

Description

The 3120 switch serves for switching devices and machinery on or off. It is available in a range of design versions and meets the requirements of the relevant standard IEC/EN 61058 for switches for appliances. Type 3120 is also available as a circuit breaker for equipment protection in accordance with IEC/EN 60934 (see data sheet thermal circuit breaker 3120-F).

Product characteristics:

- rocker or push button actuation
- single pole and double pole versions
- convenient snap-in mounting
- international approvals

Optional:

- illumination
- water splash protection
- push-in terminals

Upon request:

Switch with undervoltage release module:

This version protects the user against bodily harm as an inadvertent start-up of machinery after a power failure is reliably excluded.

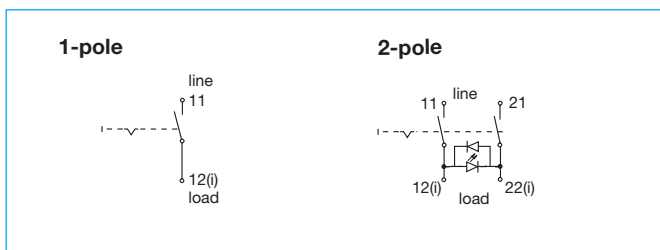
Typical applications

Medical and laboratory equipment, apparatus and machine construction, professional tools, household and garden appliances, offices machines, audio equipment, machine tools

Approvals

Approval authority	Standard	Voltage rating	Current rating	Approval logos
VDE	IEC/EN 61058	AC 240 V DC 50 V	16 (4) A 16 A:	
CQC	GB 17701	AC 240 V DC 50 V	0.1 - 20 A	

Schematic diagrams



Technical data

Voltage ratings		AC 240 V, DC 50 V
Interrupting capacity:		
AC 240 V:	16 (4) A	25,000 switching cycles
DC 50 V:	16 A	50,000 switching cycles
Ambient temperature		0...55 °C
Insulation coordination (IEC 60664)		2.5 kV /2 reinforced insulation at operating area
Dielectric strength		
Operating area		test voltage AC 3,000 V
Pole to pole (2-pole)		test voltage AC 1,500 V
Insulation resistance		> 100 MΩ (DC 500 V)
Degree of protection (IEC 60529)		
Operating area		IP40 with water splash cover IP54 or IP66
Terminal area		IP00 with water splash cover IP64
Environmental tests (IEC 60068)		
Vibration		8 g (57-500 Hz), ± 0.61 mm (10-57 Hz)
Shock		30 g (11 ms)
Corrosion		96 hours at 5 % salt mist
Humidity		240 hrs in 95 % RH
Mass		approx. 33 g (2-pole) approx. 27 g (1-pole) approx. 42 g (2-pole with PT terminals)

All information and data given on our products are accurate and reliable to the best of our knowledge, but E-T-A does not accept any responsibility for the use in applications which are not in accordance with the present specification. E-T-A reserves the right to change specifications at any time in the interest of improved design, performance and cost effectiveness. Dimensions are subject to change without notice. Please enquire for the latest dimensional drawing with tolerances if required. All dimensions, data, pictures and descriptions are for information only and are not binding. Amendments, errors and omissions excepted. Ordering codes of the products may differ from their marking.

Order numbering code

Type No.

3120 switch with rocker actuation

Mounting

F3 snap-in, mounting cut-out 50.5 x 21.5 mm

F5 snap-in, mounting cut-out 44.5 x 22 mm

Number of poles

0 2-pole

6 1-pole

Style

1 standard

3 with actuator guard

4 with water splash protection (IP54)

Terminal design

PT push-in terminals

N7 blade terminals 6.3 x 0.8

G7 as N7, terminals 11 and 21 with additional flat head screws M3.5

Version

Q1 switch only

Actuator style

W rocker

Rocker colour/illumination

01. black opaque without illumination

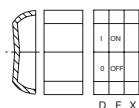
02. white opaque without illumination

14. R red translucent with LED illumination

19. G green translucent with LED illumination

Marking

D
F
Q
X



Q: 0 and 1 moulded in

Illumination voltage range (= operating voltage)

1 DC 12 V

2 DC 24 V

3 AC 115 V

4 AC 230 V

Current rating

16 A:

3120 - F 5 0 4 - N7 Q1 - W01Q - 16 A ordering example

Order numbering code

Type No.

