



RoHS Compliant

Introduction

The **ET** series is Copal's standard size high capacity toggle switch. The **ET** series are available in various current rating, switching functions, and terminals. The housing is made of self-extinguishing phenol resin which has excellent heat resistance, arc resistance, and tracking resistance. The contacts are designed to eliminate chattering and bouncing to prevent insulation deterioration.

Part Numbering

E **T** **2** **25** **K** **12** - **Z**

Series code Actuator shape No. of poles Current Switching function Terminal styles

| Fig. | No. of poles |
|------|--------------|
| 1 | 1 pole |
| 2 | 2 poles |
| 3 | 3 poles |
| 4 | 4 poles |
| 6 | 6 poles |

| Fig. | AC125V | | AC250V | | |
|------|--------|--------|--------|--------|--------|
| | AC125V | AC250V | Fig. | AC125V | AC250V |
| 03 | 3A | — | 15 | 15A | 10A |
| 05 | 5A | 3A | 20 | 20A | 12A |
| 06 | 6A | (2A) | 25 | 25A | 15A |
| 10 | 10A | (7A) | 30 | 30A | (25A) |

| 1 pole 3 poles | 2 poles 4 poles 6 poles | Key way | | |
|-------------------|-------------------------------|---------|-----|-------|
| | | | | |
| A | K | ON | — | OFF |
| B | L | ON | — | (OFF) |
| C | M | OFF | — | (ON) |
| D | N | ON | — | ON |
| E | P | ON | OFF | ON |
| F | R | ON | — | (ON) |
| G | S | (ON) | OFF | (ON) |
| H | T | ON | OFF | (ON) |

| Fig. | Terminal style |
|------|-------------------------------|
| None | TAB # 250 |
| 10 | Screw Terminal |
| 12 | Solder Terminal |
| 13 | Plate Connect Solder Terminal |
| 32 | Solder Terminal |


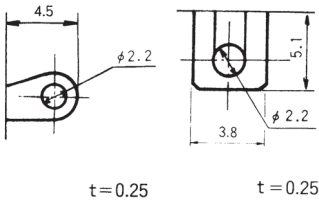


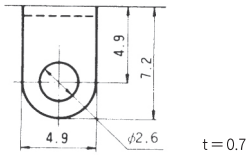


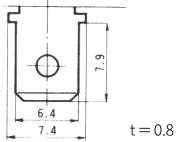
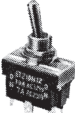

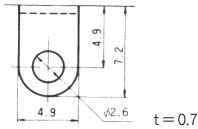



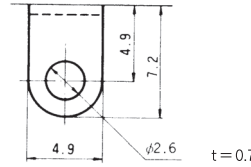


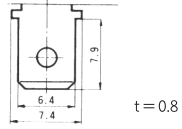

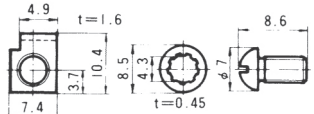

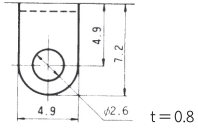
Terminal Style and Dimensions

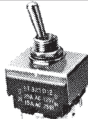
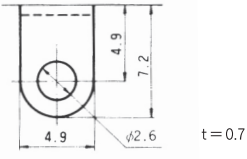
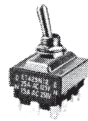



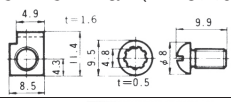
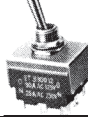
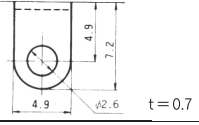


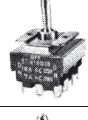

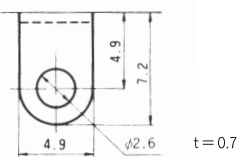
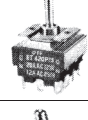
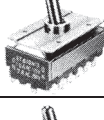
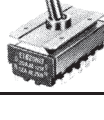
| TAB # 250 (Style : -) | Screw Terminal (Style : 10) | | | Solder Terminal | | |
|--------------------------|-----------------------------|----------------------|----------------------------|--------------------------------------|-------------------------------|-------------------------------|
| | M3.5 × 0.6 | M4 × 0.7 | M4.5 × 0.75 | Solder Terminal (Style : 12 · 13) | Style : 12 ET103 □ 12 Type | Style : 32 ET103 □ 32 Type |
| t = 0.8 | ET115 · 215 Type | ET120 · 220 Type | ET125 · 225 · 230 Type | t = 0.7 | t = 0.25 | t = 0.25 |

(ON) and (OFF) : Momentary.

