

Molded Case Circuit Breakers

Introduction

What's **new** in molded case circuit breakers:



New Sentron Sensitrip

Sentron Sensitrip IV ETU Circuit Breakers with Integrated DAS / Maintenance Mode

Design enhancements include:

- Upgraded ETU for NEC 240.87 code compliance (Arc Energy Reduction)
- Frame ratings from 400A to 1600A
- Identical footprint, kAIC ratings and accessory offering as legacy Sensitrip III ETU breakers to ease integration / retrofit
- Maintenance mode versions require customer-supplied 24V external power supply, maintenance switch and light

The New Siemens QR Circuit Breaker

Implemented in load centers, panelboards, switchboards, meter centers, and modular metering, the new QR breaker is the same form-factor/ mounting as QJ breaker for easy retrofit.

Design enhancements include:

- Trip unit ratings from 100A to 250A.
- Field installable internal accessories – shunt trip, aux switch or shunt/aux combo.
- Two accessory pockets in 3-pole breakers. One accessory pocket in 2-pole breakers.
- High in-rush current capability (450%).
- Push-to-trip button.



The new Siemens 3VA molded case circuit breakers



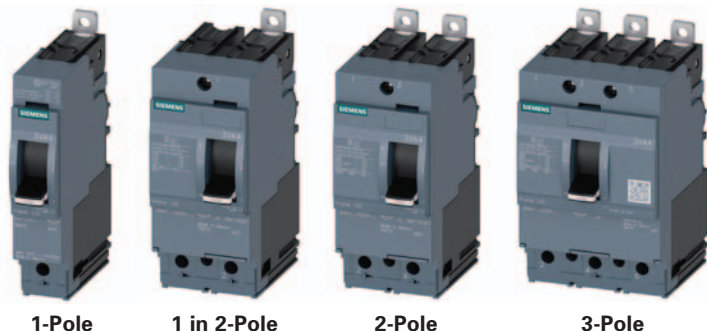
- 125A thru 800A Thermal Magnetic Trip breakers
- 150A thru 1000A Electronic Trip Circuit Breakers
- Extensive and flexible accessories
- Common internal accessories for the entire breaker family
- Power metering with the series-8 LCD electronic trip
- Illuminated rotary handles show switch position
- Smaller footprint than Sentron or VL breakers
- Enhanced Tools and Resources

The **Dual Function Circuit Breaker** combines GFCI and AFCI, protecting against both Arc Faults and Ground Faults. This, along with the new Self-Test & Lockout feature, makes it the first in class in electrical safety for homeowners.

- Faster Installation
- Cost savings
- Smaller Device
- Self Test & Lockout feature as required by UL 943 effective June 2015



The Siemens 3VA41 circuit breaker is a compact, industrial design thermal magnetic breaker with features which include a design that meets multi-national standards (UL, NOM, EAC), available with NAVAL ratings which meet UL489 Supplement SB, and an extensive selection of UL listed, field installable internal accessories (auxiliary and alarm switches, shunt and undervoltage trips). The 3VA41 is available from 15A to 125A in 1, 1 in 2-pole, 2 or 3-pole versions on 1 inch pole centers having AC interrupting ratings up to 65KA @ 480VAC and 25KA @ 600Y347V and DC ratings up to 100KA @ 250VDC.



1-Pole

1 in 2-Pole

2-Pole

3-Pole

Molded Case Circuit Breakers

Introduction

Ordering

The 3VA breakers are shipped complete with non-interchangeable trip units and without lugs.

The 3VA41 panelboard mounted circuit breakers are shipped with aluminum load side lugs installed as standard.

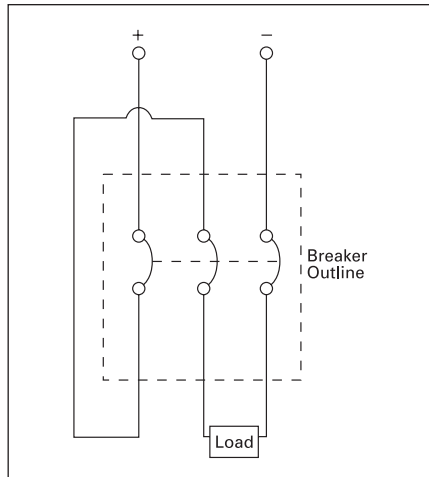
3VA51 through 3VA55 thermal-magnetic trip breakers as well as 3VA61 through 3VA66 electronic trip breakers are shipped as standard without lugs installed. To order factory installed nut keepers, which are required for installation in panelboards or switchboards, the 12th digit of the catalog should be change to "2" when ordering. (For example, a 35KA@480VAC, 40A, 3-pole, 3VA51 with lugs would be catalog number 3VA5140-5ED32-0AA0).

To order factory installed standard line and load lugs, the 12th digit of the catalog number should be changed to "6" (standard lugs are identified in the respective lug tables and footnotes in the SpeedFax). (For example, a 35KA@480VAC, 40A, 3-pole, 3VA51 with lugs would be catalog number 3VA5140-5ED36-0AA0). Alternate connectors can be ordered separately for field installation.

All 3VA6 circuit breakers are certified to UL 489 Supplement SB, are marked "NAVAL", and are suitable for use at 50C.

To order NAVAL-rated thermal-magnetic trip circuit breakers, the 13th digit of the catalog number should be changed to the number "1". (For example, a 35KA @480VAC, 40A, 3-pole, NAVAL rated 3VA51 would be catalog number 3VA5140-5ED31-1AA0).

All 3VA5 thermal-magnetic trip and 3VA6 electronic trip circuit breakers are UL listed for reverse feed applications.

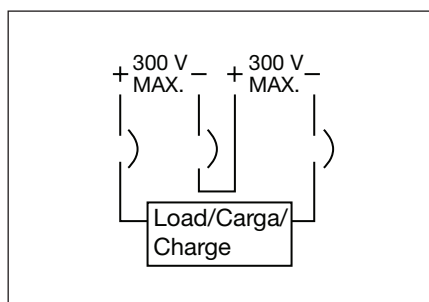


500V DC Wiring Configuration

Connecting Breakers for DC Application

Most Siemens thermal magnetic trip MCCBs are applicable on direct current (dc) systems. Generally, for 250 V dc systems a two pole breaker is used, with one pole on each leg of the supply circuit. For three pole breakers applied on 500 V undergrounded DC systems, it is important to connect the power supply "zig-zag" through the breaker as shown in the figure below. This assures that the Voltage between phases on the breaker terminals is uniformly distributed.

See below for an alternative connection diagram. For a list of 3VA5 breakers with the DC ratings, please refer to pages 7-10 to 7-11.



Molded Case Circuit Breakers

3VA UL Breakers

Reference Guide



Type	3VA51	3VA51	3VA52	3VA53	3VA54	3VA55
Page	7-50	7-50, 7-51, 7-52	7-58, 7-59, 7-60	7-66, 7-67	7-71	7-75
Number of Poles	1	2, 3, 4	2 in 3-pole, 3, 4	2 in 3-pole, 3, 4	2 in 3-pole, 3, 4	3, 4

3VA5 molded case circuit breakers

Size	125 A	125 A	250 A	400 A	600 A	800 A
Rated current I_n	A 15 ... 125	15 ... 125	100 ... 250	200 ... 400	400 ... 600	600 ... 800
Frequency	Hz 0 ... 400	0 ... 400	0 ... 400	0 ... 400	0 ... 400	0 ... 400

Electrical characteristics according to UL489

Rated operational voltage 50/60 Hz AC	V 347	600	600	600	600	600
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Electrical characteristics according to IEC 60947-2

Rated operational voltage U_e 50/60 Hz AC	V 415	690	690	690	690	690
Rated insulation voltage U_i	V 500	800	800	800	800	800
Rated impulse withstand voltage U_{imp}	kV 8	8	8	8	8	8

Short-circuit breaking capacity according to UL 489

UL Breaker Type	S	M	H	S	M	H	M	H	C	M	H	C	M	H	C	M	H	C
	SEAS	MEAS	HEAS	SEAS	MEAS	HEAS	MFAS	HFAS	CFAS	MJAS	HJAS	CJAS	MLAS	HLAS	CLAS	MMAS	HMAS	CMAS
120 V AC / 50/60 Hz	kA 65	85	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
240 V AC / 50/60 Hz	kA 65	85	100	85	100	200	85	100	200	85	100	200	85	100	200	85	100	200
277 V AC / 50/60 Hz	kA 25	35	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
347 V AC / 50/60 Hz	kA 14	18	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
480 Y/277 V AC / 50/60 Hz	kA 25	35	65	35	65	100	35	65	100	35	65	100	35	65	100	35	65	100
480 V AC / 50/60 Hz	kA 25	35	65	35	65	100	35	65	100	35	65	100	35	65	100	35	65	100
600 Y/347 V AC / 50/60 Hz	kA 14	18	25	18	25	35	18	25	35	18	25	35	18	25	35	18	25	35
600 V AC / 50/60 Hz	kA 14	18	25	18	25	35	18	25	35	18	25	35	18	25	35	18	25	35
125 V DC	kA 14	25	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
250 V DC	kA 50	85	100	50	85	100	50	85	100	50	85	100	50	85	100	50	85	100
500 V DC	kA 50	85	100	50	85	100	50	85	100	50	85	100	50	85	100	50	85	100
600 V DC (3-pole only)	kA 50	85	100	50	85	100	50	85	100	50	85	100	50	85	100	50	85	100
750 V DC (4-pole only)	kA 50	85	100	50	85	100	50	85	100	50	85	100	50	85	100	50	85	100
1000 V DC (4-pole only)	kA 50	85	100	6	6	10	6	6	10	6	6	10	6	6	10	18	25	50

Short-circuit breaking capacity according to IEC 60947-2

	S	M	H	S	M	H	M	H	C	M	H	C	M	H	C	M	H	C
Rated ultimate short-circuit breaking capacity I_{cu}	25/25	36/36	55/55	55/55	85/85	150/150	85/85	100/100	200/200	85/85	100/100	200/200	85/85	100/100	200/200	85	100	200
Rated service short-circuit breaking capacity I_{cs}	5/5	5/5	5/5	36/36	55/55	70/70	55/55	70/70	110/110	55/55	70/70	110/110	55/55	70/70	110/110	55	70	110
rms value, according to IEC 60947-2	—	—	—	5/5	7/5	10/5	7/7	10/10	10/10	7/7	10/10	10/10	7/7	10/10	10/10	25	35	35
125 V DC	kA 14	25	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
250 V DC	kA 50	85	100	50	85	100	50	85	100	50	85	100	50	85	100	50	85	100
500 V DC	kA 50	85	100	50	85	100	50	85	100	50	85	100	50	85	100	50	85	100
750 V DC (3-pole only)	kA 50	85	100	50	85	100	50	85	100	50	85	100	50	85	100	50	85	100

Applicable Standards:

- UL489 - Molded Case Circuit Breakers
- UL486A - Wire connectors and solderless lugs for use with copper
- UL486B - Wire connectors and solderless lugs for use with aluminum wire
- CSA-22.2 No. 5-13 - Molded Case Circuit Breakers, Molded case switches and circuit breaker enclosures
- EN 60947-1 AMD 2 - Molded case circuit breakers
- EN 60947-2 AMD 2 2013
- EN 50581 2012 - RoHS compliant
- All 3VA breakers are HACR rated per UL

3VA Molded Case Circuit Breakers

3VA UL Circuit Breakers

Catalog Numbering System

Catalog Numbering Logic



Breaker Designation	
Thermal magnetic panelboard breakers	4
Thermal magnetic (Cable-in Cable-out) breakers	5
Electronic trip breakers	6

Frame Size	
125/150A	1
250A	2
400A	3
600A	4
800A	5
1000A	6

Rated Current											
3VA41/ 3VA51	3VA52	3VA53	3VA54	3VA55	3VA61	3VA62	3VA63	3VA64	3VA65	3VA66	
15A											95
20A	200A	200A									20
	225A	225A									22
25A	250A	250A				250A	250A				25
30A		300A									30
35A		350A									35
40A	40A	400A			40A		400A	400A			40
45A	45A		450A								45
50A	50A		500A								50
60A	60A		600A	600A				600A	600A		60
70A	70A			700A							70
80A	80A			800A					800A		80
90A	90A										90
100A	100A				100A	100A				1000A	10
110A	110A										11
125A	125A										12
	150A				150A						15
	175A										17

Interrupting Capacity @ 480V		
3VA4/3VA5	3VA6	
MCP/MCS	200K	0
MCP/MCS	MCP/MCS	1
25K		4
35K	35K	5
65K	65K	6
100K	100K	7
	150K	8

Trip Unit Protection Functions (see next page for details)

Number of Poles (see next page for details)

Connection Technology (see next page for details)

Regional Specifics (as applicable) (see next page for details)

Auxiliary Releases (see next page for details)

Auxiliary/Alarm Switches (see next page for details)

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MOLDED CASE
CIRCUIT BREAKERS

3VA Molded Case Circuit Breakers

3VA UL Circuit Breakers

Catalog Numbering System

Catalog Numbering Logic (cont.)



