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Selection & Application Guide

Vacu-Break® Fusible Panel Units

usa.siemens.com/switches

Sentron™ high contact pressure switch

Features

- UL Listed
- 400 - 600 - 800 - 1200 Switch design
- Visible contacts
- Suitable for many bolted switch applications
- Field installable Shunt Trip and Auxiliary Switch Accessory Kits
- Available as F2 Panelboard Main
- Installs in existing Siemens switchboards
- Can mix with other 30 through 600 Ampere Switches, and 100 through 1200 Ampere Breakers
- Horizontally mounted units fit in a standard 38" wide distribution section
- 16 1/4" mounting height - Smallest 1200A design in the industry
- Field reversible horizontally mounted design for left or right hand cabling



NOTE: Information related to specific catalog numbers does not guarantee product availability. Technical information may change due to product revisions. Consult Siemens sales office concerning any variation of product information contained herein.

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Fusible panelboard and switchboard switch features

Exclusive Vacu-Break Clampmatic® arc control – Hazardous switching arcs are safely confined and controlled in the Vacu-Break chamber.

NEMA phasing – All line connections are phased as per NEMA Standards, I.E., left to right and top to bottom as you face the unit.

Pressure terminal connectors – Suitable for aluminum or copper (100 Amps and larger). All Terminal Connectors 200 Amps and larger are removable.

Connection screws – Bullet nosed for positive location and seating of screw.

Quick-Make Quick-Break – Assured by design of cam mechanism and powerful springs. Positive operation in "ON" or "OFF" position results from design of the cross arm and Vacu-Break head linkage.

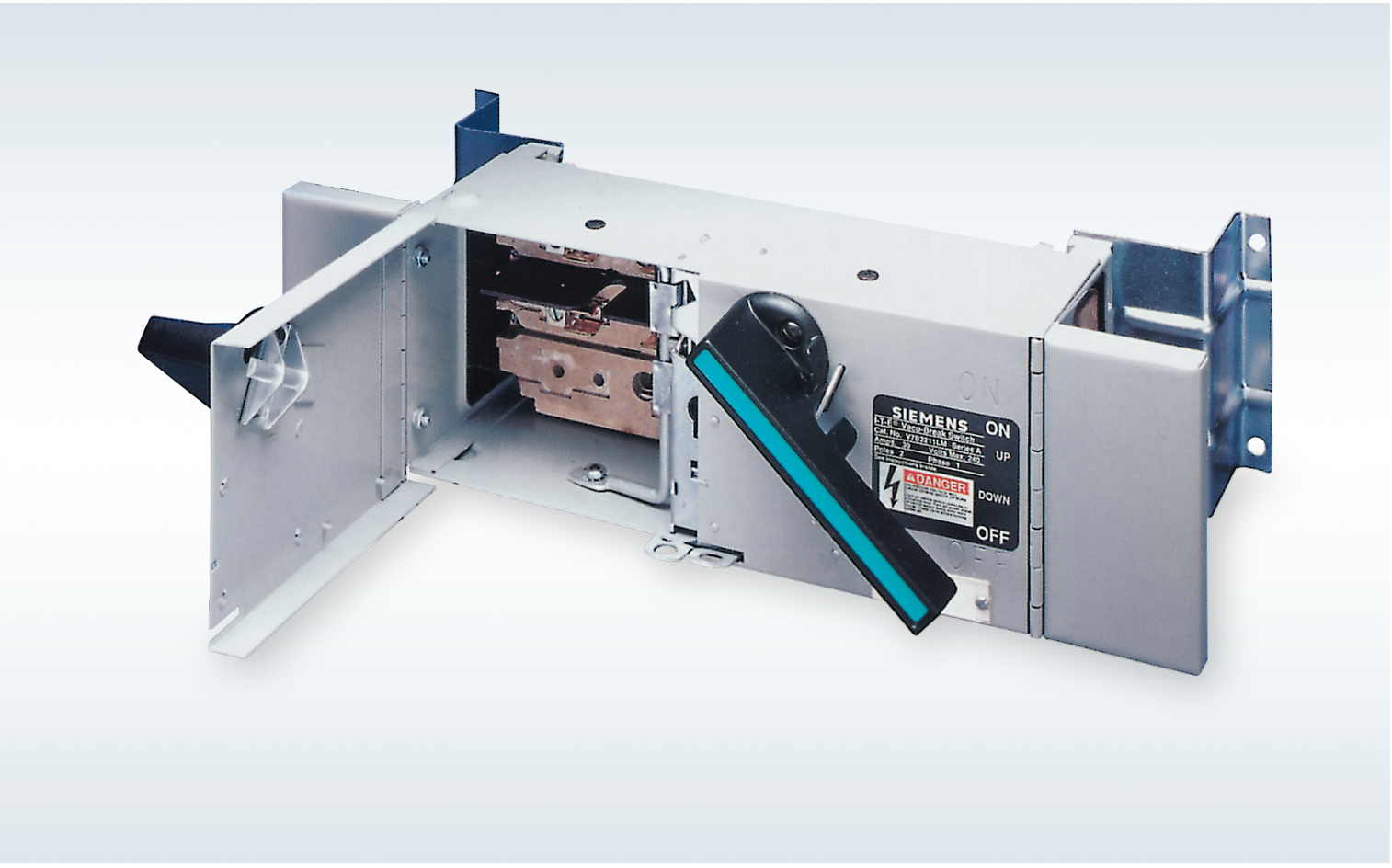
Easy mounting – Mounting feet have captive bullet nosed screws added, which seat quickly and positively, reducing installation time.

Padlocking member – Provides easier locking of handle in the "ON" or "OFF" position.

Fiber end barriers – Insulated End Barriers prevent damage to wire during installation and are designed with openings large enough to accommodate removable wire grips (200 Amps and larger units).

High pressure spring reinforced copper fuse clips – Provided extra pressure at the contact points Fuse clips are removable from the front in 7 1/2" and10" units and from the rear of 5" units.

Voidable cover interlock – Permits only authorized personnel to void the door interlock and open door with switch "ON.""Fool proof"mechanism will not permit door to be closed with handle in the wrong position.



Vacu-Break Clampmatic® design and operation

Siemens exclusive Vacu-Break switch combines the latest in fusible technology with Clampmatic®action for quick make/quick break performance and reliability. Quick—because the unique in-series twin arcs of the Clampmatic action extinguish much faster than the long arc common to other designs – and clean because the arc surfaces are separate from the continuous current carrying contact surface. Shorter arcs minimize carbon build-up, and the burnishing effect of the sliding action keeps the contacts smooth.

Exclusive Vacu-Break action confines and controls arcing through a combination of four effective art interruption methods. Enclosed Art Chamber, Double-Break Action, Magnetic Blow-Out Force and Controlled Arcing Surfaces.

Enclosed arc chamber

The Vacu-Break®Head, made of strong Melamine or Glass Polyester insulating material, completely encloses the switching contacts. Specifically designed to isolate and temper arcing effects at contact-break when switching contacts and burning action of the arcs on the switching contacts caused by oxidation. In addition, this arc-secluding enclosure effectively shields the balance of the switch unit.

Double-Break action

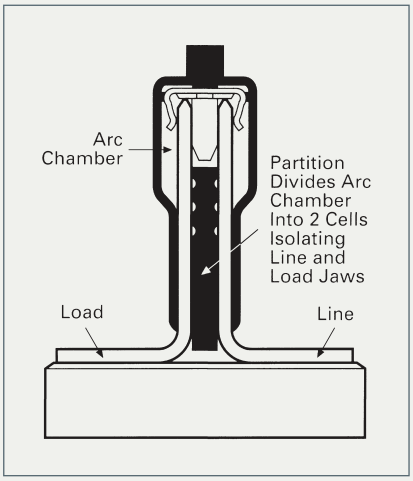
Double-Break action refers to the formation of two separate arcs in series at the switching contacts. As the head moves to the "OFF" position, the movable contact reaches a point in its travel where it breaks contact with both the stationary line and load jaws. At that instant, an arc is formed between the movable contact and each of the stationary contacts. Series-Arcing permits speedier arc interruption because it doubles the "break-distance" or arc path.

Magnetic blow-out force

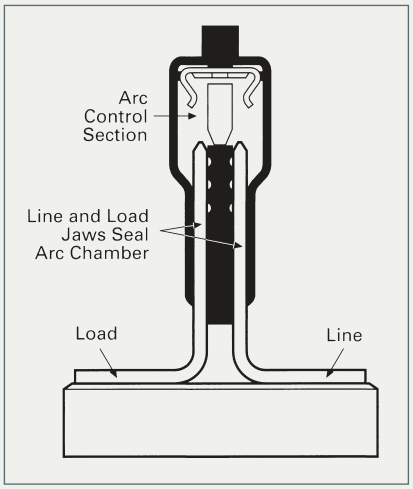
As in any electrical conductor, a magnetic field surrounds each of the arcs within the Vacu-Break®Head. Since these fields are in opposition to each other, the arc is forced outward against the enclosing head material. Heat transference between the arcs and the head material speeds up the rate of gas de-ionization. This action also further increases the length the arc must travel by forcing it to take a curved path.

Controlled arcing surfaces

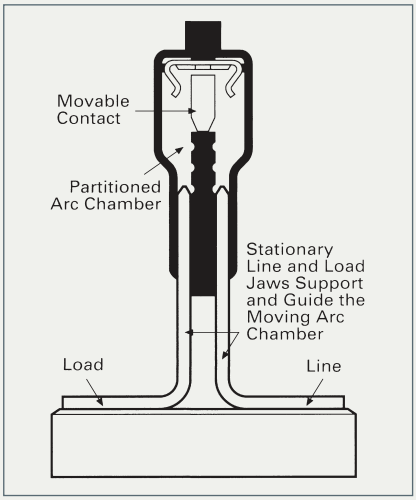
The presence of the arcs, even for the infinitesimal time that they are in existence, may result in some pitting and burning at the contact points. Movable contact and stationary jaws were specially designed with beveled edges on which the arcs can extinguish leaving the main contact surfaces smooth and clean.



Full "ON" position



Breaking the circuit



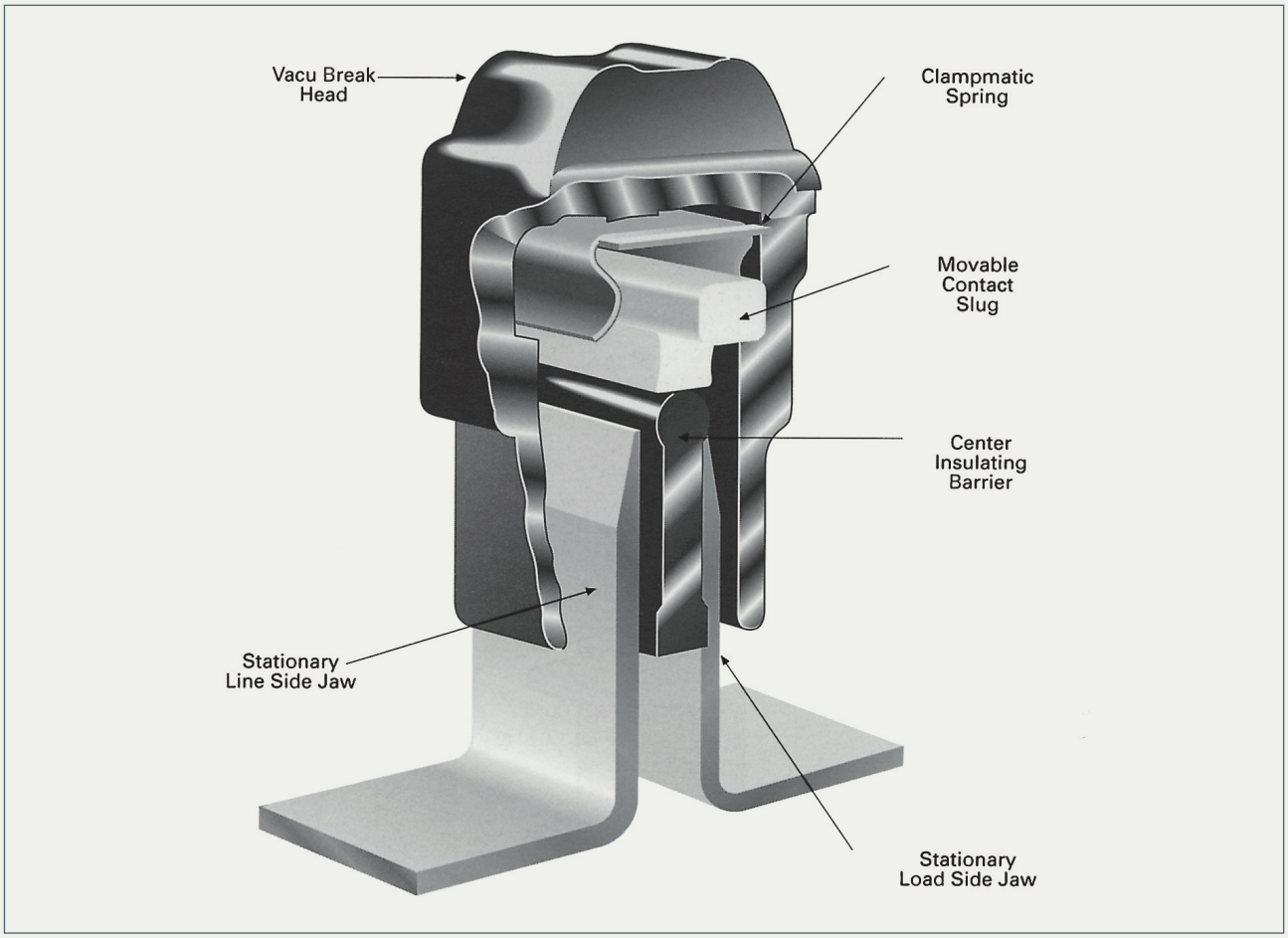
Full "OFF" position

Clampmatic pressure spring action

To avoid overheating at the contact points, it is essential that a bolt-tight pressure be developed and maintained while the switch is in the "ON" position, even after repeated operations. At the same time, the pressure at the contact points must be released quickly so as not to interfere with the quick-break mechanism when the unit is switched to the "OFF" position. With the development of the Clampmatic Pressure Spring Action both of these requirements have been effectively and successfully fulfilled in all Vacu-Break Units.

