T()	HCM91T()D ♦	91.00	2311	49.50	1257	66.00	1676	28.90	734	18.40	467	12.80	325
600	HCM1448-6 ♦	HC3248B	HCM48T()	HCM48T()D	48.00	1219	13.50	343	30.00	762	21.85	555	16.50	419	9.30	236
	HCM2364-6	HC3264B	HCM64T()	HCM64T()D	64.00	1626	22.50	572	39.00	991	29.85	758	20.00	508	12.80	325
	HCM3273-6 ♦	HC3273B	HCM73T()	HCM73T()D ♦	73.00	1854	31.50	800	48.00	1219	22.90	582	20.00	508	12.80	325
	HCM5091-6	HC3291B	HCM91T()	HCM91T()D ♦	91.00	2311	49.50	1257	66.00	1676	28.90	734	20.00	508	12.80	325
800	HCM1448-8	HC3248B	HCM48T()	HCM48T()D	48.00	1219	13.50	343	30.00	762	21.85	555	15.32	389	9.30	236
	HCM2364-8	HC3264B	HCM64T()	HCM64T()D	64.00	1626	22.50	572	39.00	991	29.85	758	18.82	478	12.80	325
	HCM3273-8	HC3273B	HCM73T()	HCM73T()D ♦	73.00	1854	31.50	800	48.00	1219	22.90	582	18.82	478	12.80	325
	HCM5091-8	HC3291B	HCM91T()	HCM91T()D ♦	91.00	2311	49.50	1257	66.00	1676	28.90	734	18.82	478	12.80	325

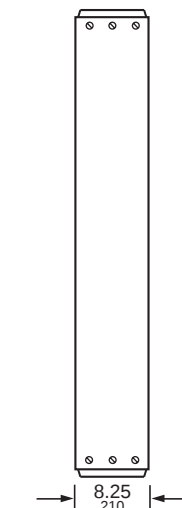
- ‡ Replace parentheses with "F" for flush or "S" for surface.
♦ Two flush locks are supplied.
❖ Add Cu to suffix for copper bus.

I-Line® Circuit Breaker Panelboards Dimensions

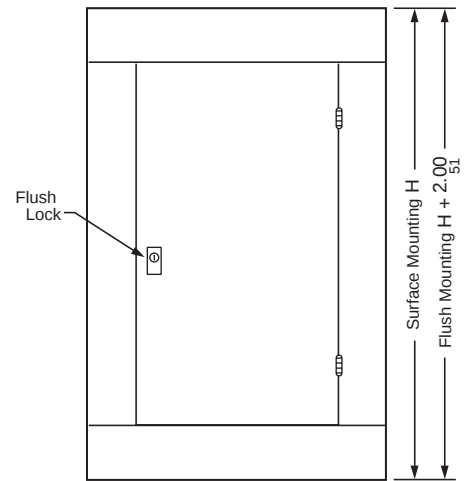
Type HCM—400 A Maximum Main Circuit Breaker



Typical Box with Interior



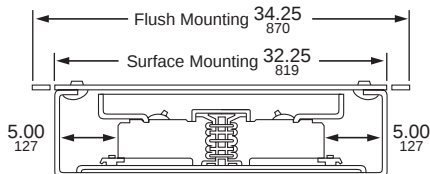
Typical Box Side View



Typical 4-Piece Trim with Optional Door

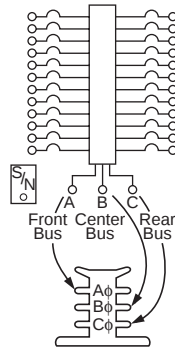


Typical Endwall



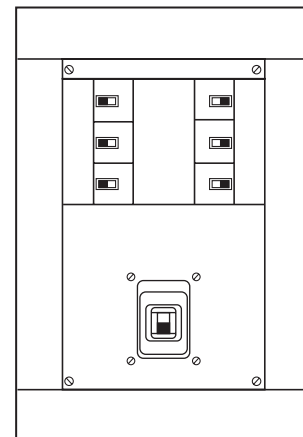
Typical Mounting of FY, FA, FH, FC, FK, FI, HD, HG, HJ, HL, JD, JG, JJ, JL, Circuit Breakers

Circuit Breakers



Typical Wiring Diagram

Branch connection phasing is determined by circuit breaker selection.



Typical 4-Piece Trim without Optional Door

Dual Dimensions: INCHES
Millimeters

Main Circuit Breaker Ampere Rating	Catalog Number				H		A		B		C		D		E	
	Interior	Box	4-Piece Trim without Door ‡	4-Piece Trim with Door ‡	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
225	HCM1864-2MN	HC3264B	HCM64T()	HCM64T()D	64.00	1626	18.00	457	39.00	991	29.85	758	15.50	394	12.80	325
225	HCM2773-2MN ♦	HC3273B	HCM73T()	HCM73T()D ♦	73.00	1854	27.00	686	48.00	1219	22.90	582	15.50	394	12.80	325
400	HCM1464-4M	HC3264B	HCM64T()	HCM64T()D	64.00	1626	13.50	343	39.00	991	29.85	758	16.96	431	12.80	325
400	HCM2373-4M	HC3273B	HCM73T()	HCM73T()D ♦	73.00	1854	22.50	572	48.00	1219	22.90	582	16.96	431	12.80	325
400	HCM4191-4M ♦	HC3291B	HCM91T()	HCM91T()D ♦	91.00	2311	40.50	1029	66.00	1676	28.90	734	16.96	431	12.80	325

‡ Replace parentheses with "F" for flush or "S" for surface.

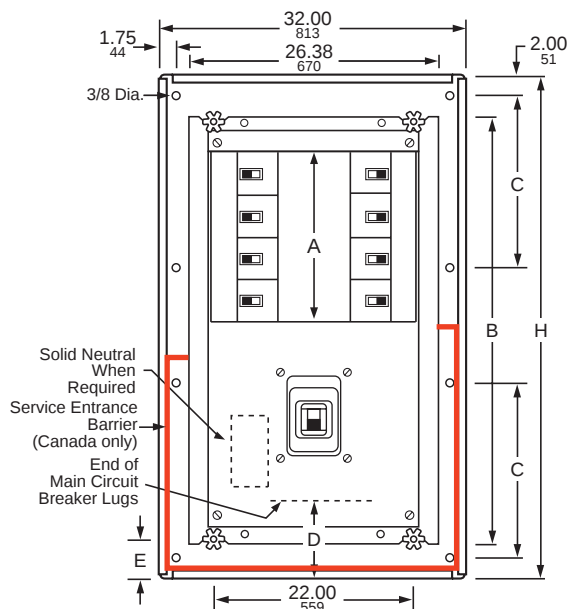
♦ Two flush locks are supplied.

♦ Add Cu to suffix for copper bus.

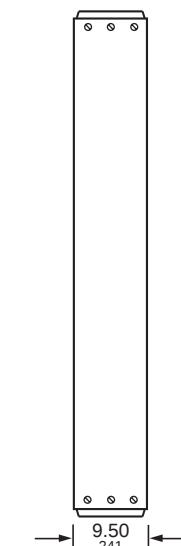
I-Line® Circuit Breaker Panelboards

Dimensions

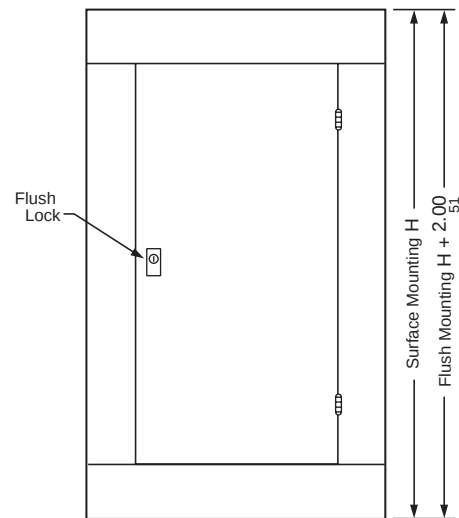
Type HCM—800 A Maximum Main Circuit Breaker



Typical Box with Interior



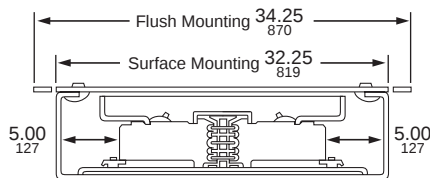
Typical Box Side View



Typical 4-Piece Trim with Optional Door

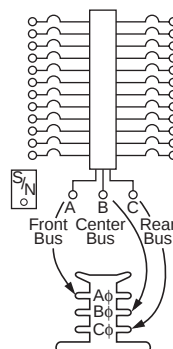


Typical Endwall

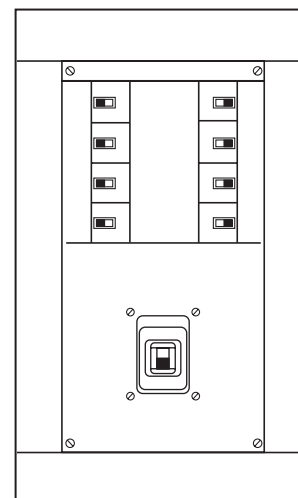


Typical Mounting of FY, FA, FH, FC, FK, FI, HD, HG, HJ, HL, JD, JG, JJ, JL, KA, KH, QB, QD, QG, QJ, or QO Circuit Breakers

Dual Dimensions: INCHES
Millimeters



Typical Wiring Diagram
Branch connection phasing is determined by circuit breaker selection.