(see previous page for details)

Trip Unit Protection Functions											
3VA4/3VA5		L	I	N							
TM230	MCCB	fix	adj								EC
TM210	MCCB	fix	fix								ED
TM240	MCCB	adj	adj								EF
TM230	MCCB	fix	adj	100%							GC
TM210	MCCB	fix	fix	100%							GD
TM240	MCCB	adj	adj	100%							GF
TM110M	MSP		fix								MG
TM120M	MSP		adj								MH
TM120M	MSP		adj								MU
MCS110	MSC		fix								BB
3VA6		L	S	I	G	N	LCD	com.	measurement values		
ETU320 LI	MCCB	adj		adj		0%/50%/100%					HL
ETU330 LIG	MCCB	adj		adj	adj	0%/50%/100%					HM
ETU350 LSI	MCCB	adj	adj	fix		0%/50%/100%					HN
ETU550 LSI	MCCB	adj	adj	adj		20/40%...100/160%	yes	yes	standard		JP
ETU556 LSI(G)	MCCB	adj	adj	adj	alarm	20/40%...100/160%	yes	yes	standard		JT
ETU560 LSIG	MCCB	adj	adj	adj	adj	20/40%...100/160%	yes	yes	standard		JQ
ETU820 LI	MCCB	adj		adj		20/40%...100/160%	yes	yes	advanced		KL
ETU830 LIG	MCCB	adj		adj	adj	20/40%...100/160%	yes	yes	advanced		KM
ETU850LSI	MCCB	adj	adj	adj		20/40%...100/160%	yes	yes	advanced		KP
ETU856 LSI(G)	MCCB	adj	adj	adj	alarm	20/40%...100/160%	yes	yes	advanced		KT
ETU860 LSIG	MCCB	adj	adj	adj	adj	20/40%...100/160%	yes	yes	advanced		KQ
ETU310M	MCP			adj							MS
MCS110	MCS			fix							BB

Number of Poles	
1 pole	1
2 pole	2
3 pole	3
4 pole	4
1-in-2 pole	5
2-in-3 pole	6

Connection Technology	
No wire connector	1
Nut keeper kit, line and load	2
Nut keeper kit, load end only	3
Aluminum wire connector, load end only	4
Wire connector, line end only	5
Wire connector, line and load	6

Regional Specifics (as applicable)	
Standard	0
NAVAL/50C	1
100% Rated (3VA6)	2

Auxiliary Releases	
Without	A

Auxiliary/Alarm Switches	
Without	A0

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MOLDED CASE
CIRCUIT BREAKERS

3VA Molded Case Circuit Breakers

3VA41 125A Thermal-magnetic Trip Circuit Breakers

Selection

3VA41 125A Frame, 1-Pole Thermal-Magnetic Trip Unit

Cont. Amp Rating	S-Interrupting Class (SEAB)	M-Interrupting Class (MEAB)	H-Interrupting Class (HEAB)
	Catalog Number	Catalog Number	Catalog Number
TM210 FTFM			
15	3VA4195-4ED14-0AA0 ^②	3VA4195-5ED14-0AA0 ^②	3VA4195-6ED14-0AA0 ^②
20	3VA4120-4ED14-0AA0 ^②	3VA4120-5ED14-0AA0 ^②	3VA4120-6ED14-0AA0 ^②
25	3VA4125-4ED14-0AA0 ^②	3VA4125-5ED14-0AA0 ^②	3VA4125-6ED14-0AA0 ^②
30	3VA4130-4ED14-0AA0 ^②	3VA4130-5ED14-0AA0 ^②	3VA4130-6ED14-0AA0 ^②
35	3VA4135-4ED14-0AA0 ^②	3VA4135-5ED14-0AA0 ^②	3VA4135-6ED14-0AA0 ^②
40	3VA4140-4ED14-0AA0 ^②	3VA4140-5ED14-0AA0 ^②	3VA4140-6ED14-0AA0 ^②
45	3VA4145-4ED14-0AA0 ^②	3VA4145-5ED14-0AA0 ^②	3VA4145-6ED14-0AA0 ^②
50	3VA4150-4ED14-0AA0 ^②	3VA4150-5ED14-0AA0 ^②	3VA4150-6ED14-0AA0 ^②
60	3VA4160-4ED14-0AA0	3VA4160-5ED14-0AA0	3VA4160-6ED14-0AA0
70	3VA4170-4ED14-0AA0	3VA4170-5ED14-0AA0	3VA4170-6ED14-0AA0
80	3VA4180-4ED14-0AA0	3VA4180-5ED14-0AA0	3VA4180-6ED14-0AA0
90	3VA4190-4ED14-0AA0	3VA4190-5ED14-0AA0	3VA4190-6ED14-0AA0
100	3VA4110-4ED14-0AA0	3VA4110-5ED14-0AA0	3VA4110-6ED14-0AA0
110	3VA4111-4ED14-0AA0	3VA4111-5ED14-0AA0	3VA4111-6ED14-0AA0
125	3VA4112-4ED14-0AA0	3VA4112-5ED14-0AA0	3VA4112-6ED14-0AA0

3VA41 125A
1-Pole



3VA41 125A Frame, 1 in 2-Pole Thermal-Magnetic Trip Unit

Cont. Amp Rating	S-Interrupting Class (SEAB)	M-Interrupting Class (MEAB)	H-Interrupting Class (HEAB)
	Catalog Number	Catalog Number	Catalog Number
TM210 FTFM ^①			
15	3VA4195-4ED54-0AA0 ^②	3VA4195-5ED54-0AA0 ^②	3VA4195-6ED54-0AA0 ^②
20	3VA4120-4ED54-0AA0 ^②	3VA4120-5ED54-0AA0 ^②	3VA4120-6ED54-0AA0 ^②
25	3VA4125-4ED54-0AA0 ^②	3VA4125-5ED54-0AA0 ^②	3VA4125-6ED54-0AA0 ^②
30	3VA4130-4ED54-0AA0 ^②	3VA4130-5ED54-0AA0 ^②	3VA4130-6ED54-0AA0 ^②
35	3VA4135-4ED54-0AA0 ^②	3VA4135-5ED54-0AA0 ^②	3VA4135-6ED54-0AA0 ^②
40	3VA4140-4ED54-0AA0 ^②	3VA4140-5ED54-0AA0 ^②	3VA4140-6ED54-0AA0 ^②
45	3VA4145-4ED54-0AA0 ^②	3VA4145-5ED54-0AA0 ^②	3VA4145-6ED54-0AA0 ^②
50	3VA4150-4ED54-0AA0 ^②	3VA4150-5ED54-0AA0 ^②	3VA4150-6ED54-0AA0 ^②
60	3VA4160-4ED54-0AA0	3VA4160-5ED54-0AA0	3VA4160-6ED54-0AA0
70	3VA4170-4ED54-0AA0	3VA4170-5ED54-0AA0	3VA4170-6ED54-0AA0
80	3VA4180-4ED54-0AA0	3VA4180-5ED54-0AA0	3VA4180-6ED54-0AA0
90	3VA4190-4ED54-0AA0	3VA4190-5ED54-0AA0	3VA4190-6ED54-0AA0
100	3VA4110-4ED54-0AA0	3VA4110-5ED54-0AA0	3VA4110-6ED54-0AA0
110	3VA4111-4ED54-0AA0	3VA4111-5ED54-0AA0	3VA4111-6ED54-0AA0
125	3VA4112-4ED54-0AA0	3VA4112-5ED54-0AA0	3VA4112-6ED54-0AA0

3VA41 125A
1 in 2-Pole



3VA41 125A
2-Pole



3VA41 125A Frame, 2-Pole Thermal-Magnetic Trip Unit

Cont. Amp Rating	S-Interrupting Class (SEAB)	M-Interrupting Class (MEAB)	H-Interrupting Class (HEAB)
	Catalog Number	Catalog Number	Catalog Number
TM210 FTFM			
15	3VA4195-4ED24-0AA0 ^②	3VA4195-5ED24-0AA0 ^②	3VA4195-6ED24-0AA0 ^②
20	3VA4120-4ED24-0AA0 ^②	3VA4120-5ED24-0AA0 ^②	3VA4120-6ED24-0AA0 ^②
25	3VA4125-4ED24-0AA0 ^②	3VA4125-5ED24-0AA0 ^②	3VA4125-6ED24-0AA0 ^②
30	3VA4130-4ED24-0AA0 ^②	3VA4130-5ED24-0AA0 ^②	3VA4130-6ED24-0AA0 ^②
35	3VA4135-4ED24-0AA0 ^②	3VA4135-5ED24-0AA0 ^②	3VA4135-6ED24-0AA0 ^②
40	3VA4140-4ED24-0AA0 ^②	3VA4140-5ED24-0AA0 ^②	3VA4140-6ED24-0AA0 ^②
45	3VA4145-4ED24-0AA0 ^②	3VA4145-5ED24-0AA0 ^②	3VA4145-6ED24-0AA0 ^②
50	3VA4150-4ED24-0AA0 ^②	3VA4150-5ED24-0AA0 ^②	3VA4150-6ED24-0AA0 ^②
60	3VA4160-4ED24-0AA0	3VA4160-5ED24-0AA0	3VA4160-6ED24-0AA0
70	3VA4170-4ED24-0AA0	3VA4170-5ED24-0AA0	3VA4170-6ED24-0AA0
80	3VA4180-4ED24-0AA0	3VA4180-5ED24-0AA0	3VA4180-6ED24-0AA0
90	3VA4190-4ED24-0AA0	3VA4190-5ED24-0AA0	3VA4190-6ED24-0AA0
100	3VA4110-4ED24-0AA0	3VA4110-5ED24-0AA0	3VA4110-6ED24-0AA0
110	3VA4111-4ED24-0AA0	3VA4111-5ED24-0AA0	3VA4111-6ED24-0AA0
125	3VA4112-4ED24-0AA0	3VA4112-5ED24-0AA0	3VA4112-6ED24-0AA0

Ordering Information

The catalog number listed here are for complete, non-interchangeable trip circuit breakers with load lugs installed. 3VA4 breakers up to 40A include 3VA9133-0JB10 lugs. 45A to 125A breakers include 3VA9133-0JB11 lugs.

All 3VA41 thermal-magnetic trip circuit breakers are UL listed for reverse feed applications.

For NAVAL-rated 1, 2 or 3-P thermal-magnetic trip circuit breakers, change the 13th digit of the catalog number to the number "1". (For example, a 35KA @480VAC, 40A, 3-pole, NAVAL rated 3VA41 would be catalog number 3VA4140-5ED31-1AA0)

① SWD rated.
② HID rated.

