

March 2005

PRL1a

Product Description

- 240V AC maximum.
- 3-phase 4-wire, 3-phase 3-wire, 1-phase 3-wire, 1-phase 2-wire.
- 600 ampere maximum mains.
- 100 ampere maximum branch breakers.
- Bolt-on branch breakers.
- Tin plated aluminum bus or silver plated copper bus.
- Factory assembled.
- Refer to **Page 1-3** for additional information.



Type PRL1a

Application Description

- Fully rated or series rated.
- Interrupting ratings up to 200 kA symmetrical.
- Suitable for use as Service Entrance Equipment, when specified on the order.
- See **Pages 1-3** through **1-27** for additional information.

Standards and Certifications

- CSA - C22.2 No. 29
- UL 67, UL 50.
- Federal Specification W-P-115c.
- Refer to **Page 1-3** for additional information.

Options and Accessories

- Refer to **Page 1-50**.

Layout and Sizing

- Refer to **Page 1-23**.

Product Selection

Table 1-6. Base Configurations — PRL1a

Ampere Rating	Interrupting Rating (kA Sym.) 240V AC	Breaker Type
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Main Lug Only

100	—	—
225	—	—
400	—	—
600	—	—

Main Breaker

100	10	BAB
100	18	EHD
100	22	QBHW
100	65	ED
100	65	FD
100	100	EDH
100	100	HFD
225	65	ED
225	100	EDH
400	65	DK
400	65	KD
400	100	HKD
400	200	KDC

Table 1-7. Branch Circuit Breakers — PRL1a

Bolt-on = BAB, QBHW, QBGF, QBHGF, QBGFEP, QBHGFEP, QBAF, QBAG		
Ampere Rating	Interrupting Rating (kA Sym.) 240V AC ①	Breaker Type

15 – 60	10	BAB
70	10	BAB
80 – 100	10	BAB
15 – 50 ③	10	QBGF ④
15 – 50 ③	10	QBGFEP ⑤
15 – 20	10	QBAF ⑥
15 – 20	10	QBAG ⑦
15 – 60	10	BAB-D, HQP-D ⑧
15 – 30	10	BAB-C, HQP-B ⑨
15 – 30	10	BABR ⑩
15 – 30	10	BABRS ⑩
15 – 60	22	QBHW
70	22	QBHW
80 – 100	22	QBHW
15 – 30	22	QBHGF ④
15 – 30	22	QBHGFEP ⑤

- ① 1-pole breakers are rated 120V AC maximum.
- ② 240 volt breakers must be used on 3-phase, 3-wire, 240 volt delta systems or on the high leg of a mid-point delta grounded system.
- ③ 50 ampere devices are available as 2-pole only.
- ④ GFCI for 5 mA personnel protection.
- ⑤ GFP for 30 mA equipment protection.
- ⑥ Arc fault circuit breaker.
- ⑦ Arc fault circuit breaker with GFCI.
- ⑧ HID (High Intensity Discharge) rated breaker.
- ⑨ Switching Neutral Breaker. 1-pole device requires 2-pole space, 2-pole device requires 3-pole space.
- ⑩ Solenoid operated breaker.

