

Square D™ Brand QED-2 Low Voltage Switchboards

Square D™ Brand OEM Interiors

Schneider Electric MDS Low Voltage Switchboards

SW-2

Pricing Guide

2700PL9201R09/13

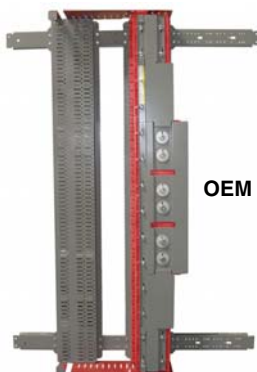
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Class 2700/2705/2741/2742

Restricted to Schneider Electric Personnel



QED-2



OEM Interiors



MDS

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General Instructions

This pricing guide contains pricing information for all factory-assembled Square D™ brand QED-2 switchboards and OEM Interiors, and Schneider Electric Multi-Distribution Switchboards (MDS).

NOTE: Features that are not applicable to the Canada market are shown with a gray tint in the pricing procedure.
All other items are for both the U.S. and Canada markets

Square D™ brand QED-2 switchboards consist of one or more switchboard sections with standard depths of 24 in. to 60 in. All QED components listed in this pricing procedure can be placed in factory-assembled switchboards.

Schneider Electric assembly plants reserve the right to arrange the switchboard and components in the minimum number of sections and with the minimum necessary bussing, in accordance with Schneider Electric's standard engineering practices and applicable industry standards. If additions are requested, it will be necessary to charge for the additional sections.

Underwriters' Laboratories (UL) Listing: A UL label is no charge on standard switchboards when every device contained therein is UL Listed or recognized. The bussing and the enclosure must be constructed according to UL 891 Dead-front Switchboard Standards. Since each switchboard must be UL labeled individually, **inform your assembly plant when a UL/CSA service entrance or UL dead-front section label is specified.**

QED-2 and MDS switchboards are designed and tested in accordance with CSA C22.2 No. 31.

NOTE: Do not use this estimating procedure in conjunction with any other procedure, unless the other estimating procedure specifically authorizes the use of Low Voltage Switchboard Pricing Guide SW-2. For items not listed, or when in doubt, contact your local assembly plant.

QED-2 and MDS Switchboard Section Layout

To determine the correct number of switchboard sections, use the inches of mounting height of the devices. This height correlates with the device height, bussing, and required space for UL Listing. Total all the metering and main inches and determine the number of sections. Then total all the branch distribution inches and determine the quantity of sections.

For information on layout, refer to Catalog #2700CT1101, *Power-Style Low Voltage Switchboards* and Catalog #S2705CT1301BP R0, *Multi-Distribution Switchboards*.

Metric Conversion Factors

- Inches (in.) x 25.4 = millimeters (mm).
- Square inches (sq. in.; in.²) x 45.16 = square millimeters (mm²)
- Cubic inches (cu. in.; in.³) x 16.387 = cubic centimeters (cc; cm³)
- Pound inches (lb. in.) x 0.113 = Newton meters (N•m)

Service Entrance (SE) Requirements (SE Label)

Switchboards used as service entrance equipment include a UL SE label, main bonding jumper, neutral disconnect link, ground bus, grounding lug, and barriers. Price per number of mains.

Mains Type▲	List Price (per section)
Individually mounted mains	\$ 1410.
Group mounted mains	1410.

Utility Metering

NOTE: In main-tie-main applications, two individually mounted breakers are **\$2809**. List Price.

Current Transformer (CT) Compartments—EUSERC and Non-EUSERC

Prices are for a complete CT compartment which conforms to basic utility requirements. Price includes single door, removable links, bussing for utility CTs, basic barriers, and line connection. A section charge (page 31) is required if through bus. An auxiliary section charge is required if no through bus. Contact your local Technical Assistance Group (TAG) for specific utility requirements.

System	800 A	1200 A	2000 A	2500 A	3000 A	4000 A■	5000 A■	Mounting Height	
								Middle	Top or Bottom
3W	\$ 7377.	\$ 12741.	\$ 12741.	\$ 14270.	\$ 17123.	\$ 22774.	\$ 28467.	45 in.	36 in.
4W	9836.	16988.	16988.	19026.	22831.	30365.	37956.	45 in.	36 in.

NOTES: Double door is available for no additional charge.

For Schneider Electric-supplied CTs, price from the Customer Metering table on page 6.

In the U.S., a PT mounting provision is **\$1,346**. List Price.

EUSERC (Western) CT Compartment In Combination With Main Circuit Breaker or Main Switch

Price one service entrance requirement (page 4), single door current transformer compartment (page 3), main circuit breaker (page 9, 10, 12, 13, 14) or main fusible switch (page 20), ground fault when required, and aluminum or copper section charge (page 31).

Canada Utility Compartments

Canada Utility Name◆	CT Provision	PT Provision	System	800 A	1200 A	2000 A	2500 A	3000 A	4000 A★	5000 A★
BC Hydro Brampton Hydro One Hydro Quebec Mississauga Saskatoon Toronto Hydro Other	MV-7 (Standard Bar Type) MV-7 (1P 3W) (Dual Bar Type) R6MC (Window Type) R6L (Window Type) JAK-0 (Window Type) JAD-0 (Window Type) Unknown (if the CT type is not known)	Available	3W	\$ 7377.	\$ 12741.	\$ 12741.	\$ 14270.	\$ 17123.	\$ 22774.	\$ 28467.
			4W	9836.	16988.	16988.	19026.	22831.	30365.	37956.

- ▲ Only single main is allowed in Canada. For Canadian main-tie-main applications, please contact your local Technical Assistance Group (TAG).
- Requires full-height section (except EUSERC compartment).
- ◆ Some utilities in Canada require ground studs. Pricing is **\$4,240**.
- ★ Does not require full-height section.

Incoming Connections

Lineside Lug Connection—Distribution and Six Disconnect Mains

A lineside lug connection charge is required when lugs or studs are required to feed the vertical bus of a I-Line™ or QMB section with or without through bus. A line side connection charge is not required for single main devices, whether I-Line or QMB, or Utility compartment. If the section has through bus, a Section Charge (page 31) is required. A bussed auxiliary section ahead of the line-up will have a Section Charge and a Lineside Lug or Stud Connection Charge.

System	400 A	600 A	800 A	1000 A	1200 A	1600 A	2000 A	2500 A	3000 A	3200 A	4000 A	5000 A	6000 A	7000 A	8000 A
3W or 4W	\$2120.	\$2120.	\$2120.	\$3180.	\$3180.	\$4240.	\$5300.	\$6360.	\$7420.	\$8480.	\$8480.	\$10600.	\$12720.	\$14840.	\$16960.
Width▲	24 in.	24 in.	24 in.	24 in.	24 in.	24 in.	24 in.	30 in.	36 in.	42 in.	42 in.	48 in.	54 in.	54 in.	54 in.

Qwik-Flange Connection/Riser Bus■

Aluminum										
System	600 A	800 A	1000 A	1200 A	1600 A	2000 A	2500 A	3000 A	4000 A	5000 A
3W	\$ 4092.	\$ 5088.	\$ 5554.	\$ 6498.	\$ 7272.	\$ 9752.	\$ 10924.	\$ 12222.	\$ 15147.	—
4W	4982.	6212.	6784.	7908.	8872.	11904.	13335.	14893.	18486.	—
Copper										
System	600 A	800 A	1000 A	1200 A	1600 A	2000 A	2500 A	3000 A	4000 A	5000 A
3W	\$ 4717.	\$ 6074.	\$ 6710.	\$ 7950.	\$ 9487.	\$ 11416.	\$ 13017.	\$ 14745.	\$ 19250.	\$ 25981.
4W	5756.	7409.	8162.	9710.	11586.	13907.	15868.	17988.	23479.	31694.

Flanged-End Connection♦

Aluminum										
System	600 A	800 A	1000 A	1200 A	1600 A	2000 A	2500 A	3000 A	4000 A	5000 A
3W	\$ 5152.	\$ 6148.	\$ 6614.	\$ 7558.	\$ 8332.	\$ 10812.	\$ 11989.	\$ 13282.	\$ 16207.	—
4W	6042.	7272.	7844.	8968.	9932.	12964.	14385.	15953.	19546.	—
Copper										
System	600 A	800 A	1000 A	1200 A	1600 A	2000 A	2500 A	3000 A	4000 A	5000 A
3W	\$ 5777.	\$ 7134.	\$ 7770.	\$ 9010.	\$ 10547.	\$ 12476.	\$ 10477.	\$ 15805.	\$ 20310.	\$ 27041.
4W	6816.	8469.	9222.	10770.	12646.	14967.	16928.	19048.	24539.	32754.

Transformer Throat/Vault Stub★

Aluminum											
System	600 A	800 A	1000 A	1200 A	1600 A	2000 A	2500 A	3000 A	4000 A	5000 A	6000 A
3W	\$ 6445.	\$ 7452.	\$ 7908.	\$ 8851.	\$ 9625.	\$ 12116.	\$ 13292.	\$ 14575.	\$ 17501.	\$ 22811.	—
4W	7346.	8565.	9127.	10261.	11225.	14257.	15688.	17246.	20840.	27316.	—
Copper											
System	600 A	800 A	1000 A	1200 A	1600 A	2000 A	2500 A	3000 A	4000 A	5000 A	6000 A
3W	\$ 7070.	\$ 8427.	\$ 9063.	\$ 10314.	\$ 11840.	\$ 13769.	\$ 15370.	\$ 17108.	\$ 21603.	\$ 28334.	\$ 38255.
4W	8109.	9763.	10526.	12063.	13939.	16271.	18221.	20341.	25832.	34047.	48007.

- ▲ Width of bussed auxiliary section.
- Qwik-Flange available on NEMA Type 1 top feed only.
- ♦ NEMA Type 1 bottom feed and NEMA Type 3R require a flanged-end connection. The flanged-end connection is sprinkler resistant.
- ★ Vault stub is used in Canada.

Customer Metering

Power Monitoring And Control

Power Meter ▲

Class	Type	Description	List Price
3020	PM-820	Power Meter Module with Display 0.25% Accuracy w/ Logging, Alarms, I/O Modules	\$ 18465.
3020	PM-850	Same as PM-820 plus Trending/Forecasting, Steady State Waveform Capture	24804.
3020	PM-870	Same as PM-850 plus Disturbance Waveform Capture, Sag/Swell Metering	29250.

Circuit Monitors

Class	Type	Description	List Price
3020	CMDLC	Liquid Crystal Display used for both Circuit Monitors	N/C
3020	CMDVF	Upgrade to Vacuum Fluorescent Display with Infrared Port	\$ 4240.
3020	CM4000T	Same as CM4250 plus Transient Voltage Monitoring, Flicker IEC 61000-4-15	58406.

Input/Output Modules ■

Class	Type	Description	List Price
3020	IOC44	I/O Card w/4 status in, 3 relay out and 1 KYZ out	\$ 4007.
3020	IOX2411	I/O Extender Module w/4 DC status inputs, and 2 DC digital outputs, 1 analog output	7738.
3020	IOX0404	I/O Extender Module w/4 status inputs and 4 analog inputs	10759.
3020	IOX08	I/O Extender Module w/8 Status Inputs (120 Vac)	4463.
3020	IOX	I/O Extender Module Only, No Installed I/O	2989.
	PM8M2222	2 digital outputs, 2 digital inputs, 2 analog outputs, and 2 analog inputs	3646.
	PM8M26	2 digital outputs and 6 digital inputs	3275.
	PM822	2 digital outputs and 2 digital inputs	2809.

ION 7550/7650 Meters

Catalog No.	Description	List Price
S7550A0C0B6A0A0A	Basic unit: Integrated display, instrumentation, power quality, waveform capture, one RS232/RS485 port, one RS-485 jack, one Type 2 optical port, eight digital inputs, four digital outputs, and three onboard relays	\$ 35934.
S7550A0C0B6E0A0A	Basic unit plus Ethernet	47435.
S7650A0C0B6A0A0A	Basic unit plus additional ION7650 features	42824.
S7650A0C0B6E0A0A	Basic unit plus Ethernet and additional ION7650 features	54325.
S7650A0C0B6C1A0A	Basic unit plus Ethernet, internal modem, and additional ION7650 features	54325.
S7650B1C0B6C1A0A	Basic unit plus Ethernet, 1,024 samples/cycle instead of 512, 10 MB of logging instead of 5 MB, internal modem, and additional ION7650 features	69907.

Communications Network Options

Type	Description	List Price
No Web Pages	Modbus RS-485 Communications Wired Out	No charge
	Modbus Repeater ♦ (per line-up)—required for comms with H-, J-, or L-frame PowerPact with Modbus RS-485 wired out	\$ 996.
	Modbus TCP—Ethernet Copper with Ethernet Communications Card (ECC) and PM8 or CM4 family of meters	11501.
Device Web Pages	Modbus TCP—Ethernet Gateway (EGX300). Up to 31 devices per network per line-up. For more than 31 devices, add up to two slave networks with an EGX100 gateway for a maximum of 90 communicating devices per line-up.	27984.
	Ethernet Gateway (EGX100)	13992.
Customer Ethernet Network	100Base-T Fiber HUB System	10939.
	100Base-T Copper HUB System	6148.

- ▲ No PTs required through 600 Vac.
- Required for pulse initiator/sync pulse input application.
- ♦ Modbus repeater is a separate adder per line-up.

Instrument Transformer Requirements ▲

Device	1PH3W 120/240 V	3PH3W Delta or Wye	3PH4W			
			Wye			Delta
			208Y/120	480Y/277	600Y/347	
Circuit Monitor	2 CTs	2 CTs, 1 CPT ■	3 CTs	3 CTs	3 CTs, 1 CPT	3 CTs
Power Meter	2 CTs	2 CTs, 1 CPT ■	3 CTs	3 CTs	3 CTs	3 CTs
Ion Meter	2 CTs, 2 PTs	2 CTs, 1 CPT ■ , 3 PTs	3 CTs	3 CTs, 1 CPT, 3 PTs	3 CTs, 1 CPT, 3 PTs	3 CTs, 1 CPT, 3 PTs

Potential Transformer (PT)

Item	List Price Each
Control Power Transformer (CPT)	\$ 890.
Fused voltage taps wired to terminals for remote PM	1200.
Potential Transformer	2957.

Current Transformer (CT)

Rating	List Price			
	Window, Each	Window, x2	Window, x3	Bar, Each
800 A	\$ 1590.	\$ 3180.	\$ 4770.	\$ 2523.
1600 A	3074.	6148.	9222.	3901.
2500 A	3434.	6869.	10303.	4251.
3000 A	3593.	7187.	10780.	4738.
4000 A	3805.	7611.	11416.	5576.
5000 A	5141.	10282.	15423.	7515.

- ▲ Drawout circuit breakers require three CTs for all voltages.
- CPT is not required for 240 V Delta.

Masterpact and PowerPact with Micrologic Breaker Options and Accessories

Trip Unit Options	Standard		Ammeter			Energy		Power		Harmonic	
	LI (3.0)	LSI (5.0)	LI (3.0A)	LSI (5.0A)	LSIG (6.0A)	—	—	LSI (5.0P)	LSIG (6.0P)	LSI (5.0H)	LSIG (6.0H)
PowerPact P and R, and Masterpact NW Electronic Trip Circuit Breakers	No charge	\$ 1670.	\$ 3180.	\$ 4670.	\$ 9430.	—	—	\$ 21600.	\$ 31000.	\$ 32330.	\$ 37000.