Please refer to P.564 for Common Specifications

ET Series Selection Table

| Part No. | Appearance | No. of poles | Rating | Switching function | Terminal style | Page |
|-------------------|---|--------------|--------------------------|--|---|---|
| ET103 |  | 1 | AC125V 3A | ON — OFF ON — ON Double pole type | Solder Terminal  t=0.25 t=0.25 | 416 |
| |  | | | | | |
| ET105 |  | 1 | AC125V 5A AC250V 3A | ON — OFF ON — ON ON — OFF — ON | Solder Terminal  t=0.7 | 416 |
| ET205 |  | 2 | | | | 418 |
| ET110 |  | 1 | AC125V 10A AC250V 7A | ON — OFF ON — ON ON — OFF — ON (ON) — OFF — (ON) ON — OFF — (ON) | TAB#250  t=0.8 | 417 |
| ET210 |  | 2 | | | | AC125V 10A |
| ET115 |  | 1 | AC125V 15A AC250V 10A | ON — OFF ON — (OFF) OFF — (ON) ON — ON ON — (ON) (ON) — OFF — (ON) ON — OFF — (ON) | Solder Terminal  t=0.7 | 417 |
| ET215 |  | 2 | | | | 419 |
| ET315 |  | 3 | | | | 421 |
| ET415 |  | 4 | AC125V 15A AC250V 10A | ON — OFF — (ON) ON — OFF — (ON) | Solder Terminal  t=0.7 | 423 |
| ET415 /Plate type |  | | | | | 423 |
| ET120 |  | 1 | AC125V 20A AC250V 12A | ON — OFF ON — ON ON — OFF — ON (ON) — OFF — (ON) ON — OFF — (ON) | TAB#250  t=0.8 | 417 |
| ET125 |  | 1 | AC125V 25A AC250V 15A | ON — OFF ON — ON ON — OFF — ON | Screw Terminal (M4.5×0.75)  t=0.45 | 418 |
| ET225 |  | 2 | | | | Solder Terminal  t=0.8 |

| Part No. | Appearance | No. of poles | Rating | Switching function | Terminal style | Page |
|--------------------|---|--------------|--------------------------|---|---|---|
| ET325 |  | 3 | AC125V 25A AC250V 15A | ON — OFF ON — ON ON — OFF — ON | Solder Terminal  | 421 |
| ET425 |  | 4 | | | | 424 |
| ET206 |  | 2 | | | | AC125V 6A AC250V 2A |
| ET220 |  | 2 | AC125V 20A AC250V 12A | ON — OFF ON — (OFF) OFF — (ON) ON — ON ON — OFF — ON ON — (ON) (ON) — OFF — (ON) ON — OFF — (ON) | TAB#250 Screw Terminal (M4×0.7) Solder Terminal | 420 |
| ET230 |  | 2 | AC125V 30A AC250V 25A | ON — OFF ON — ON ON — OFF — ON | Screw Terminal (M4.5×0.75)  | 420 |
| ET330 |  | 3 | | | | Solder Terminal  |
| ET310 |  | 3 | AC125V 10A AC250V 7A | ON — OFF ON — ON ON — OFF — ON | TAB#250 Solder Terminal | 421 |
| ET410 |  | 4 | | | | 422 |
| ET410 /Plate type |  | | | | | ON — (ON) (ON) — OFF — (ON) ON — OFF — (ON) |
| ET420 |  | 4 | AC125V 20A AC250V 12A | ON — OFF ON — ON ON — OFF — ON |  | 423 |
| ET420 /Plate type |  | | | | | 424 |
| ET610N /Plate type |  | 6 | AC125V 10A AC250V 7A | ON — ON | | 424 |
| ET620N /Plate type |  | 6 | AC125V 20A AC250V 12A | ON — ON | | 425 |

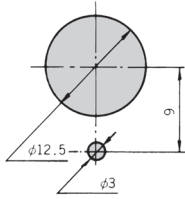
- Ratings are based on resistance load.
- Refer to P.425 for UL-recognized and CSA, PSE-certified products.