Product Selection

Table 1-8. Standard Catalogue Numbering

Ampere Rating	Main Device Type	Number of Branch Circuits	Catalogue Number			
			3Ph, 4W Aluminum	1Ph, 3W Aluminum	3Ph, 4W Copper	1Ph, 3W Copper
Main Lug Only						
100	-	18	P1aL4A1-18	P1aL1A1-18	P1aL4C1-18	P1aL1C1-24
	-	24	P1aL4A1-24	P1aL1A1-24	P1aL4C1-24	P1aL1C1-30
	-	30	P1aL4A1-30	P1aL1A1-30	P1aL4C1-30	P1aL1C1-42
	-	42	P1aL4A1-42	P1aL1A1-42	P1aL4C1-42	P1aL1C1-18
225	-	18	P1aL4A2-18	P1aL1A2-18	P1aL4C2-18	P1aL1C2-18
	-	24	P1aL4A2-24	P1aL1A2-24	P1aL4C2-24	P1aL1C2-24
	-	30	P1aL4A2-30	P1aL1A2-30	P1aL4C2-30	P1aL1C2-30
	-	42	P1aL4A2-42	P1aL1A2-42	P1aL4C2-42	P1aL1C2-42
	-	60	P1aL4A2-60	P1aL1A2-60	P1aL4C2-60	P1aL1C2-60
	-	72	P1aL4A2-72	P1aL1A2-72	P1aL4C2-72	P1aL1C2-72
400	-	24	P1aL4A4-24	P1aL1A4-24	P1aL4C4-24	P1aL1C4-24
	-	30	P1aL4A4-30	P1aL1A4-30	P1aL4C4-30	P1aL1C4-30
	-	42	P1aL4A4-42	P1aL1A4-42	P1aL4C4-42	P1aL1C4-42
	-	60	P1aL4A4-60	P1aL1A4-60	P1aL4C4-60	P1aL1C4-60
	-	72	P1aL4A4-72	P1aL1A4-72	P1aL4C4-72	P1aL1C4-72
	-	84	P1aL4A4-84	P1aL1A4-84	P1aL4C4-84	P1aL1C4-84
600	-	24			P1aL1C6-24	P1aL1C6-24
	-	30			P1aL1C6-30	P1aL1C6-30
	-	42			P1aL1C6-42	P1aL1C6-42
	-	60			P1aL1C6-60	P1aL1C6-60
	-	72			P1aL1C6-72	P1aL1C6-72
-	84			P1aL1C6-84	P1aL1C6-84	
Main Breaker						
100	BAB	15	P1aB4A1-15BAB	P1aB1A1-15BAB	P1aB4C1-15BAB	P1aB1C1-15BAB
		21	P1aB4A1-21BAB	P1aB1A1-21BAB	P1aB4C1-21BAB	P1aB1C1-21BAB
		27	P1aB4A1-27BAB	P1aB1A1-27BAB	P1aB4C1-27BAB	P1aB1C1-27BAB
100	EHD	18	P1aB4A1-18EHD	P1aB1A1-18EHD	P1aB4C1-18EHD	P1aB1C1-18EHD
		24	P1aB4A1-24EHD	P1aB1A1-24EHD	P1aB4C1-24EHD	P1aB1C1-24EHD
		30	P1aB4A1-30EHD	P1aB1A1-30EHD	P1aB4C1-30EHD	P1aB1C1-30EHD
225	ED	24	P1aB4A2-24ED	P1aB1A2-24ED	P1aB4C2-24ED	P1aB1C2-24ED
		30	P1aB4A2-30ED	P1aB1A2-30ED	P1aB4C2-30ED	P1aB1C2-30ED
		42	P1aB4A2-42ED	P1aB1A2-42ED	P1aB4C2-42ED	P1aB1C2-42ED
		60	P1aB4A2-60ED	P1aB1A2-60ED	P1aB4C2-60ED	P1aB1C2-60ED
		72	P1aB4A2-72ED	P1aB1A2-72ED	P1aB4C2-72ED	P1aB1C2-72ED
400	DK	24	P1aB4A4-24DK	P1aB1A4-24DK	P1aB4C4-24DK	P1aB1C4-24DK
		30	P1aB4A4-30DK	P1aB1A4-30DK	P1aB4C4-30DK	P1aB1C4-30DK
		42	P1aB4A4-42DK	P1aB1A4-42DK	P1aB4C4-42DK	P1aB1C4-42DK
		60	P1aB4A4-60DK	P1aB1A4-60DK	P1aB4C4-60DK	P1aB1C4-60DK
		72	P1aB4A4-72DK	P1aB1A4-72DK	P1aB4C4-72DK	P1aB1C4-72DK

Pow-R-Line 1a Catalogue Code

P1a	B	4	A	2	-	42	KDC
Panelboard Type	L - Main Lugs Only B - Main Breaker	1 - 1 phase, 3 wire 3 - 3 phase, 3 wire 4 - 3 phase, 4 wire	A - Aluminum C - Copper	1 - 100 amperes 2 - 225 amperes 4 - 400 amperes 6 - 600 amperes	- - -	Number of Circuits	Main Breaker (if selected)

① All possible combinations not shown for alternate main breakers, substitute breaker type suffix from Table 1-6.

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400	—	—
600	—	—

Main Breaker

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100	18	EHD
100	22	QBHW
100	65	ED
100	65	FD
100	100	EDH
100	100	HFD
225	65	ED
225	100	EDH
400	65	DK
400	65	KD
400	100	HKD
400	200	KDC

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15 – 60	10	BAB
70	10	BAB
80 – 100	10	BAB
15 – 50 ③	10	QBGF ④
15 – 50 ③	10	QBGFEP ⑤
15 – 20	10	QBAF ⑥
15 – 20	10	QBAG ⑦
15 – 60	10	BAB-D, HQP-D ⑧
15 – 30	10	BAB-C, HQP-B ⑨
15 – 30	10	BABR ⑩
15 – 30	10	BABRS ⑩
15 – 60	22	QBHW
70	22	QBHW
80 – 100	22	QBHW
15 – 30	22	QBHGF ④
15 – 30	22	QBHGFEP ⑤

