# **SIEMENS**

# Revised P1 Unassembled Panelboard Components

A Complete Unassembled Panelboard Bill of Material should include each of the following:

**INTERIOR** 

**ENCLOSURE** 

MAIN DEVICE

FEEDER/BREAKERS

## **ACCESSORIES**

120/240	V Single							
Ampere			Enclosure		Main / Subfeed Device 6			
	Circuits	Interior <sup>1</sup>	N1 Box	Front <sup>2</sup>	N3R	Main Lugs <sup>3</sup>	Main Breaker	Feeder Breakers
	18	P1A18MC250CT	832	S32B	WP32	MLKA1A		10K = BL type = Bxyy
30	30	P1A30MC250CT	B38	S38B	WP38	MLKA1A	Choose from	22K = BLH type = BxyyH
250	42	P1A42MC250CT	B44	S44B	WP44	MLKA1A	Group A on next page	65K = HBL type = BxyyHH
	54	P1A54MC250CT	B50	S50B	WP50	MLKA1A	next page	(x=Poles, and y=Trip Rating)
	30	P1A30MC400CT	B62	S62B	WP62	4MLKA1A <sup>4</sup>	Choose from	
400	42	P1A42MC400CT	B68	S68B	WP68	4MLKA1A <sup>4</sup>	Group D on	Ex. 1Pole 20A@10KAIC = B120
	54	P1A54MC400CT	B74	S74B	WP74	4MLKA1A <sup>4</sup>	next page	Ex. 3Pole 40A@22KAIC = B240H

120/208	20/208V Three Phase – Four Wire								
				Enclosure		Main / Subfeed Device 6			
Ampere Rating	Circuits	Interior <sup>1</sup>	N1 Box	Front <sup>2</sup>	N3R	Main Lugs <sup>3</sup>	Main Breaker	Feeder Breakers	
	18	P1X18MC250CT	B32	S32B	WP32	MLKA3A	61 (	10K = BL type = Bxyy	
250	30	P1X30MC250CT	B38	S38B	WP38	MLKA3A	Choose from	22K = BLH type = BxyyH	
250	42	P1X42MC250CT	B44	S44B	WP44	MLKA3A	Group C on next page	65K = HBL type = BxyyHH	
	54	P1X54MC250CT	B50	S50B	WP50	MLKA3A	next page		
	30	P1X30MC400CT	B62	S62B	WP62	4MLKA3A <sup>5</sup>	Choose from	(x=Poles, and y=Trip Rating)	
400	42	P1X42MC400CT	B68	S68B	WP68	4MLKA3A <sup>5</sup>	Group D on	Ex. 1Pole 20A@10KAIC = B120	
	54	P1X54MC400CT	B74	S74B	WP4	4MLKA3A <sup>5</sup>	next page <sup>7</sup>	Ex. 3Pole 50A@22KAIC = B350H	

480Y/27	7V Three							
			Enclosu	Enclosure		Main / Subfe	ed Device <sup>6</sup>	
Ampere Rating	Circuits	Interior <sup>1</sup>	N1 Box	Front <sup>2</sup>	N3R	Main Lugs <sup>3</sup>	Main Breaker	Feeder Breakers
	18	P1E18MC250CT	B32	S32B	WP32	MLKA3A		
250	30	P1E30MC250CT	B38	S38B	WP38	MLKA3A	Choose from	14K ONLY = BQD type = BQDxyy
250	42	P1E42MC250CT	B44	S44B	WP44	MLKA3A	Group E on next page	
	54	P1E54MC250CT	B50	S50B	WP50	MLKA3A	next page	(x=Poles, and y=Trip Rating)
	30	P1E30MC400CT	B62	S62B	WP62	4MLKA3A <sup>5</sup>	Choose from	
400	42	P1E42MC400CT	B68	S68B	WP68	4MLKA3A <sup>5</sup>	Group F on	Ex. 1Pole 20A@14KA = BQD120
	54	P1E54MC400CT	B74	S74B	WP74	4MLKA3A <sup>5</sup>	next page	

Interior	nteriors for xGB Breakers – 480Y/277V Three Phase – Four Wire								
				Enclosure		Main / Subfeed Device 6			
Ampere Rating	Circuits	Interior <sup>1</sup>	N1 Box	Front <sup>2</sup>	N3R	Main Lugs <sup>3</sup>	Main Breaker	Feeder Breakers	
	18	P1818MC250CT	B32	S32B	WP32	MLKA3A			
250	30	P1830MC250CT	B38	S38B	WP38	MLKA3A	Choose from	25K = 3VA41 = SEAB Type	
250	42	P1842MC250CT	B44	S44B	WP44	MLKA3A	Group E on next page	35K = 3VA41 = MEAB Type	
	54	P1854MC250CT	B50	S50B	WP50	MLKA3A	next page	65K = 3VA41 = HEAB Type	
	30	P1830MC400CT	B62	S62B	WP62	4MLKA3A <sup>5</sup>	Choose from		
400	42	P1842MC400CT	B68	S68B	WP68	4MLKA3A <sup>5</sup>	Group F on		
	54	P1854MC400CT	B74	S74B	WP74	4MLKA3A <sup>5</sup>	next page	See 3VA41 Supplement	