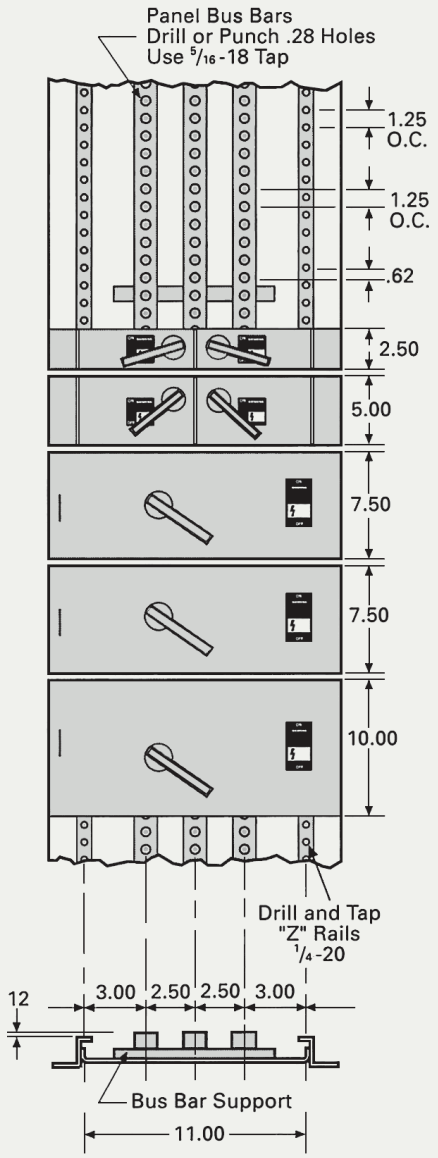
The Clampmatic pressure unit is a "U" shaped special spring located at the top of the Vacu-Break Head arc chamber. As the Head is moved to the "ON" position, the movable contact is guided into position between the stationary line and load jaws and aligned prior to the time the Clampmatic spring is forced over the outside edges of the stationary line and and load jaws and clamps the movable contact in position. The beveled edges of the Clampmatic spring and the switch jaws allow the spring to guide itself into position.

In the full "ON" position, the Clampmatic spring applies pressure against the beveled surfaces of the switch jaws. When the Unit is switched "OFF" the Clampmatic spring slides of the stationary jaws releasing the pressure on the movable contact before it begins its movement to the "OFF" position. In this way, the Clampmatic spring does not interfere with or delay the quick-break action of the operation mechanism. The combination of "Vacu-Break Arc Control" and Clampmatic Pressure Spring Action" on all Siemens Vacu-Break units affords an unequaled performance for switching applications in the low voltage field.



Exclusive Vacu-Break action confines and controls arcing through a combination of four effective arc interruption methods: enclosed arc chamber, double-break action, magnetic blow-out force and controlled arcing surfaces.

12” Vacu-Break panel 240V AC



240V AC 12” panel

Catalog number	Amperes	No. of poles	Branches	Dimensions (inches)			Horsepower rating 240V AC		250V DC
				H	W	D	Std.	Max.	
V2A2211	30 - 30	2	2	2.5	12	4.5	1.5	3	5
V2A3211	30 - 30	3	2	2.5	12	4.5	3	7.5	—
V2B2211	30 - 30	2	2	5	12.12	4.5	1.5	3	5
V2B3211	30 - 30	3	2	5	12.12	4.5	3	7.5	—
V2B3211R [1]	30 - 30	3	2	5	12.12	4.5	3	7.5	—
V2B2212	30 - 60	2	2	5	12.06	4.5	1.5 - 3	3 - 10	5 - 10
V2B3212	30 - 60	3	2	5	12.06	4.5	3 - 7.5	7.5 - 15	—
V2B3212R [1]	30 - 60	3	2	5	12.06	4.5	3 - 7.5	7.5 - 15	—
V2B2222	60 - 60	2	2	5	12.06	4.5	3	10	10
V2B3222	60 - 60	3	2	5	12.06	4.5	7.5	15	—
V2B3222R [1]	60 - 60	3	2	5	12.06	4.5	7.5	15	—
V2E2203	100	2	1	7.5	12.69	6.75	7.5	15	20
V2E3203	100	3	1	7.5	12.69	6.75	15	30	—
V2E2204	200	2	1	7.5	12.69	6.75	15	—	40
V2F3204	200	3	1	10	12.69	6.75	25	60	—

Main switch (Horizontal mounted – Back connected)

V2F3204MS	200	3	1	10	12.69	6.75	25	50	—

Note: Order 2 Pole Units by adding appropriate connection designation “LM,” “LR” or “MR” (indicating Left, Middle and Right Facing the panel).

[1] Switch set-up for R-fuse application only.

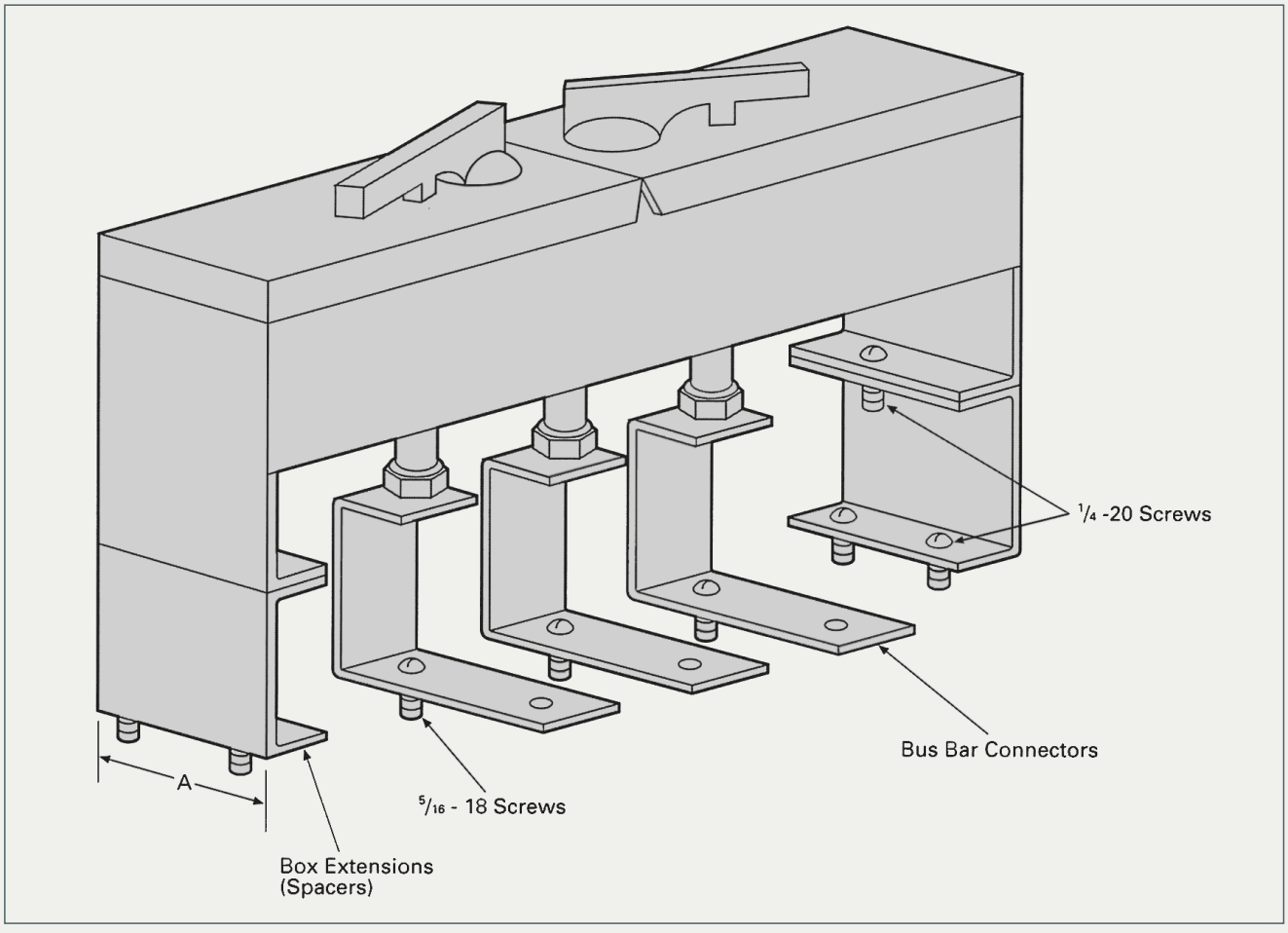
12” Vacu-Break accessories

Accessories 240V AC Vacu-Break 12” panel

Vacu-Break Catalog number	Depth Extension kit	J-Fuse Adaptor kit	R-Fuse Adaptor kit	T-Fuse Adaptor kit [1]	Number and ranges Lugs per pole
V2A2211	W43000	—	—	—	(1)#14-#8 AWG CU
V2A3211	W43000	—	—	—	(1)#14-#8 AWG CU
V2B2211	W43002	—	—	—	(1)#14-#4 AWG CU
V2B3211	W43002	—	—	—	(1)#14-#4 AWG CU
V2B3211R	W43002	—	Factory Installed	—	(1)#14-#4 AWG CU
V2B2212	W43002	—	—	—	(1)#14-#4 AWG CU
V2B3212	W43002	—	—	—	(1)#14-#4 AWG CU
V2B3212R	W43002	—	Factory Installed	—	(1)#14-#4 AWG CU
V2B2222	W43002	—	—	—	(1)#14-#4 AWG CU
V2B3222	W43002	—	—	—	(1)#14-#4 AWG CU
V2B3222R	W43002	—	Factory Installed	—	(1)#14-#4 AWG CU
V2E2203	—	W49827	W55365	TFAK32	(1)#10-1/0 CU/AL
V2E3203	—	W49827	W55365	TFAK32	(1)#10-1/0 CU/AL
V2F2204	—	W49819	W55366	TFAK42	(1)#6-250Kcmil CU/AL
V2F3204	—	W49819	W55366	TFAK42	(1)#6-250Kcmil CU/AL
V2F3204MS	—	W49819	W55366	TFAK42	(1)#6-250Kcmil CU/AL

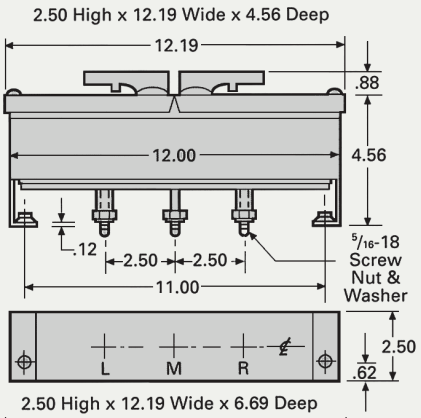
W43000 and W43002 Hardware to extend unit depth from 4.56 to 6.75 inches.

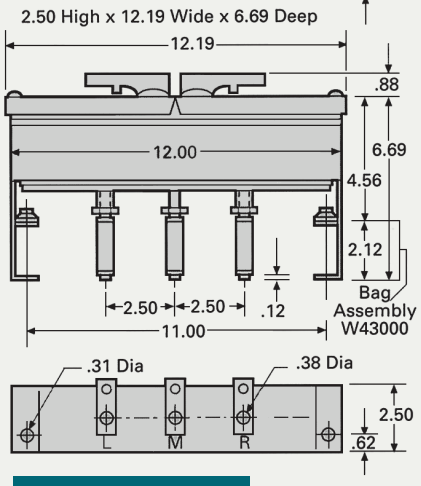
[1] “T” Fuse Kit includes hardware for 1 pole only.



Double and single units 12” panel dimensions 240V AC

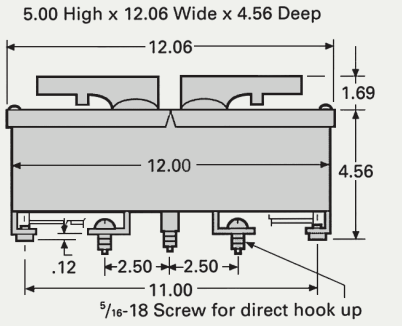
Compact 2.5” sliding contact unit 2 and 3-pole double branch units 30 - 30 ampere

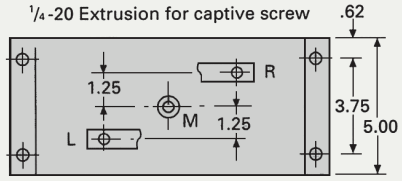


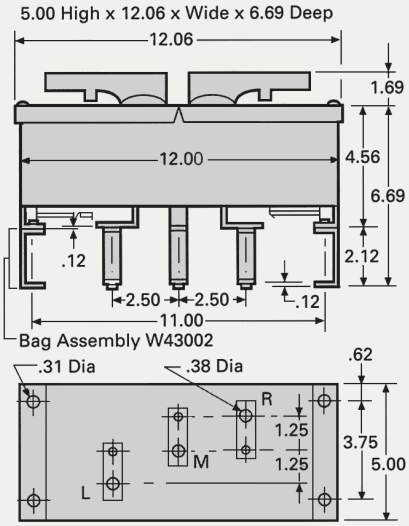


Catalog numbers
V2A2211
V2A3211

2 and 3-pole single branch units 30 - 30, 30 - 60 and 60 - 60 ampere

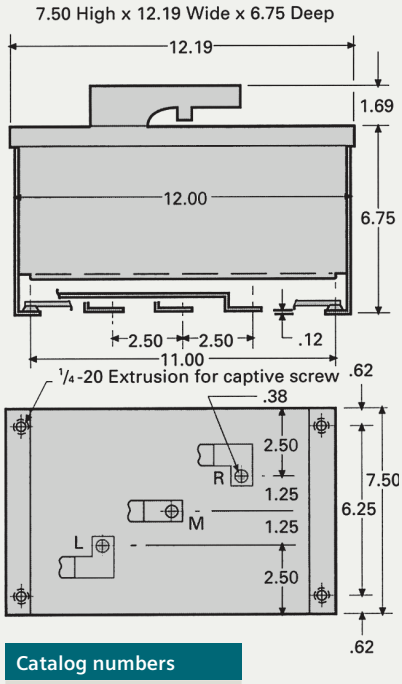






Catalog numbers	
V2B2211[1]	V2B2212 [1]
V2B3211	V2B3212
V2B3211R	V2B3212R
	V2B2222 [1]
	V2B3222
	V2B3222R