Typical 4-Piece Trim without Optional Door

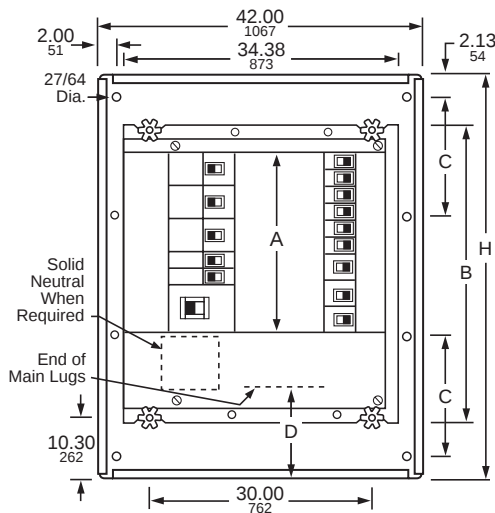
Main Circuit Breaker Ampere Rating	Catalog Number				H		A		B		C		D		E	
	Interior	Box	4-Piece Trim without Door ‡	4-Piece Trim with Door ‡ ♦	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
600	HCM1873-6MP	HC3273DB9	HCM73T()	HCM73T(JD)	73.00	1854	18.00	457	48.00	1219	22.90	582	18.68	474	12.80	325
	HCM3691-6MP	HC3291DB9	HCM91T()	HCM91T(JD)	91.00	2311	36.00	914	66.00	1676	28.90	734	18.68	474	12.80	325
800	HCM1873-8MP	HC3273DB9	HCM73T()	HCM73T(JD)	73.00	1854	18.00	457	48.00	1219	22.90	582	18.68	474	12.80	325
	HCM3691-8MP	HC3291DB9	HCM91T()	HCM91T(JD)	91.00	2311	36.00	914	66.00	1676	28.90	734	18.68	474	12.80	325

‡ Replace parentheses with "F" for flush or "S" for surface.

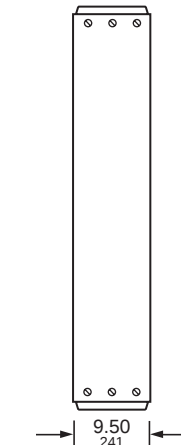
♦ Two flush locks are supplied.

I-Line® Circuit Breaker Panelboards Dimensions

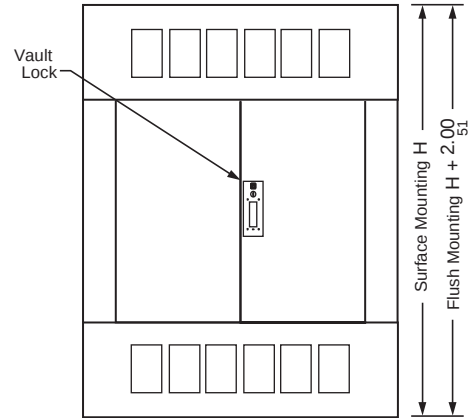
Type HCP—800 A Maximum Main Lugs



Typical Box with Interior



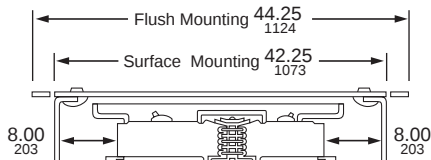
Typical Box Side View



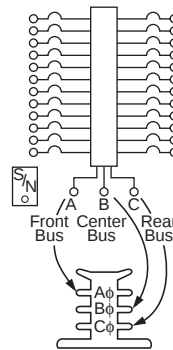
Typical 4-Piece Trim with Optional Door



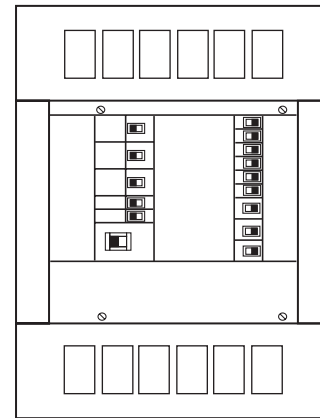
Typical Endwall



Typical Mounting of FY, FA, FH, FC, FK, FI, HD, HG, HJ, HL, JD, JG, JJ, JL, KA, KH, KC, KI, LA, LH, LC, LI, LXI, LE, MG, MJ, PG, PJ, PK, PL, QB, QD, QG, QJ, or QO Circuit Breakers



Typical Wiring Diagram
Branch connection phasing is determined by circuit breaker selection.



Typical 4-Piece Trim without Optional Door

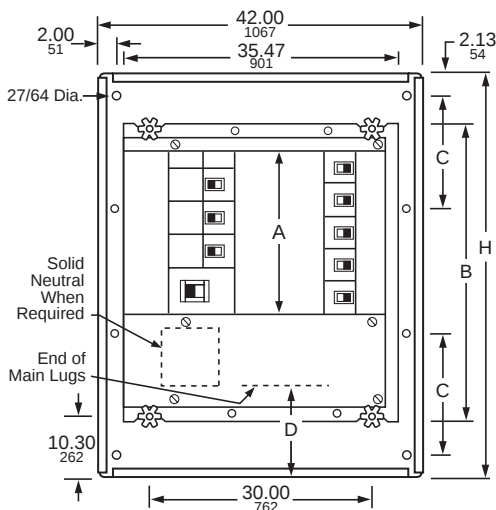
Dual Dimensions: INCHES
Millimeters

Main Lugs Ampere Rating	Catalog Number				H		A		B		C		D	
	Interior	Box	4-Piece Trim without Door ‡	4-Piece Trim with Door ‡	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
400	HCP1450-4	HC4250DB	HCW50T()	HCW50T()D	50.00	1270	13.50	343	30.00	762	22.85	580	17.50	445
	HCP2359-4	HC4259DB	HCW59T()	HCW59T()D	59.00	1499	22.50	572	39.00	991	27.35	695	17.50	445
	HCP3268-4	HC4268DB	HCW68T()	HCW68T()D	68.00	1727	31.50	800	48.00	1219	31.85	809	17.50	445
	HCP5086-4	HC4286DB	HCW86T()	HCW86T()D	86.00	2184	49.50	1257	66.00	1676	27.23	692	17.50	445
600	HCP1450-6	HC4250DB	HCW50T()	HCW50T()D	50.00	1270	13.50	343	30.00	762	22.85	580	17.50	445
	HCP2359-6	HC4259DB	HCW59T()	HCW59T()D	59.00	1499	22.50	572	39.00	991	27.35	695	17.50	445
	HCP3268-6	HC4268DB	HCW68T()	HCW68T()D	68.00	1727	31.50	800	48.00	1219	31.85	809	17.50	445
	HCP5086-6	HC4286DB	HCW86T()	HCW86T()D	86.00	2184	49.50	1257	66.00	1676	27.23	692	17.50	445
800	HCP1450-8	HC4250DB	HCW50T()	HCW50T()D	50.00	1270	13.50	343	30.00	762	22.85	580	16.32	415
	HCP2359-8	HC4259DB	HCW59T()	HCW59T()D	59.00	1499	22.50	572	39.00	991	27.35	695	16.32	415
	HCP3268-8	HC4268DB	HCW68T()	HCW68T()D	68.00	1727	31.50	800	48.00	1219	31.85	809	16.32	415
	HCP5086-8	HC4286DB	HCW86T()	HCW86T()D	86.00	2184	49.50	1257	66.00	1676	27.23	692	16.32	415

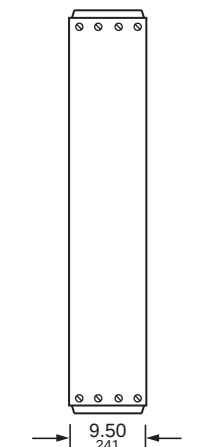
‡ Replace parentheses with "F" for flush or "S" for surface.