3VA Molded Case Circuit Breakers

3VA41 125A Thermal-magnetic Trip Circuit Breakers

Selection

3VA41 125A Frame, 3-Pole Thermal-Magnetic Trip Unit

Cont. Amp Rating	S-Interrupting Class (SEAB)	M-Interrupting Class (MEAB)	H-Interrupting Class (HEAB)
	Catalog Number	Catalog Number	Catalog Number
TM210 FTFM			
15	3VA4195-4ED34-0AA0 ^{①②}	3VA4195-5ED34-0AA0 ^{①②}	3VA4195-6ED34-0AA0 ^{①②}
20	3VA4120-4ED34-0AA0 ^{①②}	3VA4120-5ED34-0AA0 ^{①②}	3VA4120-6ED34-0AA0 ^{①②}
25	3VA4125-4ED34-0AA0 ^②	3VA4125-5ED34-0AA0 ^②	3VA4125-6ED34-0AA0 ^②
30	3VA4130-4ED34-0AA0 ^②	3VA4130-5ED34-0AA0 ^②	3VA4130-6ED34-0AA0 ^②
35	3VA4135-4ED34-0AA0 ^②	3VA4135-5ED34-0AA0 ^②	3VA4135-6ED34-0AA0 ^②
40	3VA4140-4ED34-0AA0 ^②	3VA4140-5ED34-0AA0 ^②	3VA4140-6ED34-0AA0 ^②
45	3VA4145-4ED34-0AA0 ^②	3VA4145-5ED34-0AA0 ^②	3VA4145-6ED34-0AA0 ^②
50	3VA4150-4ED34-0AA0 ^②	3VA4150-5ED34-0AA0 ^②	3VA4150-6ED34-0AA0 ^②
60	3VA4160-4ED34-0AA0	3VA4160-5ED34-0AA0	3VA4160-6ED34-0AA0
70	3VA4170-4ED34-0AA0	3VA4170-5ED34-0AA0	3VA4170-6ED34-0AA0
80	3VA4180-4ED34-0AA0	3VA4180-5ED34-0AA0	3VA4180-6ED34-0AA0
90	3VA4190-4ED34-0AA0	3VA4190-5ED34-0AA0	3VA4190-6ED34-0AA0
100	3VA4110-4ED34-0AA0	3VA4110-5ED34-0AA0	3VA4110-6ED34-0AA0
110	3VA4111-4ED34-0AA0	3VA4111-5ED34-0AA0	3VA4111-6ED34-0AA0
125	3VA4112-4ED34-0AA0	3VA4112-5ED34-0AA0	3VA4112-6ED34-0AA0



3VA41 125A
3-Pole

Trip Settings for 3VA41

TM210 - FTFM			
I _n (A)	I _r (A)	I _i (A)	
15	15	15	300
20	20	20	300
25	25	25	300
30	30	30	300
35	35	35	350
40	40	40	400
45	45	45	450
50	50	50	500
60	60	60	600
70	70	70	700
80	80	80	800
90	90	90	900
100	100	100	1000
110	110	110	1100
125	125	125	1250

Interrupting Ratings for 3VA41

Interrupting Class	Breaker Type	Poles	RMS Symmetrical Amperes (kA)									
			Volts AC (50/60 Hz)						Volts DC			
			120	240	277	347	480Y/ 277V	480	600Y/ 347V	125	250	
S	SEAB	1	65		25	14					14	
		2, 3		65				25	25	14		50
M	MEAB	1	85		35	18					25	
		2, 3		85				35	35	18		85
H	HEAB	1	150		65	25					30	
		2, 3		150				65	65	25		100

Dimensions

Breaker	Poles	W in. (mm)	H in. (mm)	D in. (mm)	lbs.	kg
3VA41	1	1 (25.4)	5.1 (129.4)	3.6 (92.2)	0.62	0.28
3VA41	1 in 2	2 (50.8)	5.1 (129.4)	3.6 (92.2)	0.94	0.43
3VA41	2	2 (50.8)	5.1 (129.4)	3.6 (92.2)	1.13	0.51
3VA41	3	3 (76.2)	5.1 (129.4)	3.6 (92.2)	1.64	0.74

Shipping Weight

Connectors for 75C Wire for 3VA41

Type	Min. cable size	Max. cable size	Catalog No. (kit of 3 lugs)
Steel wrap around (Cu cable only), 1 cable lugs	AWG 14	3/0	3VA9133-0JA11
Aluminum body lug small (Cu/Al cable), 1 cable lug	AWG 14	AWG 8	3VA9133-0JB10 ^③
Aluminum body lug (Cu/Al cable), 1 cable lugs	AWG 8	3/0	3VA9133-0JB11 ^④
Aluminum body lug small with control wire tap (Cu/Al cable), 1 cable lug	AWG 14	AWG 8	3VA9133-0JG10 ^③
Aluminum body lug with control wire tap (Cu/Al cable), 1 cable lugs	AWG 8	3/0	3VA9133-0JG11 ^④
Copper body lug small (Cu cable only), 1 cable lugs	AWG 14	AWG 8	3VA9133-0JD10 ^③
Copper body lug (Cu cable only), 1 cable lugs	AWG 8	2/0	3VA9133-0JD11 ^④
Copper body lug small with control wire tap (Cu cable only), 1 cable lugs	AWG 14	AWG 8	3VA9133-0JK10 ^③
Copper body lug with control wire tap (Cu cable only), 1 cable lugs	AWG 8	2/0	3VA9133-0JK11 ^④

3VA4 Accessories

Description	Catalog Number
Padlocking Device for 3VA4 breaker	3VA9038-0LB11

① SWD rated.
② HID rated.

③ Use these lugs on 15A to 40A breakers.
④ Use these lugs on 45A to 125A breakers.

Internal accessories configuration

Auxiliary switch	Type	Slot No.:	
		23 22 21	11 12 13
Auxiliary switch	AUX_HQ	x x x	x x x
	AUX_HQ_el	x x x	x x x
	AUX_HP	x	x
Leading changeover switch	LCS_HQ		x
	LCS_HQ_el		x
	LCS_HP		x
Alarm switch	TAS_HQ	x x	x x
	TAS_HQ_el	x x	x x
	TAS_HP	x	x
Short circuit alarm switch	SAS_HQ		
	SAS_HQ_el		
Auxiliary release	Shunt trip flexible	x	x
	STF		
Shunt trip left	STL	x	
	STL_el		
Residual current release	RCR		
Undervoltage release	UVR	x	x
Universal release	UNI	x	
Other	Cylinder lock (type Ronis)		x

7 MOLDED CASE CIRCUIT BREAKERS

3VA Molded Case Circuit Breakers

3VA51 125A Thermal-magnetic Trip Circuit Breakers

Selection

3VA51 125A Frame, 1-Pole Thermal-Magnetic Trip Unit

Cont. Ampere Rating	S-Interrupting Class (SEAS)	M-Interrupting Class (MEAS)	H-Interrupting Class (HEAS)
	Catalog Number	Catalog Number	Catalog Number
TM210 FTFM			
15	3VA5195-4ED11-0AA0	3VA5195-5ED11-0AA0	3VA5195-6ED11-0AA0
20	3VA5120-4ED11-0AA0	3VA5120-5ED11-0AA0	3VA5120-6ED11-0AA0
25	3VA5125-4ED11-0AA0	3VA5125-5ED11-0AA0	3VA5125-6ED11-0AA0
30	3VA5130-4ED11-0AA0	3VA5130-5ED11-0AA0	3VA5130-6ED11-0AA0
35	3VA5135-4ED11-0AA0	3VA5135-5ED11-0AA0	3VA5135-6ED11-0AA0
40	3VA5140-4ED11-0AA0	3VA5140-5ED11-0AA0	3VA5140-6ED11-0AA0
45	3VA5145-4ED11-0AA0	3VA5145-5ED11-0AA0	3VA5145-6ED11-0AA0
50	3VA5150-4ED11-0AA0	3VA5150-5ED11-0AA0	3VA5150-6ED11-0AA0
60	3VA5160-4ED11-0AA0	3VA5160-5ED11-0AA0	3VA5160-6ED11-0AA0
70	3VA5170-4ED11-0AA0	3VA5170-5ED11-0AA0	3VA5170-6ED11-0AA0
80	3VA5180-4ED11-0AA0	3VA5180-5ED11-0AA0	3VA5180-6ED11-0AA0
90	3VA5190-4ED11-0AA0	3VA5190-5ED11-0AA0	3VA5190-6ED11-0AA0
100	3VA5110-4ED11-0AA0	3VA5110-5ED11-0AA0	3VA5110-6ED11-0AA0
110	3VA5111-4ED11-0AA0	3VA5111-5ED11-0AA0	3VA5111-6ED11-0AA0
125	3VA5112-4ED11-0AA0	3VA5112-5ED11-0AA0	3VA5112-6ED11-0AA0



3VA51 125A Frame, 2-Pole Thermal-Magnetic Trip Unit

Cont. Ampere Rating	S-Interrupting Class (SEAS)	M-Interrupting Class (MEAS)	H-Interrupting Class (HEAS)
	Catalog Number	Catalog Number	Catalog Number
TM210 FTFM[Ⓞ]			
15	3VA5195-4ED21-0AA0	3VA5195-5ED21-0AA0	3VA5195-6ED21-0AA0
20	3VA5120-4ED21-0AA0	3VA5120-5ED21-0AA0	3VA5120-6ED21-0AA0
25	3VA5125-4ED21-0AA0	3VA5125-5ED21-0AA0	3VA5125-6ED21-0AA0
30	3VA5130-4ED21-0AA0	3VA5130-5ED21-0AA0	3VA5130-6ED21-0AA0
35	3VA5135-4ED21-0AA0	3VA5135-5ED21-0AA0	3VA5135-6ED21-0AA0
40	3VA5140-4ED21-0AA0	3VA5140-5ED21-0AA0	3VA5140-6ED21-0AA0
45	3VA5145-4ED21-0AA0	3VA5145-5ED21-0AA0	3VA5145-6ED21-0AA0
50	3VA5150-4ED21-0AA0	3VA5150-5ED21-0AA0	3VA5150-6ED21-0AA0
60	3VA5160-4ED21-0AA0	3VA5160-5ED21-0AA0	3VA5160-6ED21-0AA0
70	3VA5170-4ED21-0AA0	3VA5170-5ED21-0AA0	3VA5170-6ED21-0AA0
80	3VA5180-4ED21-0AA0	3VA5180-5ED21-0AA0	3VA5180-6ED21-0AA0
90	3VA5190-4ED21-0AA0	3VA5190-5ED21-0AA0	3VA5190-6ED21-0AA0
100	3VA5110-4ED21-0AA0	3VA5110-5ED21-0AA0	3VA5110-6ED21-0AA0
110	3VA5111-4ED21-0AA0	3VA5111-5ED21-0AA0	3VA5111-6ED21-0AA0
125	3VA5112-4ED21-0AA0	3VA5112-5ED21-0AA0	3VA5112-6ED21-0AA0



Ordering Information

The catalog numbers listed here are for complete, non-interchangeable trip circuit breakers without lugs.

For factory installed nut keepers (3VA91330QA00), change the 12th digit of the catalog number to "2". (For example, a 35KA @480VAC, 40A, 3-pole, 3VA51 with nut keepers would be catalog number 3VA5140-5ED3**2**-0AA0).

For factory installed standard line and load lugs, change the 12th digit to "6" (standard lugs are identified in the lug table and footnotes in this section of the SpeedFax). (For example, a 35KA @480VAC, 40A, 3-pole, 3VA51 with lugs would be catalog number 3VA5140-5ED3**6**-0AA0). Alternate connectors can be ordered separately for field installation.

For NAVAL-rated thermal-magnetic trip circuit breakers, change the 13th digit of the catalog number to the number "1". (For example, a 35KA @480VAC, 40A, 3-pole, NAVAL rated 3VA51 would be catalog number 3VA5140-5ED31-**1**AA0)

All 3VA51 thermal-magnetic trip circuit breakers are UL listed for reverse feed applications.

Interrupting Ratings for 3VA51

Inter-rupting Class	Breaker Type	Poles	RMS Symmetrical Amperes (kA)										
			Volts AC (50/60 Hz)							Volts DC			
			120	240	277	347	480Y/ 277V	480	600Y/ 347V	125	250	500 ^②	600 ^②
S	SEAS	1	65		25	14				14			
		2, 3, 4		65			25	25	14	14	50	50	50
M	MEAS	1	85		35	18				25			
		2, 3, 4		85			35	35	18	25	85	85	85
H	HEAS	1	150		50	18				30			
		2, 3, 4		150			65	65	25	30	100	100	100

Ⓞ Available with NAVAL/50C ratings.