Trip Unit Options	Standard		Ammeter			Energy		Power		Harmonic	
	LI (3.3)	LSI (3.3S)	—	LSI (5.0)	LSIG (5.3A)	LSI (5.3A)	LSIG (6.3E)	—	—	—	—
PowerPact L-frame Electronic Trip Circuit Breakers	No charge	\$ 1670.	—	\$ 4670.	\$ 9430.	\$ 7659.	\$ 13777.	—	—	—	—
PowerPact J-frame Electronic Trip Circuit Breakers	No charge	785.	—	3643.	6538.	4978.	8542.	—	—	—	—
PowerPact H-frame Electronic Trip Circuit Breakers	No charge	549.	—	2550.	4577.	3485.	5979.	—	—	—	—

ZSI- Adder for Wiring	Standard		Ammeter			Energy		Power		Harmonic	
Short-time	—	—	—	\$ 1357.	\$ 1357.	\$ 1357.	\$ 1357.	\$ 1357.	\$ 1357.	\$ 1357.	\$ 1357.
Ground Fault	—	—	—	—	1357.	—	1357.	—	1357.	—	1357.
Short time and Ground Fault	—	—	—	—	2174.	—	2174.	—	2174.	—	2174.

Communications (Modbus RS485 Wired Out)	List Price Each
Circuit Breaker	\$ 4296.
Circuit breaker prepared space (for PowerPact H, J, and L circuit breakers with Ammeter or Energy trip units)	4296.
Cradle (For Masterpact NW only; standard with circuit breaker communications)	—

Common Accessories—For Ammeter/Energy/Power/Harmonic Electronic Trip Unit		List Price Each
Front Display Module (FDM121) Installation on individually mounted and group mounted devices▲		\$ 4560.
Front Display Module (FDM121) Installation for V > 480 Vac		8194.
PowerPact test kit (full function) for NW, P, and R		22324.
PowerPact test Kit (mini function) for NW, P, and R		4470.
Pocket Tester (mini function) for H, J, and L		1430.
UTA Tester (full function) for H, J, and L		23380.

Control Power		List Price Each
24 Vdc Power Supply for trip unit power. Required for H trip unit, recommended for A and P trip units.		\$ 1950.
External voltage source wired to line side of circuit breaker (used to power the trip unit)		1166.
Control Power transformer (only one required per vertical section, or one per line-up for Series 2 designs)		890.

Maximum Number of FDMs Per I-Line 63 in., Full-Height Section

Switchboard Configuration	Switchboard Width (Inches)	Circuit Breaker Frame Size (Amps)	FDM Locations	
			Wide Side	Narrow Side
Single Row	36	1200	12	—
		1600	12	—
		2000	12	—
		2500	12	—
		3000	12	—
	42	2000	12■	—
		2500	12■	—
		3000	12■	—
	48	2000	12■	—
		2500	12■	—
		3000	12■	—
	Double Row	36	1200	8
1600			8	8
2000			8	8
42		1200	12■	8
		1600	12■	8
		2000	12■	8
48		1200	12■	8
		1600	12■	8
		2000	12■	8
54		2000	12■	8
		2500	12■	8
		3000	12■	8

▲ Only available for installation on 63 in. full height single- and double-row, I-Line interiors. Not available for combo I-Line interiors. The maximum number of FDMs per section is shown in the chart above.
■ 14 FDMs are possible with these switchboard widths, but the placement will be non-symmetrical.

Masterpact™ (Stored Energy) Circuit Breakers—UL 489

Masterpact low voltage, molded case circuit breakers contain a two-step stored energy mechanism which provides 5-cycle maximum closing in both manually and electrically-operated types. The Standard trip units come with LI functionality: long-time ampere rating, long-time delay adjustments, and instantaneous trip. See page 8 for trip unit options price adders. Prices include neutral CT for 3Ø4W systems. Short-time, ground fault protection and circuit breaker accessories may be added to the standard circuit breaker price when required. All standard Masterpact circuit breakers are UL489 Listed and are 100% rated. 4-pole circuit breakers can be priced by multiplying the stationary or drawout pricing by 1.2.

NOTE: Space and mounting provisions include same features as above except for the circuit breaker.

Circuit Breaker Model	Frame Size (Amperes)	Breaker Type	AC Interrupting Rating RMS Sym. Amperes (in thousands)			List Price			
			240 V	480 V	600 V	Manually Operated, Stationary Mounted		Manually Operated, Drawout Mounted	
						Standard LI	Future Space	Standard LI	Future Space
NW	800	WL1	65	65	50	\$ 49163.	\$ 9826.	\$ 77984.	\$ 13123.
		WL3	100	100	85	53403.		82224.	
		WL7	200	150	100	—		86464.	
	1600	WL1	65	65	50	56477.		88976.	
		WL3	100	100	85	60717.		93216.	
		WL7	200	150	100	—		97456.	
	2000	WL1	65	65	50	71412.	11480.	107558.	15105.
		WL3	100	100	85	75652.		111798.	
		WL7	200	150	100	—		116038.	
	2500	WL1	65	65	50	87885.	15020.	128631.	20002.
		WL3	100	100	85	95305.		136051.	
		WL7	200	150	100	—		140291.	
	3000	WL1	65	65	50	98697.	23935.	146545.	30115.
		WL3	100	100	85	106117.		153965.	
		WL7	200	150	100	—		158205.	
	4000	YL1	65	65	50	Use ANSI	Use ANSI	220014.	36157.
		YL3	100	100	85	Use ANSI		236974.	
		YL7	200	150	100	—		241214.	
	5000	YL1	65	65	50	277932.	31270.	414926.	41298.
		YL3	100	100	85	277932.		414926.	
		YL7	200	150	100	—		419166.	
	6000▲	YL1	65	65	50	—	—	—	—
		YL3	100	100	85	290846.		427858.	
		YL7	200	150	100	—		419166.	

▲ For 6000 A in U.S. or Canada, contact your local TAG.

Masterpact (Stored Energy) Circuit Breakers—UL 1066

Masterpact Low Voltage circuit breakers are available as a single main, double-ended main, or tie, rated to 5000 A @ 600 Vac. The trip units are the same as the Masterpact UL 489 circuit breaker.

ANSI rated circuit breakers are 100% rated and contain a two-step stored energy mechanism which provides 5-cycle maximum closing in both manually and electrically-operated types. The Standard trip units come with LI functionality: long-time ampere rating, long-time delay adjustments, and instantaneous trip. See page 8 for trip unit options price adders. When ground fault is required on a 4-wire system, the price includes a neutral CT. Other features available on the circuit breaker include short-time, ground fault protection, motor operation and may be added to the standard circuit breaker price.

NOTE: Space and mounting provisions include same features as above except for the circuit breaker.

Circuit Breaker Model	Frame Size (Amperes)	Breaker Type	AC Interrupting Rating RMS Sym. Amperes (in thousands)			List Price			
			240 V	480 V	600 V	Manually Operated, Stationary Mounted		Manually Operated, Drawout Mounted	
						Standard LI	Future Space	Standard LI	Future Space
NW	800	WA2	42	42	42	\$ 60229.	\$ 9826.	\$ 89051.	\$ 13123.
		WA4	65	65	65	60229.		89051.	
		WA5	85	85	85	64469.		93291.	
		WA6	100	100	85	64469.		93291.	
		WA8	200	200	130	—		97531.	
		L1F ▲	200	200	130	—		107284.	
	1600	WA2	42	42	42	67543.		100043.	
		WA4	65	65	65	67543.		100043.	
		WA5	85	85	85	71783.		104283.	
		WA6	100	100	85	71783.		104283.	
		WA8	200	200	130	—		108523.	
		L1F ▲	200	200	130	—		119375.	
	2000	WA4	65	65	65	82479.	11480.	118625.	15105.
		WA5	85	85	85	86719.		122865.	
		WA6	100	100	85	86719.		122865.	
		WA8	200	200	130	—		127105.	
		L1F ▲	200	200	130	—		139816.	
	3200	WA4	65	65	65	109763.	23935.	157611.	30115.
		WA5	85	85	85	117183.		165031.	
		WA6	100	100	85	117183.		165031.	
		WA8	200	200	130	—		169271.	
	4000	YA4	65	65	65	157951.	27390.	231080.	36157.
		YA5	85	85	85	174911.		248040.	
		YA6	100	100	85	174911.		248040.	
YA8		200	200	130	—	252280.			
5000	YA4	65	65	65	288998.	31270.	425993.	41298.	
	YA5	85	85	85	288998.		425993.		
	YA6	100	100	85	288998.		425993.		
	YA8	200	200	130	—		430233.		

▲ Use L1F breakers for applications requiring reduced fault let through.

Masterpact Accessories

Accessory	List Price
Auxiliary Switches: 4a-4b	Standard
Auxiliary Switches: 8a-8b	\$ 3604.
Auxiliary Switches: 12a-12b	5406.
Overcurrent Trip Switch 1a/1b contact (SDE)	Standard
2 Programmable Contact Module Form C (Power and Harmonic Trip Units only)	1251.
6 Programmable Contact Module Form C (Power and Harmonic Trip Units only). Required for Ground Fault No-Trip.	5003.
Cover over Open/Close buttons	212.
Cover over front of circuit breaker (transparent)	392.
Contact Wear Indication	
Visual Indication	Standard
Software Indication (requires Circuit Breaker Communication Module with PowerLogic system software)	P and H Trip Units
Electric Reset or 2nd Overcurrent Trip Switch	1887.
Ground Fault Alarm Indication and Contacts (For Ground Fault No-Trip, requires Programmable Contact Module)	
Audible Indication	445.
Visual Indication	445.
Audible and Visual Indication	890.
Neutral Protection NW/YL	1696./3392.
Operation Counter	859.
Padlock Provisions on Cradle	Standard
Ready-To-Close 1a/1b Contact	1802.
Key Interlock (per lock)	2237.
Key Interlock Provisions (per lock). Customer supplies lock.	636.
Shunt Close without communications	1802.
Shunt Close with communications	2226.
Shunt Trip without communications. (120 Vac only for QED-S)	1802.
Shunt Trip without communications	2226.
Shunt Trip with communications	2226.
2nd Shunt Trip without communications	1802.
Undervoltage Trip, Instantaneous	1908.
Undervoltage Trip, Adjustable Time Delay	1972.
Undervoltage Trip, Non-Adjustable time Delay	1808.
Spring Charging Motor (includes provisions for Open and Close capability, but not control power or indicating lights)	13123.
Temperature Indication (requires Circuit Breaker Communication Module with PowerLogic system software)	P and H Trip Units
Waveform Capture (requires Circuit Breaker Communication Module with PowerLogic system software)	P and H Trip Units
Drawout Circuit Breaker Cradle Accessories	
Cradle Shutters	986.
Cradle Shutter Padlock Provisions	159.
Cradle Shutter Indicator	318.
Cradle Position Switches	
1a/1b Form C (Connected/Test/Disconnected)	1378.
Padlock Provisions on Cradle	Standard
Schneider Electric Cradle Key Interlock	2237.
Circuit Breaker Lifting and Transport Truck (Floor Crane)	16621.
Circuit Breaker Lifting Trolley for Entire Switchboard (indoor top of switchboard mounting; requires 18 in. above switchboard)	12879.
Masterpact NW Drawout Stored Energy Remote Racking Device Mounting Provisions	640.
Masterpact NW Remote Racking Operator Kit	89900.
Zone Selective Interlocking Interface	
120 Vac source required. On multiple main systems, one RIM is required for each tie breaker in the system.	3403.
Drawout Crank (comes with Masterpact circuit breaker)	Standard
Phase Failure with Capacitor Trip (requires 120 Vac Shunt Trip)	11289.

Individually Mounted Main or Feeder

Molded Case Circuit Breakers—Individually Mounted

Price includes individually mounted main or branch molded case circuit breakers, mounting of circuit breakers, mounting pan, loadside connectors (on mains), lineside connectors to vertical bus (on branches), and card holders. On branch, loadside connectors' lugs point vertical. Space for future circuit breaker includes the same features as above, but does not include the circuit breaker. For stacked devices, price each device separately, including accessories.

Circuit Breaker Frame Size (Amps)	Type▲	AC Interrupting Rating RMS Symmetrical Amperes (in thousands)			Trip Rating (Amps)	List Price		
		240 V	480 V	600 V		3-Pole	2-Pole	Space for Each Future Breaker
800	MG	65	35	18	300–600	\$ 13589.	\$ 11671.	\$ 6795.
					700–800	18338.	15179.	
	MJ	100	65	25	300–600	16663.	14043.	
					700–800	21423.	18592.	
1200	PG	65	35	18	600–800	18790.	15673.	
					1000–1200	19891.	16982.	
	PK	65	50	50	600–800	20992.	18291.	
					1000–1200	22093.	19600.	
	PJ	100	65	25	600–800	23194.	20909.	
					1000–1200	24295.	22218.	
PL	125	100	—	600–800	25396.	23527.		
				1000–1200	26497.	24836.		

Circuit Breaker Frame Size (Amps)	Type	AC Interrupting Rating RMS Sym. Amps (in thousands)			Trip Rating (Amps)	List Price		
		Each Breaker		Space for Each Future Breaker				
		3-Pole	2-Pole					
2500	RG	65	50	42	1400–1600	\$ 31007.	\$ 26475.	\$ 7674.
					2000	34514.	30486.	
					2500	37906.	33030.	
	RK	65	65	65	1400–1600	36263.	32171.	7674.
					2000	45453.	37545.	
					2500	49619.	45442.	
	RJ	100	65	25	1400–1600	32733.	29320.	7674.
					2000	42644.	35150.	
					2500	47170.	44022.	
	RL	125	100	65	1400–1600	39771.	35022.	7674.
					2000	48262.	39930.	
					2500	52067.	46863.	

Emergency Disconnect

Use F, H, J, L frame price from I-Line (page 16), and multiply by 1.6.

Accessories

Accessory	List Price
Shunt Trip	\$ 1198.
Undervoltage Trip	1198.
Auxiliary Switches	
1A and 1B	466.
2A and 2B	647.
3A and 3B	848.
Alarm Switch	
M, P, R	466.
Key Interlock (Kirk type)	1897.
Cylinder Lock	636.
Electrical Operator (do not use for transfer schemes)	
PG, PK, PJ, PL	5703.
Phase Failure with Capacitor Trip	11289.
Padlock Attachment for PowerPact M, P, R	32.

- ▲ Refer to layout manual for stacked devices.
- PC 2500 A bottom mount only.

Main or Branch

PowerPact with Micrologic Electronic Trip Molded Case Circuit Breakers—Individually Mounted

Prices include individually mounted solid-state molded case circuit breakers with standard Micrologic™ electronic trip units. Long-time ampere rating, long-time delay adjustments, and instantaneous trip (LI) are standard on full function. Long-time ampere rating, long-time delay adjustments, short-time, short-time delay adjustments, and instantaneous trip are standard on limited function. Circuit breakers may also be ordered with integral ground fault, which comes standard with a neutral CT for 4W systems and integral ground fault indicator. Interchangeable rating plugs can be changed without removing cover. Integral ground fault test feature standard on ground fault equipped circuit breakers for testing the ground fault system per NEC Section 230-95. A 120 V power source is required, either external to or inside the switchboard. Remember to include size of rating plug required. For further information, refer to the Digest™.