I-Line® Circuit Breaker Panelboards
Dimensions

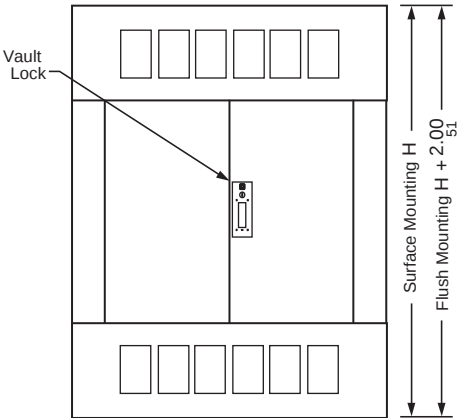
Type HCP—1200 A Maximum Main Lugs



Typical Box with Interior



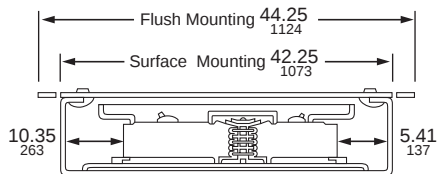
Typical Box Side View



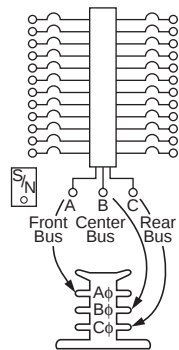
Typical 4-Piece Trim with Optional Door



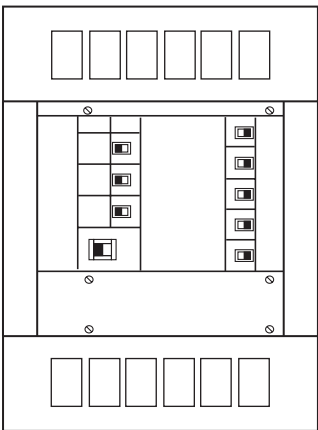
Typical Endwall



Typical Mounting of FY, FA, FH, FC, FK, FI, HD, HG, HJ, HL, JD, JG, JJ, JL, KA, KH, KC, KI, LA, LH, LC, LI, LX, LE, LXI MG, MJ, PG, PJ, PK, PL, QB, QD, QG, QJ, or QO Circuit Breakers



Typical Wiring Diagram
Branch connection phasing is determined by circuit breaker selection.



Typical 4-Piece Trim without Optional Door

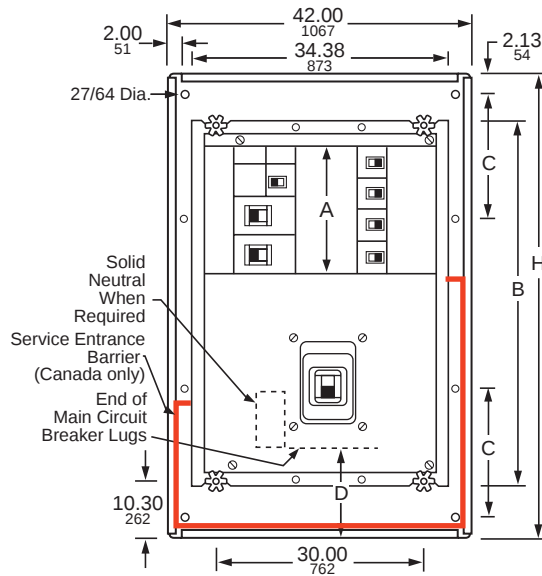
Dual Dimensions: INCHES
Millimeters

Main Lugs Ampere Rating	Catalog Number				H		A		B		C		D	
	Interior	Box	4-Piece Trim without Door ‡	4-Piece Trim with Door ‡	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
1200	HCP1450-12N	HC4250DB	HCW50T()	HCW50T()D	50.00	1270	13.50	343	30.00	762	22.85	580	16.32	415
	HCP2359-12N	HC4259DB	HCW59T()	HCW59T()D	59.00	1499	22.50	572	39.00	991	27.23	692	16.32	415
	HCP3268-12N	HC4268DB	HCW68T()	HCW68T()D	68.00	1727	31.50	800	48.00	1219	31.85	809	16.32	415
	HCP5086-12N	HC4286DB	HCW86T()	HCW86T()D	86.00	2184	49.50	1257	66.00	1676	27.23	692	16.32	415

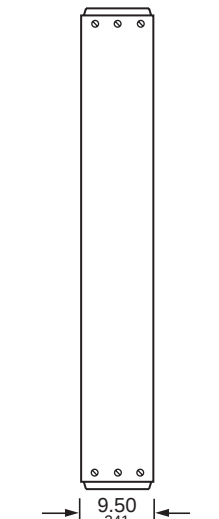
‡ Replace parentheses with "F" for flush or "S" for surface.

I-Line® Circuit Breaker Panelboards Dimensions

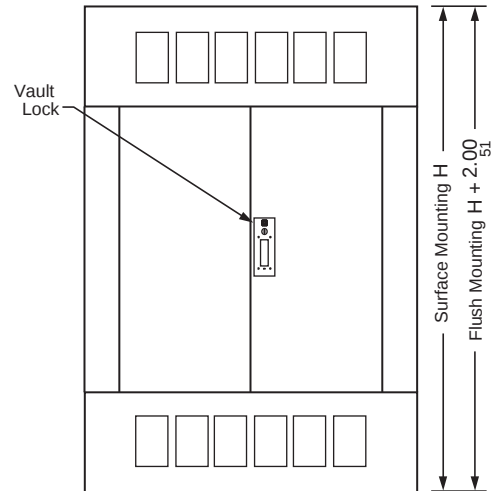
Type HCP—800 A Maximum Main Circuit Breaker



Typical Box with Interior



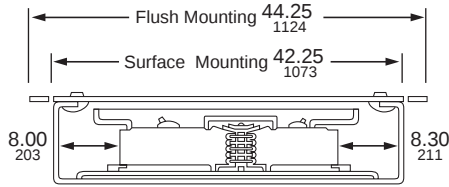
Typical Box Side View



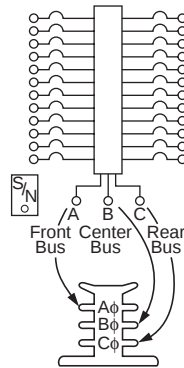
Typical 4-Piece Trim with Optional Door



Typical Endwall

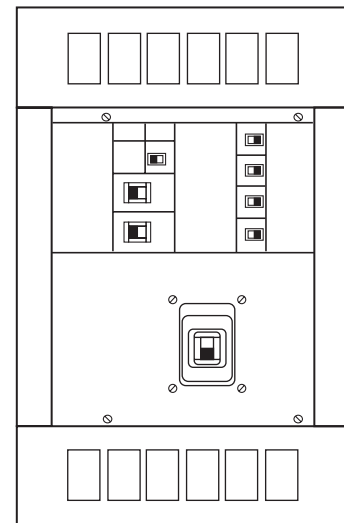


Typical Mounting of FY, FA, FH, FC, FK, FI, HD, HG, HJ, HL, JD, JG, JJ, JL, KA, KH, KC, KI, LA, LH, LC, LI, LXI, LE, MG, MJ, QB, QD, QG, QJ, or QO Circuit Breakers



Typical Wiring Diagram

Branch connection phasing is determined by circuit breaker selection.