② Applies to 3VA51 3-Pole

3VA Molded Case Circuit Breakers

3VA51 125A Thermal-magnetic Trip Circuit Breakers

Selection

3VA51 125A Frame, 3-Pole Thermal-Magnetic Trip Unit

Cont. Ampere Rating	S-Interrupting Class (SEAS)	M-Interrupting Class (MEAS)	H-Interrupting Class (HEAS)
	Catalog Number	Catalog Number	Catalog Number
TM210 FTFM[Ⓞ]			
15	3VA5195-4ED31-0AA0	3VA5195-5ED31-0AA0	3VA5195-6ED31-0AA0
20	3VA5120-4ED31-0AA0	3VA5120-5ED31-0AA0	3VA5120-6ED31-0AA0
25	3VA5125-4ED31-0AA0	3VA5125-5ED31-0AA0	3VA5125-6ED31-0AA0
30	3VA5130-4ED31-0AA0	3VA5130-5ED31-0AA0	3VA5130-6ED31-0AA0
35	3VA5135-4ED31-0AA0	3VA5135-5ED31-0AA0	3VA5135-6ED31-0AA0
40	3VA5140-4ED31-0AA0	3VA5140-5ED31-0AA0	3VA5140-6ED31-0AA0
45	3VA5145-4ED31-0AA0	3VA5145-5ED31-0AA0	3VA5145-6ED31-0AA0
50	3VA5150-4ED31-0AA0	3VA5150-5ED31-0AA0	3VA5150-6ED31-0AA0
60	3VA5160-4ED31-0AA0	3VA5160-5ED31-0AA0	3VA5160-6ED31-0AA0
70	3VA5170-4ED31-0AA0	3VA5170-5ED31-0AA0	3VA5170-6ED31-0AA0
80	3VA5180-4ED31-0AA0	3VA5180-5ED31-0AA0	3VA5180-6ED31-0AA0
90	3VA5190-4ED31-0AA0	3VA5190-5ED31-0AA0	3VA5190-6ED31-0AA0
100	3VA5110-4ED31-0AA0	3VA5110-5ED31-0AA0	3VA5110-6ED31-0AA0
110	3VA5111-4ED31-0AA0	3VA5111-5ED31-0AA0	3VA5111-6ED31-0AA0
125	3VA5112-4ED31-0AA0	3VA5112-5ED31-0AA0	3VA5112-6ED31-0AA0
TM230 FTAM[Ⓞ]			
15	3VA5195-4EC31-0AA0	3VA5195-6EC31-0AA0	3VA5195-6EC31-0AA0
20	3VA5120-4EC31-0AA0	3VA5120-5EC31-0AA0	3VA5120-6EC31-0AA0
25	3VA5125-4EC31-0AA0	3VA5125-5EC31-0AA0	3VA5125-6EC31-0AA0
30	3VA5130-4EC31-0AA0	3VA5130-5EC31-0AA0	3VA5130-6EC31-0AA0
35	3VA5135-4EC31-0AA0	3VA5135-5EC31-0AA0	3VA5135-6EC31-0AA0
40	3VA5140-4EC31-0AA0	3VA5140-5EC31-0AA0	3VA5140-6EC31-0AA0
45	3VA5145-4EC31-0AA0	3VA5145-5EC31-0AA0	3VA5145-6EC31-0AA0
50	3VA5150-4EC31-0AA0	3VA5150-5EC31-0AA0	3VA5150-6EC31-0AA0
60	3VA5160-4EC31-0AA0	3VA5160-5EC31-0AA0	3VA5160-6EC31-0AA0
70	3VA5170-4EC31-0AA0	3VA5170-5EC31-0AA0	3VA5170-6EC31-0AA0
80	3VA5180-4EC31-0AA0	3VA5180-5EC31-0AA0	3VA5180-6EC31-0AA0
90	3VA5190-4EC31-0AA0	3VA5190-5EC31-0AA0	3VA5190-6EC31-0AA0
100	3VA5110-4EC31-0AA0	3VA5110-5EC31-0AA0	3VA5110-6EC31-0AA0
110	3VA5111-4EC31-0AA0	3VA5111-5EC31-0AA0	3VA5111-6EC31-0AA0
125	3VA5112-4EC31-0AA0	3VA5112-5EC31-0AA0	3VA5112-6EC31-0AA0
TM240 ATAM			
15	3VA5195-4EF31-0AA0	3VA5195-5EF31-0AA0	3VA5195-6EF31-0AA0
20	3VA5120-4EF31-0AA0	3VA5120-5EF31-0AA0	3VA5120-6EF31-0AA0
30	3VA5130-4EF31-0AA0	3VA5130-5EF31-0AA0	3VA5130-6EF31-0AA0
40	3VA5140-4EF31-0AA0	3VA5140-5EF31-0AA0	3VA5140-6EF31-0AA0
50	3VA5150-4EF31-0AA0	3VA5150-5EF31-0AA0	3VA5150-6EF31-0AA0
60	3VA5160-4EF31-0AA0	3VA5160-5EF31-0AA0	3VA5160-6EF31-0AA0
70	3VA5170-4EF31-0AA0	3VA5170-5EF31-0AA0	3VA5170-6EF31-0AA0
80	3VA5180-4EF31-0AA0	3VA5180-5EF31-0AA0	3VA5180-6EF31-0AA0
100	3VA5110-4EF31-0AA0	3VA5110-5EF31-0AA0	3VA5110-6EF31-0AA0



3VA51 125A 3-Pole

Enclosures (3-pole only)

Nema Type	Catalog Number
1 surface	3VAE125N1S
1 flush	3VAE125N1F
3R	3VAE125N3R
12	3VAE125N12
4X (304)	3VAE125N4X
4X (316)	3VAE125N4X316
Neutral	N125X

Dimensions

Breaker	Poles	W in. (mm)	H in. (mm)	D in. (mm)	lbs.	kg
3VA51	1	1 (25.4)	5.5 (140)	3 (76.5)	0.84	0.38
3VA51	2	2 (50.8)	5.5 (140)	3 (76.5)	1.37	0.62
3VA51	3	3 (76.2)	5.5 (140)	3 (76.5)	1.73	0.78
3VA51	4	4 (101.6)	5.5 (140)	3 (76.5)	2.09	0.95

Shipping Weight

Ⓞ Available with NAVAL/50C ratings.

3VA Molded Case Circuit Breakers

3VA51 125A Thermal-magnetic Trip Circuit Breakers

Selection

3VA51 125A Frame, 4-Pole Thermal-Magnetic Trip Unit

Cont. Ampere Rating	S-Interrupting Class (SEAS)	M-Interrupting Class (MEAS)	H-Interrupting Class (HEAS)
	Catalog Number	Catalog Number	Catalog Number
TM210 FTFM Unprotected Neutral			
15	3VA5195-4ED41-0AA0	3VA5195-5ED41-0AA0	3VA5195-6ED41-0AA0
20	3VA5120-4ED41-0AA0	3VA5120-5ED41-0AA0	3VA5120-6ED41-0AA0
25	3VA5125-4ED41-0AA0	3VA5125-5ED41-0AA0	3VA5125-6ED41-0AA0
30	3VA5130-4ED41-0AA0	3VA5130-5ED41-0AA0	3VA5130-6ED41-0AA0
35	3VA5135-4ED41-0AA0	3VA5135-5ED41-0AA0	3VA5135-6ED41-0AA0
40	3VA5140-4ED41-0AA0	3VA5140-5ED41-0AA0	3VA5140-6ED41-0AA0
45	3VA5145-4ED41-0AA0	3VA5145-5ED41-0AA0	3VA5145-6ED41-0AA0
50	3VA5150-4ED41-0AA0	3VA5150-5ED41-0AA0	3VA5150-6ED41-0AA0
60	3VA5160-4ED41-0AA0	3VA5160-5ED41-0AA0	3VA5160-6ED41-0AA0
70	3VA5170-4ED41-0AA0	3VA5170-5ED41-0AA0	3VA5170-6ED41-0AA0
80	3VA5180-4ED41-0AA0	3VA5180-5ED41-0AA0	3VA5180-6ED41-0AA0
90	3VA5190-4ED41-0AA0	3VA5190-5ED41-0AA0	3VA5190-6ED41-0AA0
100	3VA5110-4ED41-0AA0	3VA5110-5ED41-0AA0	3VA5110-6ED41-0AA0
110	3VA5111-4ED41-0AA0	3VA5111-5ED41-0AA0	3VA5111-6ED41-0AA0
125	3VA5112-4ED41-0AA0	3VA5112-5ED41-0AA0	3VA5112-6ED41-0AA0
TM210 FTFM 100% Neutral			
90	3VA5190-4GD41-0AA0	3VA5190-5GD41-0AA0	3VA5190-6GD41-0AA0
100	3VA5110-4GD41-0AA0	3VA5110-5GD41-0AA0	3VA5110-6GD41-0AA0
110	3VA5111-4GD41-0AA0	3VA5111-5GD41-0AA0	3VA5111-6GD41-0AA0
125	3VA5112-4GD41-0AA0	3VA5112-5GD41-0AA0	3VA5112-6GD41-0AA0
TM230 FTAM Unprotected Neutral			
15	3VA5195-4EC41-0AA0	3VA5195-5EC41-0AA0	3VA5195-6EC41-0AA0
20	3VA5120-4EC41-0AA0	3VA5120-5EC41-0AA0	3VA5120-6EC41-0AA0
25	3VA5125-4EC41-0AA0	3VA5125-5EC41-0AA0	3VA5125-6EC41-0AA0
30	3VA5130-4EC41-0AA0	3VA5130-5EC41-0AA0	3VA5130-6EC41-0AA0
35	3VA5135-4EC41-0AA0	3VA5135-5EC41-0AA0	3VA5135-6EC41-0AA0
40	3VA5140-4EC41-0AA0	3VA5140-5EC41-0AA0	3VA5140-6EC41-0AA0
45	3VA5145-4EC41-0AA0	3VA5145-5EC41-0AA0	3VA5145-6EC41-0AA0
50	3VA5150-4EC41-0AA0	3VA5150-5EC41-0AA0	3VA5150-6EC41-0AA0
60	3VA5160-4EC41-0AA0	3VA5160-5EC41-0AA0	3VA5160-6EC41-0AA0
70	3VA5170-4EC41-0AA0	3VA5170-5EC41-0AA0	3VA5170-6EC41-0AA0
80	3VA5180-4EC41-0AA0	3VA5180-5EC41-0AA0	3VA5180-6EC41-0AA0
90	3VA5190-4EC41-0AA0	3VA5190-5EC41-0AA0	3VA5190-6EC41-0AA0
100	3VA5110-4EC41-0AA0	3VA5110-5EC41-0AA0	3VA5110-6EC41-0AA0
110	3VA5111-4EC41-0AA0	3VA5111-5EC41-0AA0	3VA5111-6EC41-0AA0
125	3VA5112-4EC41-0AA0	3VA5112-5EC41-0AA0	3VA5112-6EC41-0AA0
TM230 FTFM 100% Neutral			
90	3VA5190-4GC41-0AA0	3VA5190-5GC41-0AA0	3VA5190-6GC41-0AA0
100	3VA5110-4GC41-0AA0	3VA5110-5GC41-0AA0	3VA5110-6GC41-0AA0
110	3VA5111-4GC41-0AA0	3VA5111-5GC41-0AA0	3VA5111-6GC41-0AA0
125	3VA5112-4GC41-0AA0	3VA5112-5GC41-0AA0	3VA5112-6GC41-0AA0
TM240 ATAM Unprotected Neutral			
15	3VA5195-4EF41-0AA0	3VA5195-5EF41-0AA0	3VA5195-6EF41-0AA0
20	3VA5120-4EF41-0AA0	3VA5120-5EF41-0AA0	3VA5120-6EF41-0AA0
30	3VA5130-4EF41-0AA0	3VA5130-5EF41-0AA0	3VA5130-6EF41-0AA0
40	3VA5140-4EF41-0AA0	3VA5140-5EF41-0AA0	3VA5140-6EF41-0AA0
50	3VA5150-4EF41-0AA0	3VA5150-5EF41-0AA0	3VA5150-6EF41-0AA0
60	3VA5160-4EF41-0AA0	3VA5160-5EF41-0AA0	3VA5160-6EF41-0AA0
70	3VA5170-4EF41-0AA0	3VA5170-5EF41-0AA0	3VA5170-6EF41-0AA0
80	3VA5180-4EF41-0AA0	3VA5180-5EF41-0AA0	3VA5180-6EF41-0AA0
100	3VA5110-4EF41-0AA0	3VA5110-5EF41-0AA0	3VA5110-6EF41-0AA0
TM240 ATAM 100% Neutral			
100	3VA5110-4GF41-0AA0	3VA5110-5GF41-0AA0	3VA5110-6GF41-0AA0



3VA51 125A 4-Pole

3VA Molded Case Circuit Breakers

3VA51 125A Thermal-magnetic Trip Circuit Breakers

Technical information

Trip Settings for 3VA51

TM210 - FTFM			TM230 - FTAM							TM240 - ATAM									
I _n (A)	I _r (A)	I _i (A)	I _n (A)		I _i (A)					I _n (A)			I _r (A)		I _i (A)				
15	15	300	15	15	150	180	210	240	270	300	15	14	12	150	180	210	240	270	300
20	20	300	20	20	150	180	210	240	270	300	20	18	16	150	180	210	240	270	300
25	25	300	25	25	150	180	210	240	270	300	25	27	24	150	180	210	240	270	300
30	30	300	30	30	150	180	210	240	270	300	30	36	32	200	240	280	320	360	400
35	35	350	35	35	175	210	245	280	315	350	40	45	40	250	300	350	400	450	500
40	40	400	40	40	200	240	280	320	360	400	50	54	48	300	360	420	480	540	600
45	45	450	45	45	225	270	315	360	405	450	60	63	56	350	420	490	560	630	700
50	50	500	50	50	250	300	350	400	450	500	70	72	64	400	480	560	640	720	800
60	60	600	60	60	300	360	420	480	540	600	80	80	80	400	480	560	640	720	800
70	70	700	70	70	350	420	490	560	630	700	90	90	90	450	540	630	720	810	900
80	80	800	80	80	400	480	560	640	720	800	100	100	100	500	600	700	800	900	1000
90	90	900	90	90	450	540	630	720	810	900	110	110	110	550	660	770	880	990	1100
100	100	1000	100	100	500	600	700	800	900	1000	125	125	125	625	750	875	1000	1125	1250
110	110	1100																	
125	125	1250																	