Sensor Size (Amps)	% Rated	Type	AC Interrupting Rating RMS Symmetrical Amperes (in thousands)			List Price (includes rating plug) Standard LI		Space for Each Future Breaker			
			240 V	480 V	600 V	3-Pole	2-Pole				
250-400	80	PG	65	35	18	\$ 17059.	\$ 14330.	\$ 6795.			
	100	PG-C				18334.	15399.				
	80	PK	65	50	50	17373.	14593.				
	100	PK-C				18900.	15815.				
	80	PJ	100	65	25	17687.	14857.				
	100	PJ-C				19466.	16271.				
	80	PL	125	100	—	18002.	15122.				
	100	PL-C				20032.	16727.				
80	PG	65				35	18		18316.	15385.	
100	PG-C								20597.	17183.	
450-600	80	PK	65	50	50	18630.	15649.				
	100	PK-C				21163.	17639.				
	80	PJ	100	65	25	18924.	15896.				
	100	PJ-C				21729.	18095.				
	80	PL	125	100	—	19238.	16160.				
	100	PL-C				22295.	18551.				
	80	PG				65	35		18	19552.	16424.
	100	PG-C								22860.	19006.
700-800	80	PK	65	50	50	19886.	16704.				
	100	PK-C				23426.	19462.				
	80	PJ	100	65	25	20220.	16985.				
	100	PJ-C				23992.	19918.				
	80	PL	125	100	—	20554.	17265.				
	100	PL-C				24558.	20374.				
	80	PG				65	35	18	20356.	15077.	
	100	PG-C							27753.	22202.	
1000-1200	80	PK	65	50	50	23132.	17507.				
	100	PK-C				31537.	25230.				
	80	PJ	100	65	25	26286.	20029.				
	100	PJ-C				35838.	28670.				
	80	PL	125	100	—	29871.	22136.				
	100	PL-C				40725.	32580.				
	80	RG				65	35	18	23702.	15222.	
	100	RG-C							31312.	22832.	
1600	80	RK	65	65	65	26458.	17978.				
	100	RK-C				39782.	31302.				
	80	RJ	100	65	25	26458.	17978.				
	100	RJ-C				39782.	31302.				
	80	RL	125	100	50	30973.	22493.				
	100	RL-C				44297.	35817.				
	80	RG				65	35	18	32065.	25705.	
	100	RG-C							39676.	33316.	
2000	80	RK	65	65	65	34821.	28461.				
	100	RK-C				42040.	35680.				
	80	RJ	100	65	25	34821.	28461.				
	100	RJ-C				42040.	35680.				
	80	RL	125	100	50	39337.	32977.				
	100	RL-C				46555.	40195.				
	80	RG				65	35	18	44414.	35935.	
	100	RG-C							52025.	45665.	
2500	80	RK	65	65	65	47170.	40810.				
	100	RK-C				73553.	67193.				
	80	RJ	100	65	25	47170.	40810.				
	100	RJ-C				73553.	67193.				
	80	RL	125	100	50	51686.	45326.				
	100	RL-C				78069.	71709.				

Circuit Breaker Trip Unit						
Trip Unit	Option	Price Adder	A	Z1	Z2	Z3
LI	LI	Standard	\$ 4950.	—	—	—
LS	LS	\$ 4950.	4950.	—	\$ 1357.	—
LSI	LS	4950.	4950.	—	1357.	—
LIG	LIG	4950.	—	—	—	\$ 1357.
LSG	LSG	9900.	—	\$ 2714.	1357.	1357.
LSIG	LSG	9900.	—	2714.	1357.	1357.

Definitions

A=Ground fault alarm only.
 1. Local Indication using RIM32, Aromat Relay, CPT, Pilot light or
 2. Using PowerLogic for remote indication.
 Z1=Short-time and ground fault zone selective interlocking, wired.
 Z2=Short-time zone selective interlocking only, wired.
 Z3=Ground fault zone selective interlocking only, wired.

PowerPact with Micrologic Electronic Trip Molded Case Circuit Breakers—Individually Mounted Accessories

Auxiliary Contacts:		Alarm Switch:		Overcurrent Trip Switch:		Shunt Trip:	
(1a+1b Form C)	\$ 466.	(1a+1b Form C)	\$ 466.	(1a+1b Form C)	\$ 466.	120 Vac Shunt Trip	\$ 1198.
(2a+2b Form C)	647.					Shunt Trip w/Communications	2226.
(3a+3b Form C)	848.						
6 Programmable Contact Module Form C (Power and Harmonic Trip Units Only)							\$ 5003.
Extra Control Power Transformer (only one required per vertical section)							890.
Electrical Operators (PowerPact P-frame only; do not use for transfer schemes)							5703.
Ground Fault Alarm Indication and Contacts (For Ground Fault No-Trip, requires Programmable Contact Module)							
Audible Indication							445.
Visual Indication							445.
Audible and Visual Indication							890.
Ground Fault Push-To-Test Feature factory wired for 120 Vac							890.
Universal Test Set							12784.
Phase Failure and Capacitor Trip							11289.
Padlock Attachment for PowerPact P- and/or R-frame							32.
Key Interlock Provisions with Lock (price is per lock)							201. 1897.
Undervoltage Trip non ADJ							1198.
Undervoltage Trip ADJ							1261.

Group Mounted—I-Line

Interior Pricing (Interior pricing only; price main, structure, and CIC separately)

Combination or Full	Interior Height	Single or Double Row (S = Single; D = Double)	Maximum Ampacity	Section Width (in.)—“XX”	Max. Circuit Breaker Frame Left	Max. Circuit Breaker Frame Right	Mounting Space Left (in.)	Mounting Space Right (in.)	Mounting Space Total (in.)	IMD BP Main	IMD PowerPact M Main	IMD PowerPact P Main	IMD PowerPact R Main	CIC (Main Lug or Through Bus♦)	Utility Compartment (UCT)	End-fed Interior	Center Fed Connector Height and Location	List Price		
																		AI	Cu	
Combination Section— Controlling Device and Interior	27	S2736	2000	36	P	—	18	0	18	S	—	—	—	—	—	No	9L	\$ 2133.	\$ 5850	
		D2736	2000	36	K	F	18	27	45	S	—	—	—	—	—	No	9L	2731.	5875.	
		D2742	2000	42	L	J w.o. GF	18	27	45	S	—	—	—	—	—	No	9L	2731.	5875.	
		D2748	2000	48	P	J w/out GF or Q	18	27	45	S	—	—	—	—	—	No	9L	2731.	5875.	
	36	S3636	1000	36	P	—	27	0	27	—	—	—	—	—	S	No	9L	3105.	6271.	
		D3642	1000	42	L	J w/out GF	27	36	63	—	—	—	—	—	S	No	9L	4281.	7441.	
		D3648	1000	48	P	J w/out GF or Q	27	36	63	—	—	—	—	—	S	No	9L	4281.	7441.	
	36E	S3636E	2000	36	P	—	36	0	36	—	S	S	S	S	—	Yes	—	6810.	12721.	
		D3642E	1200	42	P	J w/out GF or Q	36	36	72	—	S	S	—	—	—	Yes	—	7858.	7858.	
		D3648E	2000	48	R	J w/out GF or Q	36	36	72	—	S	S	S	—	—	Yes	—	12821.	12821.	
Full Height Interior	63	S63XX16	1600	36, 42, 48	R	—	63	0	63	A	A	A	A	A	A	No	—	4244.	10000.	
		S63XX16	1600	42, 48, 54	R	—	63	0	63	—	—	—	—	S	—	No	—	4244.	10000.	
		S63XX20	2000	36, 42, 48	R	—	63	0	63	A	A	A	A	A	A	No	—	8337.	11667.	
		S63XX20	2000	42, 48, 54	R	—	63	0	63	—	—	—	—	S	—	No	—	8337.	11667.	
		S63XX25	2500	36, 42, 48	R	—	63	0	63	A	A	A	A	A	A	No	—	8625.	14175.	
		S63XX25	2500	42, 48, 54	R	—	63	0	63	—	—	—	—	S	—	No	—	8625.	14175.	
		S63XX30	3000	36, 42, 48	R	—	63	0	63	A	A	A	A	A	A	No	—	15435.	15435.	
		S63XX30	3000	42, 48, 54	R	—	63	0	63	—	—	—	—	S	—	No	—	15435.	15435.	
		D6336	2000	36	K or Q	F	54	63	117	A	A	A	A	A	A	A	No	9L	6435.	12051.
		D6342	2000	42	L	J	54	63	117	A	A	A	A	A	A	A	No	9L	7605.	14040.
	D6348	2000	48	R	J	54	63	117	A	A	A	A	A	A	A	No	9L	11700.	17550.	
	D6354	3000	54	R	J	63	45	108	A	A	A	A	A	A	A	No	R18	23526.	23526.	

- ▲ Combination sections are not available in Canada.
- Only Combo interior to allow placement of up to four H-, J-, or L-frame PowerPact with Micrologic 5/6 trip units for LSIG applications.
- ♦ CIC Main Lugs available in same section as 63 in., full height, single row interior or in adjacent auxiliary section with through bus.

NOTES:

- Additional section width on 63 in., full height, single row interiors to allow for optional lugs on feeder circuit breakers and for customer metering in CIC (main lug) sections.
- Pricing shown for 63 in., full height, is for the interior only. For CIC (Main Lug) applications, add list adder for incoming lugs from page 5.
- CIC = Common incoming connector (Main Lugs)
- 36E = End Fed Interior
- S = Same Section (Combo Section)
- A = Adjacent Section
- — = Not available

I-Line Group Mounted Molded Case Circuit Breakers

Price includes molded case circuit breakers arranged in group mounted I-Line construction. Maximum ampacity of section (vertical) bus in I-Line switchboard is 3000 amperes. Refer to page 15 for mounting space per section. Mag-Gard™ circuit breakers are not available in switchboard I-Line construction.

Thermal Magnetic and Basic Electronic Trip

I-Line C/B			SCCR (X 1000)					Height (In.)			List Prices				
Frame	% Rated	Amps Range	600 V	480 V	277 V	240 V	120 V	3-P	2-P	1-P	3-P	2-P	1-P		
FA	80	15-60	—	—	—	10	10	4.5	3	1.5	\$ 678.	\$ 488.	\$ 265.		
		70-100	—	—	—	—	—	—	—		912.	689.	392.		
FA	80	15-60	—	—	18	18	18	4.5	3	1.5	1081.	774.	371.		
		70-100	—	—							1124.	943.	424.		
HD	80	15-60	14	18	18	25	4.5	3	3	1.5	1102.	869.	—		
		70-100									—	—	1325.	1049.	—
		110-150									—	—	1717.	1442.	—
QB	80	70-100	14	18	18	25	4.5	3	3	1.5	1950.	1717.	—		
		110-150									—	—	3053.	2396.	—
JD	80	70-225	—	—	—	10	10	4.5	4.5	1.5	1844.	615.	—		
		150-225	14	18	18	25	—				—	3159.	2523.	—	
LA	80	250	—	—	—	—	—	9	9	1.5	5067.	4176.	—		
		125-400	22	30	—	42	—				6	6	—	5311.	4314.
MG (Basic Electronic)	80	300-400	18	35	—	65	—	9	9	1.5	6837.	5311.	—		
		450-600									—	—	8809.	6837.	—
		700-800									—	—	11035.	8851.	—
PG (Basic Electronic)	80	600-1200	18	35	35	65	—	—	—	—	20161.	18317.	—		
FJ▲	80	15-70	—	—	—	65	—	—	—	1.5	—	—	700.		
FH	80	15-60	18	25	25	65	—	4.5	3	1.5	1696.	1484.	572.		
		70-100									—	—	1738.	1611.	636.
HG	80	15-60	18	35	35	65	—	4.5	3	1.5	—	2120.	1717.	—	
		70-100									—	—	2735.	1929.	—
		110-150									—	—	4134.	3625.	—
QD	80	70-225	—	—	—	25	—	—	—	—	2396.	1410.	—		
QG	80	70-225	—	—	—	65	—	—	—	—	3604.	3498.	—		
JG	80	150-225	18	35	35	65	—	4.5	4.5	1.5	4569.	3604.	—		
		250									—	—	5618.	4452.	—
QJ■	80	70-225	—	—	—	100■	—	—	3	—	4198.	3922.	—		
LH	80	125-400	25	35	35	65	—	6	6	1.5	5724.	5512.	—		
		300-400									—	—	11194.	8968.	—
		450-600									—	—	11830.	9222.	—
MJ (Basic Electronic)	80	700-800	25	65	65	100	—	9	9	1.5	14384.	10950.	—		
		600-1200									—	—	21582.	19398.	—
PJ (Basic Electronic)	80	600-1200	—	—	—	—	—	—	—	—	24051.	21624.	—		
PK (Basic Electronic)	80	600-1200	50	50	—	65	—	9	9	—	—	—	—		
		15-60	—	—	—	—	—	—	—	—	2332.	2120.	—		
		70-100	25	65	65	100	—	—	—	—	—	2862.	2512.	—	
HJ	80	110-150	—	—	—	—	—	—	—	—	—	5024.	4431.	—	
		15-60	—	—	—	—	—	—	—	—	—	4240.	3498.	—	
		70-100	50	100	100	125	—	—	—	—	—	4378.	3689.	—	
HL	80	110-150	—	—	—	—	—	—	—	—	—	7102.	5936.	—	
		150-225	25	65	65	100	—	—	—	—	—	6604.	5883.	—	
JJ	80	250	—	—	—	—	—	—	—	—	—	8374.	7208.	—	
		150-225	50	100	100	125	—	—	—	—	—	7759.	6466.	—	
JL	80	250	—	—	—	—	—	—	—	—	—	9116.	7526.	—	
		150-225	100	200	200	200	—	4.5	4.5	—	—	11576.	9261.	—	
JR	80	250	—	—	—	—	—	—	—	—	—	14548.	11639.	—	
		600-1200	50	100	100	125	—	9	9	—	—	26511.	23824.	—	

▲ Not available for use on 480 Delta rated systems
■ 208Y/120 systems only

Electronic Trip—Standard and Advanced

I-Line Circuit Breaker			SCCR (X 1000)					Height (in.)			List Price						
Frame	% Rated	Ampere Range	600 V	480 V	277 V	240 V	120 V	3-P	2-P	1-P	3-P	2-P	1-P				
HD	80	15-60	14	18	25	25	—	4.5	4.5	—	1790	1432	—				
		35-100					—			2102	1682	—					
		50-150					—			3756	3005	—					
HG	80	15-60	18	35	65	65	—	4.5	4.5	—	2110	1688	—				
		35-100					—			2380	1904	—					
		50-150					—			4848	3878	—					
HJ	80	15-60	25	65	100	100	—	4.5	4.5	—	2703	2162	—				
		35-100					—			2898	2318	—					
		50-150					—			6895	5516	—					
HL	80	15-60	50	100	125	200	—	4.5	4.5	—	4027	3222	—				
		35-100					—			4263	3410	—					
		50-150					—			8943	7154	—					
HR	80	15-60	100	200	200	200	—	4.5	4.5	—	5638	4510	—				
		35-100					—			5968	4774	—					
		50-150					—			12520	10016	—					
JD	80	70-250	14	18	25	25	—	4.5	4.5	—	4013	3210	—				
JG		70-250	18	35	65	65	—			—	5082	4065	—				
JJ		70-250	25	65	100	100	—			—	7231	5784	—				
JL		70-250	50	100	125	125	—			—	9381	7505	—				
JR		70-250	100	200	200	200	—			—	13133	10506	—				
LD		80	70-250	14	18	25	25			—	6	6	—	5378	4302	—	
			125-400							—			5378	4302	—		
			200-600							—			7775	6220	—		
LG		80	70-250	18	35	65	65			—	6	6	—	5645	4516	—	
			125-400							—			5645	4516	—		
			200-600							—			8167	6534	—		
LJ		80	70-250	25	65	100	100			—	6	6	—	9212	7369	—	
	125-400		—					9212	7369	—							
	200-600		—					11378	9102	—							
LL	80	70-250	50	100	125	125	—	6	6	—	10724	8579	—				
		125-400					—			10724	8579	—					
		200-600					—			12738	10191	—					
LR	80	70-250	100	200	200	200	—	6	6	—	12332	9866	—				
		125-400					—			12332	9866	—					
		200-600					—			14649	11719	—					
LD-C	100	70-250	14	18	25	25	—	9	9	—	6292	5034	—				
		125-400					—			6292	5034	—					
LG-C		70-250	18	35	65	65	—			9	9	—	6604	5284	—		
		125-400					—					6604	5284	—			
LK-C		70-250	25	65	100	100	—					9	9	—	10778	8622	—
		125-400					—							10778	8622	—	
LL-C	70-250	50	100	125	125	—	9	9	—					12547	10037	—	
	125-400					—			12547					10037	—		
LR-C	70-250	100	200	200	200	—			9	9	—			14429	11543	—	
	125-400					—					14429			11543	—		
PG	80	250-400	18	35	—	65					—	9	9	—	\$10462.	\$ 8374.	—
		450-600									—			13441.	10770.	—	
		700-800					—	15783.			12635.			—			
		1000-1200					—	22313.			17850.			—			
RG-C	100	1000-1200	—	—	—	—	15	15	—	25928.	20755.	—					
PK	80	250-400	50	50	—	65	—	9	9	—	13780.	11035.	—				
		450-600					—			16759.	13420.	—					
		700-800					—			19101.	15285.	—					
		600-1200					—			27369.	21868.	—					
PJ	80	250-400	25	65	—	100	—	9	9	—	11522.	9222.	—				
		450-600					—			14501.	11618.	—					
		700-800					—			16843.	13483.	—					
LXI	80	100-250	100	200	—	200	—	7.5	7.5	—	17554.	14490.	—				
		160-400					—			22186.	19303.	—					
		240-600					—			33008.	29277.	—					
PL	80	250-400	50	100	—	125	—	9	9	—	16038.	12847.	—				
		450-600					—			19016.	15222.	—					
		700-800					—			21359.	17087.	—					
PG-C	100	250-400	18	35	—	65	—	9	9	—	12370.	9900.	—				
		450-600					—			15561.	12466.	—					
		700-800					—			17691.	14162.	—					
PK-C	100	250-400	50	50	—	65	—	9	9	—	16472.	13176.	—				
		450-600					—			19557.	15656.	—					
		700-800					—			21794.	17437.	—					
RK-C	100	600-1200	65	65	—	65	—	15	15	—	31429.	25154.	—				
PJ-C	100	250-400	25	65	—	100	—	9	9	—	13430.	10748.	—				
		450-600					—			16621.	13314.	—					
		700-800					—			18751.	15010.	—					
RJ-C	100	1000-1200	—	—	—	—	—	15	15	—	28313.	22663.	—				
PL-C	100	250-400	50	100	—	125	—	9	9	—	19504.	15603.	—				
		450-600					—			22483.	17999.	—					
		700-800					—			24825.	19684.	—					
RL-C	100	1000-1200	—	—	—	—	—	15	15	—	34535.	27645.	—				