3120 switch with push button actuation

Mounting

F2 flange mounting, mounting cut-out 50.5 x 26 mm, suitable for water splash cover X221 619 01 (IP66)

F3 snap-in, mounting cut-out 50.5 x 21.5 mm

Number of poles

0 2-pole

6 1-pole

Style

F frame with 2 push buttons

Terminal design

PT push-in terminals

N7 blade terminals 6.3 x 0.8

G7 as N7, terminals 11 and 21 with additional flat head screws M3.5

Version

Q1 switch only

Actuator style

S two push buttons

Colour of push button/illumination

GRX green/red without illumination

GRXG green translucent with LED illumination/red opaque without illumination

Illumination voltage range (= operating voltage)

1 DC 12 V

2 DC 24 V

3 AC 115 V

4 AC 230 V

Current rating

16 A

3120 - F 2 0 F - N7 Q1 - SGRX - 16 A ordering example

Note

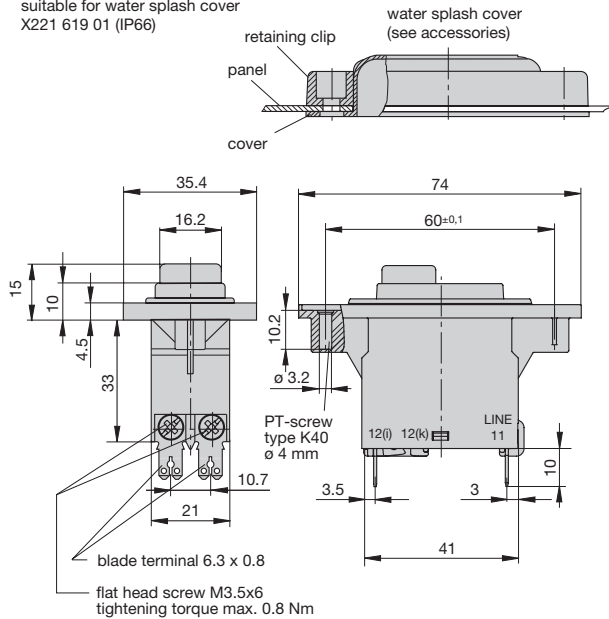
Important: 3120-F series is replaced by 3120-N
Please refer to E-T-A homepage for further details:

https://global.e-t-a.com/news/news_from_e_t_a/thermal_circuit_breaker_3120_n_all_in_one_solution/

Dimensions

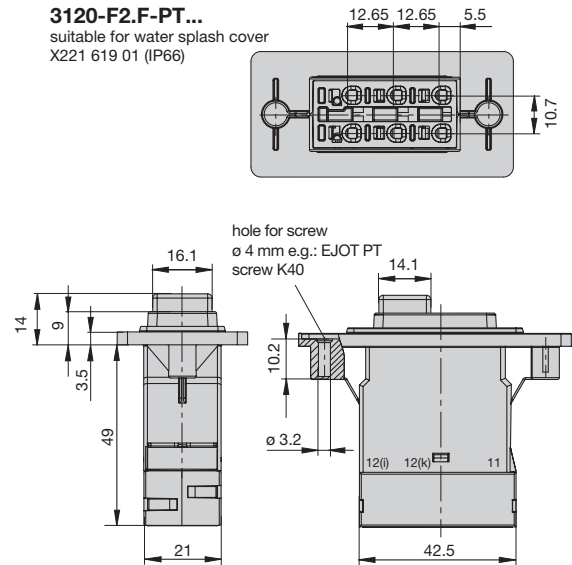
3120-F2.F...