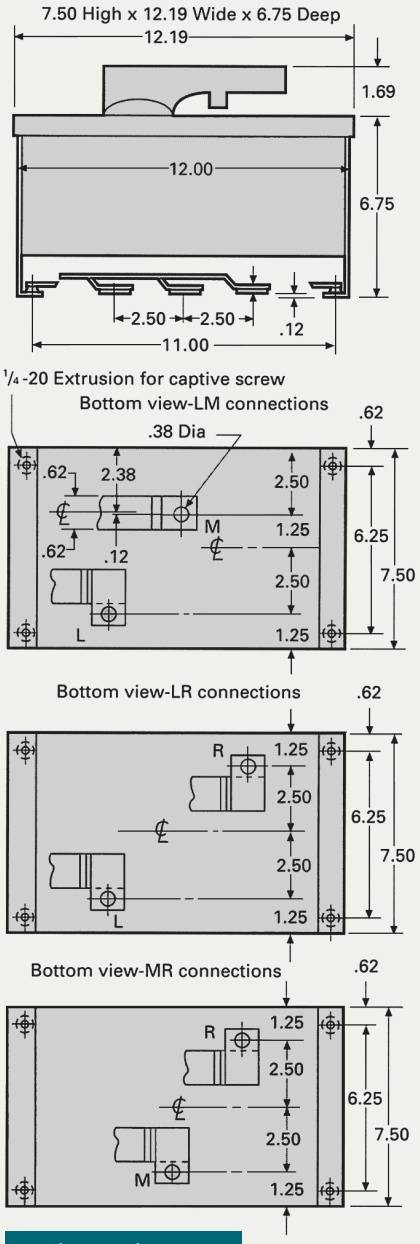
2-3 pole single branch units 100 ampere



Catalog numbers
V2E2203LR [1]
V2E3203

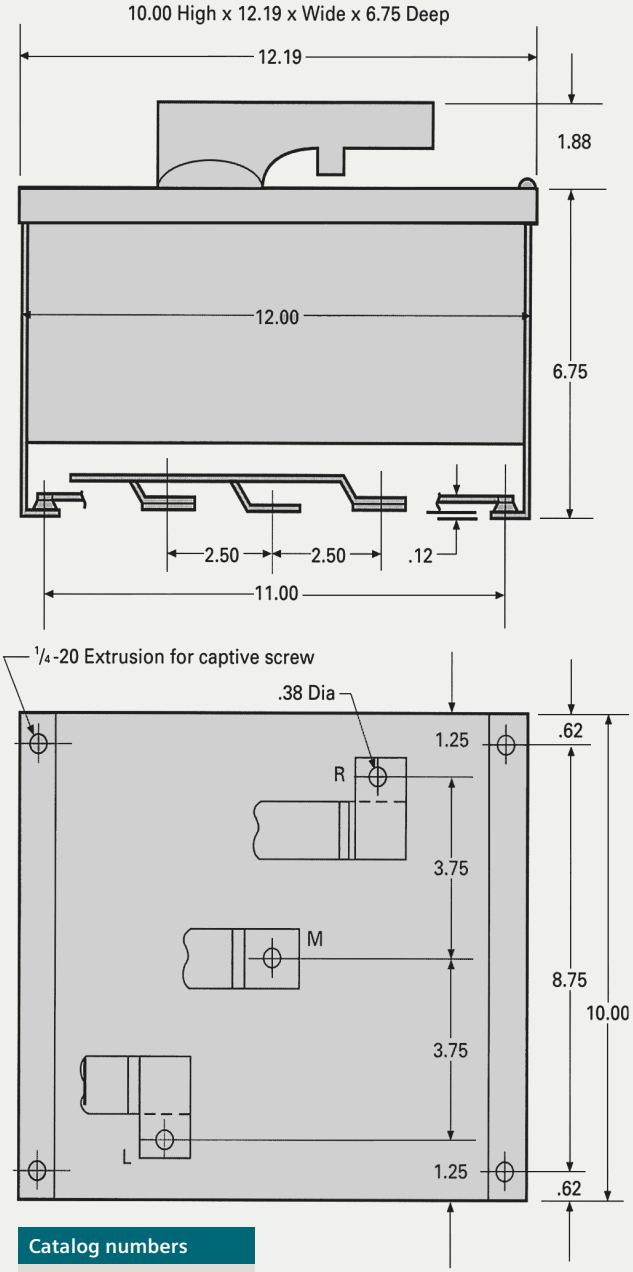
[1]Indicates bus connection configuration with suffix LR - LM - MR.

2-Pole single branch units
200 ampere



Catalog numbers
V2E2204 [1]

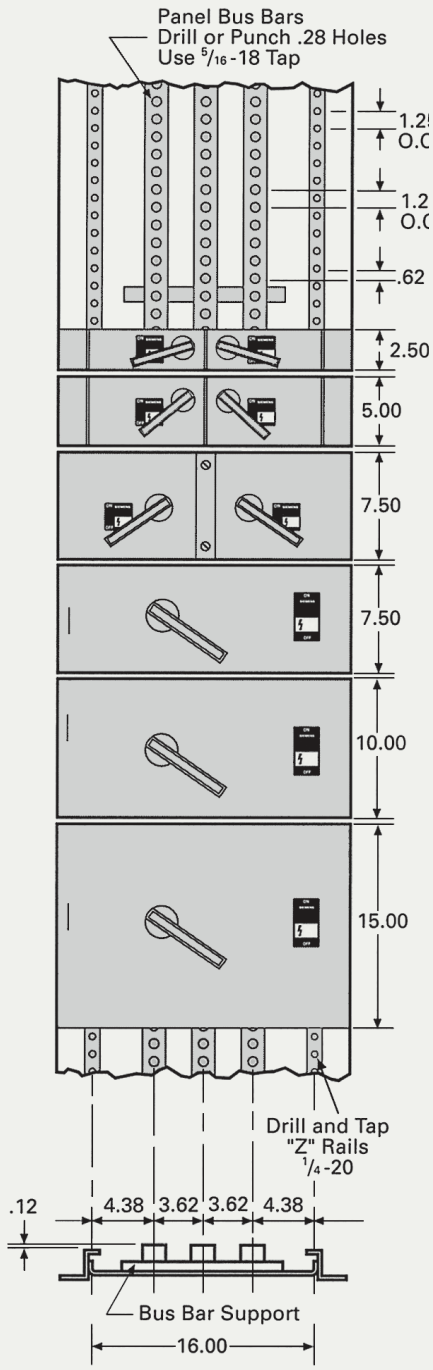
3 Pole single branch units
200 ampere



Catalog numbers
V2F3204

[1]Indicates bus connection configuration with suffix LR - LM - MR.

17" Vacu-Break panel 240V AC



240V AC 17" panel

Catalog numbers	Amperes	No. of poles	Branches	Dimensions (inches)			Horsepower rating 240V AC		250V DC
				H	W	D	Std.	Max.	
V7A2211 [1]	30 - 30	2	2	2.5	17.19	6.75	1.5	3	5
V7A3211 [1]	30 - 30	3	2	2.5	17.19	6.75	3	7.5	—
V7B2211	30 - 30	2	2	5	17.19	6.75	1.5	3	5
V7B3211	30 - 30	3	2	5	17.19	6.75	3	3	—
V7B3211R [2]	30 - 30	3	2	5	17.19	6.75	3	3	—
V7B2212	30 - 60	2	2	5	17.19	6.75	1.5 - 3	3 - 10	5 - 10
V7B3212	30 - 60	3	2	5	17.19	6.75	3 - 7.5	7.5 - 15	—
V7B3212R [2]	30 - 60	3	2	5	17.19	6.75	3 - 7.5	7.5 - 15	—
V7B2222	60 - 60	2	2	5	17.19	6.75	3	10	10
V7B3222	60 - 60	3	2	5	17.19	6.75	7.5	15	—
V7B3222R [2]	60 - 60	3	2	5	17.19	6.75	7.5	15	—
V7E2223	60 - 100	2	2	7.5	17.69	6.75	3 - 7.5	10 - 15	10 - 20
V7E3223	60 - 100	3	2	7.5	17.69	6.75	7.5 - 15	15 - 30	—
V7E2233	100 - 100	2	2	7.5	17.69	6.75	7.5	30	20
V7E3233	100 - 100	3	2	7.5	17.69	6.75	15	30	—
V7E3233R [2]	100 - 100	3	2	7.5	17.69	6.75	15	30	—
V7E3203	100	3	1	7.5	17.69	6.75	15	30	—
V7F3644 [3]	200 - 200	3	2	10	17.69	6.75	25	60	—
V7F3244R [2]	200 - 200	3	1	10	17.69	6.75	25	60	—
V7E2204	200	2	1	7.5	17.69	6.75	15	—	40
V7F3204	200	3	1	10	17.69	6.75	25	60	—
V7H2205A	400	2	1	15	17.25	10.5	—	—	50
V7F3205A	400	3	1	10	17.25	10.5	50	125	50
V7H3205A	400	3	1	15	17.25	10.5	50	125	50
V7H2206A	600	2	1	15	17.25	10.5	—	—	—
V7H3206A	600	3	1	15	17.25	10.5	75	200	—

Main switch (Horizontal mounted – Back connected)

V7E3203MS	100	3	1	7.5	17.69	6.75	15	30
V7E2204MS [4]	200	2	1	7.5	17.69	6.75	15	—
V7F3204MS	200	3	1	10	17.69	6.75	25	60
V7H2205MSA [4]	400	2	1	15	17.25	10.5	—	—
V7H3205MSA	400	3	1	15	17.25	10.5	50	125
V7H2206MSA [4]	600	2	1	15	17.25	10.5	—	—
V7H3206MSA	600	3	1	15	17.25	10.5	50	125

Main switch (Vertical mounted top feed)

VMS325T	400	3	1	18.75	17.19	10.37
VMS326T	200	3	1	18.75	17.19	10.37

Main switch (Vertical mounted bottom feed)

VMS325B	400	3	1	18.75	17.19	10.37
VMS326B	200	3	1	18.75	17.19	10.37

Note: Order 2 Pole Units by adding appropriate connection designation "LM," "LR" or "MR" (indicating Left, Middle and Right Facing the panel).

[1] This unit is not a Vacu-Break unit, but rather operates on a sliding contact design. Rated 10,000 AIC max. with Class H or R fuses. Will not accept Class R fuse clip kits.

[2] Switch set-up for R-fuse application only.

[3] Rated 600V AC but factory configured to accepted 250V Class H, K or R fuses. Convertible for Class J fuses.

[4] Available as Type LR connection designation only.

17" Vacu-Break accessories

Accessories 240V AC Vacu-Break 17" Panel

Vacu-Break Catalog numbers	Depth Extension kit	J-Fuse Adaptor kit [1]	R-Fuse Adaptor kit [1]	T-Fuse Adaptor kit [2]	Number and ranges Lugs per pole (Cu/Al)
V7A2211	W48762	—	—	—	1 PC. #14 To #8
V7A3211	W48762	—	—	—	1 PC. #14 To #8
V7B2211	W48763	[3]	—	—	1 PC. #14 To #4
V7B3211	W48763	[3]	—	—	1 PC. #14 To #4
V7B3211R	W48763	—	Factory Installed	—	1 PC. #14 To #4
V7B2212	W48763	[3]	—	—	1 PC. #14 To #2
V7B3212	W48763	[3]	—	—	1 PC. #14 To #2
V7B3212R	W48763	—	Factory Installed	—	1 PC. #14 To #2
V7B2222	W48763	[3]	—	—	1 PC. #14 To #2
V7B3222	W48763	[3]	—	—	1 PC. #14 To #2
V7B3222R	W48763	—	Factory Installed	—	1 PC. #14 To #2
V7E3223	W48764	W49827-100A W49829-60A	W55365-100A W56628-60A	TFAK32-100A —	1 PC. #10 To #1/0 1 PC. #14 To #1/0
V7E2223	W48764	W49827-100A W49829-60A	W55365-100A W56628-60A	TFAK32-100A —	1 PC. #12 To #1/0 1 PC. #14 To #1/0
V7E2233	W48764	W49827	W55365	TFAK32	1 PC. #12 To #1/0
V7E3233 & V7E3233R	W48764	W49827	W55365 [4]	TFAK32	1 PC. #10 To #1/0
V7F3644 & V7F3244R	W48765	—	W55366 [5]	TFAK42	1 PC. #6 To 250kcmil
V7E2204	W48764	W49819	W55366	TFAK42	1 PC. #6 To 250kcmil
V7F3204	W48765	W49819	W55366	TFAK42	1 PC. #6 To 250kcmil
V7H2205A	—	Relocate Base	HR65A	HT65A	2 PC #1/0 to 750kcmil or 4 PC #1/0 to #4/0
V7H3205A	—	Relocate Base	HR65A	HT65A	1 PC #1/0 to 750kcmil or 2 PC #1/0 to 300kcmil
V7H2206A	—	Relocate Base + HJ66A	HR66A	HT66A	2 PC #1/0 to 750kcmil or 4 PC #1/0 to #4/0
V7H3206A	—	Relocate Base + HJ66A	HR66A	HT66A	1 PC #1/0 to 750kcmil or 2 PC #1/0 to 300kcmil
V7F3203MS	W48764	W49827	W55365	TFAK32	Supplied w/CU pads
V7F3204MS	W48765	W49819	W55366	TFAK42	Supplied w/CU pads
V7H3205MSA	—	HJ65A	HR65A	HT65A	Supplied w/CU pads
V7H3206MSA	—	HJ65A	HR66A	HT66A	Supplied w/CU pads

W48762, W48763, W48764, W48765 Hardware to extend unit depth from 6.75 to 10.50 inches.

[1] Double branch units require 2 kits per unit.

[2] "T" fuse adapter kit includes hardware for 1 pole only.

[3] For 240V AC "J" Fuse application, use 600V AC unit and appropriate 240V AC "J" Fuse kit 30A Unit - W49831; 60A Unit - W49829.