PowerPact with Micrologic Trip Mission Critical Circuit Breakers

I-Line Circuit Breaker			SCCR (x 1000)					Height (in.)			List Price		
Frame	% Rated	Ampere Range	600 V	480 V	277 V	240 V	120 V	3-P	2-P	1-P	3-P	2-P	1-P
JD	80	70-250	14	18	25	25	—	4.5	4.5	—	\$ 4655.	—	—
JG		70-250	18	35	65	65	—			—	5844.	—	—
JJ		70-250	25	65	100	100	—			—	8246.	—	—
JL		70-250	50	100	125	125	—			—	10650.	—	—
LD		70-250	14	18	25	25	—	6	6	—	6675.	4302.	—
		125-400					—			6675.	4302.	—	
		200-600					—			9497.	6220.	—	
LG		70-250	18	35	65	65	—			—	6989.	4516.	—
		125-400					—			6989.	4516.	—	
		200-600					—			9959.	6534.	—	
LJ		70-250	25	65	100	100	—	—	11191.	7369.	—		
		125-400					—	11191.	7369.	—			
		200-600					—	13744.	9102.	—			
LL		70-250	50	100	125	125	—	—	12973.	8579.	—		
		125-400					—	12973.	8579.	—			
		200-600					—	18577.	10191.	—			

The following branch circuit breakers are available on Canada I-Line.

QO Adapter—240 Vac, 30 A Max. Branch Circuit Breakers

Catalog No.	Number of Poles	Mounting Height (in.)	List Price
HQO206AB	2	4.5	\$ 1476.
HQO206BC			
HQO206AC			
HQO306	3		

QO Plug-On Circuit Breakers

Frame	Amps Range	KAIC @ 240 V	List Price		
			1-Pole	2-Pole	3-Pole
QO	15-30	10	\$ 19.40	\$ 44.70	\$ 165.00
QO-VH		22	42.30	97.00	247.00
QH		65	78.00	195.00	338.00

Item	List Price	Auxiliary Contacts		Alarm Switch	
		Type	List Price	Type	List Price
Undervoltage release	\$ 1198.	(1A + 1B)	\$ 466.	F,H,J,K,L	\$ 276.
Overcurrent Trip Switch	466.	(2A + 2B)	647.	M,N,P,R	488.
Phase Monitor and Capacitor Trip	11289.	(3A + 3B)	848.		
Universal test set (LE,ME,NE / P,R)	12784. / 22324.				
120 Vac shunt trip					
F,H,J,K,L	647.				
M,N,P,R	1198.				

Item	List Price
6 Programmable contact module	\$ 5003.
Mechanical interlock between two circuit breakers, (reference Class 2110 for restrictions), 3 in. of mounting space	1569.
Key interlock, Schneider Electric: Requires 3 inches of mounting space for all circuit breakers except F, H, J, L, M, P, R	1897. 3795.
Motor operators: Available for FA/FH, LA/LH. Each motor operator requires 4.5 in. mounting height. Available for HD/HG/HJ/HL, JD/JG/JJ/JL thermal magnetic breakers. Does not require additional mounting height.	
FA/FH, HD/HG/HJ/HL, JD/JG/JJ/JL (Do not use motor-operated circuit breakers for transfer schemes.)	1272. 3275.
LA/LH (Do not use motor-operated circuit breakers for transfer schemes.)	4123.
PG/PJ/PL motor operators require no additional mounting space	4717.
Plug-on HQO distribution panel (maximum voltage 240 Vac)	297.
Add-on ground fault module for FA, FH, FC/FI, HD/HG/HJ/HL, JD/JG/JJ/JL circuit breakers; requires one CPT per vertical section.	
Price includes shunt trip.	4484.
(Space only. Includes ground fault sensor for frame selected)	297.
L, M, P, R ground fault space only. Includes sensor for appropriate circuit breaker	668.
Padlock attachment for Q, H, J, M, P, R	32.
Cylinder lock available on FA, LA circuit breakers	636.
Undervoltage trip. Supply drops to a value between 35%–70%	1198.
Undervoltage trip with time delay adjustable, 0.5, 0.9, 1.5, 3.0 seconds	1802.

Blank Extensions and Fillers

Required for all circuit breakers 250 A frame and below to cover the open space between the circuit breaker and front cover. Blanks extensions and fillers are included at \$0 List Price when required for factory assembled line-ups.

Application	Circuit Breaker Mounting Height	I-Line Interior Mounting Side	Catalog Number
PowerPact H- or J-frame circuit breakers with Micrologic 5/6 trip units	4.5 in.	Narrow Side	HLN4EBL
PowerPact H- or J-frame circuit breakers with Micrologic 5/6 trip units	4.5 in.	Wide Side	HLW4EBL
All other circuit breakers frames, 250 A and below	1.5 in.	Narrow Side	HLN1BL
	4.5 in.	Narrow Side	HLN4BL
All other circuit breakers frames, 250 A and below	1.5 in.	Wide Side	HLW1BL
	4.5 in.	Wide Side	HLW4BL
Blank Fillers—for future space	1.5 in.	Either	HNM1BL
	4.5 in.	Either	HNM4BL

Bolt-Loc Type BP Switches

Price includes bolted pressure contact, single throw, 100% rated, load break switch with dead front operating handle, fuse compartment hinged door, card holder, and connections to main bus. **Fuses are not included.** Bolt-Loc Type BP switches are suitable for use on circuits capable of delivering 200,000 rms symmetrical amperes when used with NEMA Class L fuses. Space mounting charges include the same features as above, except do not include the switches or operating handles. All switches are quick-make quick-break.

Switch Type	Switch Rating (Amperes)	List Price Each (600 Vac Maximum, 2- or 3-Pole)▲						Space and Mounting Provisions For Future Switch	Mounting Height■ (in.)		
		Standard Feed			Inverted Feed				Mid.	Top	Bottom
		Manual	Electric▼	GFP◆★	Manual	Electric▼	GFP◆★				
Bolt-Loc Type BP	800 A	\$ 24168.	\$ 30051.	\$ 43555.	\$ 27221.	\$ 35976.	\$ 46608.	\$ 8724.	45	36	36
	1200 A	27624.	33507.	47011.	30676.	39432.	50064.	9657.			
	1600 A	29903.	35786.	49290.	32955.	41711.	52343.	11777.			
	2000 A	38202.	44085.	60197.	41255.	50011.	63250.	14374.	45	N/A	45▼
	2500 A	44393	50276.	68783.	47466.	56201.	71836.	16727.			
	3000 A	73500.	79383.	97891.	76553.	85309.	102396.	26383.			
	4000 A	96693.	102576.	122536.	99746.	108502.	125589.	33687.			
	5000 A△	116028.	121911.	141870.	119080.	127836.	144923.	36750.	72	N/A	72

NOTE: When stacking two switches in a section, the switches are maximum of 800 A top/2000 A bottom, and the top switch must be priced as an inverted feed.

Fusible Switch Accessories

Item	List Price
Electric trip (requires either Control Power Transformer priced from below or 120 Vac external power)	\$ 5883.
Control Power Transformer	890.
Capacitor Trip Power Supply, Class 9810. (Eliminates need for separate control source. Price Electric Trip above; Control Power Transformer not required.) Add	2714.
Blown Main Fuse Detector (requires electric Trip and a 120V power source for Tripping Switch)	1654.
Phase Monitor (Protects three-phase power systems or individual motors from operating under conditions of voltage imbalance (adj.), low voltage (adj.), phase reversal. Adjustable trip time delay standard. Use electric trip or GFP price with capacitor trip for tripping BOLT-LOC (add price from above).	
2500 Phase Monitor: Trip on all three above except no trip on loss of all phases, most commonly used.	8575.
2501 Phase Monitor: Trip on all three above with trip on loss of all phases.	8575.
Key Interlock (Kirk type), each switch, add (For Main-Tie-Main, price 6 Interlocks - 2 for Main 1, 2 for tie, 2 for Main 2)	1897.
Unfused Switch (Not UL Listed, unless used as a tie switch)	No Deduct
Auxiliary Switch:	
1 NO + 1 NC	1092.
2 NO + 2 NC	1304.
Zone Selective Interlocking Interface (120 V source required; one RIM 32 required per each 25 SE, PE, NE, ME, or LE to GC-100 combination)	3403.
Ground Fault Push-To-Test Feature (With and Without Trip) factory wired for 120 Vac	No Charge
Padlock Attachment	No Charge

NEMA Class L Fuses (Installed)

Ampere Rating	Qty.	List Price	
		KRP-C	KTU
601–1200 A	3	\$ 5756.	\$ 7250.
1201–1600 A	3	6487.	9763.
1601–2000 A	3	7823.	12752.
2001–3000 A	3	13738.	—
3001–4000 A	3	18730.	—
4001–5000 A	3	29987.	—

- ▲ UL procedure does not exist for dc ratings; therefore, no UL label available for this section.
- Refer to layout manual (Class 2741 or Class 2742) for stacked BP devices.
- ◆ GFP is ground fault protection. Price includes zero sequence Type GC ground fault, electric trip, and control power transformer.
- ★ For ground fault applications involving competitor products, or for systems with greater than 3 disconnects, contact your local assembly plant for special pricing.
- ▼ 3000A can be mounted in same section as 45 in. high CT compartment, but not with circuit monitor metering.
- △ UL procedure does not exist above 4000 A; therefore, no UL label is available for this section with ANY manufacturer's fusible switch.

Fusible Switches

Prices include quick-make quick-break QMB units arranged in group construction, mounting of switches, and mounting pan. Short circuit rating of QMB switches and panel is equal to the lowest fuse interrupting rating to be installed in the switches. **Fuses are not included.**

DC ratings available on 2-pole switches only. For dc short circuit current rating, contact the fuse manufacturers.

Fully Prepared Space includes all of the necessary hardware and connectors to mount a QMB/J fusible switch.

A twin fusible switch equipped with a blank **cannot** be equipped with a fusible switch in the future.

Switch Type	Ampere Rating	240 Vac/250 Vdc Maximum					600 Vac/250 Vdc Maximum				
		Class H, J, R or L Fuse Provisions					Class H, J, R or L Fuse Provisions				
		List Price			QMB Size (in.)	QMJ Size (in.)	List Price			QMB Size (in.)	QMJ Size (in.)
		3-Pole	2-Pole	Fully Prepared Space			3-Pole	2-Pole	Fully Prepared Space		
Twin Switch	30 A–30 A	\$ 2427.	\$ 1632.	\$ 382.	4.5▲	4.5	\$ 3487.	\$ 2968.	\$ 382.	4.5	4.5
	30 A–Blank	1823.	1230.	382.	4.5▲	4.5■	2618.	2226.	382.	4.5	4.5
	30 A–60 A	—	—	—	—	—	2427.	2427.	1823.	6	6
	30 A–100 A	—	—	—	—	—	3085.	3085.	2321.	7.5	7.5
	60 A–60 A	2427.	1632.	382.	4.5▲	6	3487.	2968.	636.	6	6
	60 A–Blank	1823.	1230.	382.	4.5▲	6■	2618.	2226.	636.	6	6
	60 A–100 A	—	—	—	—	—	3085.	3085.	2321.	7.5	7.5
	100 A–100 A	3085.	2449.	636.	6▲	6	5088.	4323.	636.	7.5	6
	100 A–Blank	2321.	1844.	636.	6▲	6	3583.	3254.	636.	7.5	6
	200 A–200 A	8715.♦	7407.♦	636.♦	—	7.5	8715.♦	7407.♦	636.♦	—	7.5
Single Switch	200 A	3530.	3000.	763.	9▲	—	4357.	3710.	763.	9	—
	400 A	5258.	3297.	1272.	15	9	8406.	7144.	1272.	15	9
	600 A	7339.★	5120.★	1272.★	15	15	9657.★	8215.★	1272.★	15	15
	800 A	11543.	9816.	1272.	15	15	15476.	13155.	1272.	15	15
	1200 A	19250.▼	16356.▼	2035.	24	24	19250.▼	16356.▼	2035.	24	24

Single Main Fusible Switch▲

Switch Type	Ampere Rating	240 Vac/250 Vdc Max. Class H, R, or L Fuse Provisions List Price		600 Vac/250 Vdc Max. Class H, J, R or L Fuse Provisions List Price		Size (in.)	Feeder Mounting (in.)		Optional Fuses Installed (Qty. = 3)	
		QMB Switch▲					Top Feed	Bottom Feed	Class L	
		3-Pole	2-Pole	3-Pole	2-Pole				KRP-C	KTU
Single Switch	400 A	\$ 6180.	\$ 3869.	\$ 9869.	\$ 8385.	25.5	46.5	45	—	—
	600 A	9996.★	5894.★	11119.★	9445.★	25.5	46.5	45	—	—
	601–800 A	15730.	13373.	21083.	17925.	25.5	46.5	45	\$ 5756.	\$ 7250.

Key Interlock for 100–800 A **\$1897**. Add 3 in. to each switch, except 100 A, which requires 9 in.

Electrical Interlocks **\$530**. For 30–100 A feeder switches or 200 A Class J feeder switches.

Group Mounted—QMB

Interior Pricing (Interior pricing only. Price main and structure separately.)

Combination or Full	Interior Height	Maximum Ampacity	Section Width (in.)	Maximum Switch	IMD BP Main	CIC (Main Lug or Through Bus□)	Utility Compartment (UCT)	Al List Price	Cu List Price
Combo	30	2000	36	400	S	—	—	\$ 5,167.	\$ 5167.
			42	800	S	—	—	5167.	5167.
Full	63	2000	36	400	A	—	A	4900.	6825.
			42	1200	A	—	A	4900.	6825.
	63	2500	36	400	A	—	A	5100.	7213.
			42	1200	A	—	A	5100.	7213.
			48	(2) 1200	A	—	A	6700.	9375.
	72	2000	36	400	A	—	A	5600.	7800.
42			1200	A	—	A	5600.	7800.	
		3000	48	(2) 1200	A	—	A	12400.	12400.

- ▲ Use 600 Vac size for QMB with Class J fuse provisions.
- Use QMB twin switches.
- ♦ Available only in a QMJ switch.
- ★ 100,000 A short circuit current rating with Class R fuses to 600 Vac.
- ▼ 1200 A is a branch switch or group mounted six disconnect main with Class L fuses. This switch is suitable for use on systems to 600 Vac maximum at 100,000 A rms. A single main switch 1200 A must be a Bolt-Loc.
- △ Available on non-service entrance switchboards in Canada.
- CIC Main Lugs available in same section as 63 in., full height, single row interior or in adjacent auxiliary section with through bus.