(ON)and(OFF) : Momentary.

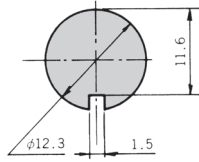
Panel Cut-Out Dimensions

● Refer to P.426 for a list of accessories.

Panel thickness : 5.5mm max.



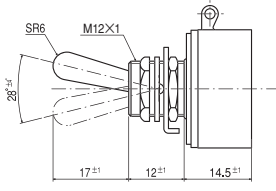
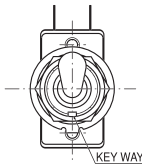
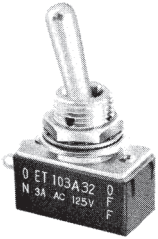
With Locking Ring



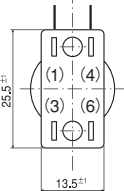
Without Locking Ring

Note : Panel thickness should be 5.5 mm max. unless otherwise specified.

ET103□32 (1 pole)



Terminal numbers are shown on the bottom of the switch.



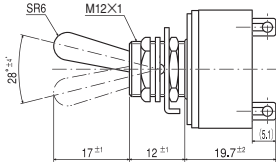
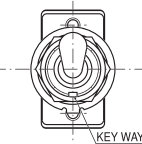
| Switching function | Key way | Key way | Key way |
|----------------------|---------|---------|---------|
| Part No. | | | |
| ★ ET103A32-Z | ON | — | OFF |
| Connecting terminals | 1-4 | — | — |
| ★ ET103V32-Z | ON | — | ON |
| Connecting terminals | 1-4 | — | 3-6 |

Terminal pins No.3 and No.6 are not available in switches with Switching Function "A".

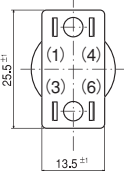
Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life | |
|--|----------------------------|------------------------------|-----------------------|------------------------|---------------|
| ET103A32 ET103V32 Double pole type | AC125V 3A | 30mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 10,000 cycles |

ET103□12 (1 pole)



Terminal numbers are shown on the bottom of the switch.



| Switching function | Key way | Key way | Key way |
|----------------------|---------|---------|---------|
| Part No. | | | |
| ET103A12-Z | ON | — | OFF |
| Connecting terminals | 1-4 | — | — |
| ★ ET103V12-Z | ON | — | ON |
| Connecting terminals | 1-4 | — | 3-6 |

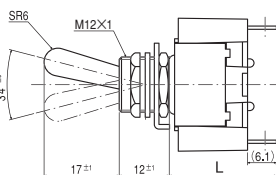
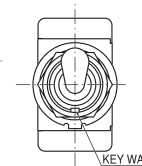
Terminal pins No.3 and No.6 are not available in switches with Switching Function "A".

Specifications

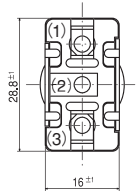
| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life | |
|----------------------|----------------------------|---------------------------|-----------------------|------------------------|--------------|
| ET103A12 ET103V12 | AC125V 3A | 30mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 10,000cycles |

ET105□12 (1 pole)

Terminal pin No.2 is not available in switches with Switching Function "A".



Terminal numbers are shown on the bottom of the switch.