[4] Factory installed in V7E3233R.

[5] Factory installed in V7F3244R.

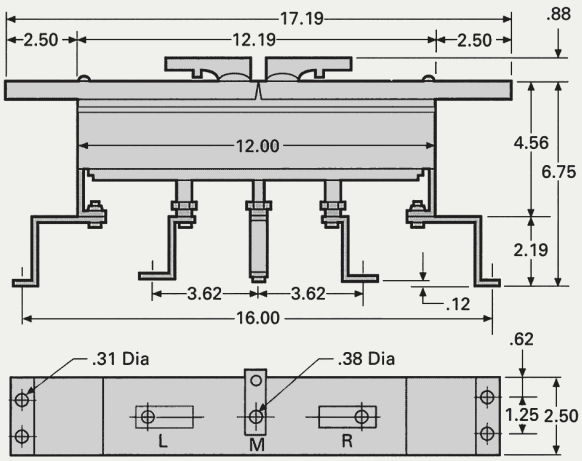
Vacu-Break connecting strap kits for panelboards and switchboards

Ampere rating	240V unit Height (Inches)	600V unit Height (Inches)	S4/F1, FPP (10" deep) Strap kit	S5/F2, FPP (12.75" deep) Strap kit	SB1, SB2, SB3, FC-20, FC-1 VB-5, VB-6 Strap kit
30-30	2.50	—	F602	F602D	—
30-30	5	7.50	F657	F657D	VB657
30-60	5	7.50	F657	F657D	VB657
60-60	5	7.50	F657	F657D	VB657
60-100	7.50	7.50	F657	F657D	VB657
100-100	7.50	7.50	F657	F657D	VB657
100	7.50	7.50	F657	F657D	VB657
200	7.50, 10	7.50, 10	F671	F671D	VB671
200-200	10	10	F672	F672D	VB672
400	15	15	—	F6150D	VB6150
600	15	15	—	F6150D	VB6150

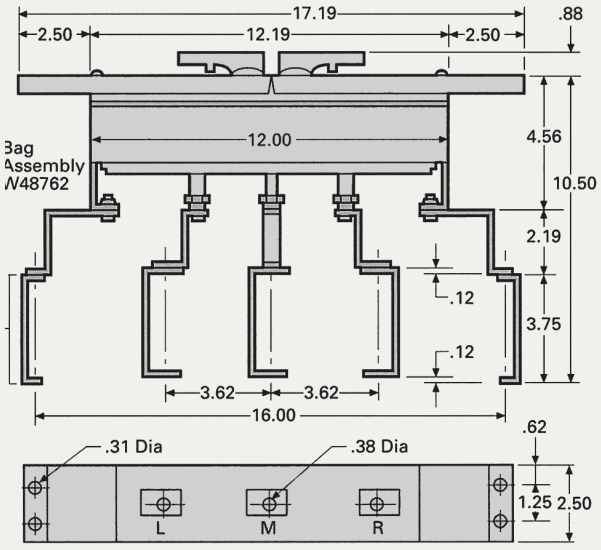
Double and single units
17” panel dimensions 240V AC

Compact 2.5” sliding contact units
2 and 3-pole double branch units
30 - 30 ampere

2.50 High x 17.19 Wide x 6.75



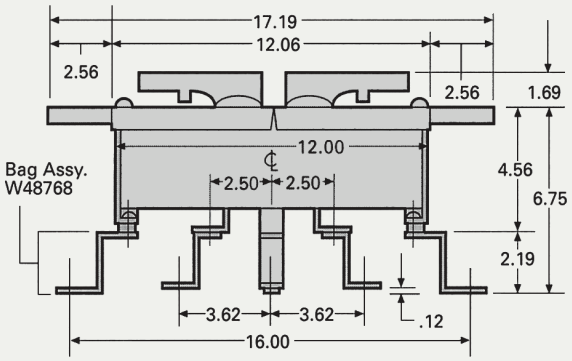
2.50 High x 17.19 Wide x 10.5 Deep



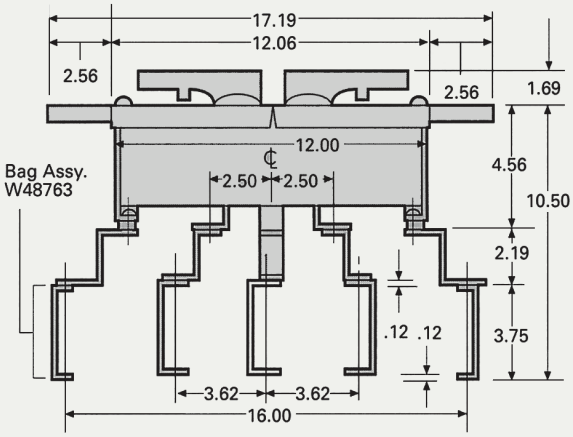
Catalog numbers
V7A2211 [1]
V7A3211

2 and 3-pole double branch units
30 - 30, 30 - 60 and 60 - 60 ampere

5.00 High x 17.19 Wide x 6.25 Deep



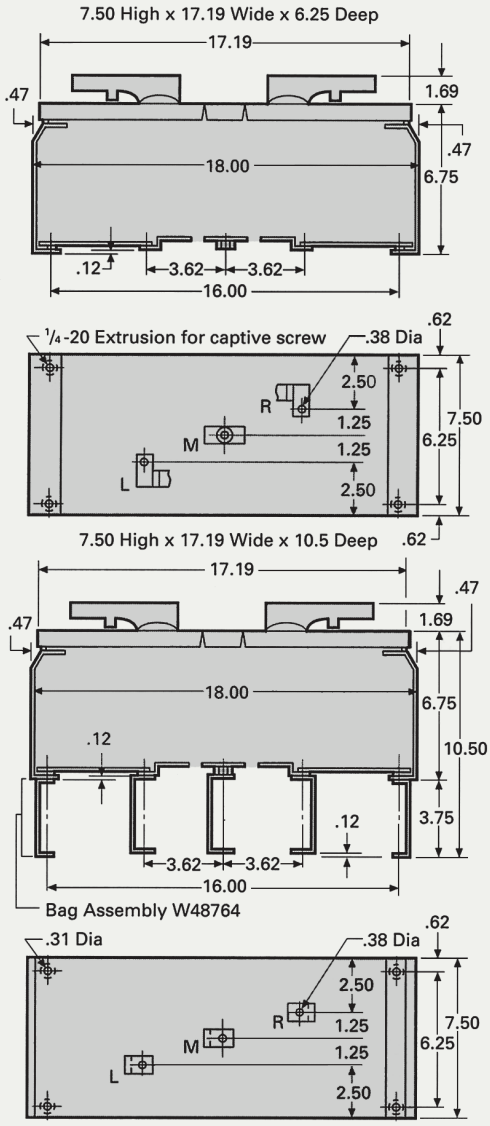
5.00 High x 17.19 Wide x 10.50 Deep



Catalog numbers
V7B2211 [1]
V7B2212 [1]
V7B2222 [1]
V7B3211(R)
V7B3212(R)
V7B3222(R)

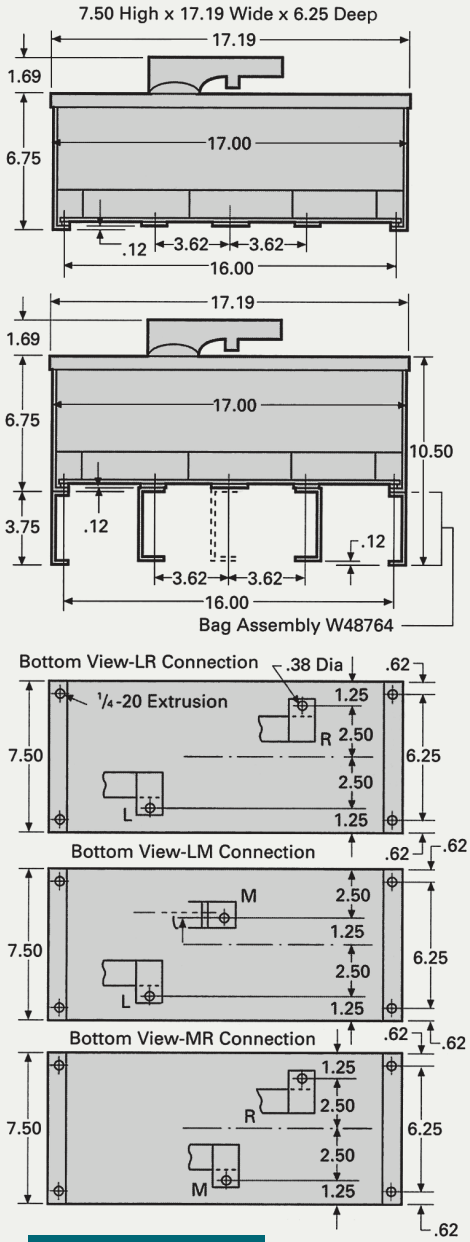
[1]Indicates bus connection configuration with suffix LR - LM - MR.

2 and 3-pole double branch units
60 - 100 ampere 100 - 100 ampere



Catalog numbers
V7E2233 [1]
V7E3233(R)
V7E2223 [1]
V7E3223

2-pole single branch units
200 ampere

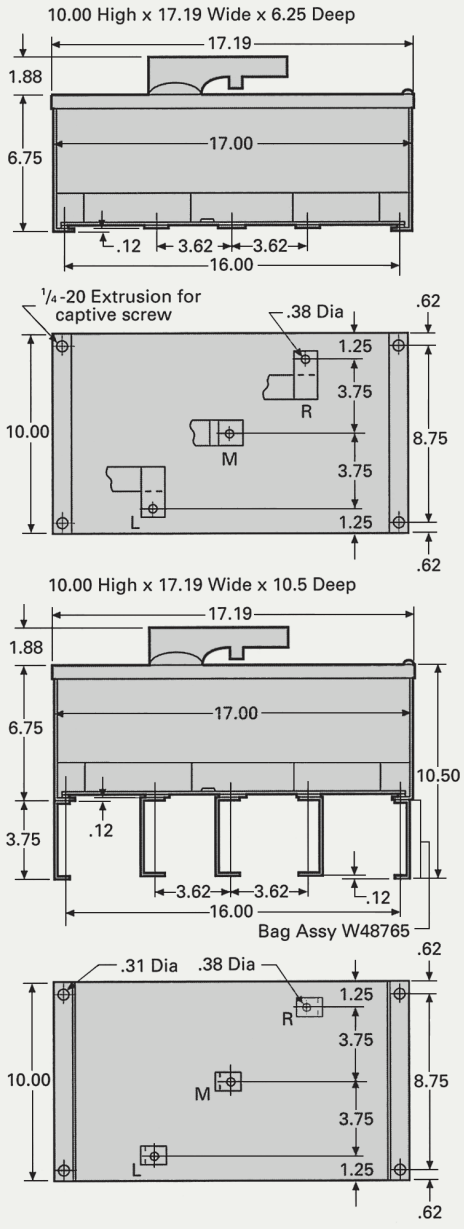


Catalog number
V7E2204 [1]

[1]Indicates bus connection configuration with suffix LR - LM - MR.

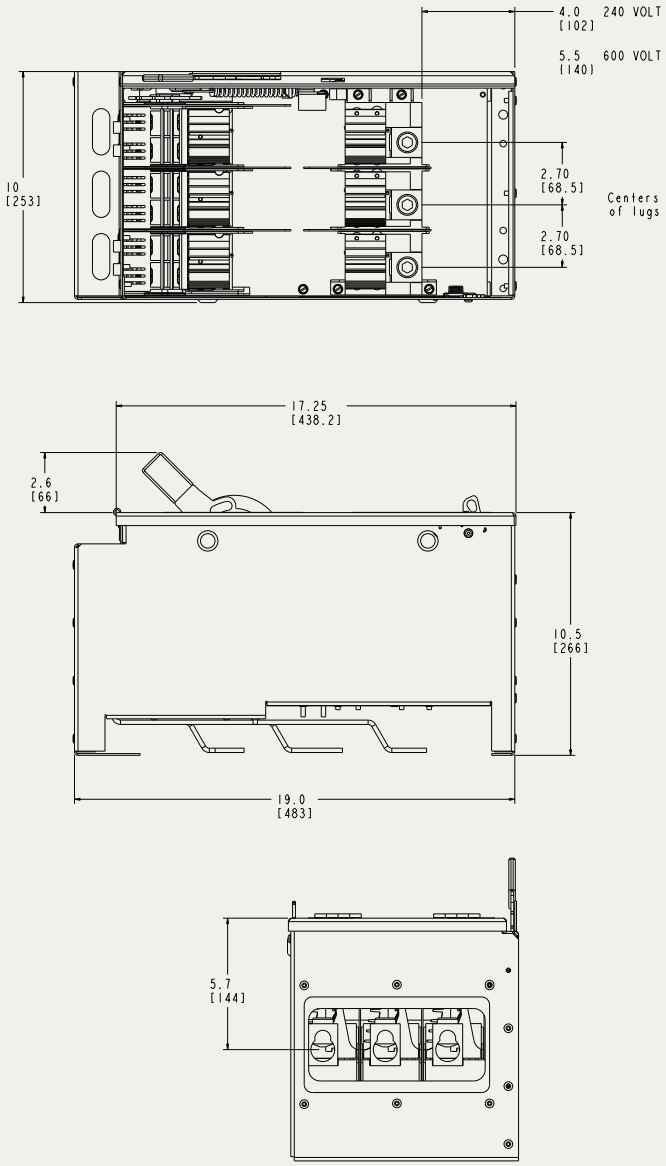
Double and single units
17” panel dimensions 240V AC