NOTES:

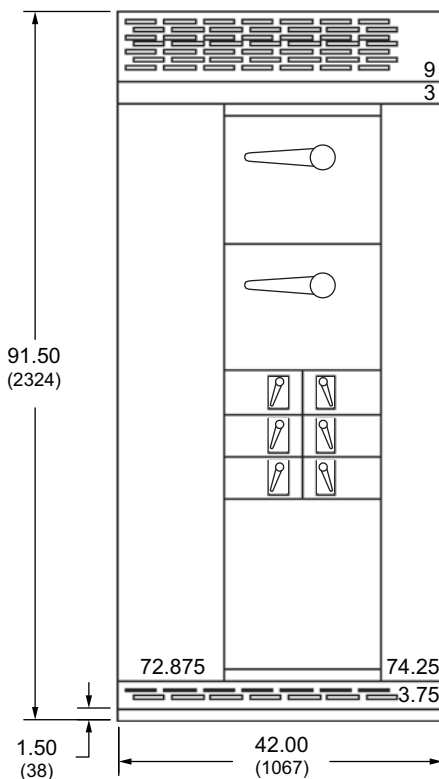
- CIC = Common incoming connector (Main Lugs)
- S = Same Section (Combo Section)
- A = Adjacent Section
- — = Not available

Group Mounted—QMQB (Canada Only)

QMQB Interior—Cu \$ 10494.

Switch Type	Ampere Rating	600 Vac/250 Vdc Maximum		
		Class H, J, R, or L Fuse Provisions		QMQB Size (in.)
		List Price		
		3-Pole	Fully Prepared Space	
Twin switch	30A-30A	\$ 3487.	—	5.5
	60A-60A	3487.	—	5.5
	100A-100A	5088.	—	5.5
Single Switch	200A	4357.	—	9.65
	400A	80406.	—	16.5
	600A	9657.	—	16.5
	800A	15476.	—	19.25
	1200A	19250.	—	42.625 or 52.25▲

▲ If top exit size is 42.625 in., then bottom exit size is 52.25 in.

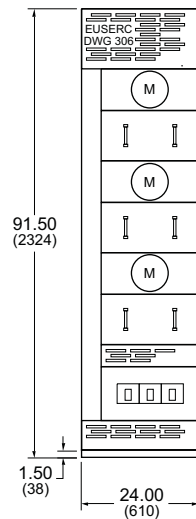


Tenant Main Structure Selection

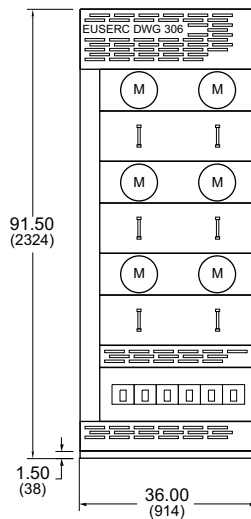
EUSERC structures are available in either three-socket or six-socket configurations. Lever bypass structures are available in a three-socket configuration only. Tenant mains can be circuit breaker or fusible pullout. Standard arrangement is for bottom cable exit, or top cable exit using the built-in loadside wireway. Rear wireway is not available for these structures. For pricing of meter sockets and disconnects, refer to page 24.

Tenant Main Structure

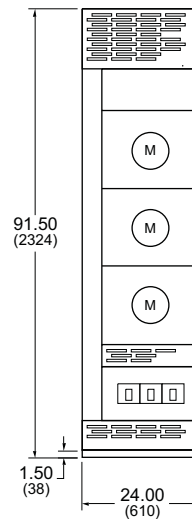
Volts	Structure	Ampacity	3-Socket Section		6-Socket Section
			Al List Price	Cu List Price	List Price
120/240, 208Y/120, 240/120, or 480Y/277	Circuit Breaker or Fusible	400 A	\$ 4982.	\$ 6678.	Refer to QED Section Charge on page 31
		600 A	5088.	6784.	
		800 A	5406.	7102.	
		1200 A	6148.	8321.	
		1600 A	7102.	9222.	
		2000 A	7685.	10282.	
		2500 A	9381.	12296.	
		3000 A	10653.	14310.	
		4000 A	—	14840.	



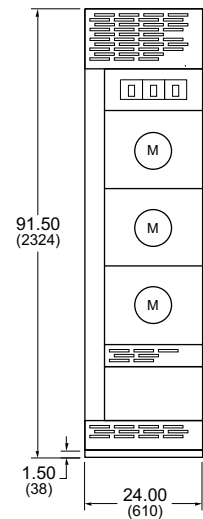
EUSERC 3-Socket Section



EUSERC 6-Socket Section



Hot Sequence



Cold Sequence

Loadside and Rear Wireway for Large Tenant Mains (Top Exit of Load Conductors)

Item	Width ▲	Bus Material	Maximum Ampacity	List Price
Loadside Wireway — Bussed	12 in.	Al	2500 A	\$ 4500.
		Cu		6075.
	24 in.	Al	1200 A	5495.
			2500 A	10335.
		Cu	1200 A	8376.
			2500 A	12572.
4000 A	18200.			
Loadside Wireway — Non-Bussed	12 in.	N/A	N/A	3300.
	24 in.			5300.
Rear Wireway ■	N/A			3409.

▲ 12 in. wide loadside wireway is available for NEMA Type 1 enclosures only. For NEMA Type 3R enclosures, use 24 in wide loadside wireway.
■ 400–2500 A adds 12 in. to depth of structure. For 3000 A and 4000 A, there is no change to depth. Available for NEMA Type 1 enclosures only. For NEMA Type 3R enclosures, select loadside wireway.

Meter Sockets and Disconnects

Meter sockets are self-contained, 200 A maximum, and contain lugs for both lineside and loadside terminations. Tenant main disconnect is either circuit breaker or class T fusible pullout, 200 A maximum. EUSERC meter sockets are ring-type for use on 240/120 V, 208Y/120 V, and 480Y/277 V, 3Ø4W; or 120/240 V, 1Ø3W. Non-EUSERC or Lever Bypass meter sockets are ringless-type for use on 480Y/277 V, 3Ø4W only.

EUSERC Meter Socket with Test Block

Volts	Poles	List Price	
		3 Phase	1 Phase
240/120, 208Y/120, or 480Y/277	ABC	\$ 2279.	—
120/240 or 208Y/120	AB	—	\$ 1908.
	BC		
	AC		

Lever Bypass Meter Socket

Volts	Poles	3 Phase List Price
480Y/277	ABC	\$ 3180.

Tenant Main Disconnects—Circuit Breaker

Volts	SCCR	Amps	Standard Breaker Frame	List Price	
				3-Pole♦	2-Pole♦
240/120, 120/240, or 208Y/120	22 kA	60–100 A	FAL	\$ 1219.	\$ 943.
		110–200 A	QDL, HDL	2947.	2290.
	42 kA	60–100 A	FHL	1632.	1505.
		110–200 A	QGL, HGL, JGL	2947.	2290.
	65 kA	60–100 A	FHL	1632.	1505.
		110–200 A	QGL, HGL, JGL	4463.	4357.
	100 kA	60–100 A	QJL, HJL	2290.	1887.
		110–200 A	QJL, HJL, JJL	6784.	5777.
480Y/277	18 kA	60–100 A	FAL	1219.	N/A
		110–200 A	HDL, JDJL	2947.	
	35 kA	60–100 A	HGL	2290.	
		110–200 A	HGL, JGL	4463.	
	65 kA	60–100 A	HJL	2703.	
		110–200 A	HJL, JJL	6784.	
	100 kA	60–100 A	HLL, JLL	4505.	
		110–200 A	HLL, JLL	7632.	

NOTES: Optional breakers can be selected and will be priced according to the frame price listed in the Lever Bypass Meter Socket table above.

For cold sequence CMM: if line and load disconnect are required, both disconnects will need to be priced. Fusible pullouts are not available for the line side disconnect.

Circuit Breaker Trip Ratings

Maximum Frame	100 A	200 A
Trip Ratings	60, 70, 80, 90, 100	110, 125, 150, 175, 200

Tenant Main Disconnects—Fusible Pullout

Fusible pullouts use 300 V Class T fuses at 240 V, and 600 V Class T fuses at 480Y/277 V. **Fuses are not included.**

Volts	SCCR	Amps	3-Pole List Price
240/120, 120/240, or 208Y/120	100 k	70–100 A	\$ 1410.
		110–200 A	2544.
35–60 A		2046.	
70–100 A		2046.	
480Y/277		110–200 A	3710.

Tenant Main without Disconnect—Cabled to Terminal Block★

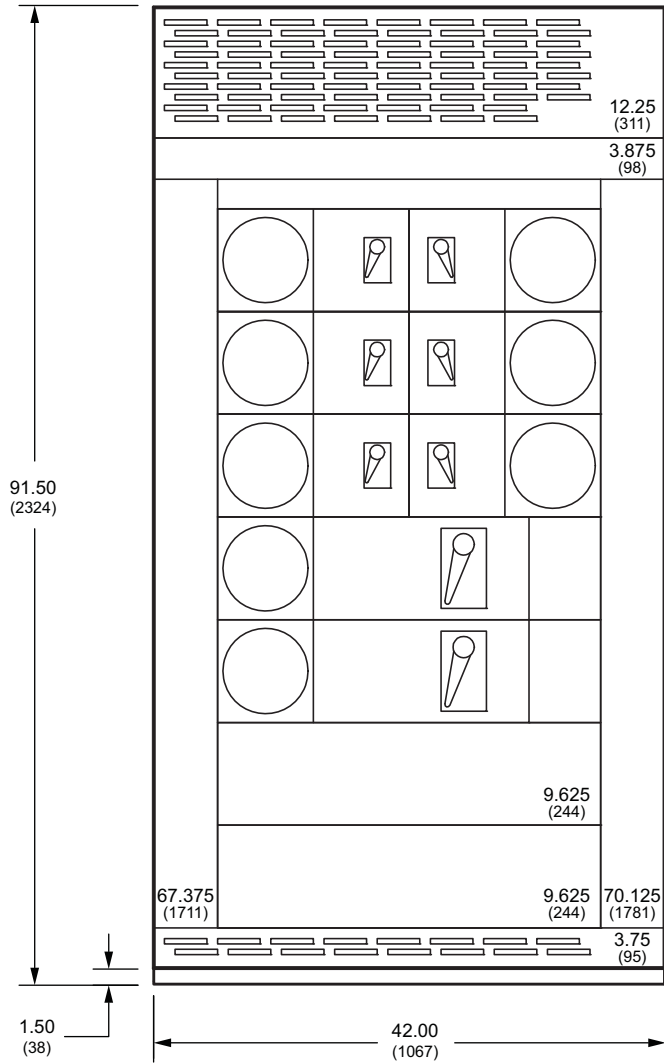
Volts	SCCR	Amps	List Price
All	N/A	60 A	\$ 424.
		100 A	424.
		200 A	424.

- ▲ Single phase units are for use on 240/120 V or 208Y/120 V systems (208Y/120 V systems require balanced loads).
- Provides a meter socket cover with cutout(s) for meter and a test block cover.
- ♦ For circuit breakers with shunt trip, add \$922. List Price. Indicate at order entry that shunt trip is required. Contact your local Schneider Electric representative for delivery.
- ★ Price meter socket from the EUSERC Meter Socket with Test Block or Lever Bypass Meter Socket tables above.

MQS Meter Sockets (Canada Only)

MQS Interior—Cu \$ 10494.

Maximum Volts	Amps	Max. Wire Size	Catalog No.	Branch Height	Fuse Type	Poles	List Price
600 Vac 250 Vdc	30-30	(1) #6 Cu/Al	MQS7-3336S	9.625 in.	J, T	3	\$ 6503.
	60-60	(1) #2 Cu/Al	MQS7-6636S				6527.
	100-100	(1) #1/0 Cu/Al	MQS7-1136S				6840.
	200	(1) 250MCM Cu/Al	MQS7-2036S				8284.



SurgeLogic Internally Mounted Surge Protective Devices (SPD) for Service Entrance Switchboards

Standard Features

- Circuit breaker disconnect
- Copper internal bus for the SPD
- Individually fused suppression modes
- UL 1449 Recognized
- On-line diagnostics continuously monitor unit
- Thermal cut-out
- Solid-state bidirectional
- Front panel alarm with test/silence switch
- Front panel operational indicators (LED) to indicate loss of protection or circuit fully operational including N-G
- High energy parallel design for Category A, B, and C3 applications
- AC tacking filter with EMI/RFI filtering up to -50dB from 100 kHz to 100 MHz

I-Line Mounted SPD▲

System Voltage ■ (Vac)	List Price									
	Surge Current Capacity (kA per phase)									
	100	120	160	200	240					
	SCCR									
	100 kA	200 kA	100 kA	200 kA	100 kA	200 kA	100 kA	200 kA	100 kA	200 kA
120/240 1P3W	\$ 18908.	\$ 20416.	\$ 20088.	\$ 21692.	\$ 23634.	\$ 25520.	\$ 29354.	\$ 30958.	\$ 34534.	\$ 36420.
208Y/120 3P4W	19750.	21260.	20984.	22588.	24688.	26574.	30740.	32342.	36164.	38050.
240/120 3P4W	19750.	21260.	20984.	22588.	24688.	26574.	30740.	32342.	36164.	38050.
480Y/277 3P4W	20602.	22110.	21898.	23492.	25752.	27638.	32130.	33734.	37800.	39686.
600Y/347 3P4W	—	23000.	—	24438.	—	28750.	—	35198.	—	41400.

QMB Mounted SPD◆

System Voltage ■ (Vac)	Surge Current Capacity (kA per phase)									
	100	120	160	200	240					
	SCCR									
	100 kA	200 kA	100 kA	200 kA	100 kA	200 kA	100 kA	200 kA	100 kA	200 kA
120/240 1P3W	\$ 18908.	\$ 20416.	\$ 20088.	\$ 21692.	\$ 23634.	\$ 25520.	\$ 19196.	\$ 30958.	\$ 23760.	\$ 36420.
208Y/120 3P4W	14310.	21260.	15654.	22588.	18586.	26574.	23596.	32342.	27440.	38050.
240/120 3P4W	19750.	21260.	20984.	22588.	24688.	26574.	23596.	32342.	27440.	38050.
480Y/277 3P4W	15410.	22110.	16754.	23492.	19686.	27638.	26896.	33734.	31460.	39686.
600Y/347 3P4W	—	23000.	—	24438.	—	28750.	26896.	35198.	31460.	41400.

Factory Installed SPD in Switchboards Metering Compartment★

System Voltage ■ (Vac)	Surge Current Capacity (kA per phase)							
	100	120	160	200	240	320	480	
	200 kA SCCR							
120/240 1P3W	\$ 16017.	\$ 17448.	\$ 30553.	\$ 23532.	\$ 28366.	\$ 34948.	\$ 48230.	
208Y/120 3P4W	18349.	19780.	22885.	28196.	32266.	38913.	54855.	
240/120 3P4W	18349.	19780.	22885.	28196.	32266.	38913.	54855.	
480Y/277 3P4W	19515.	20946.	24051.	31694.	36528.	40895.	62105.	
600Y/347 3P4W	19515.	20946.	24051.	31694.	36528.	40895.	62105.	

SPD Options

Option	List Price
Dry Contacts	Standard
Surge Counter	Standard
Remote Monitor	\$ 2588.

- ▲ Requires 13.5 in. of mounting height. Includes line-to-ground protection.
- Not available on 3Ø3W systems.
- ◆ Requires 9.0 in. of mounting height. Includes line-to-ground protection.
- ★ Requires 19.5 in. of mounting height. Includes line-to-ground protection.

Solid-State Control

NOTE: Please contact your local TAG to order automatic transfer switches.