Connectors for 75C Wire for 3VA51

Type	Min. cable size	Max. cable size	Catalog No. (kit of 3 lugs)	Catalog No. (kit of 4 lugs)
Steel wrap around (Cu cable only), 1 cable lugs	AWG 14	3/0	3VA9133-0JA11	3VA9134-0JA11
Aluminum body lug small (Cu/Al cable), 1 cable lug ^{①②}	AWG 14	AWG 8	3VA9133-0JB10	3VA9134-0JB10
Aluminum body lug (Cu/Al cable), 1 cable lugs ^{②③}	AWG 8	3/0	3VA9133-0JB11	3VA9134-0JB11
Aluminum body lug small with control wire tap (Cu/Al cable), 1 cable lug ^①	AWG 14	AWG 8	3VA9133-0JG10	3VA9134-0JG10
Aluminum body lug with control wire tap (Cu/Al cable), 1 cable lugs ^②	AWG 8	3/0	3VA9133-0JG11	3VA9134-0JG11
Aluminum body lug large (Cu/Al cable), 1 cable lugs with 1 extended terminal cover	AWG 4	300 kcmil	3VA9133-0JJ12	3VA9134-0JJ12
Aluminum body lug large with control wire tap (Cu/Al cable), 1 cable lug and 1 extended terminal cover	AWG 4	300 kcmil	3VA9133-0JC12	
Distribution lug, 6 cables (Cu/Al cable), 1 cable lugs with 1 extended terminal cover	AWG 14	AWG 2	3VA9133-0JF60	3VA9134-0JF60
Copper body lug small (Cu cable only), 1 cable lugs ^①	AWG 14	AWG 8	3VA9133-0JD10	3VA9134-0JD10
Copper body lug (Cu cable only), 1 cable lugs ^②	AWG 8	2/0	3VA9133-0JD11	3VA9134-0JD11
Copper body lug small with control wire tap (Cu cable only), 1 cable lugs ^①	AWG 14	AWG 8	3VA9133-0JK10	3VA9134-0JK10
Copper body lug with control wire tap (Cu cable only), 1 cable lugs ^②	AWG 8	2/0	3VA9133-0JK11	3VA9134-0JK11

Internal accessories configuration		3VA4/3VA5 125 A 1 in 2-pole /2-pole	3VA5 125 A 3 & 4-pole
		Slot No.: 23 22 21 125 A	Slot No.: 23 22 21 11 12 13 125 A
Auxiliary switch	Type		
Auxiliary switch	AUX_HQ	x x x	x x x x x x x
	AUX_HQ_el	x x x	x x x x x x x
	AUX_HP	x	x x
Leading changeover switch	LCS_HQ		x
	LCS_HQ_el		x
	LCS_HP		x
Alarm switch	Type		
Trip alarm switch	TAS_HQ	x x	x x x x
	TAS_HQ_el	x x	x x x x
	TAS_HP	x	x
Short circuit alarm switch	SAS_HQ		
	SAS_HQ_el		
Auxiliary release	Type		
Shunt trip flexible	STF	x	x
	STL	x	x
Shunt trip left	STL_el		
Residual current release	RCR		
Undervoltage release	UVR	x	x
Universal release	UNI	x	x
Other			
Cylinder lock (type Ronis)			x

MOLDED CASE CIRCUIT BREAKERS

① Use these lugs on 15A to 40A breakers.
 ② Use these lugs on 45A to 125A breakers.

③ Standard lug installed at the factory when breaker ordered with a "6" in the 12th position.

3VA Molded Case Circuit Breakers

3VA61 150A Electronic Trip Circuit Breakers

Selection



**3VA61
150A 3-Pole**

Ordering Information

The numbers listed here are for complete, non-interchangeable trip circuit breakers without lugs. For factory installed nut keepers (3VA92430QA00), change the 12th digit of the catalog number to "2" (required to install a breaker in a panelboard or switchboard that has a provision). (For example, a 35KA @480VAC, 40A, 3-pole, 3VA61 with nut keepers is catalog number 3VA6140-5HL3**2**-0AA0).

For factory installed standard line and load lugs, change the 12th digit to "6" (standard lugs are identified in the lug table and footnotes in this section of the SpeedFax). (For example, a 35KA @480VAC, 40A, 3-pole, 3VA61 with lugs is catalog number 3VA6140-5HL3**6**-0AA0). Alternate connectors can be ordered separately for field installation.

All 3VA61 electronic trip circuit breakers are available with 100% ratings. To order, change the 13th digit of the catalog number to the number "2". (For example, a 35KA @480VAC, 40A, 3-pole, 100% rated 3VA61 is catalog number 3VA6140-5HL31-**2**AA0). Requires the use of rated lugs — see lug table below.

All 3VA6 circuit breakers are certified to UL 489 Supplement SB, are marked "Naval", and are suitable for use at 50C. They are UL listed for reverse feed applications.

3VA61 150A Frame 3-Pole Electronic Trip Unit

Continuous Ampere	M-Interrupting Class (MDAE) Catalog Number	H-Interrupting Class (HDAE) Catalog Number	C-Interrupting Class (CDAE) Catalog Number	L-Interrupting Class (LDAE) Catalog Number	E-Interrupting Class (EAE) Catalog Number
ETU320 LI with dials					
40	3VA6140-5HL31-0AA0	3VA6140-6HL31-0AA0	3VA6140-7HL31-0AA0	3VA6140-8HL31-0AA0	—
60	—	—	—	—	3VA6160-0HL31-0AA0
100	3VA6110-5HL31-0AA0	3VA6110-6HL31-0AA0	3VA6110-7HL31-0AA0	3VA6110-8HL31-0AA0	3VA6110-0HL31-0AA0
150	3VA6115-5HL31-0AA0	3VA6115-6HL31-0AA0	3VA6115-7HL31-0AA0	3VA6115-8HL31-0AA0	3VA6115-0HL31-0AA0
ETU330 LIG with dials					
40	3VA6140-5HM31-0AA0	3VA6140-6HM31-0AA0	3VA6140-7HM31-0AA0	3VA6140-8HM31-0AA0	—
60	—	—	—	—	3VA6160-0HM31-0AA0
100	3VA6110-5HM31-0AA0	3VA6110-6HM31-0AA0	3VA6110-7HM31-0AA0	3VA6110-8HM31-0AA0	3VA6110-0HM31-0AA0
150	3VA6115-5HM31-0AA0	3VA6115-6HM31-0AA0	3VA6115-7HM31-0AA0	3VA6115-8HM31-0AA0	3VA6115-0HM31-0AA0
ETU350 LSI with dials					
40	3VA6140-5HN31-0AA0	3VA6140-6HN31-0AA0	3VA6140-7HN31-0AA0	3VA6140-8HN31-0AA0	—
60	—	—	—	—	3VA6160-0HN31-0AA0
100	3VA6110-5HN31-0AA0	3VA6110-6HN31-0AA0	3VA6110-7HN31-0AA0	3VA6110-8HN31-0AA0	3VA6110-0HN31-0AA0
150	3VA6115-5HN31-0AA0	3VA6115-6HN31-0AA0	3VA6115-7HN31-0AA0	3VA6115-8HN31-0AA0	3VA6115-0HN31-0AA0
ETU550 LSI with LCD					
40	3VA6140-5JP31-0AA0	3VA6140-6JP31-0AA0	3VA6140-7JP31-0AA0	3VA6140-8JP31-0AA0	—
100	3VA6110-5JP31-0AA0	3VA6110-6JP31-0AA0	3VA6110-7JP31-0AA0	3VA6110-8JP31-0AA0	—
150	3VA6115-5JP31-0AA0	3VA6115-6JP31-0AA0	3VA6115-7JP31-0AA0	3VA6115-8JP31-0AA0	—
ETU556 LSI(G Alarm) with LCD					
40	3VA6140-5JT31-0AA0	3VA6140-6JT31-0AA0	3VA6140-7JT31-0AA0	3VA6140-8JT31-0AA0	—
100	3VA6110-5JT31-0AA0	3VA6110-6JT31-0AA0	3VA6110-7JT31-0AA0	3VA6110-8JT31-0AA0	—
150	3VA6115-5JT31-0AA0	3VA6115-6JT31-0AA0	3VA6115-7JT31-0AA0	3VA6115-8JT31-0AA0	—
ETU560 LSI(G) with LCD					
40	3VA6140-5JQ31-0AA0	3VA6140-6JQ31-0AA0	3VA6140-7JQ31-0AA0	3VA6140-8JQ31-0AA0	—
100	3VA6110-5JQ31-0AA0	3VA6110-6JQ31-0AA0	3VA6110-7JQ31-0AA0	3VA6110-8JQ31-0AA0	—
150	3VA6115-5JQ31-0AA0	3VA6115-6JQ31-0AA0	3VA6115-7JQ31-0AA0	3VA6115-8JQ31-0AA0	—
ETU820 LI LCD with Metering					
40	3VA6140-5KL31-0AA0	3VA6140-6KL31-0AA0	3VA6140-7KL31-0AA0	3VA6140-8KL31-0AA0	—
100	3VA6110-5KL31-0AA0	3VA6110-6KL31-0AA0	3VA6110-7KL31-0AA0	3VA6110-8KL31-0AA0	—
150	3VA6115-5KL31-0AA0	3VA6115-6KL31-0AA0	3VA6115-7KL31-0AA0	3VA6115-8KL31-0AA0	—
ETU830 LIG with LCD and Metering					
40	3VA6140-5KM31-0AA0	3VA6140-6KM31-0AA0	3VA6140-7KM31-0AA0	3VA6140-8KM31-0AA0	—
100	3VA6110-5KM31-0AA0	3VA6110-6KM31-0AA0	3VA6110-7KM31-0AA0	3VA6110-8KM31-0AA0	—
150	3VA6115-5KM31-0AA0	3VA6115-6KM31-0AA0	3VA6115-7KM31-0AA0	3VA6115-8KM31-0AA0	—
ETU850 LSI with LCD and Metering					
40	3VA6140-5KP31-0AA0	3VA6140-6KP31-0AA0	3VA6140-7KP31-0AA0	3VA6140-8KP31-0AA0	—
100	3VA6110-5KP31-0AA0	3VA6110-6KP31-0AA0	3VA6110-7KP31-0AA0	3VA6110-8KP31-0AA0	—
150	3VA6115-5KP31-0AA0	3VA6115-6KP31-0AA0	3VA6115-7KP31-0AA0	3VA6115-8KP31-0AA0	—
ETU856 LSI(G Alarm) with LCD and Metering					
40	3VA6140-5KT31-0AA0	3VA6140-6KT31-0AA0	3VA6140-7KT31-0AA0	3VA6140-8KT31-0AA0	—
60	—	—	—	—	3VA6160-0KT31-0AA0
100	3VA6110-5KT31-0AA0	3VA6110-6KT31-0AA0	3VA6110-7KT31-0AA0	3VA6110-8KT31-0AA0	3VA6110-0KT31-0AA0
150	3VA6115-5KT31-0AA0	3VA6115-6KT31-0AA0	3VA6115-7KT31-0AA0	3VA6115-8KT31-0AA0	3VA6115-0KT31-0AA0
ETU860 LSI(G) with LCD and Metering					
40	3VA6140-5KQ31-0AA0	3VA6140-6KQ31-0AA0	3VA6140-7KQ31-0AA0	3VA6140-8KQ31-0AA0	—
60	—	—	—	—	3VA6160-0KQ31-0AA0
100	3VA6110-5KQ31-0AA0	3VA6110-6KQ31-0AA0	3VA6110-7KQ31-0AA0	3VA6110-8KQ31-0AA0	3VA6110-0KQ31-0AA0
150	3VA6115-5KQ31-0AA0	3VA6115-6KQ31-0AA0	3VA6115-7KQ31-0AA0	3VA6115-8KQ31-0AA0	3VA6115-0KQ31-0AA0