3-Pole single branch units
200 ampere



Catalog number
V7F3204

10 inch, 3-pole compact single branch units
400 ampere

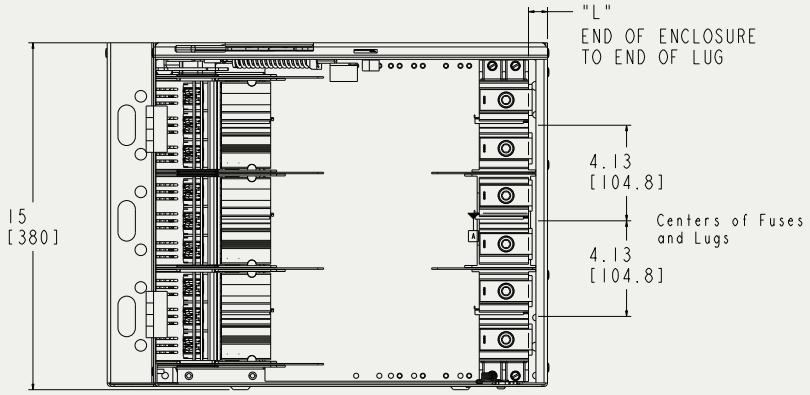


Enclosure:
Galvanized Steel .075 thick minimum
Finish: ANSI Grey #61 Paint

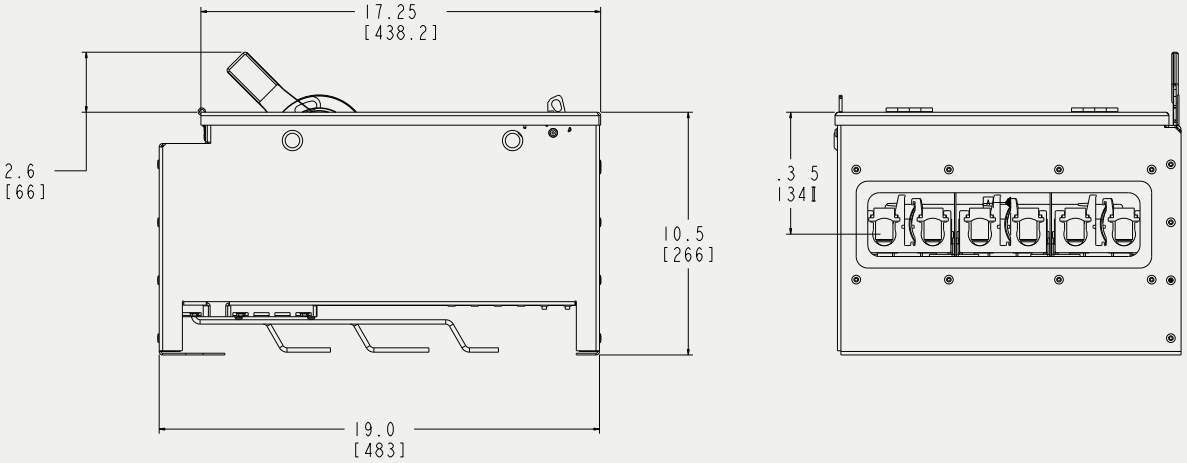
Dimensions shown in inches
and millimeters [ ].
Dimensions shown accurate to ± 1/8 inch.

Catalog number
V7F3205A

15 inch 2- and 3-pole single branch unit 400 and 600 ampere



AMPERAGE	VOLTAGE	DISTANCE "L"
400	240	5.57 [141.5]
400	600	2.57 [65.3]
600	240	3.82 [97.0]
600	600	0.82 [20.8]

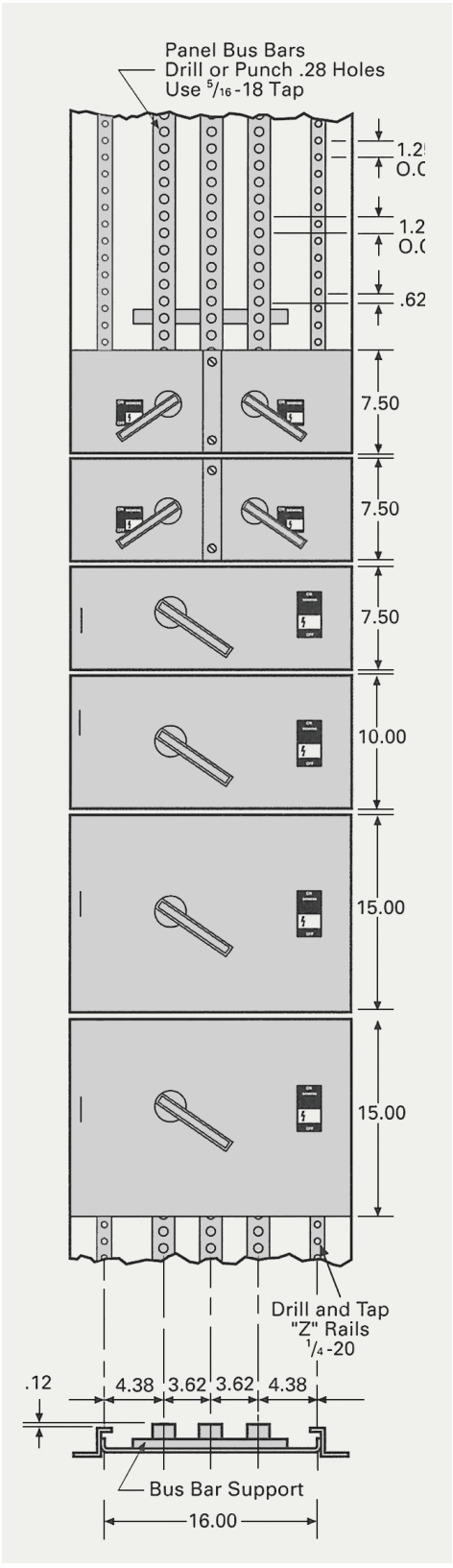


Enclosure:
Galvanized Steel .075 thick minimum
Finish: ANSI Grey #61 Paint

Dimensions shown in inches
and millimeters [ ].
Dimensions shown accurate to ± 1/8 inch.

Catalog numbers
V7H2205A
V7H2206A
V7H3205A
V7H3206A

17" Vacu-Break panel 600V AC



600V AC 17" panel

Catalog number	Amperes	No. of poles	Branches	Dimensions (inches)			Horsepower rating 480V AC		600V AC	
				H	W	D	Std.	Max.	Std.	Max.
V7E2611[1]	30 - 30	2	2	7.5	17.69	6.75	3	7.5	3	10
V7E3611	30 - 30	3	2	7.5	17.69	6.75	5	15	7.5	20
V7E3611R[2]	30 - 30	3	2	7.5	17.69	6.75	5	15	7.5	20
V7E2612[1]	30 - 60	2	2	7.5	17.69	6.75	3-5	72-20	3-5	20-25
V7E3612	30 - 60	3	2	7.5	17.69	6.75	5-15	15-30	75-15	20-50
V7E2622[1]	60 - 60	3	3	7.5	17.69	6.75	5	20	10	25
V7E3622	60 - 60	3	2	7.5	17.69	6.75	15	30	15	50
V7E3622R[2]	60 - 60	3	2	7.5	17.69	6.75	15	30	15	50
V7E3623	60-100	3	2	7.5	17.69	6.75	15-25	30-60	15-30	50-75
V7E2633[1]	100-100	2	2	7.5	17.69	6.75	10	30	15	40
V7E3633	100-100	3	2	7.5	17.69	6.75	25	60	30	75
V7E3633R[2]	100-100	3	2	7.5	17.69	6.75	25	60	30	75
V7E2603[1]	100	2	1	7.5	17.69	6.75	10	30	15	40
V7E3603	100	3	1	7.5	17.69	6.75	25	60	30	75
V7F3644[3]	200-200	3	2	10	17.69	6.75	50	125	60	150
V7F2604[1]	200	2	1	10	17.69	6.75	25	50	30	50
V7F3604	200	3	2	10	17.69	6.75	50	125	60	150
V7F3604R[2]	200	3	1	10	17.69	6.75	50	125	60	150
V7F3605A[4]	400	3	1	10	17.25	10.5	100	250	125	350
V7H3605A	400	3	1	15	17.25	10.5	100	250	125	350
V7H3606A	600	3	1	15	17.25	10.5	150	400	200	500

Main switch (Horizontal mounted – Back connected)

V7E3603MS	100	3	1	7.5	17.69	6.75	25	50	30	50
V7F3604MS	200	3	1	10	17.69	6.75	50	125	60	150
V7H3605MSA	400	3	1	15	17.25	6.75	100	250	125	350
V7H3606MSA	600	3	1	15	17.25	6.75	150	400	200	500

Main switch (Vertical mounted top feed)

VMS365T	400	3	1	18.75	17.69	10.37
VMS366T	600	3	1	18.75	17.69	10.37

Main switch (Vertical mounted bottom feed)

VMS365B	400	3	1	18.75	17.69	10.37
VMS366B	600	3	1	18.75	17.69	10.37

[1] Order 2 pole branch units by adding appropriate connection designation "LR,""LM" or "MR" (indicating Left, Middle and Right, facing the panel).
[2] Switch set-up for R-fuse applications only.
[3] Factory supplied in 250V AC class "H" position. For 600V AC applications, use class "J" position.
[4] Compact (10") switch will not accept R-class 600V fuses, use 15' version (V7H3605A).

17" Vacu-Break accessories

Accessories 600V AC Vacu-Break 17" panel

Vacu-Break Catalog number	Depth Extension kit	J-Fuse Adaptor kit [1]	R-Fuse Adaptor kit [1]	T-Fuse Adaptor kit [2]	Number and ranges Lugs per pole (Cu/Al)
V7E3611	W48764 [3]	W49832	W56623	—	1 PC. #14 To #4 [3]
V7E3612	W48764	W49832-30A W49830-60A	W56623-30A W56629-60A	— —	1 PC. #14 To #2
V7E3622	W48764 [4]	W49830	W56629	—	1 PC. #14 To #2 [4]
V7E3623	W48764	W49830-60A W49828-100A	W56629-60A W55365-100A	— TFAK35	1 PC. #14 To #1/0
V7E3633	W48764 [5]	W49828	W55365	TFAK35	1 PC. #14 To #1/0 [5]
V7E3603	W48764	W49828	W55365	TFAK35	1 PC. #14 To #1/0
V7F3644	W48765	[6]	W55366	TFAK45	1 PC. #6 To 250kcmil
V7F3604	W48765 [7]	W49818	W55366	TFAK45	1 PC. #6 To 250kcmil [7]
V7H3605A	—	relocate base	HR65A	HT65A	2 pc #1/0 to 750kcmil or 4 pc #1/0 to #4/0
V7H3606A	—	relocate base	HR66A	HT66A	2 pc #1/0 to 750kcmil or 4 pc #1/0 to #4/0
V7E3603MS	W48764	W49828	W55365	TFAK35	Supplied w/CU pads
V7F3604MS	W48765	W49818	W55366	TFAK45	Supplied w/CU pads
V7H3605MSA	—	HJ65A	HR65A	HT65A	Supplied w/CU pads
V7J3606MSA	—	HJ65A	HR66A	HT66A	Supplied w/CU pads

W48764 and W48765 Hardware to extend unit depth from 6.75 to 10.50 inches.

[1] Double branch units require 2 kits per unit.

[2] "T" fuse adapter kit includes hardware for 1 pole only.

[3] Also applies to catalog number V7E3611R.

[4] Also applied to catalog number V7E3622R.

[5] Also applies to catalog number V7E3633R.

[6] No kit required. Fuse clips can be repositioned for Class "J" fuse applications.

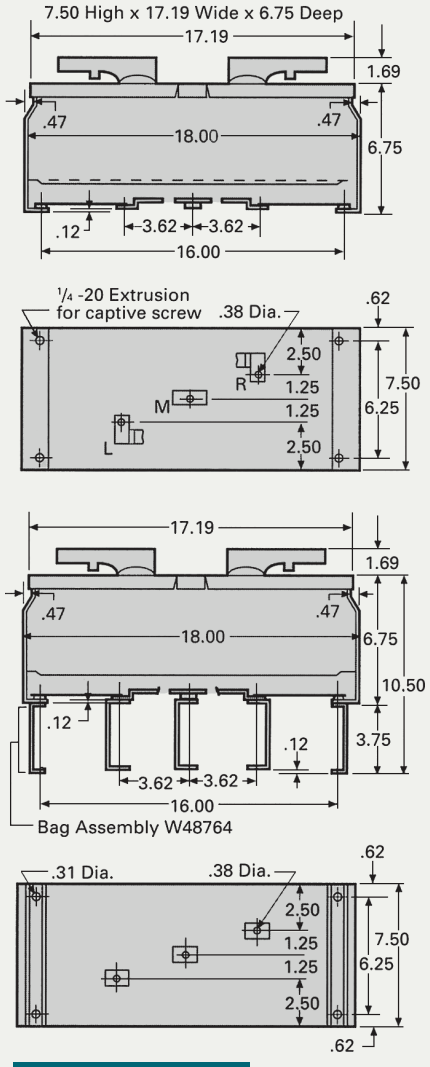
[7] Also applies to catalog number V7E3604R.