Typical 4-Piece Trim without Optional Door

Dual Dimensions: INCHES
Millimeters

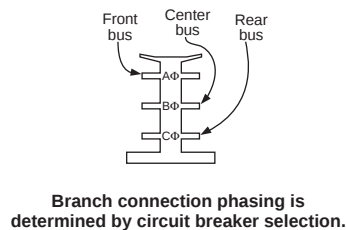
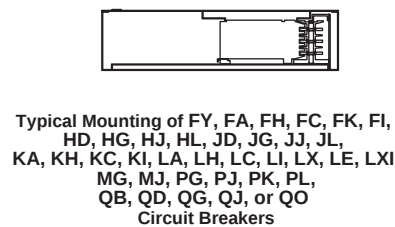
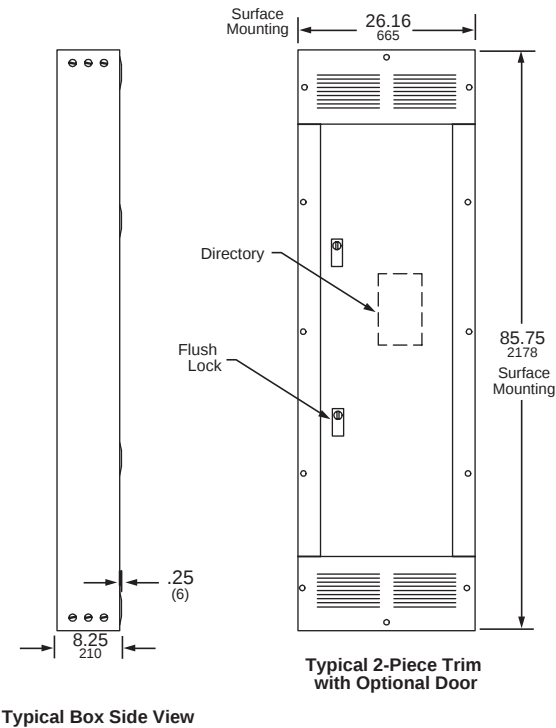
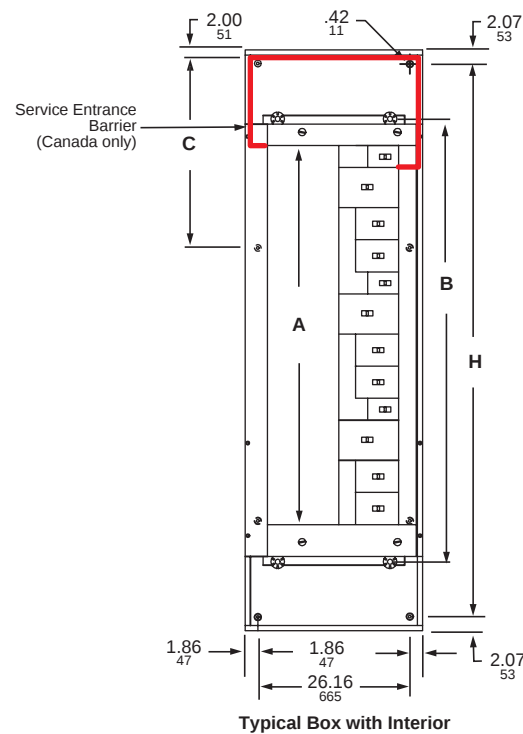
Main Circuit Breaker Ampere Rating	Catalog Number				H		A		B		C		D	
	Interior	Box	4-Piece Trim without Door ‡	4-Piece Trim with Door ‡	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
600	HCP1868-6M	HC4268DB	HCW68T()	HCW68T()D	68.00	1727	18.00	457	48.00	1219	31.85	809	18.68	474
	HCP3686-6M	HC4286DB	HCW86T()	HCW86T()D	86.00	2184	36.00	914	66.00	1676	27.23	692	18.68	474
800	HCP1868-8M	HC4268DB	HCW68T()	HCW68T()D	68.00	1727	18.00	457	48.00	1219	31.85	809	18.68	474
	HCP3686-8M	HC4286DB	HCW86T()	HCW86T()D	86.00	2184	36.00	914	66.00	1676	27.23	692	18.68	474

‡ Replace parentheses with "F" for flush or "S" for surface.

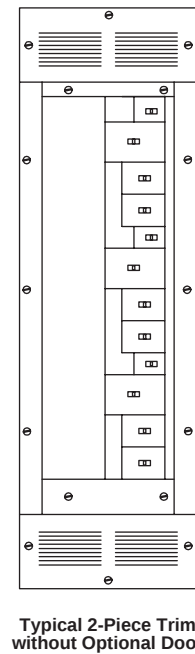
I-Line® Circuit Breaker Panelboards

Dimensions

Type HCP-SU—800 A Maximum Main Circuit Breaker



Dual Dimensions: INCHES
Millimeters

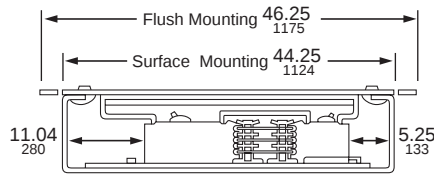
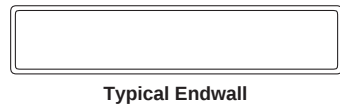
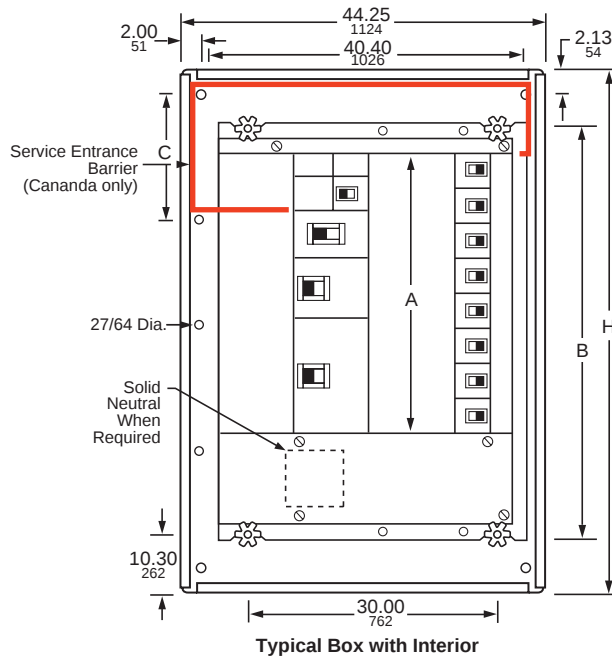


Main Circuit Breaker Ampere Rating	Catalog Number				H		A		B		C	
	Interior	Box	2-Piece Trim without Door ‡ ◆	2-Piece Trim with Door ‡ ◆	in.	mm	in.	mm	in.	mm	in.	mm
800	HCP5486-8SU	HC2686DB	HC2686T()	HC2686T()D	86.00	2184	54.00	1372	65.40	1661	27.23	692

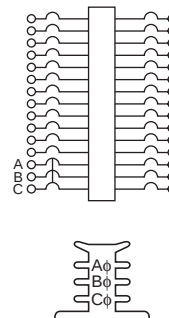
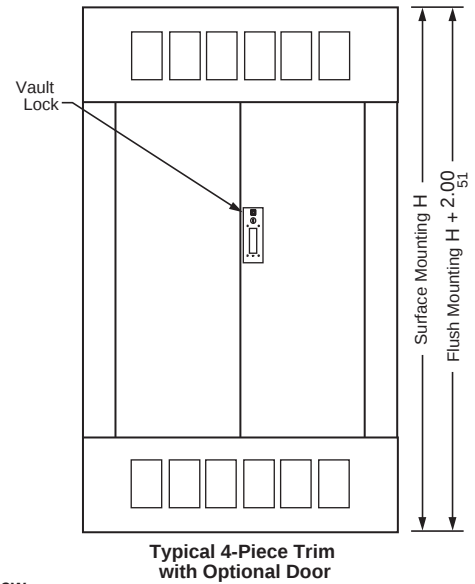
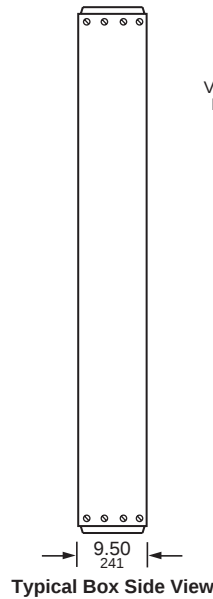
‡ Replace parentheses with "F" for flush or "S" for surface.
◆ Flush trims are 4-piece.

I-Line® Circuit Breaker Panelboards Dimensions

Type HCR-U—1200 A Main Lugs or Main Circuit Breaker

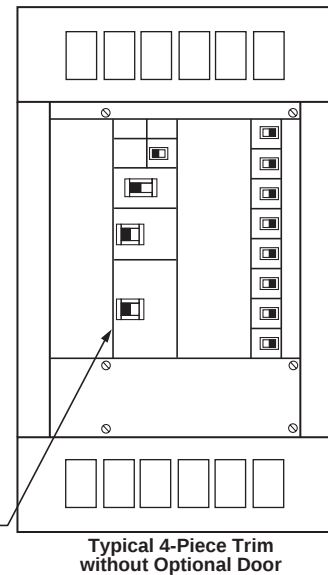


Dual Dimensions: INCHES
Millimeters



Typical Wiring Diagram
Branch connection phasing is determined by circuit breaker selection.

Back-fed PG, PJ, PL, RG, RJ, and RL Main Circuit Breaker or Main Lugs Kit S33930 (see Note:)



Main Lugs or Main Circuit Breaker Ampere Rating	Catalog Number				H		A		B		C	
	Interior	Box	4-Piece Trim without Door ‡	4-Piece Trim with Door ‡	in.	mm	in.	mm	in.	mm	in.	mm
1200	HCR5486-12U	HC4486DB	HCR86T()	HCR86T()D	86.00	2184	54.00	1372	65.10	1654	18.00	457

‡ Replace parentheses with "F" for flush or "S" for surface.