Requi	Required Accessories					
DFFP1	A – Breaker Filler Plates (qty ??)					
	Add one of the following:					
EGK –	Aluminum Ground Bus - 44 Connection Points (or)					
ECGK	Copper (only) Ground Bus - 44 Connection Points (or)					
IGK –	Insulated Aluminum Ground Bus - 44 Connection Points (or)					
ICGK –	Insulated Copper only Ground Bus - 44 Connection Points					

# See optional Neutral kits on page two.

Main and subfeed Breaker strap kits without breakers are

	 x EC	GK -or-	
٨L			
	 IGK - or - 1	EGK - or - 1 x EC IGK - or - 1 x IC	X DFFP! EGK - or - 1 x ECGK -or- IGK - or - 1 x ICGK AL

SUBFEED DEVICE **ADDITIONAL ACCESSORIES** 

Kits below required for Service Entrance Panels						
FD, QJ, QR Service Entrance Barrier Kit (Revised P1)						
2 ED Service Entrance Barrier Kit (Revised P1)						
3VA4/BQD Service Entrance Barrier Kit (Revised P1)						
back-fed main only						
GB Service Entrance Barrier Kit (Revised P1) back-fed main only						
BL/BQD/3VA4/xGB Service Entrance Barrier Kit (RP1 in Main Space)						
3VA52/61/62 Service Entrance Barrier Kit (horizontal Mount)						
JD, LD and 3VA53/63 Service Entrance Barrier Kit						

For BL/BQD & 3VA41/xGB Mains use these strap kits (In Main or Sub Feed):	
100 A max BL/BQD or 125A max 3VA41/xGB MBKVA41A – 2-pole only	
100 A max BL/BQD or 125A max 3VA41/xGB MBKVA41B – 3-pole only	

COMMENTS					

- 4) 4MLKA1B is also available for 1-Phase accepts AL 500-750kcmil (max 600kcmil CU wire) 5) 4MLKA3B is also available for 3-Phase - accepts AL 500-750kcmil (max 600kcmil CU wire)
- 6) Service Entrance Barrier Kit is needed for Service Entrance-rated panels only.
- 7) 250A main/subfeed kits can be used in subfeed space of 400A panels.

A) Any backfed main in unit space must use Main Label Kit # MBKBFA to identify Main.
B) The Revised P1 (18 circuit 250A only) is limited to 100A per connection (200A per pair) when installing BL/BQD or xGB Branch Breakers across from one another. 3VA41 does not have this restriction. All other configurations allow 125A per connection max. (250A per pair max.)

<sup>1)</sup> Replace last "C" in Part Number with "A" for Aluminum

<sup>2)</sup> Replace "S" in Part Number with "F" if Flush Mount Front is Required.

<sup>3)</sup> Aluminum Lug Kit will accept Aluminum or Copper Conductors. CU only versions are also available: MLKC1A,MLKC3A, 4MLKC1A, & 4MLKC3A.)

# Revised P1 Unassembled Panelboard Components

240V M	240V Main Breaker Kits <sup>1</sup>							
Group	Ampere Rating	Part #	AIC@ 240V	Description				
		MBKQR1125A	10K	Kit with 2 Pole QR2 125A Breaker				
	125	MBKQR1125HA	65K	Kit with 2 Pole HQR2 125A Breaker				
	123	MBKQR1150A	10K	Kit with 2 Pole QR2 150A Breaker				
		MBKQR1150HA	65K	Kit with 2 Pole HQR2150A Breaker				
	150	MBKQR1175A	10K	Kit with 2 Pole QR2 175A Breaker				
Α	150	MBKQR1175HA	65K	Kit with 2 Pole HQR2 175A Breaker				
^	175	MBKQR1200A	10K	Kit with 2 Pole QR2 200A Breaker				
		MBKQR1200HA	65K	Kit with 2 Pole HQR2 200A Breaker				
	200	MBKQR1225A	10K	Kit with 2 Pole QR2 225A Breaker				
		MBKQR1225HA	65K	Kit with 2 Pole HQR2 225A Breaker				
	225	MBKVAM1300A	85K	Kit with 2 Pole 3VA53 300A Breaker				
		MBKVAM1400A	85K	Kit with 2 Pole 3VA53 400A Breaker				
В	300	MBKQR3125A	10K	Kit with 3 Pole QR2 125A Breaker				
D	400	MBKQR3125HA	65K	Kit with 3 Pole HQR2 125A Breaker				
	150	MBKVAM3150A	85K	Kit with 3 Pole 3VA52 150A Breaker, MFAS				
	200	MBKVAM3200A	85K	Kit with 3 Pole 3VA52 200A Breaker, MFAS				
С	200	MBKVAH3200A	100K	Kit with 3 Pole 3VA52 225A Breaker, HFAS				
	225	MBKVAM3225A	85K	Kit with 3 Pole 3VA52 225A Breaker, MFAS				
	250	MBKVAM3250A	85K	Kit with 3 Pole 3VA52 250A Breaker, MFAS				
	230	MBKVAH3250A	100	Kit with 3 Pole 3VA52 250A Breaker, HFAS				
D	300	MBKVAM3300A	85K	Kit with 3 Pole 3VA53 300A Breaker				
	400	MBKVAM3400A	85K	Kit with 3 Pole 3VA53 400A Breaker				