suitable for water splash cover
X221 619 01 (IP66)



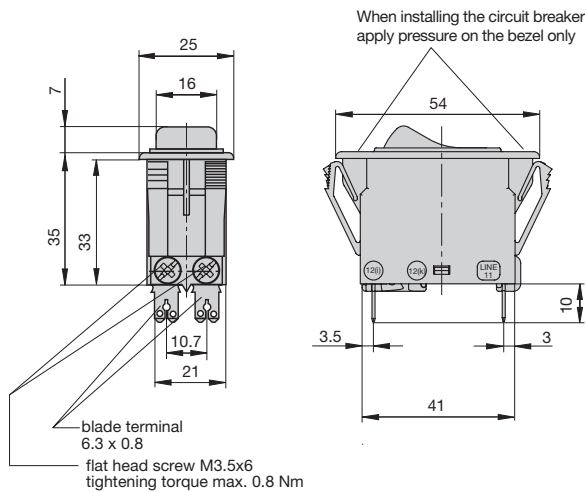
3120-F2.F-PT...

suitable for water splash cover
X221 619 01 (IP66)



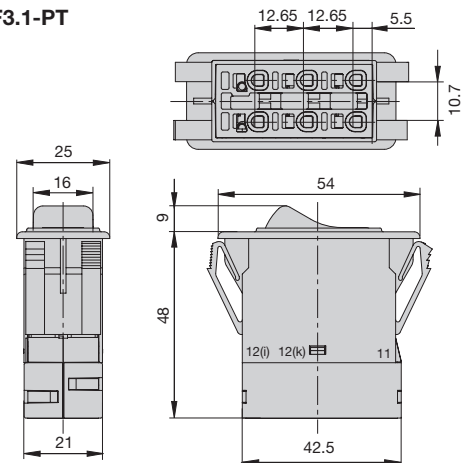
3120-F3.1

standard



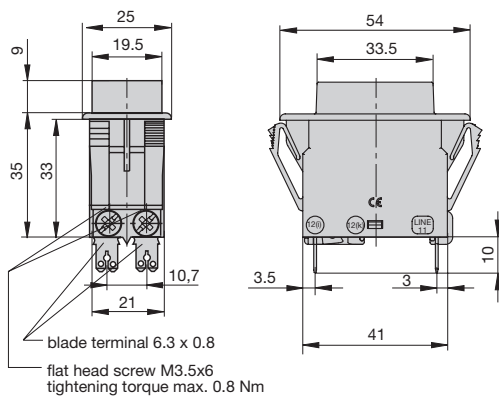
3120-F3.1-PT

standard



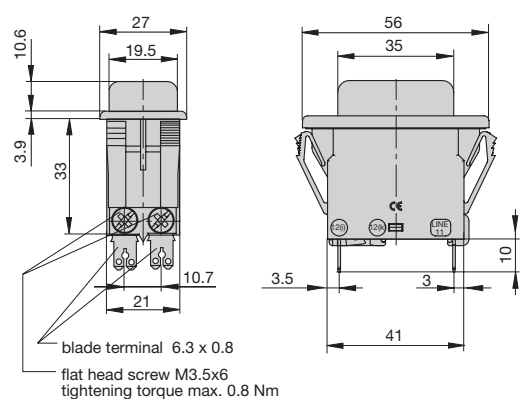
3120-F 3.3

with actuator guard



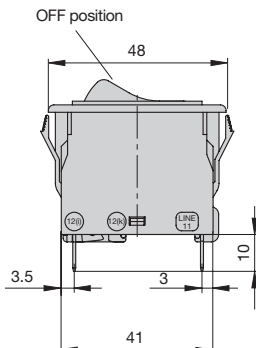
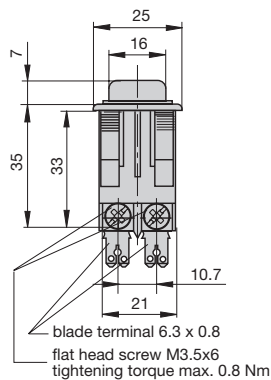
3120-F 3.4

with water splash protection (IP54)