Because of the complexity of automatic transfer switches, use careful consideration in the application, layout, and pricing of this product. The following information is required by the TAG at your local assembly plant to process your request for pricing and layout of automatic transfer switches:

1. Complete specifications for the automatic transfer switch
2. Front elevation and one-line of the switchboard
3. A copy of your takeoff and pricing (quote number, item), less the requested product pricing
4. If applicable, the manufacturer name and location, all necessary ratings, and catalog number(s) of the existing with which the automatic transfer switch is electrically connected.

Automatic Transfer Switches (Per UL 1008)

Switch Rating (Amperes)	Mounting Height (in.)		When Used With Current Limiting Fuses Class J, RK1, and L Types		When Used With Molded Case Circuit Breakers	
	Middle	Top or Bottom	Withstand Rating (RMS Symmetrical @ 480 Vac Max.)	Maximum Fuse Size (Amps)	Withstand Rating (RMS Symmetrical @ 480 Vac Max.)	Maximum Frame Size (Amps)
30	36	27	100,000	60	10,000	50
70			200,000	200	22,000	150
100			200,000	200	22,000	150
150			200,000	200	22,000	225
260	48	39	200,000	600	42,000	600
400	48	39	200,000	600	42,000	600
600	66	57	200,000	1200	50,000	2500
800	66	57	200,000	1200	50,000	2500
1000	72	63	200,000	2000	65,000	2500
1200	72	63	200,000	2000	65,000	2500
1600	72	72	200,000	3000	100,000	2500
2000	72	72	200,000	3000	100,000	2500
3000	72	72	200,000	6000	100,000	4000
4000	72	72	200,000	6000	100,000	4000

Automatic Transfer Bypass-Isolation Switches (Per UL 1008)

Switch Rating (Amperes)	Mounting Height (in.)		When Used With Current Limiting Fuses Class J, RK1, and L Types		When Used With Molded Case Circuit Breakers	
	Middle	Top or Bottom	Withstand Rating (RMS Symmetrical @ 480 Vac Max.)	Maximum Fuse Size (Amps)	Withstand Rating (RMS Symmetrical @ 480 Vac Max.)	Maximum Frame Size (Amps)
150	45	36	200,000	200	22,000	225
260			200,000	600	22,000	600
400	72	72	200,000	600	35,000	600
600			200,000	1200	50,000	2500
800			200,000	1200	50,000	2500
1000▲	72	72	200,000	2000	65,000	2500
1200▲			200,000	2000	65,000	2500
1600▲			200,000	3000	100,000	2500
2000▲			200,000	3000	100,000	2500

▲ Rear access required. Back-to-back design.

Microprocessor Control

NOTE: Please contact your local TAG to order automatic transfer switches.

Because of the complexity of automatic transfer switches, use careful consideration in the application, layout, and pricing of this product. The following information is required by the TAG at your local assembly plant to process your request for pricing and layout of automatic transfer switches:

1. Complete specifications for the automatic transfer switch
2. Front elevation and one-line of the switchboard
3. A copy of your takeoff and pricing (quote number, item), less the requested product pricing
4. If applicable, the manufacturer name and location, all necessary ratings, and catalog number(s) of the existing with which the automatic transfer switch is electrically connected.

Automatic Transfer Switches (Per UL 1008)

Switch Rating (Amperes)	Mounting Height (in.)		When Used With Current Limiting Fuses Class J, RK1, and L Types		When Used With Molded Case Circuit Breakers	
	Middle	Top or Bottom	Withstand Rating (RMS Symmetrical @ 480 Vac Max.)	Maximum Fuse Size (Amps)	Withstand Rating (RMS Symmetrical @ 480 Vac Max.)	Maximum Frame Size (Amps)
30	36	27	100,000	60	10,000	50
70			200,000	200	22,000	150
100			200,000	200	22,000	150
150			200,000	200	22,000	225
260	48	39	200,000	600	42,000	600
400	48	39	200,000	600	42,000	600
600	66	57	200,000	1200	50,000	2500
800	66	57	200,000	1200	50,000	2500
1000	72	63	200,000	2000	65,000	2500
1200	72	63	200,000	2000	65,000	2500
1600	72	72	200,000	3000	100,000	2500
2000	72	72	200,000	3000	100,000	2500
3000	72	72	200,000	6000	100,000	4000
4000	72	72	200,000	6000	100,000	4000

Automatic Transfer Bypass-Isolation Switches (Per UL 1008)

Switch Rating (Amperes)	Mounting Height (in.)		When Used With Current Limiting Fuses Class J, RK1, and L Types		When Used With Molded Case Circuit Breakers	
	Middle	Top or Bottom	Withstand Rating (RMS Symmetrical @ 480 Vac Max.)	Maximum Fuse Size (Amps)	Withstand Rating (RMS Symmetrical @ 480 Vac Max.)	Maximum Frame Size (Amps)
150	45	36	200,000	200	22,000	225
260			200,000	600	22,000	600
400	72	72	200,000	600	35,000	600
600			200,000	1200	50,000	2500
800			200,000	1200	50,000	2500
1000▲	72	72	200,000	2000	65,000	2500
1200▲			200,000	2000	65,000	2500
1600▲			200,000	3000	100,000	2500
2000▲			200,000	3000	100,000	2500

▲ Rear access required. Back-to-back design.

General Features

The following features are standard for a Square D™ brand automatic throwover system.

The standard system features a Modicon microprocessor, plug-in technology for ease of retrofit/installation and programmable capability.

Feature	Main-Tie-Main	Main-Main	Main-Generator
Standard Functions			
Automatic transfer to alternate source, automatic retransfer to normal source	✓	—	✓
Automatic transfer to alternate source, manual return normal source	—	✓	—
Bypass of retransfer delay if emergency fails	✓	✓	✓
Electrically interlocked	✓	✓	✓
Manual circuit breaker close buttons inhibited	✓	✓	✓
Transition delay (2 seconds), open and closed transition	✓	✓	✓
Source loss delay (3 seconds), before transfer	✓	✓	✓
Source stabilization timer (10 seconds) before retransfer,	✓	✓	✓
Undervoltage sensing on both sources, standard 100% nominal, 10% differential, adjustable	✓	✓	✓
Phase sequence sensing on both sources, 2 cycles	✓	✓	✓
Phase imbalance, 2%, adjustable	✓	✓	✓
Phase loss, 68% phase loss	✓	✓	✓
Auto / manual keyed switch w/ white light for auto and blue light for manual	✓	✓	✓
Control power transfer	✓	✓	✓
Full automatic mode with drawout breakers in the test position	✓	✓	✓
Open (green) / close (red) lighted push buttons	✓	✓	✓
Test switch—simulates loss of source	✓	✓	✓
Circuit breaker electrical trip lockout w/ amber light indication	✓	✓	✓
Uninterruptible power supply for 120 Vac control power	✓	✓	✓
UPS bypass relay	✓	✓	✓
Sources available (white) lights	✓	✓	✓
Operator interface panel	✓	✓	✓
Wire labels	✓	✓	✓
Fused control circuits with individual blown fuse indication	✓	✓	✓
Over-voltage sensing on generator (59), Standard 125% of nominal, 15% differential, adjustable	—	—	✓
Frequency sensing on generator (81), standard 3 Hz differential, 0.1–3 Hz, adjustable	—	—	✓
Engine start contacts, 5 A @ 120 Vac	—	—	✓
Open transition	✓	✓	✓
Remote alarm contact wired (system inoperative), 5 A @ 120 Vac	✓	✓	✓
Generator exercising unloaded, 30 minutes, once per week	✓	✓	✓
Time delay for engine cool down, 15 minutes unloaded standard	—	—	✓
Optional Functions			
Closed transition on retransfer Sync check (25), 2 seconds maximum paralleling when sources synchronized, voltage 10%–30% adjustable, phase relationship is 6° to 20°, and frequency is 0.15 Hz to 0.5 Hz	✓	✓	✓
Generator exercise with load switch	—	—	✓
Preferred source selector (Left-Off-Right), Left is standard	✓	✓	—
Automatic retransfer to normal switch	✓	✓	✓
Touchscreen HMI	✓	✓	✓

NOTES: An automatic throwover system is not approved for use as a transfer switch per UL1008.

Both sources are paralleled during a closed transition. Short circuit contribution is additive from both sources.

NOTES: Systems and options other than those listed below require special pricing from the local assembly plant. Pricing does not include the protective devices (Masterpact circuit breakers) for the utility sources or the generator source.

Pricing for automatic throwover systems include all of the standard features noted on page 29.

Features	Main-Tie-Main List Price	Main-Main List Price	Main-Generator List Price
Standard Functions			
	\$ 63929.	\$ 61342.	\$ 61342.
Optional Functions			
Automatic return from alternate source	—	488.	—
Remote alarm contact (system inoperative), 5 A @ 120 Vac	233.	233.	233.
Closed transition on retransfer Sync check (2S), 2 seconds maximum paralleling when sources synchronized, voltage 10%–30 % adjustable, phase relationship is 6° to 20° and frequency is 0.15 Hz to 0.5 Hz	6063.		6063.
Time delay for engine cool down, 15 minutes unloaded standard	—		488.
Engine generator exercising loaded or unloaded, 30 minutes once per week standard	—		488.
Preferred source selector (Left-Off-Right), Left is Standard	1293.	1293.	—
Pilot lights test switch	530.	530.	530.
Manual retransfer to normal switch	1166.	—	—

Each main, tie or generator circuit breaker must be priced from the SW-2 pricing procedure or Q2C with the accessories listed below. These circuit breakers accessories are not included in the price of the automatic throwover system.

Circuit breaker accessories required for automatic throwover system:

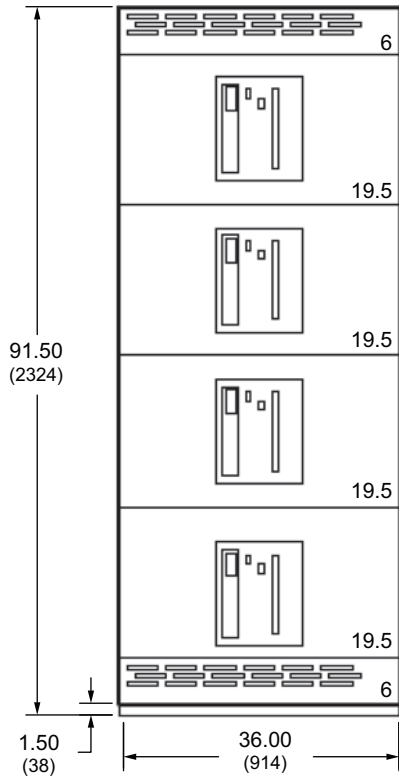
1. 120 Vac electrical operation (includes shunt close, shunt trip and electrical operator)
2. One set of auxiliary switches (one normally open and one normally closed)
3. Alarm switch (one normally open contact)
4. Cell position switch (one normally open required for drawout circuit breakers)

Automatic throwover systems are complex and may require adjustments during start-up. Voltage lower than anticipated, reversed phase sequence and unbalanced phase loading are but three examples. A one-day start-up charge is required for each system.

Four-High Vertical Section (Canada only)

The price adder for this selection is **\$15000**.

NOTE: Depth can be up to 60 in.



Structure and Bussing

Section Charge

Standard section price includes frames, side plates, rear plates, top plates, front covers, through bus, ground bus, base channels, engineering, and domestic crating and shipping. Supply bus is per UL 891 Temperature Tests or will be sized to a cross-sectional area rating as shown in the footnotes.

Aluminum Supply Bus

UL891 Amperage	750 A/ sq. in.	Cross-Sectional Area▲	Wire	Standard Section	TIE Adder	200% Neutral Adder	Tin-Plated Adder	Taped Bus Adder		
600 A	600 A	1 sq. in.	3W	\$ 6869.	\$ 9190.	—	Tin-Plated is Standard	\$ 7049.		
			4W	7325.	9190.	\$ 3074.				
800 A	750 A	1 sq. in.	3W	7420.	9190.	—			7844.	
			4W	7886.	9190.	3540.				
1000 A	—	1 sq. in.	3W	7886.	9190.	—				8448.
			4W	8544.	9190.	3837.				
1200 A	—	1 sq. in.	3W	8448.	9190.	—		8448.		
			4W	9158.	9190.	4282.				
1600 A	1500 A	2 sq. in.	3W	9423.	12964.	—			7844.	
			4W	10452.	12964.	4834.▼				
2000 A	—	2 sq. in.	3W	10452.	12964.	—				8448.
			4W	11554.	12964.	5936.▼				
2500 A	3000 A	4 sq. in.	3W	13568.	12964.	—	8448.			
			4W	17225.	12964.	7653.▼				
3200 A♦	—	4 sq. in.	3W	17766.	22716.	—		8448.		
			4W	19557.	22716.	—				

Copper Supply Bus Plated With Silver

UL891 Amperage	1000 A/ sq. in.	Cross-Sectional Area■	Wire	List Price Per Section	TIE Adder	200% Neutral Adder	Tin-Plated Adder	Taped Bus Adder		
600 A	600 A	1 sq. in.	3W	\$ 9275.	\$ 9190.	—	\$ 4664.	\$ 7049.		
			4W	9890.	9190.	\$ 3074.				
800 A	800 A	1 sq. in.	3W	10017.	9190.	—			7844.	
			4W	10642.	9190.	3540.				
1000 A	1000 A	1 sq. in.	3W	10642.	9190.	—				8448.
			4W	11512.	9190.	3837.				
1200 A	—	1 sq. in.	3W	11512.	9190.	—		9423.		
			4W	12360.	9190.	4282.				
1600 A	—	1 sq. in.	3W	12720.	12964.	—			9423.	
			4W	14130.	12964.	4834.▼				
2000 A	2000 A	2 sq. in.	3W	14130.	12964.	—				9423.
			4W	15900.	12964.	5936.▼				
2500 A	—	2 sq. in.	3W	16578.	12964.	—	9423.			
			4W	18550.	12964.	7653.▼				
3000 A	—	2 sq. in.	3W	18932.	18656.	—		9423.		
			4W	22546.	18656.	—				
4000 A	4000 A	4 sq. in.	3W	23935.	22716.	—			9423.	
			4W	27369.	22716.	—				
5000 A	—	4 sq. in.	3W	32319.	22716.	—	9423.			
			4W	36962.	22716.	—				
6000 A★	6000 A	6 sq. in.	3W	45018.	22716.	—		9423.		
			4W	48050.	22716.	—				

- ▲ 1 sq. in. x 750 A/sq. in. = 750 A for aluminum.
- 1 sq. in. x 1000 A/sq. in. = 1000 A for copper.
- ♦ QED-2 section only.
- ★ Available only for incoming section.
- ▼ Requires increased depth to 48 in. minimum.

Structures and Device Modifications

Weather Resistant Switchboards—NEMA Type 3R Non-Walk-in▲

NEMA Type I—Depth	Price Adder Per Section (To Standard Section Charge)
24 in. (QED-2, 2500 A maximum, no SE)	\$ 9307.
36 in. (QED-2, except 4000 A)	9307.
48 in. 5000 A QED-2)	10642.
60 in. (All QED-2 with Unit Substation)	12328.

▲ For NEMA Type 3R walk-in enclosures, contact the Nashville Power Zone Center group (615-844-8300) for pricing and dimensions.