Vacu-Break connecting strap kits for panelboards and switchboards

Ampere rating	240V unit Height (Inches)	600V unit Height (Inches)	S4/F1, FPP (10" Deep) Strap kit	S5/F2, FPP (12.75" Deep) Strap kit	SB1, SB2, SB3, FC-20, FC-1 VB-5, VB-6 Strap kit
30-30	2.50	—	F602	F602D	—
30-30	5	7.50	F657	F657D	VB657
30-60	5	7.50	F657	F657D	VB657
60-60	5	7.50	F657	F657D	VB657
60-100	7.50	7.50	F657	F657D	VB657
100-100	7.50	7.50	F657	F657D	VB657
100	7.50	7.50	F657	F657D	VB657
200	7.50, 10	7.50, 10	F671	F671D	VB671
200-200	10	10	F672	F672D	—
400	15	15	—	F6150D	VB6150
600	15	15	—	F6150D	VB6150

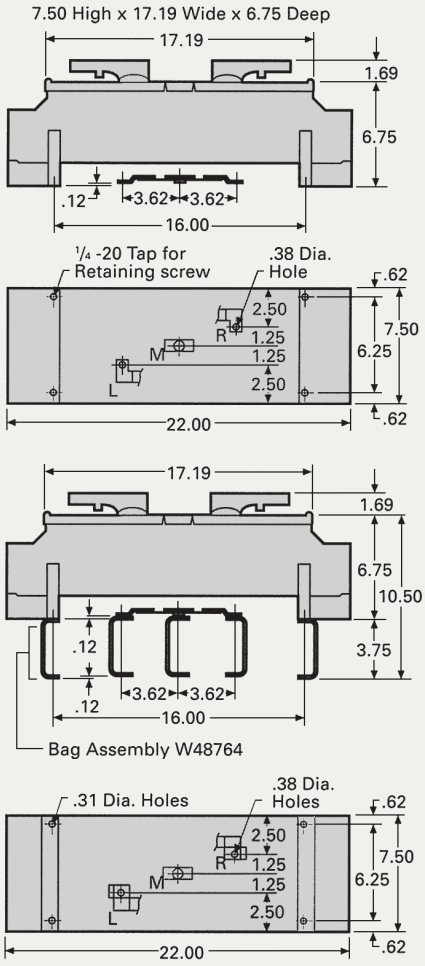
Double and single units 17" panel dimensions 600V AC

3-pole double branch unit 30 - 30, 30 - 60 and 60 - 60 ampere



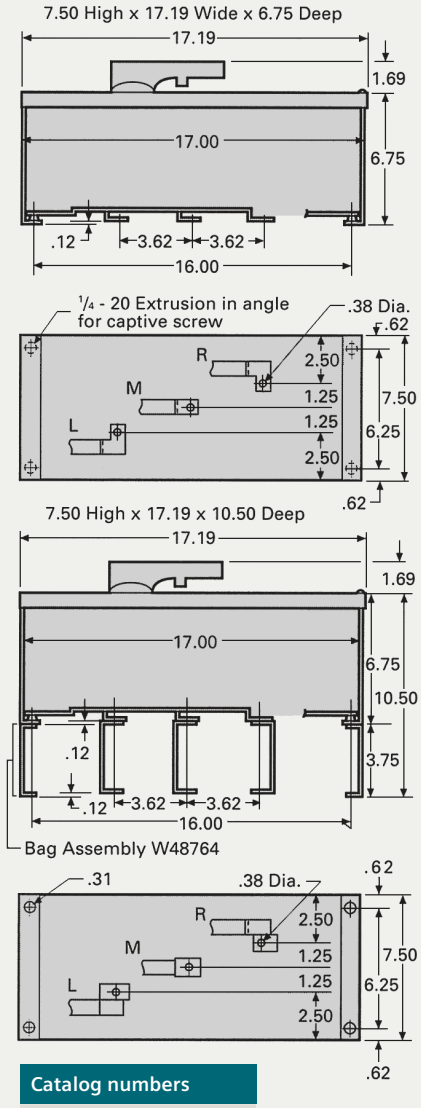
Catalog numbers
V7E2611 [1]
V7E3611(R) [2]
V7E2612LR
V7E2622 [1]
V7E3612 [2]
V7E3622(R)

3-pole double branch units 100 - 100 ampere



Catalog numbers
V7E2633 [1]
V7E3623
V7E3633(R)

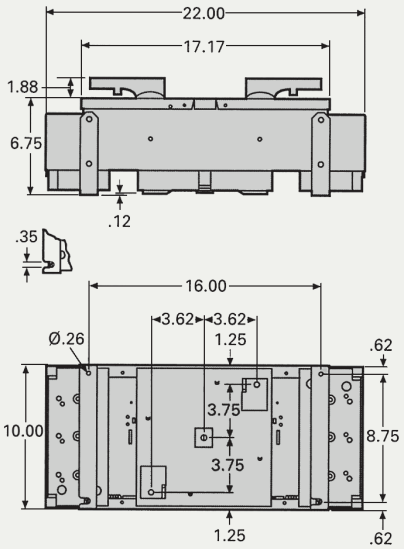
3-pole single branch units 100 ampere



Catalog numbers
V7E2603 [1]
V7E3603

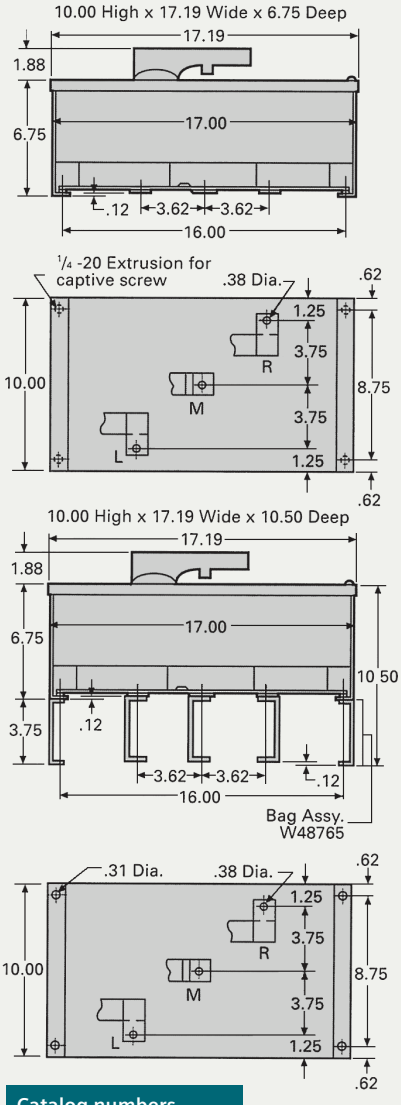
[1] Indicates bus connection configuration with suffix LR - LM - MR.
[2] Use 3-pole unit for 2-pole application.

3-pole double branch units 200 - 200 ampere



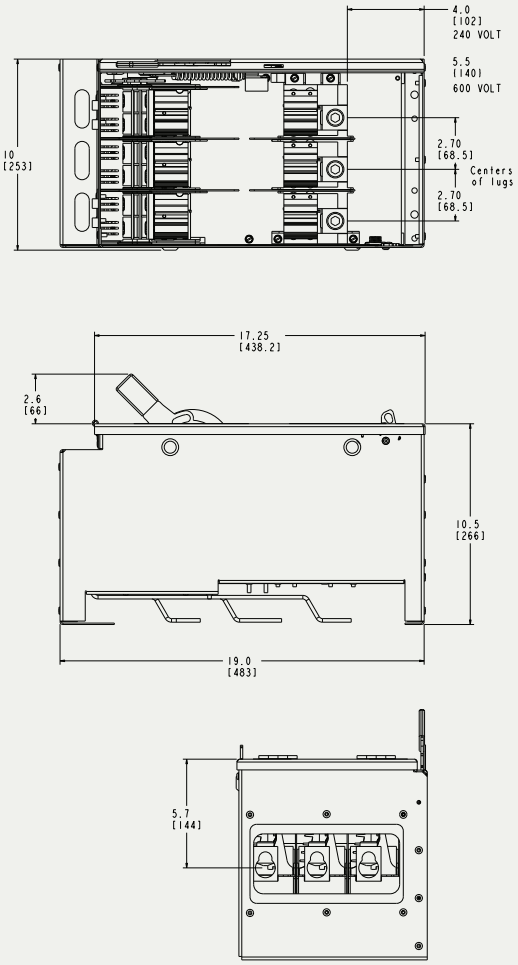
Catalog numbers
V7F3644(R)

3-pole single branch units 200 ampere



Catalog numbers
V7F2604LR V7F3604(R)

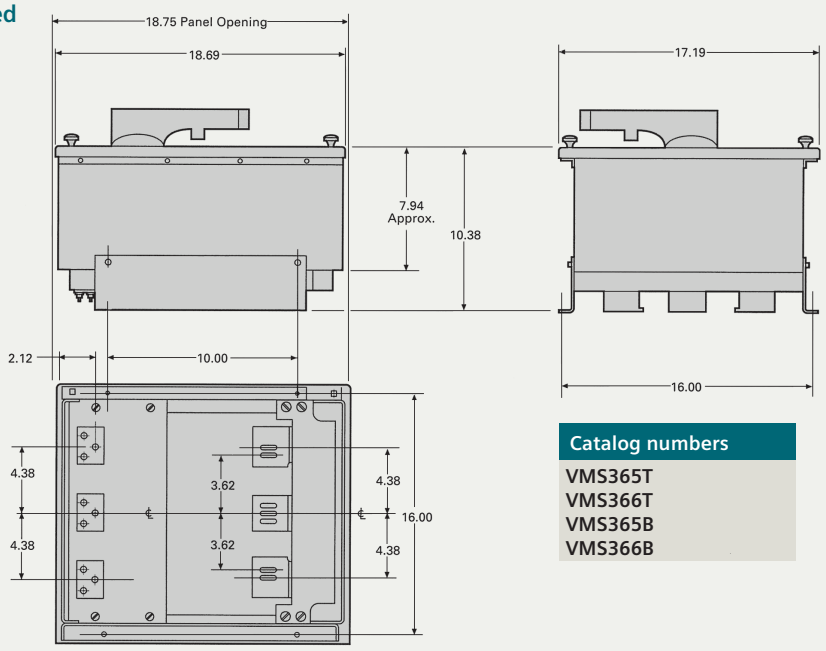
10 inch, 3-pole compact single branch units 400 ampere



Catalog numbers
V7F3605A

17” main switch 600V AC

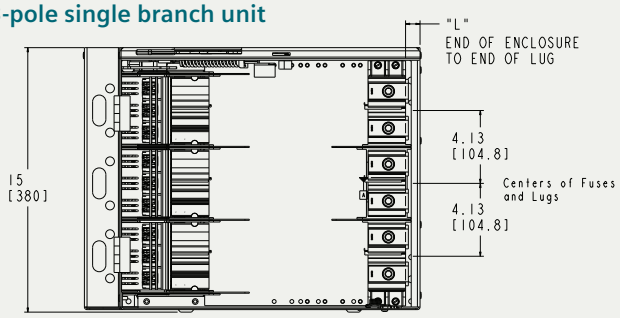
400 - 600A vertical mounted top and bottom feed



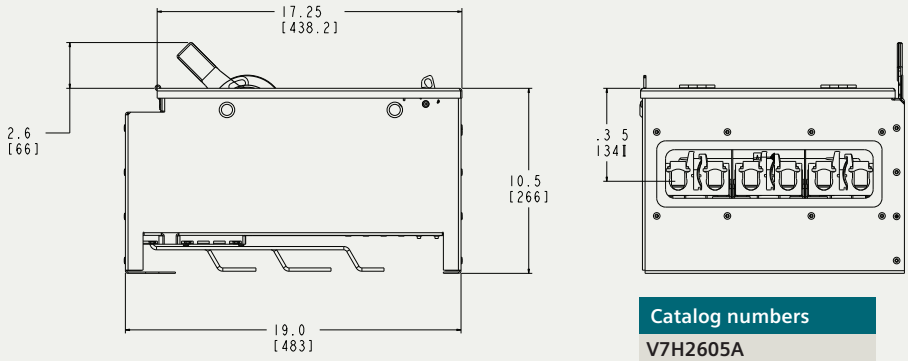
Catalog numbers

VMS365T
VMS366T
VMS365B
VMS366B

15 inch 2- and 3-pole single branch unit



AMPERAGE	VOLTAGE	DISTANCE "L"
400	240	5.57 [141.5]
400	600	2.57 [65.3]
600	240	3.82 [97.0]
600	600	0.82 [20.8]



Catalog numbers

V7H2605A
V7H2606A
V7H3605A
V7H3606A

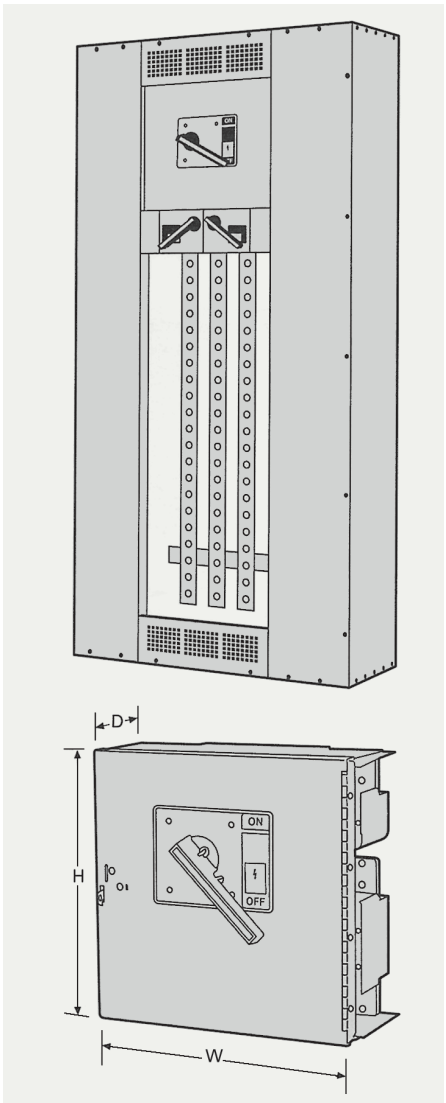
Enclosure:
Galvanized Steel .075 thick minimum
Finish: ANSI Grey #61 Paint

Dimensions shown in inches
and millimeters [ ].
Dimensions shown accurate to ± 1/8 inch.