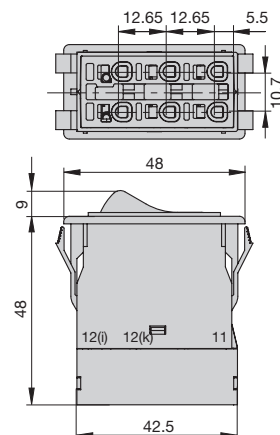
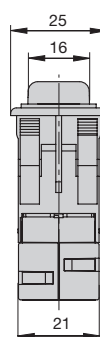


Dimensions

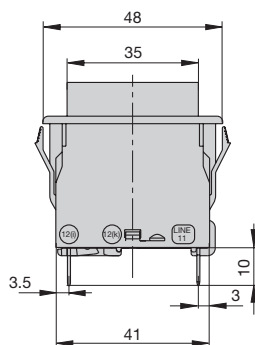
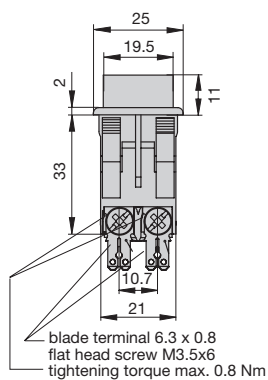
3120-F 5.1
standard



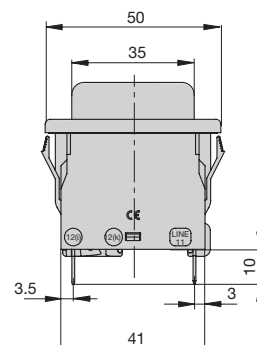
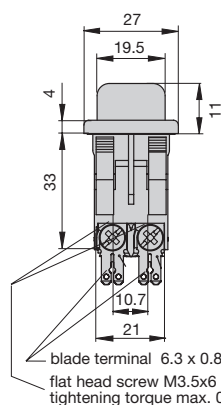
3120-F5.1-PT
standard



3120-F5.3
with actuator guard

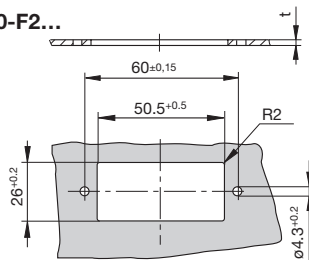


3120-F5.4
with water splash protection (IP54)

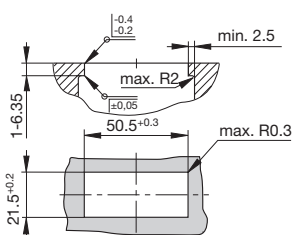


Cut-out dimensions

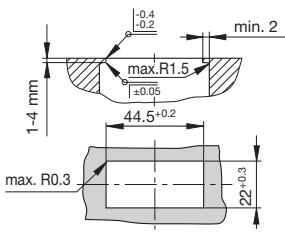
3120-F2...