NOTE: The back-fed RG, RJ, and RL Main Circuit Breaker or Main Lugs Kit takes up 15 in. (381 mm) of mounting space, leaving 93 in. (2362 mm) of branch circuit breaker mounting space. The back-fed PG, PJ, PL Main Circuit Breaker takes up 9 in. (229 mm) of mounting spaces, leaving 99 in. (2515 mm) of branch circuit breaker mounting space.

I-Line® Circuit Breaker Panelboards

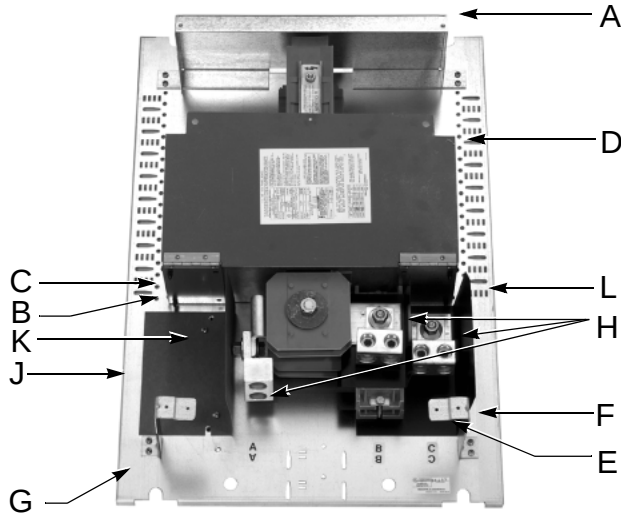
Replacement Parts

REPLACEMENT PARTS

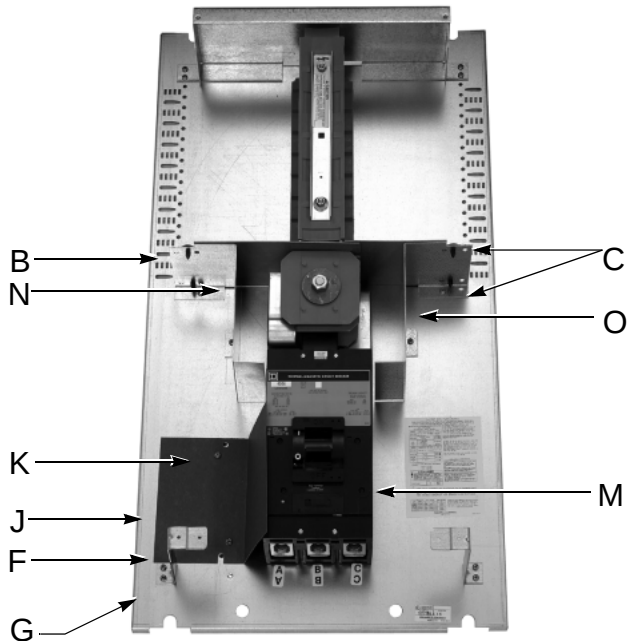
Main Lugs and Main Circuit Breaker Parts and Part Numbers

Type HCN—600 A Maximum Main Lugs and Main Circuit Breakers

HCN Main Lugs Only

	Code Letter	Description	Part Number	
			100–225 A Mains	400 A Mains
	Not Shown	Interior Deadfront Trim Assembly 27" Breaker Mounting Space 45" Breaker Mounting Space 63" Breaker Mounting Space 81" Breaker Mounting Space 99" Breaker Mounting Space Screw, Interior Trim Mounting (4)	80104-411-50 80104-411-51 80104-411-52 80104-411-53 80104-411-54 80025-067-01	
	A	End Barrier Assembly Screw, Barrier Mounting (4)	40517-500-01 80114-171-01	
	Not Shown	Lug Cover Strap	80104-018-02	
	B C	Mains Compartment Shield Left (fingered) Right (plain) Push Rivet, Shield Mounting (2 each)	40517-505-01 40517-506-01 29215-52126	
	D	Lug Compartment Cover Assembly Screw, Cover Mounting (4)	40517-507-50 80114-171-01	
	E	Screw, Lug Cover (2)	80025-067-01	
	F G	Bracket, Lug Cover and Trim Support Screw, Bracket Mounting (2 each)	40517-499-01 80114-171-01	
	H	Main Lug 225 A 400–600 A Mounting Assembly 225 A–Nut 400 and 600 A –Bolt –Nut –Washer	40251-162-51 80116-122-50 23427-02200 21401-28483 23427-02800 23903-33201	
	J K	Neutral Insulator Screw, Insulator Mounting—225 A (2) Screw, Insulator Mounting—400 and 600 A (2)	40517-101-01 21903-20200 80114-171-01	
	L	Insulator, CØ Lug—400 and 600 A Only	221838	

HCN Main Circuit Breaker

	Code Letter	Description	Part Number	
			100–225 A Mains	400 A Mains
	Not Shown	Interior Deadfront Trim Assembly 18" Breaker Mounting Space 27" Breaker Mounting Space 36" Breaker Mounting Space 45" Breaker Mounting Space 54" Breaker Mounting Space 63" Breaker Mounting Space 81" Breaker Mounting Space 90" Breaker Mounting Space Screw, Interior Trim Mounting (8)	80104-414-50 — 80104-410-50 — 80104-410-51 80104-410-57 — 80104-410-52 — 80025-067-01	— 80104-414-51 — 80104-410-54 — 80104-410-58 80104-410-56 — 80025-067-01
	A	End Barrier Assembly Screw, Barrier Mounting (4)	40517-500-01 —	40517-500-01 80114-171-01
	B C	Mains Compartment Shield Left (fingered) Right (plain) Push Rivet, Shield Mounting (2 each)	40517-505-01 40517-506-01 29215-52126	40517-505-01 40517-506-01 29215-52126
	N O	Bus Stack Shields Left Right Screw, Shield Mounting (2 each)	80104-821-01 80104-820-01 —	80104-821-01 80104-820-01 80114-171-01
	F G	Bracket, Trim Support Screw, Bracket Mounting (2 each)	40517-499-01 —	40517-499-01 80114-171-01
	J K	Neutral Insulator Screw, Insulator Mounting (2)	— 21903-20200	40517-101-01 80114-171-01
	M	Main Breaker 100 A 225 A 400 A	FA 36100 JD 36225 —	— — LAP 36400 MB

I-Line® Circuit Breaker Panelboards Replacement Parts

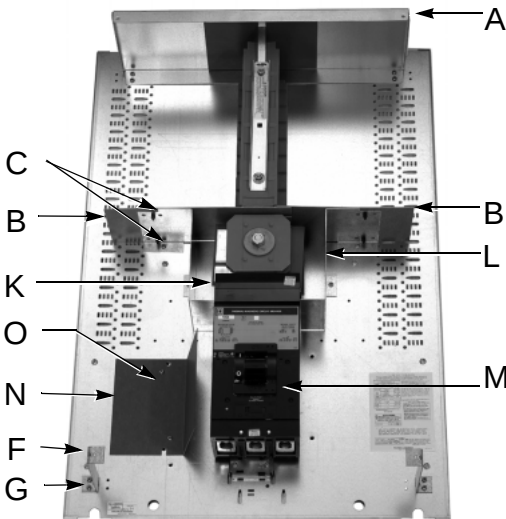
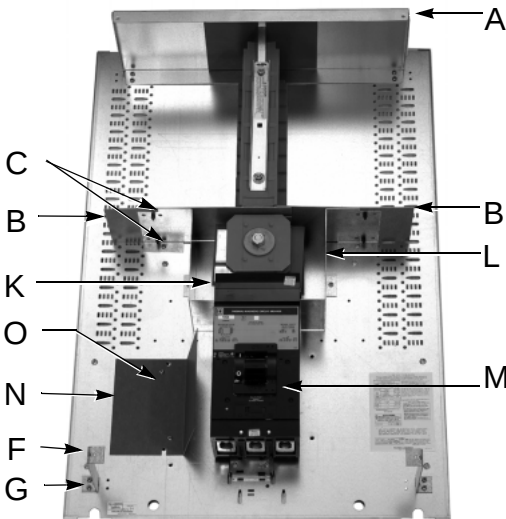
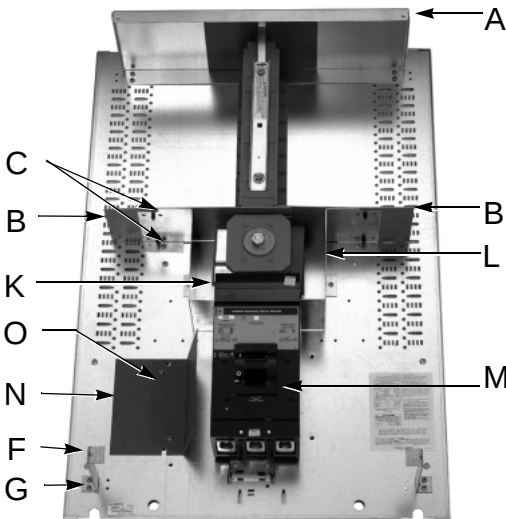
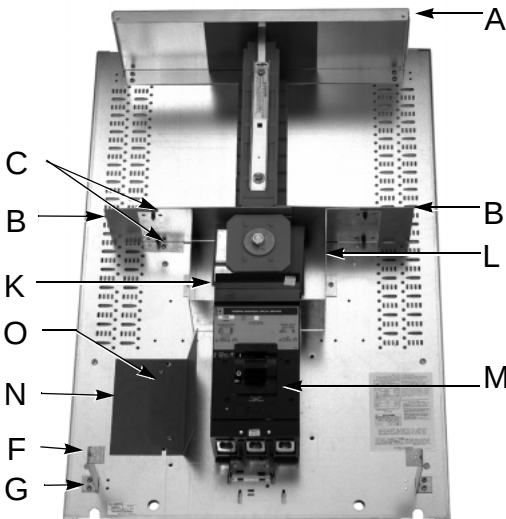
Type HCM—800 A Maximum Main Lugs and Main Circuit Breakers