17" panelboard/switchboard Sentron™ HCP switch and accessories

3-pole, horizontal mount [1]

Catalog number	Maximum ampere rating	Maximum voltage rating	Fuse class	Dimensions (inches)			Horsepower rating						250V DC
							240V AC		480V		600V		
				H	W	D	Std.	Max.	Std.	Max.	Std.	Max.	
HCP367HJ400	400	600	J	16.25	17.22	7.38	50	125	100	250	125	350	40
HCP367HJ600	600	600	J	16.25	17.22	7.38	75	200	150	400	200	400	40
HCP327HT	800	240	T	16.25	17.22	7.38	100	250	—	—	—	—	50
HCP367H	800	600	L	16.25	17.22	7.38	100	250	200	500	250	500	50
HCP328HT	1200	240	T	16.25	17.22	7.38	100	250	—	—	—	—	50
HCP368H	1200	600	L	16.25	17.22	7.38	100	250	200	500	250	500	50
3-pole, vertical mount													
HCP367VJ400	400	600	J	17.00	16.25	7.38	50	125	100	250	125	350	40
HCP367VJ600	600	600	J	17.00	16.25	7.38	75	200	150	400	200	400	40
HCP327VT	800	240	T	17.00	16.25	7.38	100	250	—	—	—	—	50
HCP367V	800	600	L	17.00	16.25	7.38	100	250	200	500	250	500	50
HCP328VT	1200	240	T	17.00	16.25	7.38	100	250	—	—	—	—	50
HCP368V	1200	600	L	17.00	16.25	7.38	100	250	200	500	250	500	50



Terminal connectors (one lug per kit)

Ampere rating	Catalog number	Connector wire range
400-600A	TA2K500	(2) #1 AWG-500kcmil (Cu or Al)
400-600A	TC2K500	(2) #1 AWG-500kcmil (Cu only)
400-800A	TA3K500	(3) #1 AWG-500kcmil (Cu or Al)
400-800A	TC3K500	(3) #1 AWG-350kcmil (Cu only)
800-1200A	TA4H500	(4) #2 AWG-500kcmil (Cu or Al)
800-1200A	TA3H750	(3) 250-750kcmil (Cu or Al)

Auxiliary switch kit

Contact ampere rating	Maximum voltage		Switch mounting	Contacts	Catalog number
	AC	DC			
15A	480	125	Left Pole	1NO/1NC	A01HCPL4
15A	480	125	Right Pole	1NO/1NC	A01HCPR4
10A	240	125	Left Pole	2NO/2NC	A01HCPL2

Shunt trip kit

Control voltage		
AC	DC	Catalog number
120	—	HCPST120
240	—	HCPST240
277	—	HCPST277
480	—	HCPST480
—	48	HCPST48
—	125	HCPST125

T-Fuse adapter kits (one per pole)

Catalog number	Description
TFAK72	800A, 300V AC
TFAK75	800A, 600V AC
TFAK82	1200A, 300V AC

Compression lug adapter kit

The use of this kit provides for the mounting of up to four lugs per phase. Each kit accepts lugs with (2) 3/8" diameter mounting holes on 1" centers. One kit per pole line or load is required. Lugs are not provided.

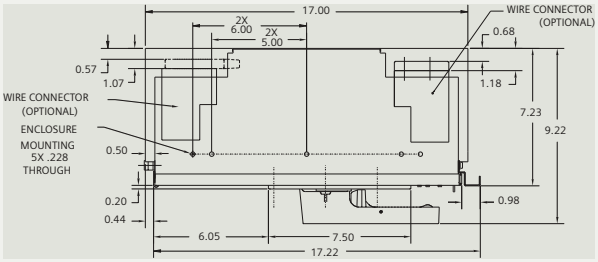
Ampere rating	Catalog number
400-1200A	HCPCLP

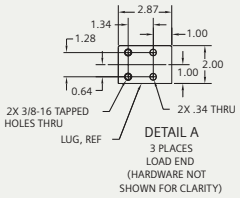
Switchboard connection strap kit [1]

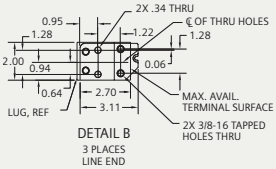
Ampere rating	Catalog number
400-1200A	F6162D

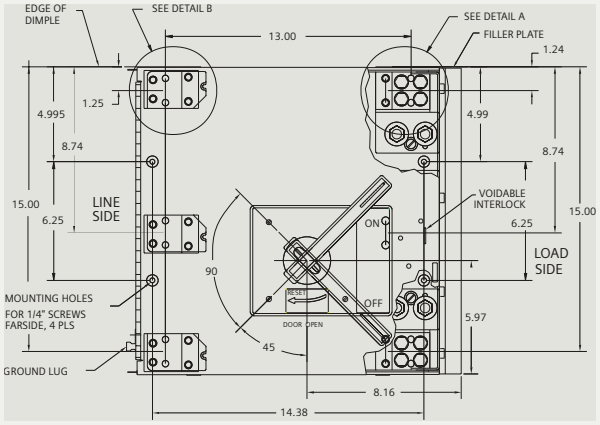
[1] For horizontal mounting only in either 38" wide min switchboards or S5/F2 power panelboards.

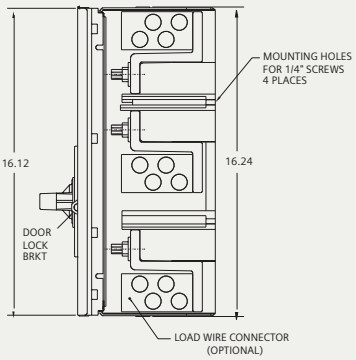
Horizontal mount drawing



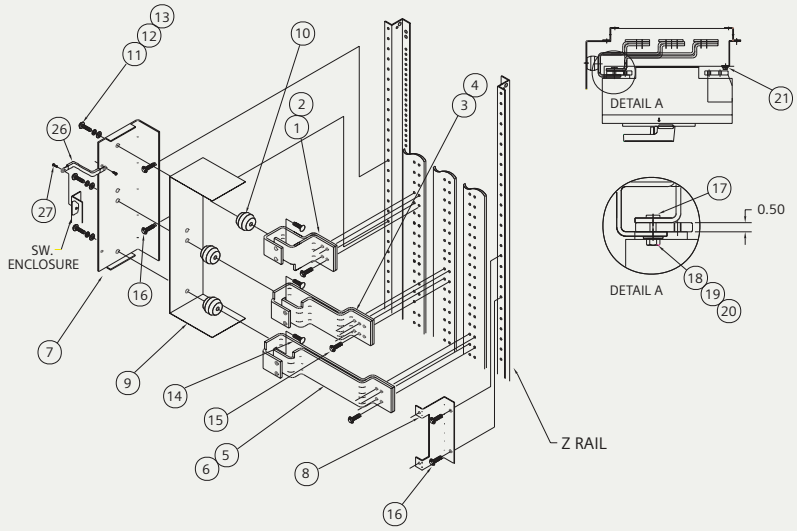








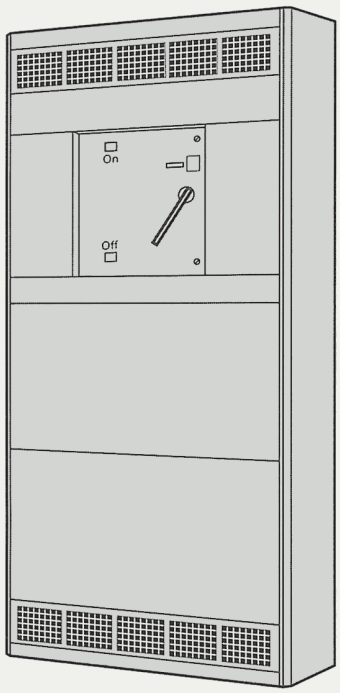
Group mounting assembly (Horizontal mount only)

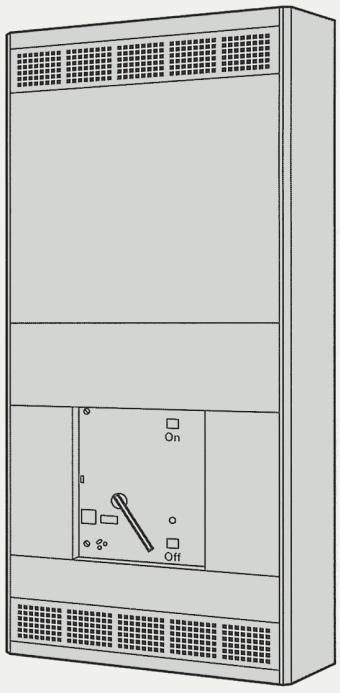


Item	Parts supplied in connection strap kit Cat. No. F6162D	Qty.
1-2	A/CØ Strap (Short)	1ea.
3-4	BØ Strap	1ea.
5-6	A/C Ø Strap (Long)	1ea.
7-8	Switch Mounting Bracket	1ea.
9	Insulation	1
10	1-3/8" Insulator	3
11	3/8-16 X 3/4" HHMS	3
12	3/8" Lock Washer	3
13	3/8" Flat Washer	3
14	3/8-16 X 3/4" RHSNB	3
15	Strap Bus Hardware Kit	2
16	1/4-28 X 3/8" SHWHSW	4
17	5/16-18 Insert	6
18	5/16-18 X 1" SRHMS	6
19	5/16 Flat Washer	6
20	5/16 Lock Washer	6
21	1/4-20 X 1" SRHMS	2
26	Ground Bracket	1
27	10-32 X 1/4" SHWHSW	2

Note: Right exit shown, rotate 180° for left exit.
Note: Items 26 & 27 are used to ground the switch enclosure (Route bonding wire along flange).

21"Vacu-Break panel 240 and 600V AC and accessories





240 and 600V AC 21" panel

Catalog number	No. of amperes	Poles	Dimensions (inches)			Horsepower rating					
						240V AC		480V		600V	
			H	L	D	Std.	Max.	Std.	Max.	Std.	Max.
VF357TL/BL	800	3	25	20.31	12.75	100	250	200	500	200	200
VB357TL/BL	800	3	25	20.31	12.75	100	250	200	500	200	200
VF358TL/BL	1200	3	25	20.31	12.75	—	—	—	—	—	—
VB358TL/BL	1200	3	25	20.31	12.75	—	—	—	—	—	—

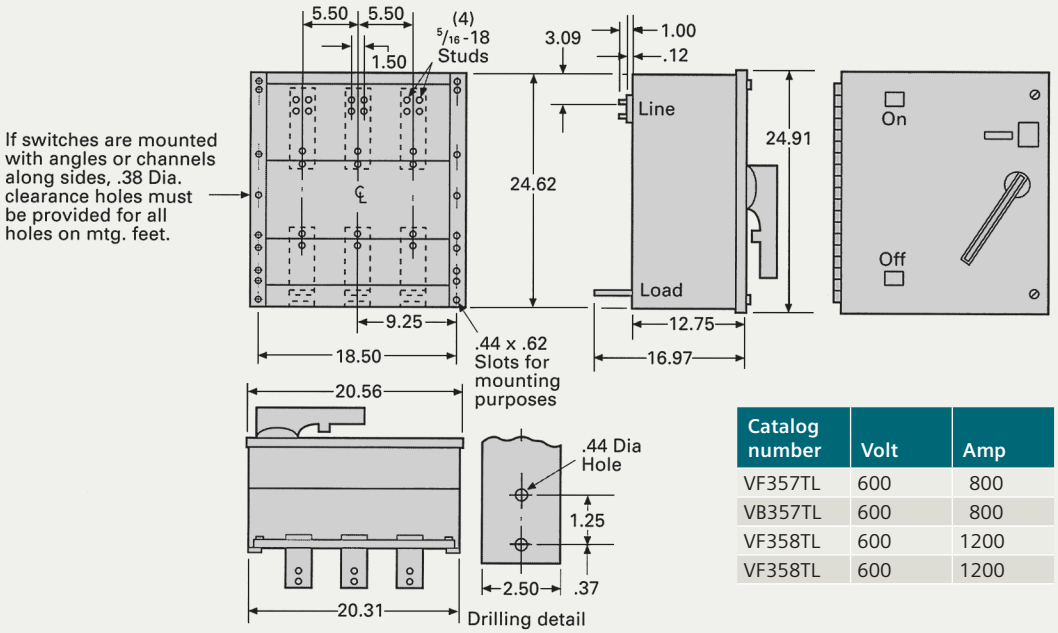
Interrupting atings

Switch rating	Fuse type	Voltage	RMS Symm. amp	T-fuse Adaptor kit 1 kit per pole
800A	Class L	600V or less	200,000	None
800A	Class T	240V AC	200,000	TFAK72
800A	Class T	600V AC	200,000	TFAK75
1200A	Class L	600V or less	100,000	None
1200A	Class T	240V AC	200,000	None

Note: 21" wide 800 and 1200A Vacu-Break fusible panelboard switches are supplied with spade type bolted terminal pads. Lugs are not factory installed.

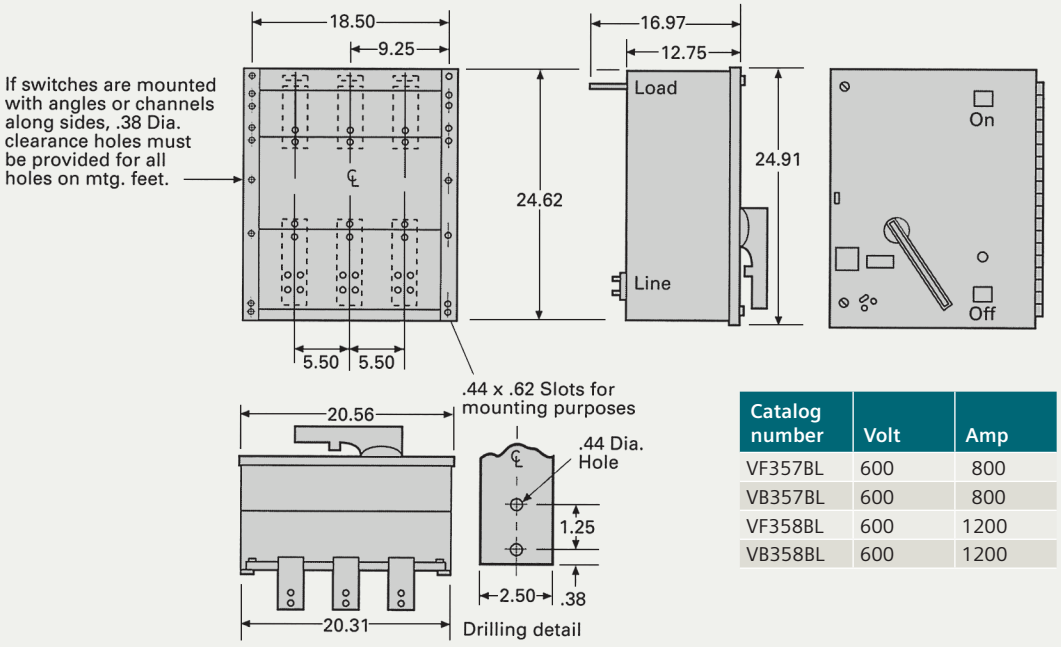
21” panelboard units 240 – 600 V AC Class L fuse