3VA Molded Case Circuit Breakers

3VA61 150A Electronic Trip Circuit Breakers

Selection



**3VA61
150A 4-Pole**

3VA61 150A Frame 4-Pole Electronic Trip Unit

Continuous Ampere	M-Interrupting Class (MDAE) Catalog Number	H-Interrupting Class (HDAE) Catalog Number	C-Interrupting Class (CDAE) Catalog Number	L-Interrupting Class (LDAE) Catalog Number	E-Interrupting Class (EAE) Catalog Number
ETU320 LI with dials					
40	3VA6140-5HL41-0AA0	3VA6140-6HL41-0AA0	3VA6140-7HL41-0AA0	3VA6140-8HL41-0AA0	—
60	—	—	—	—	3VA6160-0HL41-0AA0
100	3VA6110-5HL41-0AA0	3VA6110-6HL41-0AA0	3VA6110-7HL41-0AA0	3VA6110-8HL41-0AA0	3VA6110-0HL41-0AA0
150	3VA6115-5HL41-0AA0	3VA6115-6HL41-0AA0	3VA6115-7HL41-0AA0	3VA6115-8HL41-0AA0	3VA6115-0HL41-0AA0
ETU330 LIG with dials					
40	3VA6140-5HM41-0AA0	3VA6140-6HM41-0AA0	3VA6140-7HM41-0AA0	3VA6140-8HM41-0AA0	—
60	—	—	—	—	3VA6160-0HM41-0AA0
100	3VA6110-5HM41-0AA0	3VA6110-6HM41-0AA0	3VA6110-7HM41-0AA0	3VA6110-8HM41-0AA0	3VA6110-0HM41-0AA0
150	3VA6115-5HM41-0AA0	3VA6115-6HM41-0AA0	3VA6115-7HM41-0AA0	3VA6115-8HM41-0AA0	3VA6115-0HM41-0AA0
ETU350 LSI with dials					
40	3VA6140-5HN41-0AA0	3VA6140-6HN41-0AA0	3VA6140-7HN41-0AA0	3VA6140-8HN41-0AA0	—
60	—	—	—	—	3VA6160-0HN41-0AA0
100	3VA6110-5HN41-0AA0	3VA6110-6HN41-0AA0	3VA6110-7HN41-0AA0	3VA6110-8HN41-0AA0	3VA6110-0HN41-0AA0
150	3VA6115-5HN41-0AA0	3VA6115-6HN41-0AA0	3VA6115-7HN41-0AA0	3VA6115-8HN41-0AA0	3VA6115-0HN41-0AA0
ETU550 LSI with LCD					
40	3VA6140-5JP41-0AA0	3VA6140-6JP41-0AA0	3VA6140-7JP41-0AA0	3VA6140-8JP41-0AA0	—
100	3VA6110-5JP41-0AA0	3VA6110-6JP41-0AA0	3VA6110-7JP41-0AA0	3VA6110-8JP41-0AA0	—
150	3VA6115-5JP41-0AA0	3VA6115-6JP41-0AA0	3VA6115-7JP41-0AA0	3VA6115-8JP41-0AA0	—
ETU556 LSI(G Alarm) with LCD					
40	3VA6140-5JT41-0AA0	3VA6140-6JT41-0AA0	3VA6140-7JT41-0AA0	3VA6140-8JT41-0AA0	—
100	3VA6110-5JT41-0AA0	3VA6110-6JT41-0AA0	3VA6110-7JT41-0AA0	3VA6110-8JT41-0AA0	—
150	3VA6115-5JT41-0AA0	3VA6115-6JT41-0AA0	3VA6115-7JT41-0AA0	3VA6115-8JT41-0AA0	—
ETU560 LSI(G) with LCD					
40	3VA6140-5JQ41-0AA0	3VA6140-6JQ41-0AA0	3VA6140-7JQ41-0AA0	3VA6140-8JQ41-0AA0	—
100	3VA6110-5JQ41-0AA0	3VA6110-6JQ41-0AA0	3VA6110-7JQ41-0AA0	3VA6110-8JQ41-0AA0	—
150	3VA6115-5JQ41-0AA0	3VA6115-6JQ41-0AA0	3VA6115-7JQ41-0AA0	3VA6115-8JQ41-0AA0	—
ETU820 LI LCD with Metering					
40	3VA6140-5KL41-0AA0	3VA6140-6KL41-0AA0	3VA6140-7KL41-0AA0	3VA6140-8KL41-0AA0	—
100	3VA6110-5KL41-0AA0	3VA6110-6KL41-0AA0	3VA6110-7KL41-0AA0	3VA6110-8KL41-0AA0	—
150	3VA6115-5KL41-0AA0	3VA6115-6KL41-0AA0	3VA6115-7KL41-0AA0	3VA6115-8KL41-0AA0	—
ETU830 LIG with LCD and Metering					
40	3VA6140-5KM41-0AA0	3VA6140-6KM41-0AA0	3VA6140-7KM41-0AA0	3VA6140-8KM41-0AA0	—
100	3VA6110-5KM41-0AA0	3VA6110-6KM41-0AA0	3VA6110-7KM41-0AA0	3VA6110-8KM41-0AA0	—
150	3VA6115-5KM41-0AA0	3VA6115-6KM41-0AA0	3VA6115-7KM41-0AA0	3VA6115-8KM41-0AA0	—
ETU850 LSI with LCD and Metering					
40	3VA6140-5KP41-0AA0	3VA6140-6KP41-0AA0	3VA6140-7KP41-0AA0	3VA6140-8KP41-0AA0	—
100	3VA6110-5KP41-0AA0	3VA6110-6KP41-0AA0	3VA6110-7KP41-0AA0	3VA6110-8KP41-0AA0	—
150	3VA6115-5KP41-0AA0	3VA6115-6KP41-0AA0	3VA6115-7KP41-0AA0	3VA6115-8KP41-0AA0	—
ETU856 LSI(G Alarm) with LCD and Metering					
40	3VA6140-5KT41-0AA0	3VA6140-6KT41-0AA0	3VA6140-7KT41-0AA0	3VA6140-8KT41-0AA0	—
60	—	—	—	—	3VA6160-0KT41-0AA0
100	3VA6110-5KT41-0AA0	3VA6110-6KT41-0AA0	3VA6110-7KT41-0AA0	3VA6110-8KT41-0AA0	3VA6110-0KT41-0AA0
150	3VA6115-5KT41-0AA0	3VA6115-6KT41-0AA0	3VA6115-7KT41-0AA0	3VA6115-8KT41-0AA0	3VA6115-0KT41-0AA0
ETU860 LSI(G) with LCD and Metering					
40	3VA6140-5KQ41-0AA0	3VA6140-6KQ41-0AA0	3VA6140-7KQ41-0AA0	3VA6140-8KQ41-0AA0	—
60	—	—	—	—	3VA6160-0KQ41-0AA0
100	3VA6110-5KQ41-0AA0	3VA6110-6KQ41-0AA0	3VA6110-7KQ41-0AA0	3VA6110-8KQ41-0AA0	3VA6110-0KQ41-0AA0
150	3VA6115-5KQ41-0AA0	3VA6115-6KQ41-0AA0	3VA6115-7KQ41-0AA0	3VA6115-8KQ41-0AA0	3VA6115-0KQ41-0AA0

3VA Molded Case Circuit Breakers

3VA61 150A Electronic Trip Circuit Breakers

Technical information

Connectors for 75C wire for 3VA61

Type	Minimum cable size	Maximum cable size	Part Number (kit of 3 lugs)	Part Number (kit of 4 lugs)
Steel Wrap around (Cu cable only) single cable lugs ^②	AWG 10	3/0	3VA9143-0JA12	3VA9144-0JA12
	AWG 4	350 kcmil	3VA9243-0JA12	3VA9244-0JA12
Aluminum Body Lug (Cu/Al cable) single cable lugs ^①	AWG 14	1/0	3VA9143-0JB11	3VA9144-0JB11
	AWG 6	350 kcmil	3VA9243-0JB12 ^④	3VA9244-0JB12 ^④
Aluminum body lug with control wire tap (Cu/Al cable) single cable lugs ^①	AWG 14	1/0	3VA9143-0JG11 ^③	3VA9144-0JG11 ^③
	AWG 6	350 kcmil	3VA9243-0JG12	3VA9244-0JG12
Aluminum body lug large (Cu/Al cable) single cable lugs and 1 ext'd terminal cover ^①	AWG 2	350 kcmil	3VA9243-0JJ13	3VA9244-0JJ13
Aluminum body lug large with control wire tap (Cu/Al cable) single cable lugs and 1 extended terminal cover ^①	AWG 2	350 kcmil	3VA9243-0JC13	3VA9244-0JC13
Aluminum body lug, 2 cables (Cu/Al cable) with 1 extended terminal cover ^①	AWG 4	300 kcmil	3VA9243-0JJ22	3VA9244-0JJ22
Aluminum body lug, 2 cables (Cu/Al cable) with control wire tap and 1 extended terminal cover ^①	AWG 4	300 kcmil	3VA9243-0JC22	3VA9244-0JC22
Distribution lug, 6 Cables (Cu/Al cable) with 1 extended terminal cover ^②	AWG 14	AWG 2	3VA9243-0JF60	3VA9244-0JF60
Copper body lug (Cu cable only) single cable lugs kit of 3 single lugs ^①	AWG 14	1/0	3VA9143-0JD11	3VA9144-0JD11
	AWG 6	350 kcmil	3VA9243-0JD12	3VA9244-0JD12
Copper body lug (Cu cable only) with control wire tap single cable lugs ^①	AWG 14	1/0	3VA9143-0JK11 ^③	3VA9144-0JK11 ^③
	AWG 6	350 kcmil	3VA9243-0JK12	3VA9244-0JK12

Interrupting Ratings for 3VA61

Interrupting Class	Breaker Type	RMS Symmetrical Amperes (kA)				
		Volts AC (50/60 Hz)				
		240	480Y/277V	480	600Y/347V	600
M	MDAE	100	35	35	18	18
H	HDAE	100	65	65	22	22
C	CDAE	200	100	100	35	35
L	LDAE	200	150	150	50	50
E	EDAE	—	200	200	100	100

Enclosures (3-pole only)

Nema Type	Catalog Number
1 surface	3VAE250N1S
1 flush	3VAE250N1F
3R	3VAE250N3R
12	3VAE250N12
4X (304)	3VAE250N4X
4X (316)	3VAE250N4X316
Neutral	N250X
200% Neutral	N2250X

Dimensions

Breaker	Poles	W in. (mm)	H in. (mm)	D in. (mm)	lbs.	kg
3VA61	3	4.1 (105)	7.8 (198)	3.4 (86)	5.5	2.5
3VA61	4	5.5 (140)	7.8 (198)	3.4 (86)	7.1	3.2

Shipping Weight

① Meets requirements for 100% rated breakers up to 150A.
 ② Meets requirements for 100% rated breakers up to 100A.
 ③ Limited to 150A including the control wire tap.

④ Standard lug installed at the factory when breaker ordered with a "6" in the 12th position.

3VA Molded Case Circuit Breakers

3VA61 150A Electronic Trip Circuit Breakers

Technical information

Trip Settings for 3VA61

ETU320-LI, ETU330-LIG, ETU350-LSI

Continuous Amperage	LI, LIG, LSI			LSI		LIG	LI, LIG, LSI 4P only
I_n (Amp)	I_r (Amp) (L)	t_{td} (sec) (L)	I_i (Amp) (I) ^①	$I_{sd} = xI_r$ (Amp) (S)	t_{sd} (sec) (S)	I_g (Amp) (G)	$I_N = xI_r$ (Amp)
40	15 - 40	0.5 - 17	60-480	1.5 - 10	0.08 - 0.4	15 - 40	1 / OFF
100	40 - 100	0.5 - 17	150-1200	1.5 - 10		20 - 100	0.5 - 1 / OFF
150	60 - 150	0.5 - 17	225-1500	1.5 - 10		30 - 150	0.5 - 1 / OFF

① I_i for ETU350 is fixed at the maximum level shown in table.

ETU550-LSI, ETU556 LSI(A), ETU560-LSIG, ETU820-LI, ETU830-LIG, ETU850-LSI, ETU856 LSI(A), ETU860-LSIG

Continuous Amperage	LI, LIG, LSI, LSIG, LSI(G)			LSI, LSIG, LSI(G)		LIG, LSIG, LSI(G)		LSI 3P with External CT	LI, LIG, LSI, LSIG, LSI(G) 4P only
I_n (Amp)	I_r (Amp) (L) ^②	t_{td} (sec) (L)	I_i (Amp) (I)	I_{sd} (Amp) (S)	t_{sd} (sec) (S)	I_g (Amp) (G)	t_g (G)	$I_N = xI_r$ (Amp)	I_N (Amp)
40	15 - 40	0.5 - 25	60-480	24 - 400	0.05 - 0.5	15 - 40	0.05 - 0.8	15 - 64 / OFF	15 - 64 / OFF
100	40 - 100	0.5 - 25	150-1200	60 - 1000		20 - 100		20 - 160 / OFF	20 - 150 / OFF
150	60 - 150	0.5 - 20	225-1500	90 - 1500		30 - 150		30 - 240 / OFF	30 - 150 / OFF

② Adjustable in steps of 1A.