Cut-out -F3



Cut-out -F5

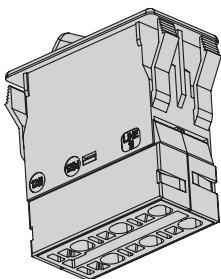


Edges of working parts: ISO13715

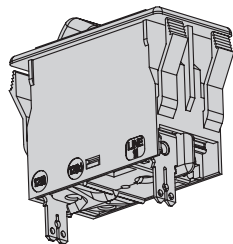
Terminal types

1-pole version

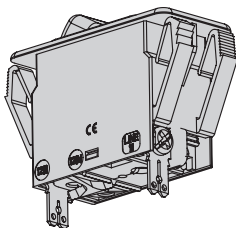
3120-F561-PT



3120-F561-N7

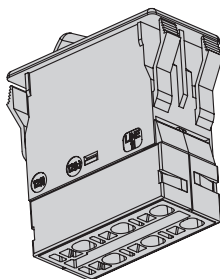


3120-F361-G7

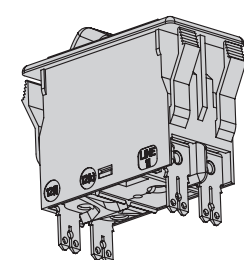


2-pole version

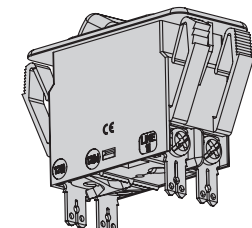
3120-F501-PT



3120-F501-N7

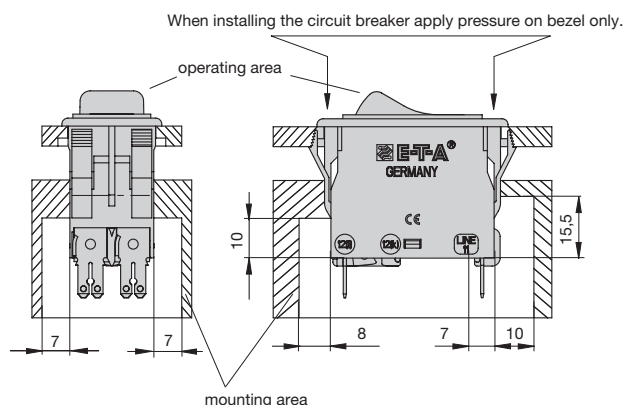


3120-F301-G7

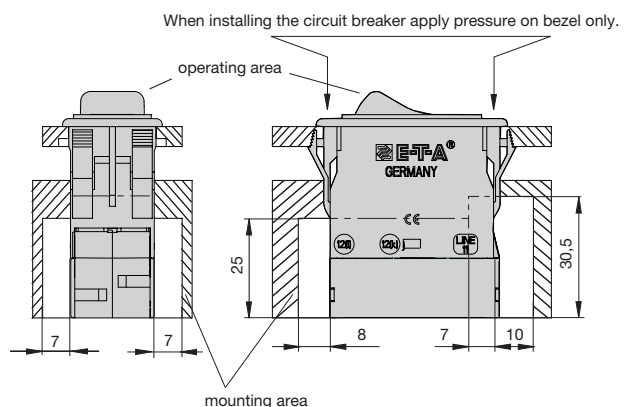


Installation drawing

3120 with blade terminals



3120 with push-in terminals

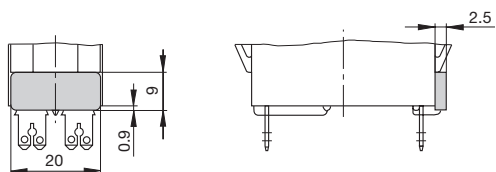


Cable cross sections PT terminals

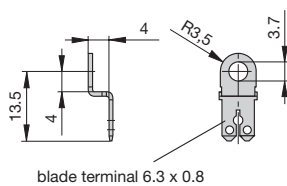
cable	cross section with direct push-in wiring
rigid	1...4 mm ² (stripping length: 10 mm)
flexible with wire end ferrule (with or without plastic sleeve)	0.5...2.5 mm ²
cable	cross section when opening the push-in terminals
rigid	0.5...4 mm ² (stripping length: 10 mm)
flexible without wire end ferrule	0.5...2.5 mm ²