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- ④ GFCI for 5 mA personnel protection.
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- ⑥ Arc fault circuit breaker.
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Main Lug Only						
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	-	24	P1aL4A1-24	P1aL1A1-24	P1aL4C1-24	P1aL1C1-30
	-	30	P1aL4A1-30	P1aL1A1-30	P1aL4C1-30	P1aL1C1-42
	-	42	P1aL4A1-42	P1aL1A1-42	P1aL4C1-42	P1aL1C1-18
225	-	18	P1aL4A2-18	P1aL1A2-18	P1aL4C2-18	P1aL1C2-18
	-	24	P1aL4A2-24	P1aL1A2-24	P1aL4C2-24	P1aL1C2-24
	-	30	P1aL4A2-30	P1aL1A2-30	P1aL4C2-30	P1aL1C2-30
	-	42	P1aL4A2-42	P1aL1A2-42	P1aL4C2-42	P1aL1C2-42
	-	60	P1aL4A2-60	P1aL1A2-60	P1aL4C2-60	P1aL1C2-60
	-	72	P1aL4A2-72	P1aL1A2-72	P1aL4C2-72	P1aL1C2-72
400	-	24	P1aL4A4-24	P1aL1A4-24	P1aL4C4-24	P1aL1C4-24
	-	30	P1aL4A4-30	P1aL1A4-30	P1aL4C4-30	P1aL1C4-30
	-	42	P1aL4A4-42	P1aL1A4-42	P1aL4C4-42	P1aL1C4-42
	-	60	P1aL4A4-60	P1aL1A4-60	P1aL4C4-60	P1aL1C4-60
	-	72	P1aL4A4-72	P1aL1A4-72	P1aL4C4-72	P1aL1C4-72
	-	84	P1aL4A4-84	P1aL1A4-84	P1aL4C4-84	P1aL1C4-84
600	-	24			P1aL1C6-24	P1aL1C6-24
	-	30			P1aL1C6-30	P1aL1C6-30
	-	42			P1aL1C6-42	P1aL1C6-42
	-	60			P1aL1C6-60	P1aL1C6-60
	-	72			P1aL1C6-72	P1aL1C6-72
-	84			P1aL1C6-84	P1aL1C6-84	
Main Breaker						
100	BAB	15	P1aB4A1-15BAB	P1aB1A1-15BAB	P1aB4C1-15BAB	P1aB1C1-15BAB
		21	P1aB4A1-21BAB	P1aB1A1-21BAB	P1aB4C1-21BAB	P1aB1C1-21BAB
		27	P1aB4A1-27BAB	P1aB1A1-27BAB	P1aB4C1-27BAB	P1aB1C1-27BAB
100	EHD	18	P1aB4A1-18EHD	P1aB1A1-18EHD	P1aB4C1-18EHD	P1aB1C1-18EHD
		24	P1aB4A1-24EHD	P1aB1A1-24EHD	P1aB4C1-24EHD	P1aB1C1-24EHD
		30	P1aB4A1-30EHD	P1aB1A1-30EHD	P1aB4C1-30EHD	P1aB1C1-30EHD
225	ED	24	P1aB4A2-24ED	P1aB1A2-24ED	P1aB4C2-24ED	P1aB1C2-24ED
		30	P1aB4A2-30ED	P1aB1A2-30ED	P1aB4C2-30ED	P1aB1C2-30ED
		42	P1aB4A2-42ED	P1aB1A2-42ED	P1aB4C2-42ED	P1aB1C2-42ED
		60	P1aB4A2-60ED	P1aB1A2-60ED	P1aB4C2-60ED	P1aB1C2-60ED
		72	P1aB4A2-72ED	P1aB1A2-72ED	P1aB4C2-72ED	P1aB1C2-72ED
400	DK	24	P1aB4A4-24DK	P1aB1A4-24DK	P1aB4C4-24DK	P1aB1C4-24DK
		30	P1aB4A4-30DK	P1aB1A4-30DK	P1aB4C4-30DK	P1aB1C4-30DK
		42	P1aB4A4-42DK	P1aB1A4-42DK	P1aB4C4-42DK	P1aB1C4-42DK
		60	P1aB4A4-60DK	P1aB1A4-60DK	P1aB4C4-60DK	P1aB1C4-60DK
		72	P1aB4A4-72DK	P1aB1A4-72DK	P1aB4C4-72DK	P1aB1C4-72DK

Pow-R-Line 1a Catalogue Code

P1a	B	4	A	2	-	42	KDC
Panelboard Type	L - Main Lugs Only B - Main Breaker	1 - 1 phase, 3 wire 3 - 3 phase, 3 wire 4 - 3 phase, 4 wire	A - Aluminum C - Copper	1 - 100 amperes 2 - 225 amperes 4 - 400 amperes 6 - 600 amperes	- - -	Number of Circuits	Main Breaker (if selected)

① All possible combinations not shown for alternate main breakers, substitute breaker type suffix from Table 1-6.