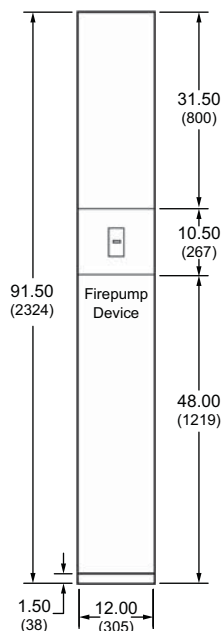
Structure And Device Modifications

Item	List Price	
	Per Section	Each
Auxiliary section: Any width (No horizontal bus available)	\$ 5300.	—
Barriers between sections: Steel/ Insulating	2109.	—
Bottom closure plates (not for combustible floor)	678.	—
Corner section = 1.5 x section charge. Not available on 3R Enclosures	—	—
Optional copper ground bars		
< = 2000 A Aluminum	Standard	—
< = 2000 A Copper	191.	—
2001–3000 A Copper	382.	—
3001–4000 A Copper	721.	—
Doors on rear	1897.	—
Drip hood (NEMA Type 1 with drip hood). Not available on 3R Enclosures	1155.	—
DXF electronic format drawings on 3.5 in. diskettes for custom QED-2, QED-3, QED-4	—	\$ 1060./SWBD
Fire pump lugs: #10–2/0 or #6–350 kcmil per phase and neutral. Price auxiliary section separately.■	—	2120.
Gasketed switchboard with filters (Use NEMA Type 3R construction; does not satisfy NEMA Type 12 requirements)	—	—
Ground detector lamps	3328.	—
Ground lug, per device	—	74.
Hinged gutter covers on 63 in. high I-Line interior sections (single row / double row)	375. / 1000.	—
Increased depth (Standard = 24 in., 36 in., 48 in., 54 in., and 60 in.)	1272.	—
Insulated horizontal phase bus (taped)		
1600 A max.	7049.	—
2500 A max.	7844.	—
3000 A max.	8160.	—
5000 A max.	9423.	—
Lighting panel—price from factory assembled Digest page and use box height plus 6 in. for mounting height; add for mounting	—	1855.
Mimic nameplate: Anodized aluminum or Plastic	—	1060.
Mimic bus—Tape/ (Plastic or Paint)	5067. / 9922.	—
Nameplate—engraved adhesive or screw-on plastic; shipped uninstalled	—	159.
Nameplate—engraved screw-on plastic; factory installed	—	318.
Paint color—ANSI 49 is standard. Add for non-standard ANSI 61/Other	2767. / 4664.	—
Pilot light or push button, Class 9001	—	445.
Pullbox—open bottom (12 in. or 24 in. high) / with bottom barrier (12 in. or 24 in. high)	1569. / 2290.	—
Reduced height section (75 in. high standard without base channel. For other heights, contact the A-plant.)	3858.	—
Rodent barrier	678.	—
Corrosion-resistant base channels for NEMA Type 1 (Standard on NEMA Type 3R)	2936.	—
SIS control wire	710.	—
Strip heaters—provisions for wiring to external source / wired (with overcurrent device and thermostat)	943. / 1855.	—
Surge arrester (SDSA3650). Available only on grounded systems. This is NOT an SPD.	806.	—
Terminal blocks, extra (per device)	—	201.

■ For fire pump lugs in Canada, please contact your local TAG.

Firepump Circuit Breakers (Canada Only)

Breaker Amperage	600 V, 50 kA Max.	600 V, 65–100 kA	480 V, 100 kA Max	480 V, 125–200 kA	240 V, 125 kA Max	240 V, 130–200 kA
60	HLL36060	N/A	HLL36060	N/A	HLL36060	N/A
100	HLL36100	N/A	HLL36100	N/A	HLL36100	N/A
125	HLL36125	N/A	HLL36125	N/A	HLL36125	N/A
150	HLL36150	N/A	HLL36150	N/A	HLL36150	N/A
175	JLL36175	N/A	JLL36175	N/A	JLL36175	N/A
200	JLL36200	N/A	JLL36200	N/A	JLL36200	N/A
225	JLL36225	N/A	JLL36225	N/A	JLL36225	N/A
250	JLL36250	N/A	JLL36250	N/A	JLL36250	N/A
800	PKF36080	N/A	PLF36080	N/A	PLF36080	N/A
1000	PKF36100	N/A	PLF36100	N/A	PLF36100	N/A



Circuit Breaker Definitions

Thermal-Magnetic

A circuit breaker type which combines thermal and magnetic trip action to provide overload and short circuit protection. A bimetallic element indirectly heated by the current flowing through the circuit breaker provides overload protection commonly referred to as "thermal" protection. On a continued overload, the bimetal will deflect, causing the circuit breaker's tripping mechanism to open the circuit breaker contacts. The length of time the circuit breaker will maintain an overload can be determined by review of the circuit breaker's characteristic tripping curve. Magnetic action (also referred to as instantaneous trip) is achieved through the use of an electromagnet. High level fault currents provide the electromotive force necessary to activate the circuit breaker tripping mechanism to open the circuit breaker contacts. The magnetic trip point may be fixed or adjustable. Thermal-magnetic circuit breakers are best suited for the majority of general purpose applications because they are temperature sensitive.

Current Limiting

A current limiting circuit breaker protective device is a device which, when interrupting currents in its current limiting range, will reduce the current flow in the faulted circuit to a magnitude substantially less than that obtainable in the same circuit if the device were replaced with a solid conductor having comparable impedance. A limiting circuit breaker does not use fuses.

Integrally Fused

The integrally fused circuit breaker combines a thermal-magnetic circuit breaker and high interrupting rated fuses in a mechanically integral housing. Overloads and low level fault currents are cleared by the circuit breaker's thermal-magnetic action. Very high fault currents are cleared by the series fuses, and the mechanical linkage will open the circuit breaker contacts to prevent a possible single phase condition and provide trip indication.

Magnetic-only

Magnetic-only circuit breakers provide short circuit protection, but do not contain any thermal elements; therefore, they do not provide overload protection. The magnetic trip elements are front adjustable for trip range based on the circuit breaker's continuous current rating. Magnetic-only circuit breakers are not for use in switchboards or panelboards, unless factory assembled and used with motor starting equipment (for example, I-Line combination motor starters).

Electronic Trip

The solid-state circuit breaker uses current transformers, solid-state circuitry, and a flux transfer shunt trip in place of the conventional thermal-magnetic trip mechanism to provide both overload and short circuit protection. Some solid-state trip units use two current transformers in each phase to reduce the current to the proper ratio for input into the solid-state circuitry. Under prolonged overloads or short circuit conditions, the solid-state circuitry initiates an output to a low power flux transfer with interchangeable rating plug. The static sensor has several separate adjustments that can be varied to make the circuit breaker's trip characteristics fit the requirements of the power system. These seven adjustments are long-delay pickup point, long-delay tripping time, short-delay pickup point, short-delay tripping time, instantaneous trip pickup, ground current pickup, and ground current time delay.

Electronic trip unit types for Schneider Electric include:

- Basic—Fixed long-time; adjustable instantaneous
- Standard—Adjustable long-time, short-time, and instantaneous
- Advanced—Standard functions plus optional ground fault—(Ammeter, Energy, Power, or Harmonic trip units)

Mission Critical Circuit Breakers

Designed for selectively coordinated systems, mission critical circuit breakers maximize continuity of the electrical service by allowing the branch circuit breaker to clear the fault. Mission critical circuit breakers are engineered with technology that optimizes current, time, and energy selectivity so the fault is cleared by the circuit breaker immediately upstream of the occurrence. This technology allows the remaining areas of the electrical system to continue to operate without disruption.

Square D™ brand OEM interiors are available to Original Equipment Manufacturers for mounting in enclosures. Two versions are offered for device requirements of I-Line circuit breakers or QMB fusible switches. Square D™ brand OEM interiors are not intended for field installation in existing facilities.

Single Row I-Line Interiors

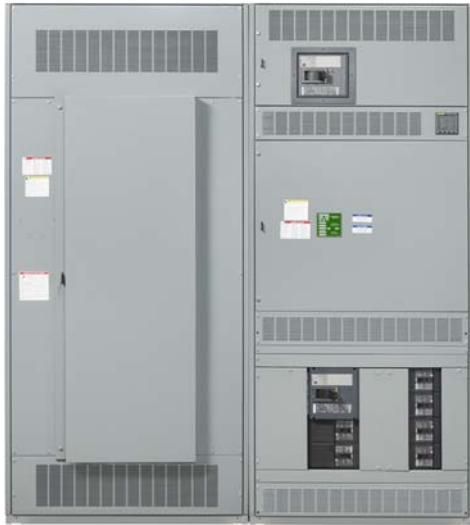
Catalog No.	Amperage (A)	Panel Height (in.)	Available Circuit Breaker Mounting Space (in.)		List Price
			Left	Right	
CF16M27C	1600	27	18	N/A	\$ 5192.
CF20M27C	2000	27	18	N/A	5949.
CF16M36C	1600	36	27	N/A	6042.
CF20M36C	2000	36	27	N/A	7017.
CF16R63C	1600	63	63	N/A	9758.
CF20R63C	2000	63	63	N/A	12158.
CF25R63C	2500	63	63	N/A	13230.
CF30R63C	3000	63	63	N/A	14175.

Double Row I-Line Interiors

Catalog No.	Amperage (A)	Panel Height (in.)	Available Circuit Breaker Mounting Space (in.)		List Price
			Left	Right	
CF20MK27C	2000	27	18	27	\$ 6074.
CF20MK36C	2000	36	27	36	7224.
CF16KF63C	1600	63	54	63	8786.
CF16NK63C	1600	63	54	63	8969.
CF20KF63C	2000	63	54	63	10748.
CF20NK63C	2000	63	54	63	11001.
CF30RJ63C	3000	63	63	45	19875.

QMB Interiors

Catalog No.	Amperage (A)	Panel Height (in.)	Maximum Switch by Section Width		List Price
			32 in.	42 in.	
CF8FU15C	800	15	400 A	800 A	\$ 4040.
CF16FU30C	1600	30	1200 A	1200 A	6042.
CF20FU72C	2000	72	1200 A	1200 A	6498.
CF30FU72C	3000	72	1200 A	1200 A	7478.



General Instructions

This pricing guide contains pricing information for factory-assembled Multi-Distribution Switchboards (MDS) manufactured by Schneider Electric. MDS switchboards consists of one or more switchboard sections with standard depths of 14 in. All components listed in this pricing procedure can be placed in factory-assembled switchboards.

Features

- 1200 A maximum bus design
- Aluminum bus (optional: copper bus)
- Main devices are MCCB (250–1200 A)
- Up to 117 in. I-Line double row branch mounting space available
- Continuous copper ground bus
- Painted steel construction; all covers painted ASA49 gray
- NEMA sprinkler-protected enclosure standard
- Floor mounted
- Single section (main, utility service, distribution) with add-on distribution sections option
- Compact 14 in. depth
- Certified and tested to CSA C22.2, No. 31

MDS Switchboards

Enclosure Type	NEMA Type1 Drip hood (optional) Sprinkler Protected as per CEC26-008 (optional)
Dimensions	
Main	30 in. W x 90 in. H x 14 in. Dp 38 in. W x 90 in. H x 14 in. Dp
Distribution	36 in. W x 90 in. H x 14 in. Dp 42 in. W x 90 in. H x 14 in. Dp
Volts	600 V Max
Amperes	400–1200 A
Bus Type	Aluminum (tin plated) Copper (silver finished; optional)
Utility Compartment	CT/PT meets any Canadian Utility Requirements
Interrupting Capacity	50 kA and lower 65 kA at 600 V (optional with PowerPact P-frame) 200 kA at 480 V (optional with new PowerPact L-frame)
Entry	Cable (top or bottom) or Bussing through side
Main Device	MCCB 400–1200 A 80% Rated 100% Rated (optional)
Branch Devices Unit Space	42 circuits mounted on NF panel in main section 54 circuits mounted on NQ panel in main section 36 in. high in double row or 18 in. high in single row I-Line in main section 54 in. high single row or 117 in. high in a double row in distribution section
Metering Devices	Schneider Electric power meter or I-ON meter with remote display I-ON 6200 revenue metering (optional)
Other Options	SPD units Rodent barrier Fast delivery (less than 5 days) Add-on distribution sections to both sides of main section

MDS Switchboard Section Layout

To determine the correct number of switchboard sections, use the inches of mounting height of the devices. Total all the metering and main inches and determine the number of sections. Then total all the branch distribution inches and determine the quantity of sections.

For information on layout, refer to Catalog #S2705CT1301BP R0, *Multi-Distribution Switchboards*.

Metric Conversion Factors

- Inches (in.) x 25.4 = millimeters (mm)
- Square inches (sq. in.; in.²) x 45.16 = square millimeters (mm²)
- Cubic inches (cu. in.; in.³) x 16.387 = cubic centimeters (cc; cm³)
- Pound inches (lb. in.) x 0.113 = Newton meters (N•m)

CSA Service Entrance

Switchboards used as service entrance equipment include CSA label, main bonding jumper, neutral disconnect link, ground bus, grounding lug, and barriers.

Main Type	Single Main
Individually mounted main	\$1410.

Utility Metering

Canada Utility Name	C/T Provision	P/T Provision	System	800 A and Lower	1000 or 1200 A
BC Hydro Hydro One Brampton Hydro Quebec Mississauga Saskatoon Toronto Hydro Other	MV-7 (Standard Bar Type), or MV-7 (1P 3W) (Dual Bar Type), or R6MC (Window Type), or R6L (Window Type), or JAK-0 (Window Type), or JAD-0 (Window Type), or Unknown C/T(\$1400.)	Available	3W	\$7,377.	\$12,741.
			4W	9,836.	16,988.

NOTE: Some utilities in Canada require ground studs. Pricing is **\$4240**.
Adder for wooden cable support for BC Hydro: **\$875**.

Incoming Connections

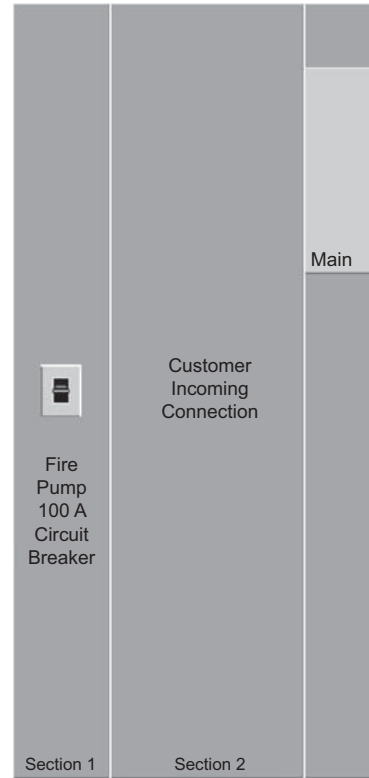
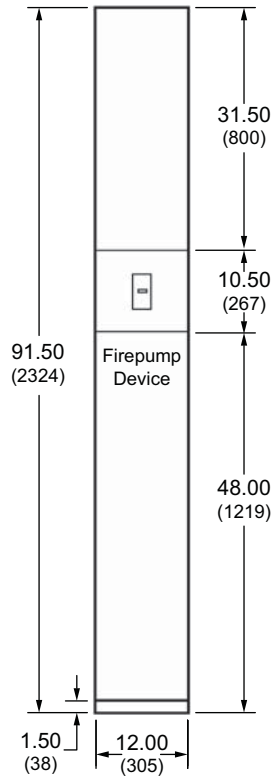
Incoming Auxiliary Section	Type	Height (in.)	Width (in.)	Depth (in.)	600 A	800 A	1000 A	1200 A
Main is Remote	Bussed Auxiliary	91.5	24	14	Refer to tables on page 38 and add incoming lug pricing as below			
Single Main Incoming Auxiliary	Un-Bussed	91.5	16	14	\$5300.			
	Bussed	91.5	24	14, 18, or 24	Refer to tables on page 38 and add incoming lug pricing as below			
Drip Loop	In conjunction with a Bussed Auxiliary for BC Hydro	91.5	24	Same as Incoming Auxiliary Section	Pricing includes two sections (one Incoming bussed auxiliary and one unbussed section)			
Fire Pump Breaker ♦	N/A	91.5	12	24	\$7325.	\$7886.	\$8544.	\$9158.

♦ Cable entry plate **\$1500**.

Incoming Lugs

System	400, 600, or 800 A	1000 or 1200 A
3W OR 4W	\$2120.	\$3180.

Fire Pump Circuit Breaker Section



Fire Pump Circuit Breaker Pricing

Circuit Breaker Amperage (A)	List Price	Catalog Number
60	\$ 4240.	HLL36060
100	4378.	HLL36100
125	7102.	HLL36125
150	7102.	HLL36150
175	7759.	JLL36175
200	7759.	JLL36200
225	7759.	JLL36225
250	9116.	JLL36250

Distribution Section Charges and Structure Modifications

The standard section price includes frames, side plates, rear plates, top plates, front covers, through bus, base channels, engineering, and domestic crating.