Accessories

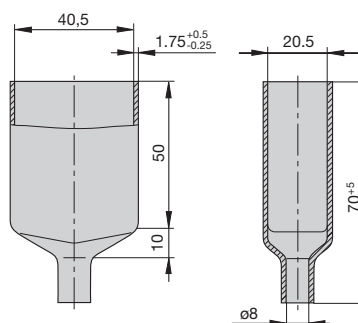
Insulated cover
Y 303 068 01



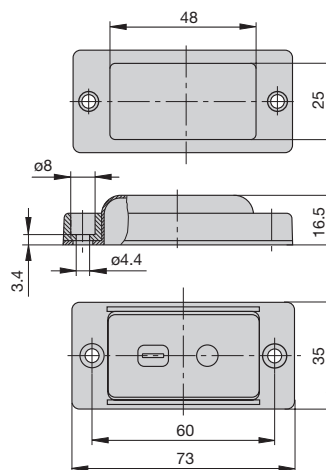
Terminal adapter
Y 303 862 01



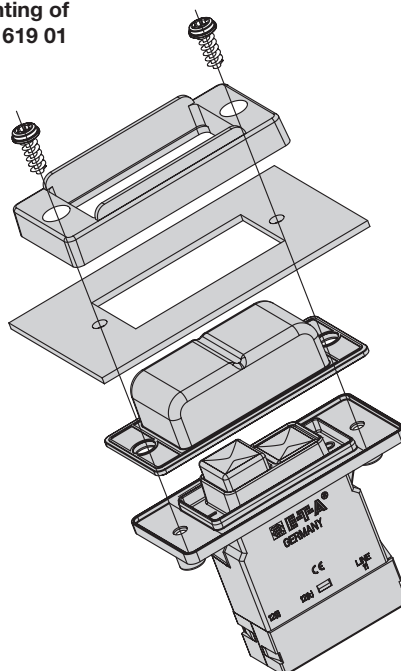
Rear terminal shroud black (IP64)
Y 304 275 01



Water splash cover, transparent (IP66)
for style -F2...
X 221 619 01



Mounting of
X221 619 01

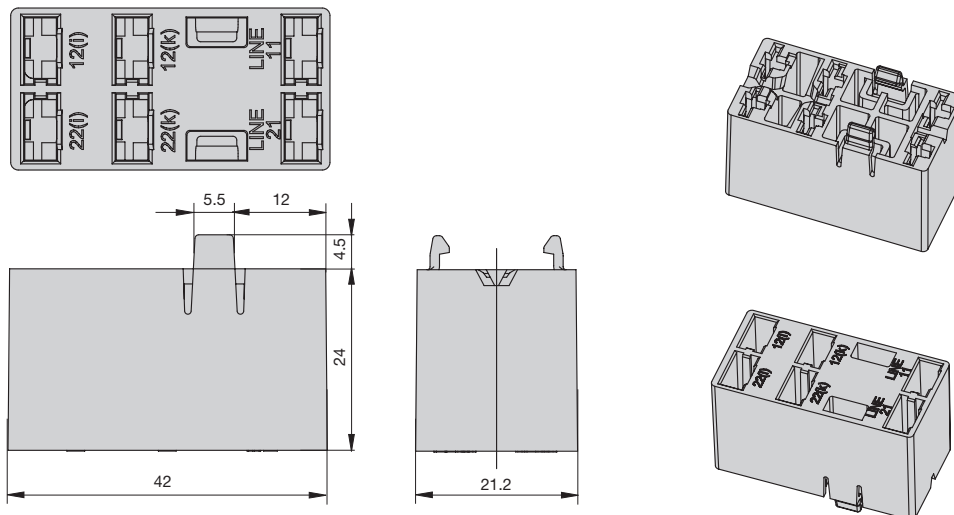


Accessories

Plug-in connector (for connection types N7 and G7)

Y 31214001

Connecting cables can be pre-wired. Two retaining clips ensure a tight fit.