HCM Main Lugs Only

A black and white photograph of the back of a circuit breaker assembly. Various components are labeled with letters and arrows: B points to the top left mounting bracket; C points to the top left terminal block; J points to the top left terminal block; E points to the top left terminal block; F points to the top left terminal block; G points to the bottom left terminal block; D points to the top right mounting bracket; H points to the bottom right terminal block. The central part of the assembly is a large, dark, rectangular main lugs assembly.

		Part Number		
Code Letter	Description	225–400 A	600–800 A	
Not Shown	Interior Deadfront Trim Assembly			
	27" Breaker Mounting Space	80104-988-50	80104-987-50	
	45" Breaker Mounting Space	80104-988-51	80104-987-51	
	63" Breaker Mounting Space	80104-988-52	80104-987-52	
	99" Breaker Mounting Space	80104-988-53	80104-987-53	
A	Screw, Interior Deadfront Trim Mounting (5)	—	80025-067-01	
A	End Barrier Assembly	40517-007-01	40517-007-01	
	Screw, Barrier Mounting (4)	—	80114-171-01	
Not Shown	End Barrier Insulator	80104-056-01	—	
Not Shown	Lug Cover Strap	80104-018-02	80104-018-02	
	Screw, Cover Strap Mounting	21594-12061	21594-12061	
B C	Mains Compartment Shield			
	Left (fingered)	2200068	2200068	
	Right (plain)	2200069	2200069	
	Push Rivet, Shield Mounting (2 each)	29215-52126	29215-52126	
D E	Lug Compartment Cover Assembly	40517-002-50	40517-002-50	
	Screw, Cover Mounting (4)	—	80114-171-01	
	Screw, Lug Cover (2)	—	80025-067-01	
F G	Bracket, Lug Cover and Trim Support	80104-385-01	80104-385-01	
	Screw, Bracket Mounting (2 each)	—	80114-171-01	
Code Letter	Description	225 A	400–600 A	800 A
H	Main Lugs Assembly			
	Lug	40251-162-51	80116-122-50	25098-25110
	Nut (1 per lug)	23427-02200	23427-02800	23040-28000
	Stud (1 per lug)	—	23903-33201	21401-28643
	Washer, Lug Mounting (1 per lug)	—	21401-28483	23903-33201
	Washer (1 per lug)	—	—	23903-34002
J	Neutral Insulator	40517-101-01	221869	221869
	Screw, Insulator Mounting (2)	21903-20200	21903-20200	80114-171-01

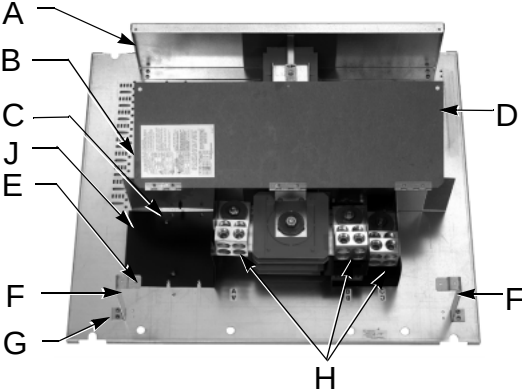
HCM Main Circuit Breaker

	Code Letter	Description	Part Number	
			225–400 A Mains	600–800 A
	Not Shown	Interior Deadfront Trim Assembly 18" Breaker Mounting Space 27" Breaker Mounting Space 36" Breaker Mounting Space 45" Breaker Mounting Space 54" Breaker Mounting Space 72" Breaker Mounting Space 81" Breaker Mounting Space 90" Breaker Mounting Space Screw, Interior Deadfront Trim Mounting (8)	80104-989-50 80104-991-50 80104-989-51 80104-991-51 80104-989-52 — 80104-991-52 80104-989-53 —	— — 80104-738-52 — — 80104-738-53 — — 80025-067-01
	A	End Barrier Assembly Screw, Barrier Mounting (4) End Barrier Insulator	40517-007-01 —	40517-007-01 80114-171-01
	B C	Mains Compartment Shield Left (fingered) Right (plain) Push Rivet, Shield Mounting (2 each)	2200074 2200075 29215-52126	40517-093-01 40517-098-01 29215-52126
	K L	Bus Stack Shields Left Right Screw, Shield Mounting (2 each)	80104-821-01 80104-820-01 —	80104-821-01 80104-820-01 80114-171-01
	F G	Bracket, Trim Support Screw, Bracket Mounting (2 each)	80104-384-01 —	80104-384-01 80114-171-01
	N O	Neutral Insulator Screw, Insulator Mounting (2) —225 A —400, 600, 800 A	40517-101-01 21903-20200 —	40517-101-01 — 80114-171-01
	M	Main Breaker		
		225 A	JD 35225	—
		400 A	LA 36400	—
		600 A	—	MGP 36600
		800 A	—	MGP 36800

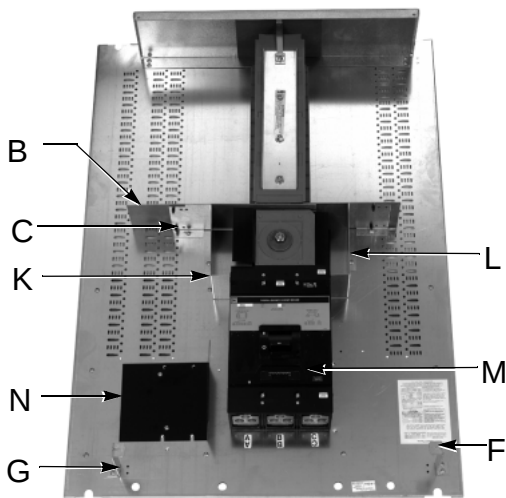
I-Line® Circuit Breaker Panelboards Replacement Parts

Type HCP—1200 A Main Lugs and 800 A Main Breakers

HCP Main Lugs Only

	Code Letter	Description	Part Number		
			400 A Mains	600–800 A Mains	1200 A Mains
 A B C J E F G H	Not Shown	Interior Deadfront Trim Assembly 27" Breaker Mounting Space 45" Breaker Mounting Space 63" Breaker Mounting Space 99" Breaker Mounting Space Screw, Interior Deadfront Trim Mounting (5)	80121-041-50 80121-041-51 80121-041-52 80121-041-53 80025-067-01	80121-052-50 80121-052-51 80121-052-52 80121-052-53 80025-067-01	80121-046-50 80121-046-51 80121-046-52 80121-046-53 80025-067-01
	A	End Barrier Assembly Screw, Barrier Mounting (4) End Barrier Insulator	80104-387-01 80025-067-01 80104-056-01		40517-354-01 80025-067-01 80104-056-01
	Not Shown	Lug Cover Strap Screw, Cover Strap Mounting	80104-018-02 21594-12061		80104-018-02 21594-12061
	B C	Mains Compartment Shield Left Right Push Rivet, Shield Mounting (2 each)	2200077 2200076 29215-52126		40517-171-01 40517-355-01 29215-52126
	D E	Lug Compartment Cover Assembly Screw, Cover Mounting (4) Screw, Lug Cover (2)	80121-128-50 80025-067-01 80025-067-01		80121-153-50 80025-067-01 80025-067-01
	F G	Bracket, Lug Cover and Trim Support Screw, Bracket Mounting (2 each)	80104-385-01 80025-067-01		80104-385-01 80025-067-01
	H	Main Lugs Assembly 400 and 600 A 800 A 1200 A Bolt, Lug Mounting 400 and 600 A 800 A 1200 A Nut, Lug Mounting 400 and 600 A 800 and 1200 A Washer, Lug Mounting 400, 600, 800, and 1200 A	80116-122-50 25098-25110 — 21401-28483 21401-28643 — 23427-02800 23040-28000 23903-33201		— — 25098-25110 — — 21401-28661 — 23040-28000 23903-33201
	J	Neutral Insulator Screw, Insulator Mounting (2)—400, 600, 800 A —1200 A	221854 80114-171-01 —		221854 — 21903-20200