For specific trip settings refer to the Electronic Trip Unit section of the 3VA Systems Manual, which can be found in the document download center at https://digitalcontentcenter.compas.siemens-info.com/SIE_IM_3VA6_Systems_Manual.pdf

Internal accessories Optional equipment	Slot No.:	3VA6 150/250 A 3-pole						3VA6 150/250 A 4-pole													
		24	23	22	21	11	12	13	14	34	33	32	31	24	23	22	21	11	12	13	14
Auxiliary switch	Type																				
Auxiliary switch	AUX_HQ	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	AUX_HQ_el	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	AUX_HP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Leading changeover switch	LCS_HQ																				
	LCS_HQ_el																				
	LCS_HP																				
Alarm switch	Type																				
Trip alarm switch	TAS_HQ					x	x														
	TAS_HQ_el					x	x														
	TAS_HP					x															
Electrical alarm switch	EAS_HQ																				x
	EAS_HQ_el																				x
Auxiliary release	Type																				
Shunt trip flexible	STF																				
	STL																				
Undervoltage release	UVR																				
	UNI																				
ETU/communication	Type																				
Communication module Breaker data server	COM060																				
	24 V module																				
Other																					
Cylinder lock (type Ronis)																					x

See page 7-83 for internal accessory part numbers.

3VA Molded Case Circuit Breakers

3VA52 250A Thermal-magnetic Trip Circuit Breakers

Selection

3VA52 250 A, 2-Pole in 3-Pole Frame Thermal-Magnetic Trip Unit

Cont. Ampere Rating	M-Interrupting Class (MFAS)	H-Interrupting Class (HFAS)	C-Interrupting Class (CFAS)
	Catalog Number	Catalog Number	Catalog Number
TM210 FTFM			
40	3VA5240-5ED61-0AA0	3VA5240-6ED61-0AA0	3VA5240-7ED61-0AA0
45	3VA5245-5ED61-0AA0	3VA5245-6ED61-0AA0	3VA5245-7ED61-0AA0
50	3VA5250-5ED61-0AA0	3VA5250-6ED61-0AA0	3VA5250-7ED61-0AA0
60	3VA5260-5ED61-0AA0	3VA5260-6ED61-0AA0	3VA5260-7ED61-0AA0
70	3VA5270-5ED61-0AA0	3VA5270-6ED61-0AA0	3VA5270-7ED61-0AA0
80	3VA5280-5ED61-0AA0	3VA5280-6ED61-0AA0	3VA5280-7ED61-0AA0
90	3VA5290-5ED61-0AA0	3VA5290-6ED61-0AA0	3VA5290-7ED61-0AA0
100	3VA5210-5ED61-0AA0	3VA5210-6ED61-0AA0	3VA5210-7ED61-0AA0
110	3VA5211-5ED61-0AA0	3VA5211-6ED61-0AA0	3VA5211-7ED61-0AA0
125	3VA5212-5ED61-0AA0	3VA5212-6ED61-0AA0	3VA5212-7ED61-0AA0
150	3VA5215-5ED61-0AA0	3VA5215-6ED61-0AA0	3VA5215-7ED61-0AA0
175	3VA5217-5ED61-0AA0	3VA5217-6ED61-0AA0	3VA5217-7ED61-0AA0
200	3VA5220-5ED61-0AA0	3VA5220-6ED61-0AA0	3VA5220-7ED61-0AA0
225	3VA5222-5ED61-0AA0	3VA5222-6ED61-0AA0	3VA5222-7ED61-0AA0
250	3VA5225-5ED61-0AA0	3VA5225-6ED61-0AA0	3VA5225-7ED61-0AA0
TM230 FTAM			
70	3VA5270-5EC61-0AA0	3VA5270-6EC61-0AA0	3VA5270-7EC61-0AA0
80	3VA5280-5EC61-0AA0	3VA5280-6EC61-0AA0	3VA5280-7EC61-0AA0
90	3VA5290-5EC61-0AA0	3VA5290-6EC61-0AA0	3VA5290-7EC61-0AA0
100	3VA5210-5EC61-0AA0	3VA5210-6EC61-0AA0	3VA5210-7EC61-0AA0
110	3VA5211-5EC61-0AA0	3VA5211-6EC61-0AA0	3VA5211-7EC61-0AA0
125	3VA5212-5EC61-0AA0	3VA5212-6EC61-0AA0	3VA5212-7EC61-0AA0
150	3VA5215-5EC61-0AA0	3VA5215-6EC61-0AA0	3VA5215-7EC61-0AA0
175	3VA5217-5EC61-0AA0	3VA5217-6EC61-0AA0	3VA5217-7EC61-0AA0
200	3VA5220-5EC61-0AA0	3VA5220-6EC61-0AA0	3VA5220-7EC61-0AA0
225	3VA5222-5EC61-0AA0	3VA5222-6EC61-0AA0	3VA5222-7EC61-0AA0
250	3VA5225-5EC61-0AA0	3VA5225-6EC61-0AA0	3VA5225-7EC61-0AA0



3VA52 250A 3-Pole

Ordering Information

The catalog numbers listed here are for complete, non-interchangeable trip circuit breakers without lugs.

For factory installed nut keepers (3VA92330QA00), change the 12th digit of the catalog number to "2" (required to install a breaker in a panelboard or switchboard that has a provision). (For example, a 35KA @480VAC, 150A, 3-pole, 3VA52 with nut keepers would be catalog number 3VA5215-5ED32-0AA0).

For factory installed standard line and load lugs, change the 12th digit to "6" (standard lugs are identified in this section of the SpeedFax). (For example, a 35KA @480VAC, 150A, 3-pole, 3VA52 with lugs would be catalog number 3VA5215-5ED36-0AA0). Alternate connectors can be ordered separately for field installation.

For NAVAL-rated thermal-magnetic trip circuit breakers, change the 13th digit of the catalog number to the number "1". (For example, a 35KA @480VAC, 150A, 3-pole, NAVAL rated 3VA52 would be catalog number 3VA5215-5ED31-1AA0)

All 3VA52 thermal-magnetic trip circuit breakers are UL listed for reverse feed applications.

Dimensions

Breaker	Poles	W in. (mm)	H in. (mm)	D in. (mm)	lbs.	kg
3VA52	2(3-) pole	4.1 (105)	7.3 (185)	3.3 (83)	4.1	1.9
3VA52	3-pole	4.1 (105)	7.3 (185)	3.3 (83)	4.5	2.1

Shipping Weight

Enclosures (3-pole only)

Nema Type	Catalog Number
1 surface	3VAE250N1S
1 flush	3VAE250N1F
3R	3VAE250N3R
12	3VAE250N12
4X (304)	3VAE250N4X
4X (316)	3VAE250N4X316
Neutral	N250X
200% Neutral	N2250X

3VA Molded Case Circuit Breakers

3VA52 250A Thermal-magnetic Trip Circuit Breakers

Selection

3VA52 250 A Frame, 3-Pole Thermal-Magnetic Trip Unit

Cont. Ampere Rating	M-Interrupting Class (MFAS)	H-Interrupting Class (HFAS)	C-Interrupting Class (CFAS)
	Catalog Number	Catalog Number	Catalog Number
TM210 FTFM[Ⓞ]			
40	3VA5240-5ED31-0AA0	3VA5240-6ED31-0AA0	3VA5240-7ED31-0AA0
45	3VA5245-5ED31-0AA0	3VA5245-6ED31-0AA0	3VA5245-7ED31-0AA0
50	3VA5250-5ED31-0AA0	3VA5250-6ED31-0AA0	3VA5250-7ED31-0AA0
60	3VA5260-5ED31-0AA0	3VA5260-6ED31-0AA0	3VA5260-7ED31-0AA0
70	3VA5270-5ED31-0AA0	3VA5270-6ED31-0AA0	3VA5270-7ED31-0AA0
80	3VA5280-5ED31-0AA0	3VA5280-6ED31-0AA0	3VA5280-7ED31-0AA0
90	3VA5290-5ED31-0AA0	3VA5290-6ED31-0AA0	3VA5290-7ED31-0AA0
100	3VA5210-5ED31-0AA0	3VA5210-6ED31-0AA0	3VA5210-7ED31-0AA0
110	3VA5211-5ED31-0AA0	3VA5211-6ED31-0AA0	3VA5211-7ED31-0AA0
125	3VA5212-5ED31-0AA0	3VA5212-6ED31-0AA0	3VA5212-7ED31-0AA0
150	3VA5215-5ED31-0AA0	3VA5215-6ED31-0AA0	3VA5215-7ED31-0AA0
175	3VA5217-5ED31-0AA0	3VA5217-6ED31-0AA0	3VA5217-7ED31-0AA0
200	3VA5220-5ED31-0AA0	3VA5220-6ED31-0AA0	3VA5220-7ED31-0AA0
225	3VA5222-5ED31-0AA0	3VA5222-6ED31-0AA0	3VA5222-7ED31-0AA0
250	3VA5225-5ED31-0AA0	3VA5225-6ED31-0AA0	3VA5225-7ED31-0AA0
TM230 FTAM[Ⓞ]			
70	3VA5270-5EC31-0AA0	3VA5270-6EC31-0AA0	3VA5270-7EC31-0AA0
80	3VA5280-5EC31-0AA0	3VA5280-6EC31-0AA0	3VA5280-7EC31-0AA0
90	3VA5290-5EC31-0AA0	3VA5290-6EC31-0AA0	3VA5290-7EC31-0AA0
100	3VA5210-5EC31-0AA0	3VA5210-6EC31-0AA0	3VA5210-7EC31-0AA0
110	3VA5211-5EC31-0AA0	3VA5211-6EC31-0AA0	3VA5211-7EC31-0AA0
125	3VA5212-5EC31-0AA0	3VA5212-6EC31-0AA0	3VA5212-7EC31-0AA0
150	3VA5215-5EC31-0AA0	3VA5215-6EC31-0AA0	3VA5215-7EC31-0AA0
175	3VA5217-5EC31-0AA0	3VA5217-6EC31-0AA0	3VA5217-7EC31-0AA0
200	3VA5220-5EC31-0AA0	3VA5220-6EC31-0AA0	3VA5220-7EC31-0AA0
225	3VA5222-5EC31-0AA0	3VA5222-6EC31-0AA0	3VA5222-7EC31-0AA0
250	3VA5225-5EC31-0AA0	3VA5225-6EC31-0AA0	3VA5225-7EC31-0AA0
TM240 ATAM			
70	3VA5270-5EF31-0AA0	3VA5270-6EF31-0AA0	3VA5270-7EF31-0AA0
80	3VA5280-5EF31-0AA0	3VA5280-6EF31-0AA0	3VA5280-7EF31-0AA0
100	3VA5210-5EF31-0AA0	3VA5210-6EF31-0AA0	3VA5210-7EF31-0AA0
125	3VA5212-5EF31-0AA0	3VA5212-6EF31-0AA0	3VA5212-7EF31-0AA0
150	3VA5215-5EF31-0AA0	3VA5215-6EF31-0AA0	3VA5215-7EF31-0AA0
175	3VA5217-5EF31-0AA0	3VA5217-6EF31-0AA0	3VA5217-7EF31-0AA0
200	3VA5220-5EF31-0AA0	3VA5220-6EF31-0AA0	3VA5220-7EF31-0AA0
250	3VA5225-5EF31-0AA0	3VA5225-6EF31-0AA0	3VA5225-7EF31-0AA0

Enclosures (3-pole only)

Nema Type	Catalog Number
1 surface	3VAE250N1S
1 flush	3VAE250N1F
3R	3VAE250N3R
12	3VAE250N12
4X (304)	3VAE250N4X
4X (316)	3VAE250N4X316
Neutral	N250X
200% Neutral	N2250X

Dimensions

Breaker	Poles	W in. (mm)	H in. (mm)	D in. (mm)	lbs.	kg
3VA52	2(3-) pole	4.1 (105)	7.3 (185)	3.3 (83)	4.1	1.9
3VA52	3-pole	4.1 (105)	7.3 (185)	3.3 (83)	4.5	2.1

Shipping Weight

[Ⓞ] Available with NAVAL/50C ratings.