Benefits:

- Reduced installation time and costs for final assembly
- Quick replacement of devices

Note:

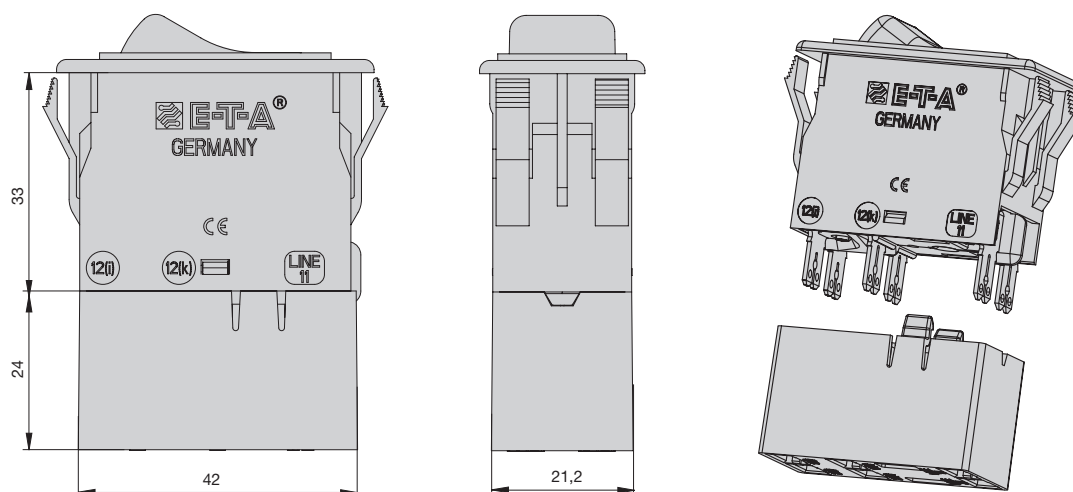
Delivery without receptacles.

Dimensions of receptacles (width 6.3 mm) are in accordance with DIN 46340 part 3, shape A.

Examples of suitable receptacles: Stocko RSB 7916 F6,3-1 / Klauke type 2730 / Vogt type 3832d.67 /

TE FASTON Terminals 250 Series / Delphi Packard 58 Series

Plug-in connector mounted on circuit breaker:



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

E-T-A Circuit Breakers:

[3120-F501-N7Q1-W15FY2-20A](#) [3120-F301-N7Q1-W01D-X3120-M2P7M-24V-20A](#) [3120-F301-N7Q1-W15FY0-20A](#)
[3120-F501-N7Q1-W15FY3-20A](#) [3120-F501-N7Q1-W19AG4-20A](#) [3120-F301-N7Q1-W04D-20A](#) [3120-F301-N7Q1-W01X-20A](#) [3120-F301-N7Q1-W01D-X3120-S01AM-20A](#) [3120-F301-N7Q1-W01D-20A](#) [3120-F501-N7Q1-W01D-20A](#)
[3120-F301-N7Q1-W01D-X3120-M2P7M-120V-20A](#) [3120-F504-N7Q1-W04D-20A](#) [3120-F501-N7Q1-W01F-20A](#) [3120-F501-N7Q1-W01D-X3120-S01AM-20A](#) [3120-F301-N7Q1-W01D-X3120-M2P7M-12V-20A](#) [3120-F301-N7Q1-W02D-20A](#)
[3120-F304-N7Q1-W15LY3-20A](#) [3120-F303-N7Q1-M01H-20A](#) [3120-F361-G7Q1-W12D-X3120-U0203M-20A](#) [3120-F503-G7Q1-W14DR4-X3120-U0200M-20A](#) [3120-F303-N7Q1-U04X-20A](#) [3120-F501-G7Q1-W14DR3-20A](#) [3120-F361-N7Q1-W01D-20A](#) [3120-F304-N7Q1-W19DG4-20A](#) [3120-F361-G7Q1-W15FY2-20A](#) [3120-F503-G7Q1-W14DR4-20A](#)
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[3120-F301-N7Q1-W19DG3-20A](#) [3120-F303-N7Q1-W01D-20A-T](#) [3120-F301-N7Q1-W16DT3-20A](#) [3120-F501-N7Q1-W15FY2-16A](#) [3120-F304-N7Q1-W12DY6-16A](#) [3120-F303-N7Q1-W01D-16A-T](#) [X22161901](#)