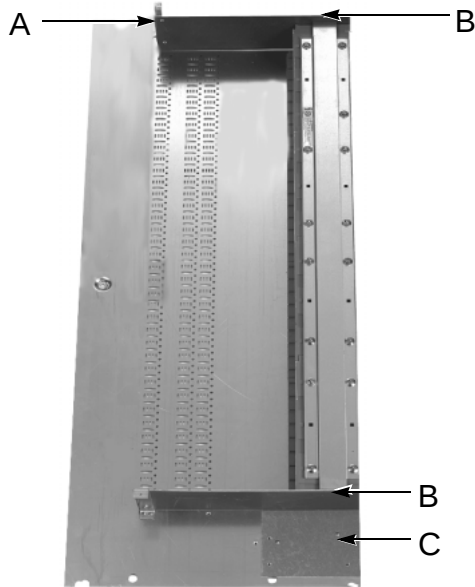
HCP Main Circuit Breaker

	Code Letter	Description	Part Number
 B C K N G L M F	Not Shown	Interior Deadfront Trim Assembly 36" Breaker Mounting Space 72" Breaker Mounting Space Screw, Interior Deadfront Trim Mounting (8)	80121-16550 80121-16551 80025-067-01
	A	End Barrier Assembly Screw, Barrier Mounting (4)	80104-387-01 80114-171-01
	B C	Mains Compartment Shield Left (fingered) Right (plain) Push Rivet, Shield Mounting (2 each)	40517-108-01 40517-098-01 29215-52126
	K L	Bus Stack Shields Left Right Screw, Shield Mounting (2 each)	80104-821-01 80104-820-01 80114-171-01
	F G	Bracket, Trim Support Screw, Bracket Mounting (2 each)	80104-384-01 80114-171-01
	N	Neutral Insulator Screw, Insulator Mounting (2)	40517-109-01 80114-171-01
	M	Main Breaker 600 A 800 A	MGL 36600 MGL 36800

I-Line® Circuit Breaker Panelboards Replacement Parts

Type HCP-SU—800 A Maximum Universal Main Lugs or Main Breaker

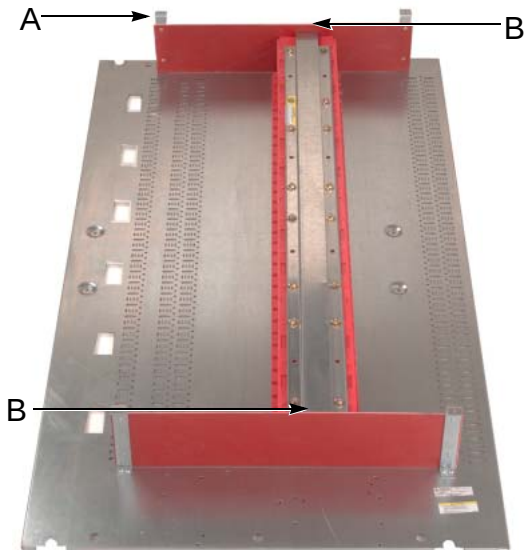
HCP-SU Universal Main Lugs or Main Breaker



Code Letter	Description	Part Number
Not Shown	Interior Deadfront Trim Assembly Screw, Interior Deadfront Trim Mounting (4)	80121-091-50 80025-067-01
A	Mounting Bracket, Interior Trim (4) Screw, Bracket Mounting (8)	80104-262-01 80025-067-01
B	End Barrier Insulator (2) Rivet, Black Nylon (4)	80121-090-01 24303-65260
C	Neutral Insulator Screw, Insulator Mounting (2)	80121-118-02 80025-067-01
Not Shown	Elevating Nut Bag Assembly	80121-186-55
	Interior Assembly	HCP54868SU
Not Shown	Trim Front Surface—2-Piece Surface—2-Piece with Door Flush—2-Piece Flush—2-Piece with Door	HC2686TS HC2686TSD HC2686TF HC2686TFD
Not Shown	Enclosures: Type 1 Type 3R/12	HC2686DB HC2886WP

Type HCR-U—1200 A Universal Main Lugs or Main Breaker

HCR-U Universal Main Lugs or Main Breaker

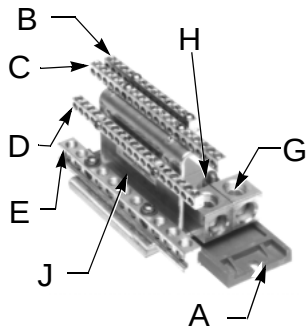


Code Letter	Description	Part Number
Not Shown	Interior Deadfront Trim Assembly Screw, Interior Deadfront Trim Mounting (4)	80121-057-50 80025-067-01
A	Mounting Bracket, Interior Trim (4) Screw, Bracket Mounting (8)	80104-262-01 80025-067-01
B	End Barrier Insulator (2) Rivet, Black Nylon (4)	80104-263-01 24303-65260
Not Shown	Neutral Insulator Screw, Insulator Mounting (2)	80121-110-01 80025-067-01
Not Shown	Elevating Nut Bag Assembly	80121-186-54
	Interior Assembly	HCR548612U
Not Shown	Trim Front Surface—4-Piece Surface—4-Piece with Door Flush—4-Piece Flush—4-Piece with Door	HCR86TS HCR86TSD HCR86TF HCR86TFD
Not Shown	Enclosures: Type 1 Type 3R/12	HC4486DB HC4486WP