2-pole switchboard unit – Top feed Class L fusing 800 and 1200 ampere



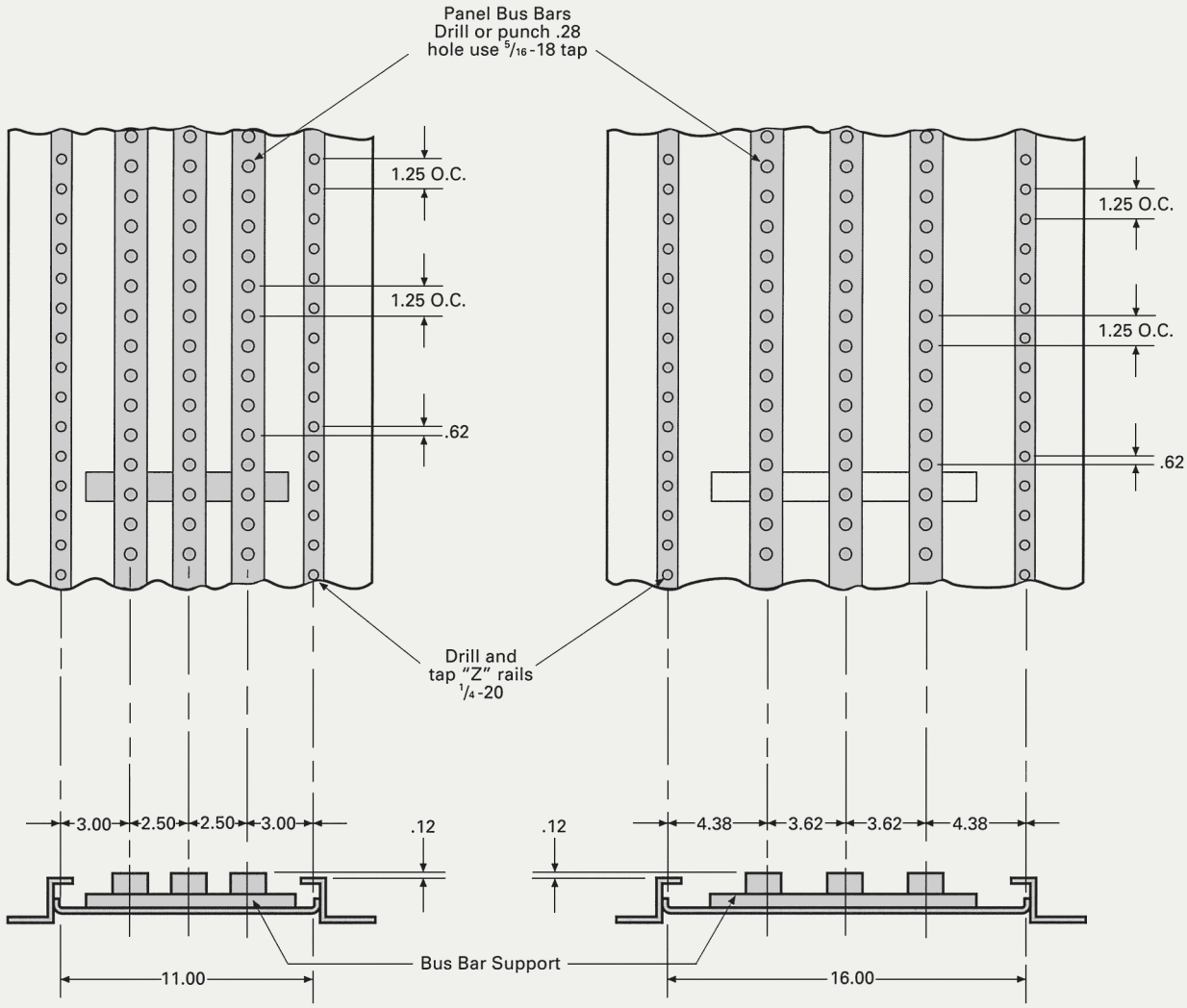
Catalog number	Volt	Amp
VF357TL	600	800
VB357TL	600	800
VF358TL	600	1200
VF358TL	600	1200

3-pole switchboard unit – Bottom feed Class L fusing 800 and 1200 ampere



Catalog number	Volt	Amp
VF357BL	600	800
VB357BL	600	800
VF358BL	600	1200
VB358BL	600	1200

Critical pan dimensions for Vacu-Break Units®



The right combination for the best performance

Siemens Enclosed Switches are designed for fuse versatility. Once the type of fuse needed for a particular application is determined, it's easy to select an appropriate switch.

The proper fuse type for the applicationis selected using the following parameters:

- voltage requirements
- conductor ampacity
- horsepower requirements
- maximum available RMS fault current
- UL fuse class

UL fuse classes

Class	Amperes	Volts	Dimensions	Int. ratings	I^2t_1 I_p	Circuits
H	1-600A	250 and 600V or less AC	NEC standards	10,000A	—	Less than 10,000A available
K5[1]	1-600A	250 and 600V or less AC	Class H without rejection	100,000A	I^2t-RK5 up to 600A I_p-RK5 up to 600A	Feeder circuits
J	1-600A	600V or less	Diff. from Class H	200,000A	I^2t-Low I_p-Low	Feeder circuits (motor load small percent)
RK1	1/10-600A	600V or less 250V or less	Class H with rejection feature	200,000A	I^2t-Slightly>J I_p-Slightly>J	Feeder circuits (motor load small percent)
RK5 (time delay)	1/10-600A	600V or less 250V or less	Class H with rejection feature	200,000A	I^2t->RK-1 I_p->RK-1	Motor starting currents factor
T	1-1200A	300V AC	Diff. from Class H	200,000A	I^2t-<J I_p-<J	Feeder circuits
T	1-800A	600V AC	Diff. from Class H	200,000A	I^2t=J I_p=J	Feeder circuits
L	601-6000A	600V or less	Bolt type	200,000A	I^2t=Low I_p=Low	Mains feeder circuits

[1] Fuses do not prohibit the use of H class fuses in switch.

One-time fuses

One-time fuses are standard for use in situations calling for 1200 amperes or less with maximum voltages for 250 or 600 volts. Simply designed, current carrying links are connected to contact pieces at the ends of the enclosure. When an overload occurs, the circuit quickly opens and the arc is quenched by granular insulating material that surrounds the current carrying links.

Available in all Classes.

Current limiting fuses

This design offers the highest degree of circuit protection among fuses. Inside, usually copper or silver alloy links are embedded in pure quartz sand between heavy copper end blocks. The special design is fast acting and interrupts during the first half cycle of a fault. This causes a limitation of both fault peak current and let-thru current.

Available in Classes J, L, R and T.

Dual-element time-delay fuses

Dual-element fuses may have time-delay designation since these fuses employ two distinctly separate types of elements. One provides overload protection with time delay. (UL states that time delay means having a 10-second operating delay at 500 percent of fuse label rating.) The second provides short circuit protection similar to a single element fuse. Dual element fuses are most frequently used on motor loads.

Available in Classes J, L and R.

Fuse Clip Kit Provisions

Class R ampere rating	Class J Catalog number		Class T Catalog number		Catalog number	
	250V AC	600V AC	250V AC	600V AC	240V AC	600V AC
30	Factory Inst.	W56623	W49831[2]	W49832	—	—
60	Factory Inst.	W56629	W49829[2]	W49830	—	—
100	W55365	W55365	W49827	W49828	TFAK32	TFAK35
200	W55366	W55366	W49819	W49818	TFAK42	TFAK45
400	W55367	W55367	W49814	W49816	TFAK52	TFAK55
600	W66368	W55368	W49813	W49815	TFAK62	TFAK65

[2] For 240V AC application in 600V AC rated switch only.

Guide form specifications

Application
Siemens Panelboard Switches are intended for use in applications where:

1. Rugged construction, reliable performance, continuity of service and ease of maintenance are emphasized, or
2. Available fault currents higher than 10,000A are likely to be encountered, such as manufacturing plants, mass production industries and commercial, institutional and other large buildings served by network systems or transformers of higher capacities.

Short circuit withstand ratings
Suitable for use on systems capable of delivering not more than 200,000 RMS symmetrical amperes of fault current when Class J or R fuses are installed. 1200A switches are the exception, which are suitable for use on circuits capable of delivering not more than 100,000 RMS symmetrical amperes of fault current when Class L fuses are installed. Also, 100-800A switches with Class T fuses and field adapter kit, which are 200,000 RMS symmetrical rated.

Fuses
Fusible switches will accept the following UL Class fuses:
Class H
Class K
Class R or J with proper adapter kit
Class L — 800 and 1200A switches
Class T — 100-800 switches with proper adapter kit

Cover interlocks
Voidable cover interlocks standard on all heavy duty switches. Prevents cover from being opened when switch is in the “ON” position.

UL listing
Listed by UL under file #E6849 as miscellaneous switches and also as suitable for use as service equipment (where applicable). UL98 Enclosed and Deadfront Switches.

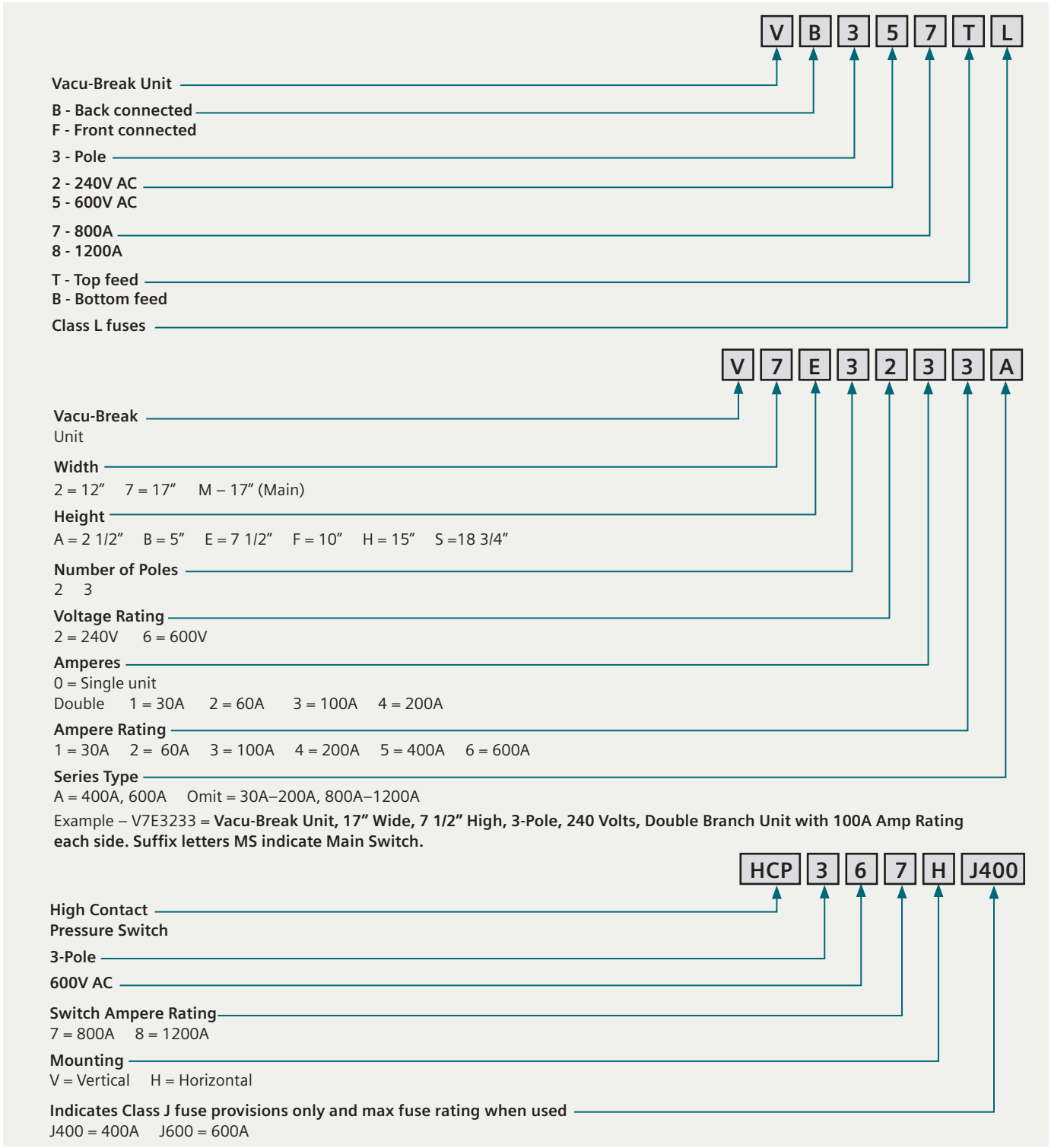
NEMA specifications
Meets NEMA standard KS-1-1990 for type HD switches.

Federal specifications
Meets federal specifications W-S-865C for heavy duty switches (Type HD) Type 1 switches – general purpose enclosed (Type 1).

Switch rating	Maximum withstand ratings — 240V AC					Maximum withstand ratings — 600V AC				
	H, K fuses	R fuses	J fuses	L fuses	T fuses	H, K fuses	R fuses	J fuses	L fuses	T fuses
30-30	10,000	200,000 [1]	—	—	—	10,000	200,000	200,000	—	—
30-60	10,000	200,000	—	—	—	10,000	200,000	200,000	—	—
60-60	10,000	200,000	—	—	—	10,000	200,000	200,000	—	—
60-100	10,000	200,000	200,000	—	200,000	10,000	200,000	200,000	—	200,000
100	10,000	200,000	200,000	—	200,000	10,000	200,000	200,000	—	200,000
100-100	10,000	200,000	200,000	—	200,000	10,000	200,000	200,000	—	200,000
200	10,000	200,000	200,000	—	200,000	10,000	200,000	200,000	—	200,000
200-200	10,000	200,000	200,000	—	—	10,000	—	200,000	—	—
400	10,000	200,000	200,000	—	200,000	10,000	200,000	200,000	—	200,000
600	10,000	200,000	200,000	—	200,000	10,000	200,000	200,000	—	200,000
800	—	—	—	200,000 [2]	200,000 [2]	—	—	—	200,000	200,000
1200	—	—	—	100,000 [2]	—	—	—	—	100,000	—

[1] 2½” units will not accept Class R fuse clip kits and are rated 10,000 AIC max.
[2] Ratings are for 600V switches and fuses when used on a 240V max. AC system.

Catalog number breakdown



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