Neutral Lug Kits	Part #	Number of Circuits	Description
250A/400A	CNLK42B	18, 30, 42	2 or 4 Branch Neutral Strips,
Copper	CNLK54B	54	1 Main Neutral Lug, Hardware
(new)	LNLK4X11B	18, 30	
250A/400A	LNLK6X17B	42	2 or 4 Branch Neutral Strips, 1 Main Neutral Lug, Hardware
2/0 Neutral Kits	LNLK7X20B	54	T Mail Neutral Lug, Hardware
250A	2NLK42B	18, 30, 42	2 or 4 Branch Neutral Strips,
200% Neutral	2NLK54B	54	1 Main Neutral Lug, Hardware
400A 200% Neutral	42NLK54B	30, 42. 54	2 or 4 Branch Neutral Strips, 1 Main 600MCM Neutral Lug, Hardware

<sup>1)</sup> If used as sub-feed breaker, max allowable is 250A.

### General Notes: For Revised P1 only

A) Any backfed main in unit space must use Main Label Kit # MBKBFA to identify Main.
B) The Revised P1 (18 circuit 250A only) is limited to 100A per connection (200A per pair) when installing BL/BQD or xGB Branch Breakers across from one another. 3VA41 does not have this restriction. All other configurations allow 125A per connection max. (250A per pair max.)

480V Main Breaker Kits <sup>1</sup>						
Group	Ampere Rating	Part #	AIC@ 240V	Description		
	150	MBKVAM3150A	35K	Kit with 3 Pole 3VA52 150A Breaker, MFAS		
	200	MBKVAM3200A	35K	Kit with 3 Pole 3VA52 200A Breaker, MFAS		
E	200	MBKVAH3200A	65K	Kit with 3 Pole 3VA52 225A Breaker, HFAS		
-	225	MBKVAM3225A	35K	Kit with 3 Pole 3VA52 225A Breaker, MFAS		
	250	MBKVAM3250A	35K	Kit with 3 Pole 3VA52 250A Breaker, MFAS		
	250	MBKVAH3250A	65K	Kit with 3 Pole 3VA52 250A Breaker, HFAS		
_	300	MBKVAM3300A	35K	Kit with 3 Pole 3VA53 300A Breaker		
F	400	MBKVAM3400A	35K	Kit with 3 Pole 3VA53 400A Breaker		

### Sample:

Contractor needs a NEMA 1 Surface-Mounted 120/208V 3 Phase, 4 Wire Panel with 200A Main Breaker, service entrance-rated 20 x 20A 1 Pole Feeder Breakers, and 2 x 40A 2 Pole Breakers. Smallest interior possible is OK, Main Copper Bus is preferred, and available Fault Current is 10K:

## Qty Part Number

- 1 P1X30MC250CT
- B38
- 1 S38B
- 1 MBKQR3200A
- 20 B120
- 2 B240
- 6 DFFP1A
- 1 EGK
- 1 SEBKRP1V1
- Since system voltage is 120/208 3Ph4W go to 2nd table. 200A is <=250A, so start with 250A row. Total number of circuits needed is 24 (20 + 2x2) and no additional space requested, so select 30 circuit. Copper is preferred so we don't need to change Interior in table... P1X30MC250CT.</li>
- 2) Follow same row over to select N1 Box and Surface Mount Front... B38 + S38B.
- 3) Main Breaker Kit comes from Group C. MBKQR3200A is lowest AIC that meets customer need of 10KAIC.
- 4) Like the main breaker, select Feeder Breakers that meet customer need. BL is enough to meet 10K AIC so we need 20 x B120 breakers and 2 x B240 breakers.
- 5) Don't forget to fill the remaining unused spaces with filler plates: 30 circuit panel 24 circuits used = **6 x DFFP1A** filler plates.
- 6) Even though a copper panel was requested and selected, the standard Aluminum EGK Ground bar is OK. It will accept both Al and Copper Conductors. If a "Copper Only" Ground was requested then we provide one ECGK.
- 7) Add Service Entrance Barrier Kit if this Panel is to be rated for Service Entrance.