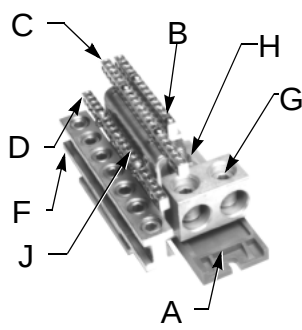
I-Line® Circuit Breaker Panelboards

Replacement Parts

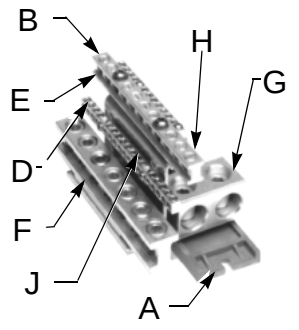
Solid Neutral Assemblies



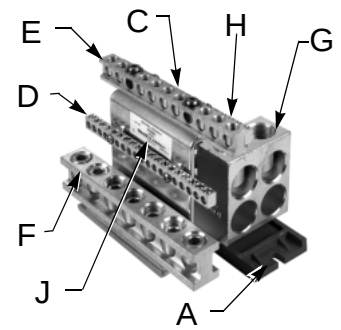
HC-2SN



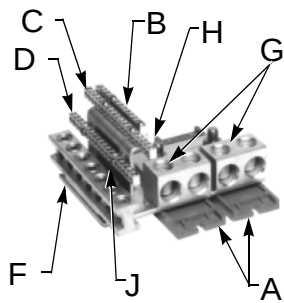
HC-4SN



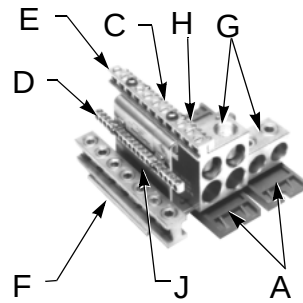
HC-6SN



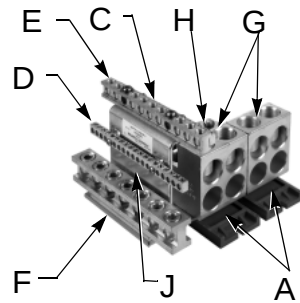
HC-8SN



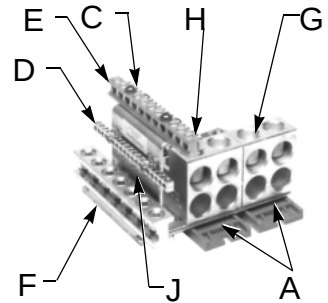
HCW-4SN



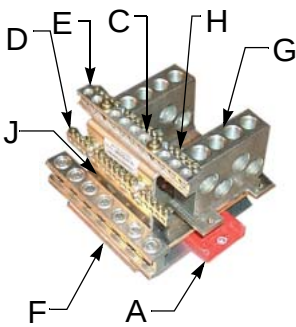
HCW-6SN



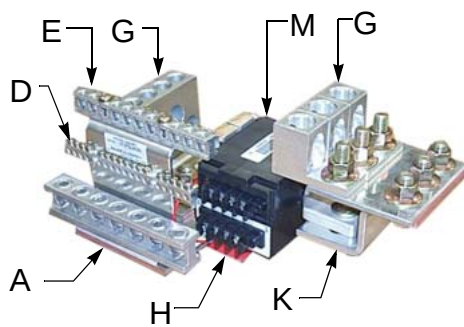
HCW-8SN



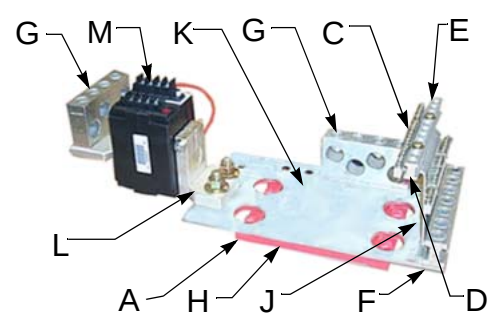
HCW-12SN



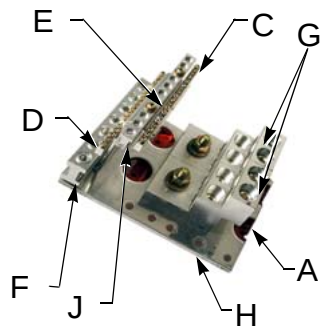
HCPSU-8SN



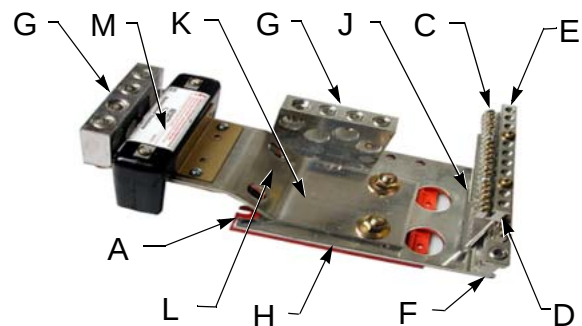
HCPSU-8SNCT



HCR-12SNCT



HCWM-12SN



HCWM-12SNT

I-Line® Circuit Breaker Panelboards Replacement Parts

Solid Neutral Assemblies, Fronts, Blank Fillers, and Miscellaneous Items

When ordering, specify part number, quantity desired, and description of part, including complete panelboard nameplate data.

Solid Neutrals		
Code Letter	Description	Part Number
A	Solid Neutral Assemblies Neutral Base Screw, Base Mounting	40517-111-01 21903-20200
B	Neutral Bar Assembly Screw, Bar Mounting	80120-805-53 21590-00004
C	Neutral Bar Assembly Screw, Bar Mounting	80120-805-59 21590-00004
D	Neutral Bar Assembly Screw, Bar Mounting	80120-805-60 21590-00004
E	Neutral Bar Assembly Washer, Bar Mounting Screw, Bar Mounting	155642 23903-31401 21994-00003
F	Neutral Bar Assembly Screw, Bar Mounting Washer, Bar Mounting	80104-403-01 21401-20240 23903-31601
Not Shown	Bonding Strap 225 A 400 A, 600 (HC6SN) 600 (HCW6SN), 800, and 1200 A 800 A (HCP-SU-CT) 800 A (HCP-SU) 1200 A (HCWM) 1200 A (HCR-U) Screw, Strap Mounting Washer Screw, Neutral Assembly Mounting	80010-598-01 80010-599-01 80010-600-01 80121-138-01 80121-119-01 80010-600-01 80121-082-01 21903-20200 23903-31601 21903-20200

Fronts, Blank Fillers, and Miscellaneous Items		
Code Letter	Description	Part Number
Not Shown	Fronts and Blank Fillers Blank Fillers 1.50-inch Height 4.50-inch Height Screw, Blank Mounting (included with blank)	HNMM-1BL HNMM-4BL 21427-20161
Not Shown	Blank Filler Extensions 1.50-inch Height 4.50-inch Height	HLW-1BL HLW-4BL
Not Shown	Circuit Number Tabs 1-90 Flush Lock (large sliding) Keys (2 per kit) Vault Handle Lock	80104-402-50 PK-5FL LP-9618 PK-4NVL
Not Shown	Trim Clamp Assembly Exposed Trim Clamp Monoflat® Trim Clamp	LP9501 PK2TC
Not Shown	Directory Card Clear Plastic Card Cover	80031-158-01 80031-159-01
Not Shown	Interior Leveling Nut	80104-458-01

Solid Neutrals

Code Letter	Description	HC2SN	HC4SN	HC6SN	HC8SN
G	Lug Assemblies Large Small Screw, Lug Mounting Washer, Lug Mounting Nut, Lug Mounting Washer, Lug Mounting	(2) 40251-162-51 — 21514-00002 23427-02200 — —	80116-122-50 — 21401-28643 23701-00280 23427-02800 — —	80116-122-50 — 21401-28643 23701-02800 23427-02800 — —	25098-25110 — 21401-28643 23903-33201 23040-28000 — 23701-00280
H	Neutral Plate	80104-865-01	80104-969-01	40517-167-01	80104-970-01
J	Neutral Connector	80101-943-01	80104-943-01	80104-943-01	80104-944-01

Solid Neutrals

Code Letter	Description	HCW4SN	HCW6SN	HCW8SN	HCW12SN
G	Lug Assemblies Large Small Screw, Lug Mounting Washer, Lug Mounting Nut, Lug Mounting Washer, Lug Mounting	80116-122-50 — 21401-28643 23701-00280 23427-02800 — —	25098-25110 80116-122-50 21401-28643 23903-33201 23040-28000 23427-02800 23701-00280	(2) 25098-25110 — 21401-28643 23903-33201 23040-28000 — 23701-00280	(2) 25098-25110 — 21401-28643 23903-33201 23040-28000 — 23701-00280
H	Neutral Plate	80104-971-01	80104-971-01	80104-054-01	40517-122-01
J	Neutral Connector	80104-943-01	80104-944-01	80104-944-01	80104-944-01

Solid Neutrals

Code Letter	Description	HCWM12SN	HCWM12SNCT	HCR12SNCT	HCPSU8SN	HCPSU8SNCT
G	Lug Assemblies Large Small Screw, Lug Mounting Washer, Lug Mounting Nut, Lug Mounting Washer, Lug Mounting	(2) 25098-25110 — 21401-28661 23903-33201 23040-28000 23701-00280	(2) 48010-093-50 — (3) 21401-24280 23903-32402 — —	(2) 48010-093-50 — (3) 21401-24320; (3) 23903-32402 23903-32402 — —	(2) 48186-053-50 — 21401-24200 23903-32402 — —	(2) 48186-053-50 (3) 40251-136-50 (3) 21401-24200; (3) 22710-28400 23903-32402 23427-02800 —
H	Neutral Plate	80104-273-01	80104-273-01	80121-081-01	80121-113-02	80121-113-02
J	Neutral Connector	80104-944-01	80101-944-01	80104-944-01	80104-944-01	80104-944-01
K	Lug Pad	—	80104-274-01	80104-274-01	80121-114-01	80121-114-01
L	C/T Connector Screw Washer Keys Nut	— — — —	80104-278-01 21401-28481 23701-00280 23427-02800	— — — —	— — — —	80121-115-01 22720-28481 — 23427-02800
M	Neutral C/T Mounting Screw (2) Washer Nut	— — — —	NE12CT2 80025-067-01 — —	S33925 21401-28643 23701-00280 23427-02800	— — — —	S33925 21401-28643 23903-33201 23040-28000

Schneider Electric USA

252 North Tippecanoe
Peru, IN 46970 USA
1-888-SquareD
(1-888-778-2733)
www.us.SquareD.com

Schneider Electric Canada

19 Waterman Avenue,
M4B 1 Y2
Toronto, Ontario
1-800-565-6699
www.schneider-electric.ca

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