Structure Modifications (Incoming/Main/Distribution Section)

Item	List Price
Type 1 enclosure	—
Type 2 enclosure	\$ 237.
Sprinkler protection as per CEC 26-008	1155.
Pullbox	
With open bottom (24 in. high)	1569.
With bottom barrier (12 or 24 in. high)	2290.
Rodent barrier (per section)	678.
Door over Distribution section, 63 in. high	1897.

Aluminum Bus Structure (Incoming/Distribution/Fire Pump Section)

System Ampacity (A)	Wire	Ground Bus	List Price
600	3W	\$ 191.	\$ 6869.
	4W		7325.
800	3W		7420.
	4W		7886.
1000	3W		7886.
	4W		8544.
1200	3W		8448.
	4W		9158.

Silver-plated Copper Bus Structure (Incoming/Distribution/Fire Pump Section)

System Ampacity (A)	Wire	Ground Bus	List Price
600	3W	\$ 191.	\$ 9275.
	4W		9890.
800	3W		10017.
	4W		10642.
1000	3W		10642.
	4W		11512.
1200	3W		11512.
	4W		12360.

Main Section Charges

Single section without horizontal bus. (Distribution sections **cannot** be added in the future.)

Vertical Bus Material	List Price	
	Up to 800 A	1000 and 1200 A
Aluminum	\$ 3445.	\$ 3445.
Copper	5300.	5300.

NOTE: Feeder compartment pricing on main section is not included.

Multiple section with horizontal bus and optional, future distribution section add on.

Bus Material	List Price		
	600 A	800 A	1200 A
Aluminum	\$ 7325.	\$ 7886.	\$ 9158.
Copper	9890.	10642.	12360.

Customer Metering Options

Type	Catalog Number		List Price
Power Meter	PM-820		\$ 18465.
	PM-850		24804.
	PM-870		29250.
I-ON Meter Includes remote display and is Schneider Electric-branded	I-ON 6200	P6200R2A0B0A0A3N Standard measurement package	45630.
		P6200R2A0B0A0A3P Enhanced, 1-measurement package	50090.
		P6200R2A0B0A0A3R Enhanced, 2-measurement package	55500.
		P6200R2A0B0A0B3N Digital output; Standard measurement package	57000.
		P6200R2A0B0A0B3P Digital output; Enhanced, 1-measurement package	58000.
		P6200R2A0B0A0B3R Digital output; Enhanced, 2-measurement package	59000.
	I-ON 7330	P7330R0B0B0A0A0A Serial communications option	20900.
		P7330R0B0B0E0A0A Serial and Ethernet communications options	24730.
	I-ON 7350	P7350R0B0B0A0A0A Serial communications option	27360.
		P7350R0B0B0E0A0A Serial and Ethernet communications options	29190.

Power Meter Accessories

Accessory	Catalog Number	List Price
Power Meter 820, 850, 870	PM8M22 2 digital inputs, 2 digital outputs	\$ 2809.
	PM8M26 6 digital inputs, 2 digital outputs	3275.
	PM8M2222 2 digital inputs, 2 digital outputs, 2 analog inputs, 2 analog outputs	3646.
	PM8ECC Ethernet communications card	11501.

Main Circuit Breaker Selection

Circuit Breaker Type	Ampere Rating	Frame Type	Interrupting Rating (kA) Max UL/CSA			Available Trip Values	List Price	
			240 Vac	480 Vac	600 Vac		2-Pole	3-Pole
M Frame Basic Electronic	300	MG	65	35	18	300-600	\$ 11671.	\$ 13589.
	350					700-800	15179.	18338.
	400	MJ	100	65	25	300-600	14043.	16663.
	450					700-800	18592.	21423.
P-Frame Basic Electronic	500	PG	65	35	18	600-800	15673.	18790.
	600					1000-1200	16982.	19891.
	700	PK	65	50	50	600-800	18291.	20992.
	800					1000-1200	19600.	22093.
	1000	PJ	100	65	25	600-800	20909.	23194.
	1200					1000-1200	22218.	24295.
	PL	125	100	—	600-800	23527.	25396.	
					1000-1200	24836.	26497.	
P-Frame Advance Electronic Trip	See the Electronic Trip—Standard and Advanced table on page 17.							
L-Frame 80% Advance Electronic	70-250	LD	25	18	14	125 150 175 200 225 250 300 350 400 200 225 250 300 350 400 450 500 600	4302.	5378.
	125-400						4302.	5378.
	200-600						6220.	7775.
	70-250	LG	65	35	18		4516.	5645.
	125-400						4516.	5645.
	200-600						6534.	8167.
	70-250	LJ	100	65	25		7369.	9212.
	125-400						7369.	9212.
	200-600						9102.	11378.
	70-250	LL	125	100	50		8579.	10724.
	125-400						8579.	10724.
	200-600						10191.	12738.
	70-250	LR	200	200	100		9866.	12332.
	125-400						9866.	12332.
	200-600						11719.	14649.
	L-Frame 100% Advance Electronic	70-250	LD	25	18		14	125 150 175 200 225 250 300 350 400 200 225 250 300 350 400
125-400		5034.				6292.		
70-250		LG	65	35	18	5284.	6604.	
125-400						5284.	6604.	
70-250		LJ	100	65	25	8622.	10778.	
125-400						8622.	10778.	
70-250		LL	125	100	50	10037.	12547.	
125-400						10037.	12547.	
70-250		LR	200	200	100	11543.	14429.	
125-400						11543.	14429.	

24 Vdc power supply for trip unit power. Required for PowerPact P with P or H trip units and PowerPact L with an ammeter or energy trip unit; recommended for PowerPact P with A trip units.: **\$1950.**

Control power transformer (only one required per vertical section):. **\$890.**

Group Mounted NQ Circuit Breakers—Branch

NQ Interiors

NQ Interior 54 Circuits	List Price		Adder for Copper Busbar
	1PH/3W	3PH/4W	
400 A	\$ 1600.	\$ 2112.	\$ 388.
600 A	2082.	2326.	388.

NQ Circuit Breakers

Device Mounting	Breaker Frame ID	Number of Poles	Trip Amps (A)	Base List Price	Shunt Trip Adder 120 Vac or 208 Vac or 240 Vac
Bolt On	QOB	1	15-60	\$ 68.	\$ 200.
			70	100.	
	QOB-VH	1	15-30	92.	
			40-60	109.	
			70	175.	
	QHB	1	15-30	144.	
	QOB	2	15-60	134.	
			70	208.	
			80-100	262.	
	QOB-VH	2	110-125	482.	
			15-60	212.	
			70	292.	
	QOB-VH	2	80-100	378.	
			110-125	1022.	
			15-30	348.	
	QHB	2	15-30	348.	
	QOB	3	15-60	352.	
			70	396.	
80-100			458.		
QOB-VH	3	15-60	462.		
		70	556.		
		80-100	606.		
QHB	3	15-30	596.		
Plug On	QO	1	15-60	68.	
			70	100.	
	QO-VH	1	15-30	92.	
	QH	1	15-30	144.	
	QO	2	15-60	134.	
			70	208.	
			80-100	262.	
	QO	2	110-125	482.	
			15-60	212.	
			70	292.	
	QO-VH	2	80-100	378.	
			110-125	1022.	
			15-30	348.	
	QH	2	15-30	348.	
	QO	3	15-60	352.	
			70	396.	
			80-100	458.	
	QO-VH	3	15-60	462.	
70			556.		
80-100			606.		
QH	3	15-30	596.		

NQ Accessories

Handle Attachments for QO and QOB Circuit Breakers	Number of Poles	List Price
Padlock attachment, fixed-off	1	\$ 26.
	2 or 3	26.

Group Mounted NF Circuit Breakers—Branch

NF Interiors

NF Interior 42 Circuits	List Price		Adder for Copper Busbar
	1PH/3W	3PH/4W	
400 A	\$ 1426.	\$ 1924.	\$ 624.
600A	2366.	2622.	624.
800 A	3550.	3900.	624.

NF Circuit Breakers

Maximum Volts	Breaker Frame ID	Number of Poles	Trip Amps (A)	Base List Price	Shunt Trip Adder 120Vac
480Y/277	EDB	1	15-60	\$ 192.	\$ 958.
			70	342.	
	EGB	1	15-60	324.	
			70	578.	
	EJB	1	15-60	518.	
			70	924.	
	EDB	2	15-60	442.	
			70-100	872.	
			110-125	2,210.	
	EGB	2	15-60	746.	
			70-100	1,474.	
			110	4,114.	
	125				
	EJB	2	15-60	1,196.	
			70-100	2,120.	
			110	5,300.	
	125				
	EDB	3	15-60	748.	
			70-100	1,046.	
			110	2,724.	
	125				
	EGB	3	15-60	1,264.	
			70-100	1,710.	
			110	4,754.	
125					
EJB	3	15-60	2,024.		
		70-100	2,540.		
		110	6,300.		
125					
600Y/347	EDB	1	15-60	192.	
			70	342.	
	EGB	1	15-60	324.	
			70	578.	
	EJB	1	15-60	518.	
			70	924.	
	EDB	2	15-60	442.	
			70-100	872.	
	EGB	2	15-60	746.	
			70-100	1,474.	
	EJB	2	15-60	746.	
			70-100	1,474.	
	EDB	3	15-60	748.	
			70-100	1,046.	
	EGB	3	15-60	1,264.	
			70-100	1,710.	
	EJB	3	15-60	2,024.	
			70-100	2,540.	

NF Accessories

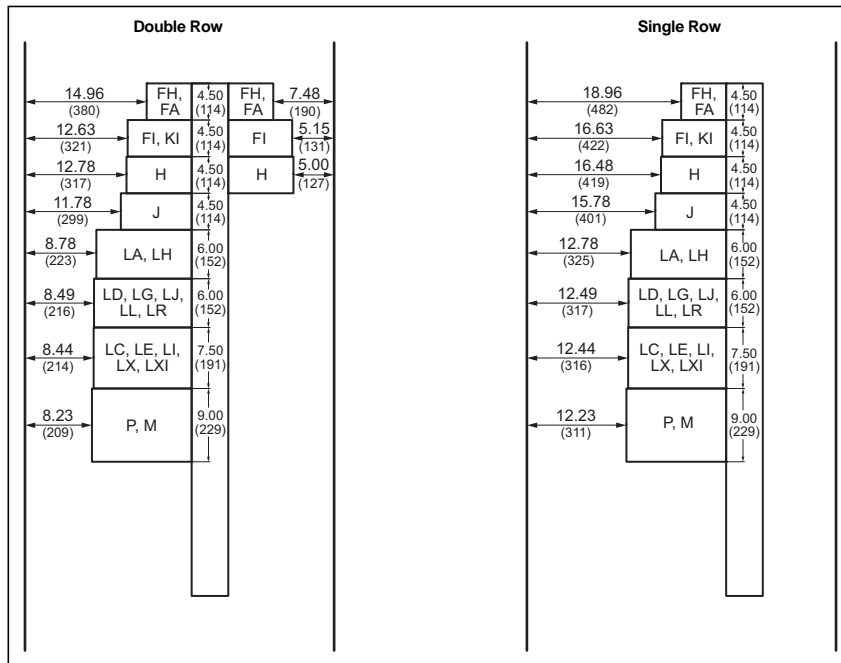
Description	Number of Poles	Catalog Number	List Price
Padlock attachment, fixed-off/on	1, 2, or 3	EDPA	\$ 26.

I-Line Feeder Compartment on Main Section

Interior Pricing

Busbar Material	Interior Height (in.)	List Price
Aluminum	18	\$ 3840.
Copper		5875.

I-Line Branch Circuit Breaker Gutter Dimensions



Circuit Breaker Limitations for Single Row I-Line

Section With Through Bus

- With P or L Frame
 - 1 x 600 A and 2 x 150 A (H frame), or
 - 2 x 400 A and 1 x 150 A (H frame), or
 - 3 x 250 A
- With J Frame only
 - 4 x 250 A

Section Without Through Bus

- With P or L Frame
 - 2 x 600A and 1 x 225A, or
 - 1 x 600A and 2 x 400A
- With J Frame only
 - 4 x 250A

Circuit Breaker Limitations for Double Row I-Line

Wide Side, Section With Through Bus

- With P or L Frame
 - 1 x 400 A and 2 x 150 A (H frame)
- With J Frame only
 - 3 x 250 A and 1 x 150 A (H frame)

Wide Side, Section Without Through Bus

- With P or L Frame
 - 1 x 600 A and 1 x 400 A and 1 x 150 A, or
 - 1 x 600 A and 2 x 200 A
- With J Frame only
 - 4 x 250 A

Narrow Side, Section With or Without Through Bus

- With H Frame
 - 4 x 150 A

Interior Pricing—Full Height Distribution Section

Bus Material	Mounting Space Height (in.)	List Price
Single Row		
Aluminum	54	\$ 6500.
Copper		10000.
Double Row		
Aluminum	117	7605.
Copper		14040.

Group Mounted I-Line Circuit Breakers—Branch

- The maximum amperage of any I-Line circuit breaker is 800 A.
- Thermal circuit breakers are available only as a 80% rated device in the following frame types:
 - FA, FH, FJ, HD, HG, HJ, HL, QB, QD, QG, QJ, JD, JG, JJ, JL, JR, MG, MJ, PG, PJ, PK, PL
- Electronic circuit breakers are available in the following frame types:
 - HD, HG, HJ, HL, HR, JD, JG, JJ, JL, JR, LD, LG, LJ, LL, LR, PG, PJ, PK, PL

Use QED-2 pricing on pages 16–18.

For PowerPact with Micrologic Trip Mission Critical Circuit Breakers, see the table on page 18.

Accessories

Item	List Price
Padlock attachment	\$ 32.
Key interlock (Kirk type)	
M and P frame	1897.
Plus padlock only on P frame	1929.
Cylinder lock available on FA and FH circuit breakers	636.
Alarm switch	
F, H, J, and L frame	276.
M and P frame	488.
Shunt Trip	
F, H, J, and L frame	647.
M and P frame	1198.
Over current trip switch on P frame	466.
Auxiliary contacts	
1A + 1B on all except Q frame	466.
2A + 2B on all except Q frame	647.
3A + 3B on L, M, and P frame	848.

Feed Thru Lugs for 3-Phase, 4-Wire Systems

Amperage (A)	List Price
400	\$ 2544.
600	
800	
1000	3816.
1200	

Surge Protective Devices (SPD)

Individually Mounted

System Voltage (Vac)	List Price					
	100 kA	120 kA	160 kA	240 kA	320 kA	480 kA
120/240, 1P3W	\$ 20416.	\$ 21692.	\$ 25520.	\$ 36420.	\$ 41882.	\$ 49979.
208Y/120, 3P4W	21260.	22588.	26574.	38050.	43758.	56604.
208Y/120, 3P4W	21260.	22588.	26574.	38050.	43758.	56604.
480Y/277, 3P4W	22110.	23492.	27638.	39686.	45638.	63854.
600Y/347, 3P4W	23000.	24438.	28750.	41400.	47602.	63854.

I-Line Mounted; SPD Mounting Height = 13.5 in.

System Voltage (Vac)	List Price					
	120 kA		160 kA		240 kA	
	100 kA SCCR	100 kA SCCR	100 kA SCCR	200 kA SCCR	100 kA SCCR	200 kA SCCR
120/240, 1P3W	\$ 20088.	\$ 21692.	\$ 23634.	\$ 25520.	\$ 34534.	\$ 36420.
208Y/120, 3P4W	20984.	22588.	24688.	26574.	36164.	38050.
208Y/120, 3P4W	20984.	22588.	24688.	26574.	36164.	38050.
480Y/277, 3P4W	21898.	23492.	25752.	27638.	37800.	39686.
600Y/347, 3P4W	—	24438.	—	28750.	—	41400.

Surge counter is offered by default on all.

Remote monitor: **\$2588.**

Surge arrester: **\$806.**; Catalog number: SDSA3650 or SDSA1175

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