3VA Molded Case Circuit Breakers

3VA52 250A Thermal-magnetic Trip Circuit Breakers

Selection

3VA52 250A Frame, 4-pole Thermal-Magnetic Trip Unit

Cont. Ampere Rating	M-Interrupting Class (MFAS)	H-Interrupting Class (HFAS)	C-Interrupting Class (CFAS)
	Catalog Number	Catalog Number	Catalog Number
TM210 FTFM			
40	3VA5240-5ED41-0AA0	3VA5240-6ED41-0AA0	3VA5240-7ED41-0AA0
45	3VA5245-5ED41-0AA0	3VA5245-6ED41-0AA0	3VA5245-7ED41-0AA0
50	3VA5250-5ED41-0AA0	3VA5250-6ED41-0AA0	3VA5250-7ED41-0AA0
60	3VA5260-5ED41-0AA0	3VA5260-6ED41-0AA0	3VA5260-7ED41-0AA0
70	3VA5270-5ED41-0AA0	3VA5270-6ED41-0AA0	3VA5270-7ED41-0AA0
80	3VA5280-5ED41-0AA0	3VA5280-6ED41-0AA0	3VA5280-7ED41-0AA0
90	3VA5290-5ED41-0AA0	3VA5290-6ED41-0AA0	3VA5290-7ED41-0AA0
100	3VA5210-5ED41-0AA0	3VA5210-6ED41-0AA0	3VA5210-7ED41-0AA0
110	3VA5211-5ED41-0AA0	3VA5211-6ED41-0AA0	3VA5211-7ED41-0AA0
125	3VA5212-5ED41-0AA0	3VA5212-6ED41-0AA0	3VA5212-7ED41-0AA0
150	3VA5215-5ED41-0AA0	3VA5215-6ED41-0AA0	3VA5215-7ED41-0AA0
175	3VA5217-5ED41-0AA0	3VA5217-6ED41-0AA0	3VA5217-7ED41-0AA0
200	3VA5220-5ED41-0AA0	3VA5220-6ED41-0AA0	3VA5220-7ED41-0AA0
225	3VA5222-5ED41-0AA0	3VA5222-6ED41-0AA0	3VA5222-7ED41-0AA0
250	3VA5225-5ED41-0AA0	3VA5225-6ED41-0AA0	3VA5225-7ED41-0AA0
TM210 FTFM 100% Neutral			
90	3VA5290-5GD41-0AA0	3VA5290-6GD41-0AA0	3VA5290-7GD41-0AA0
100	3VA5210-5GD41-0AA0	3VA5210-6GD41-0AA0	3VA5210-7GD41-0AA0
110	3VA5211-5GD41-0AA0	3VA5211-6GD41-0AA0	3VA5211-7GD41-0AA0
125	3VA5212-5GD41-0AA0	3VA5212-6GD41-0AA0	3VA5212-7GD41-0AA0
150	3VA5215-5GD41-0AA0	3VA5215-6GD41-0AA0	3VA5215-7GD41-0AA0
175	3VA5217-5GD41-0AA0	3VA5217-6GD41-0AA0	3VA5217-7GD41-0AA0
200	3VA5220-5GD41-0AA0	3VA5220-6GD41-0AA0	3VA5220-7GD41-0AA0
225	3VA5222-5GD41-0AA0	3VA5222-6GD41-0AA0	3VA5222-7GD41-0AA0
250	3VA5225-5GD41-0AA0	3VA5225-6GD41-0AA0	3VA5225-7GD41-0AA0
TM230 FTAM			
70	3VA5270-5EC41-0AA0	3VA5270-6EC41-0AA0	3VA5270-7EC41-0AA0
80	3VA5280-5EC41-0AA0	3VA5280-6EC41-0AA0	3VA5280-7EC41-0AA0
90	3VA5290-5EC41-0AA0	3VA5290-6EC41-0AA0	3VA5290-7EC41-0AA0
100	3VA5210-5EC41-0AA0	3VA5210-6EC41-0AA0	3VA5210-7EC41-0AA0
110	3VA5211-5EC41-0AA0	3VA5211-6EC41-0AA0	3VA5211-7EC41-0AA0
125	3VA5212-5EC41-0AA0	3VA5212-6EC41-0AA0	3VA5212-7EC41-0AA0
150	3VA5215-5EC41-0AA0	3VA5215-6EC41-0AA0	3VA5215-7EC41-0AA0
175	3VA5217-5EC41-0AA0	3VA5217-6EC41-0AA0	3VA5217-7EC41-0AA0
200	3VA5220-5EC41-0AA0	3VA5220-6EC41-0AA0	3VA5220-7EC41-0AA0
225	3VA5222-5EC41-0AA0	3VA5222-6EC41-0AA0	3VA5222-7EC41-0AA0
250	3VA5225-5EC41-0AA0	3VA5225-6EC41-0AA0	3VA5225-7EC41-0AA0
TM230 FTAM 100% Neutral			
90	3VA5290-5GC41-0AA0	3VA5290-6GC41-0AA0	3VA5290-7GC41-0AA0
100	3VA5210-5GC41-0AA0	3VA5210-6GC41-0AA0	3VA5210-7GC41-0AA0
110	3VA5211-5GC41-0AA0	3VA5211-6GC41-0AA0	3VA5211-7GC41-0AA0
125	3VA5212-5GC41-0AA0	3VA5212-6GC41-0AA0	3VA5212-7GC41-0AA0
150	3VA5215-5GC41-0AA0	3VA5215-6GC41-0AA0	3VA5215-7GC41-0AA0
175	3VA5217-5GC41-0AA0	3VA5217-6GC41-0AA0	3VA5217-7GC41-0AA0
200	3VA5220-5GC41-0AA0	3VA5220-6GC41-0AA0	3VA5220-7GC41-0AA0
225	3VA5222-5GC41-0AA0	3VA5222-6GC41-0AA0	3VA5222-7GC41-0AA0
250	3VA5225-5GC41-0AA0	3VA5225-6GC41-0AA0	3VA5225-7GC41-0AA0
TM240 ATAM			
70	3VA5270-5EF41-0AA0	3VA5270-6EF41-0AA0	3VA5270-7EF41-0AA0
80	3VA5280-5EF41-0AA0	3VA5280-6EF41-0AA0	3VA5280-7EF41-0AA0
100	3VA5210-5EF41-0AA0	3VA5210-6EF41-0AA0	3VA5210-7EF41-0AA0
125	3VA5212-5EF41-0AA0	3VA5212-6EF41-0AA0	3VA5212-7EF41-0AA0
150	3VA5215-5EF41-0AA0	3VA5215-6EF41-0AA0	3VA5215-7EF41-0AA0
175	3VA5217-5EF41-0AA0	3VA5217-6EF41-0AA0	3VA5217-7EF41-0AA0
200	3VA5220-5EF41-0AA0	3VA5220-6EF41-0AA0	3VA5220-7EF41-0AA0
250	3VA5225-5EF41-0AA0	3VA5225-6EF41-0AA0	3VA5225-7EF41-0AA0
TM240 ATAM 100% Neutral			
100	3VA5210-5GF41-0AA0	3VA5210-6GF41-0AA0	3VA5210-7GF41-0AA0
125	3VA5212-5GF41-0AA0	3VA5212-6GF41-0AA0	3VA5212-7GF41-0AA0
150	3VA5215-5GF41-0AA0	3VA5215-6GF41-0AA0	3VA5215-7GF41-0AA0
175	3VA5217-5GF41-0AA0	3VA5217-6GF41-0AA0	3VA5217-7GF41-0AA0
200	3VA5220-5GF41-0AA0	3VA5220-6GF41-0AA0	3VA5220-7GF41-0AA0
250	3VA5225-5GF41-0AA0	3VA5225-6GF41-0AA0	3VA5225-7GF41-0AA0

3VA Molded Case Circuit Breakers

3VA52 250A Thermal-magnetic Trip Circuit Breakers

Technical information

Interrupting Ratings for 3VA52

Interrupting Class	Breaker Type	RMS Symmetrical Amperes (kA)							
		Volts AC (50/60 Hz)					Volts DC		
		240	480Y/277V	480	600Y/347V	600	250	500	600 (3P)
M	MFAS	85	35	35	18	18	50	50	50
H	HFAS	100	65	65	25	25	85	85	85
C	CFAS	200	100	100	35	35	100	100	100

Trip Settings for 3VA52

TM210 - FTFM		
I _n (A)	I _r (A)	I _i (A)
40	40	400
50	50	500
60	60	600
70	70	700
80	80	800
90	90	900
100	100	1000
110	110	1100
125	125	1250
150	150	1500
175	175	1750
200	200	2000
225	225	2250
250	250	2500

TM230 - FTAM								
I _n (A)	I _r (A)	I _i (A)						
70	70	350	420	490	560	630	700	
80	80	400	480	560	640	720	800	
90	90	450	540	630	720	810	900	
100	100	500	600	700	800	900	1000	
110	110	550	660	770	880	990	1100	
125	125	625	750	875	1000	1125	1250	
150	150	750	900	1050	1200	1350	1500	
175	175	875	1050	1225	1400	1575	1750	
200	200	1000	1200	1400	1600	1800	2000	
225	225	1125	1350	1575	1800	2025	2250	
250	250	1250	1500	1750	2000	2250	2500	

TM240 - ATAM									
I _n (A)	I _r (A) 90%	I _r (A) 80%	I _i (A)						
70	63	56	350	420	490	560	630	700	
80	72	64	400	480	560	640	720	800	
100	90	80	500	600	700	800	900	1000	
125	113	100	625	750	875	1000	1125	1250	
150	135	120	750	900	1050	1200	1350	1500	
175	158	140	875	1050	1225	1400	1575	1750	
200	180	160	1000	1200	1400	1600	1800	2000	
250	225	200	1250	1500	1750	2000	2250	2500	

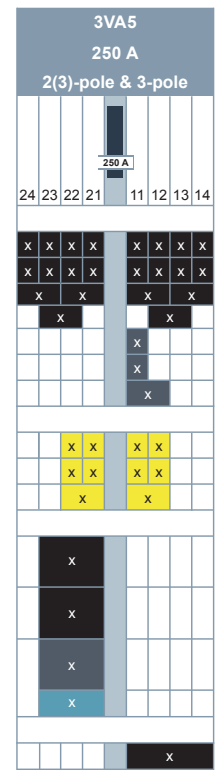
Connectors for 75C Wire for 3VA52

Type	Minimum cable size	Maximum cable size	Part Number (kit of 3 lugs)	Part Number (kit of 4 lugs)
Steel wrap around (Cu cable only), single cable lugs	AWG 10	3/0	3VA9233-0JA11	3VA9234-0JA11
	AWG 4	350 kcmil	3VA9233-0JA12	3VA9234-0JA12
Aluminum body lug (Cu/Al cable), single cable lugs	AWG 14	1/0	3VA9233-0JB11	3VA9234-0JB11
	AWG 6	350 kcmil	3VA9233-0JB12 ^①	3VA9234-0JB12 ^①
Aluminum body lug (Cu/Al cable) with control wire tap, single cable lugs	AWG 14	1/0	3VA9233-0JG11	3VA9234-0JG11
	AWG 6	350 kcmil	3VA9233-0JG12	3VA9234-0JG12
Aluminum body lug large (Cu/Al cable) single cable lugs with 1 extended terminal cover	AWG 2	350 kcmil	3VA9233-0JJ13	3VA9234-0JJ13
Aluminum body lug large with control wire tap (Cu/Al cable) single cable lugs and 1 extended terminal cover	AWG 2	350 kcmil	3VA9233-0JC13	3VA9234-0JC13
Aluminum body lug, 2 cables (Cu/Al cable) with control wire tap and 1 extended terminal cover	AWG 4	300 kcmil	3VA9233-0JJ22	3VA9234-0JJ22
Distribution lug, 6 Cables (Cu/Al cable) with 1 extended terminal cover	AWG 14	AWG 2	3VA9233-0JF60	3VA9234-0JF60
Copper body lug (Cu cable only) single cable lugs	AWG 14	1/0	3VA9233-0JD11	3VA9234-0JD11
	AWG 6	350 kcmil	3VA9233-0JD12	3VA9234-0JD12
Copper body lug with control wire tap (Cu cable only) single cable lugs	AWG 14	1/0	3VA9233-0JK11	3VA9234-0JK11
	AWG 6	350 kcmil	3VA9233-0JK12	3VA9234-0JK12

See page 7-83 for internal accessory part numbers.

① Standard lug installed at the factory when breaker ordered with a "6" in the 12th position.

Internal accessories	
Optional equipment	
	Slot No.:
Auxiliary switch	Type AUX_HQ AUX_HQ_el AUX_HP
Auxiliary switch	LCS_HQ LCS_HQ_el LCS_HP
Leading changeover switch	Type TAS_HQ TAS_HQ_el TAS_HP
Alarm switch	Type
Trip alarm switch	STF STL
Auxiliary release	Type
Shunt trip flexible	UVR
Shunt trip left	UNI
Undervoltage release	Other
Universal release	Cylinder lock (type Ronis)



MOLDED CASE
CIRCUIT BREAKERS