L dimensions

| Part No. | Terminal style | Solder Terminal |
|------------|----------------|-----------------|
| ET105A12-Z | | 24.6±0.1 |
| ET105D12-Z | | 24.6±0.1 |
| ET105E12-Z | | 24.6±0.1 |

| Switching function | Key way | Key way | Key way |
|----------------------|---------|---------|---------|
| Part No. | | | |
| ☆ ET105A12-Z | ON | — | OFF |
| Connecting terminals | 1-3 | — | — |
| ☆ ET105D12-Z | ON | — | ON |
| ☆ ET105E12-Z | ON | OFF | ON |
| Connecting terminals | 2-3 | — | 2-1 |

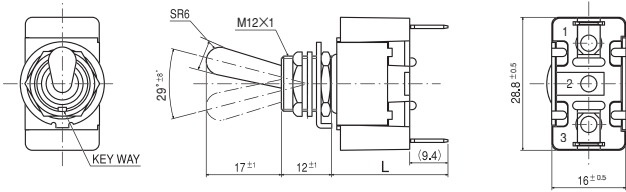
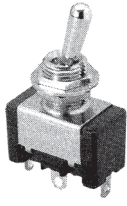
Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life | |
|----------------------------------|----------------------------|------------------------------|-----------------------|------------------------|---------------|
| ET105A12 ET105D12 ET105E12 | AC125V 5A AC250V 3A | 20mΩ Max. (DC2V 100mA) | AC1500V 1分間/minute | 100MΩ Min. (DC500V) | 20,000 cycles |

☆ : Semi-standard products. ★ : Made to order products.

ET110 (1 pole)

Terminal pin No.2 is not available in switches with Switching Function "A".



Terminal numbers are shown on the bottom of the switch.

L dimensions

| Part No. | Terminal style | TAB#250 | ScrewTerminal | Solder Terminal |
|--------------|----------------|--------------------|--------------------|--------------------|
| ET110A■·D■-Z | | — | — | 24.6 ^{±1} |
| ET110E■-Z | | — | — | 24.6 ^{±1} |
| ET110F■-Z | | 27.6 ^{±1} | — | 24.6 ^{±1} |
| ET110G■·H■-Z | | 27.6 ^{±1} | 25.4 ^{±1} | 24.6 ^{±1} |

| Part No. | Switching function | Key way | Key way | Key way |
|----------------------|--------------------|---------|---------|---------|
| ET110A■-Z | ON | — | — | OFF |
| ET110D■-Z | ON | — | — | ON |
| ET110E■-Z | ON | OFF | — | ON |
| ET110F■-Z | ON | — | — | (ON) |
| ET110G■-Z | (ON) | OFF | — | (ON) |
| ET110H■-Z | ON | OFF | — | (ON) |
| Connecting terminals | 2-3 | — | — | 2-1 |

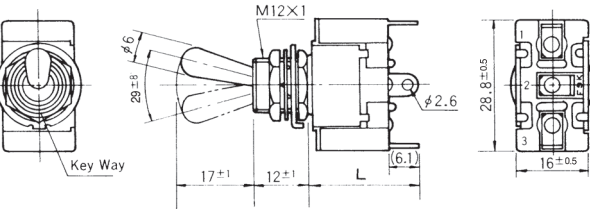
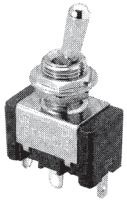
■ : Refer to "Table of Part Numbers" on P.425 for a full list of part numbers.

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|-------------------------------|------------------------------|---------------------|------------------------|-----------------|
| ET110A■ ET110D■ ET110E■ | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 30,000 cycles |
| ET110F■ ET110G■ ET110H■ | | | | 20,000 cycles |

ET115 (1 pole)

Terminal pin No.2 is not available in switches with Switching Function "A", "B", or "C".



Terminal numbers are shown on the bottom of the switch.

L dimensions

| Part No. | Terminal style | TAB#250 | ScrewTerminal | Solder Terminal |
|----------------|----------------|--------------------|--------------------|--------------------|
| ET115A■·D■-Z | | 27.6 ^{±1} | 25.4 ^{±1} | 24.6 ^{±1} |
| ET115E■-Z | | 27.6 ^{±1} | 25.4 ^{±1} | 24.6 ^{±1} |
| ET115B■-Z | | — | — | 24.6 ^{±1} |
| ET115C■·F~H■-Z | | — | 25.4 ^{±1} | 24.6 ^{±1} |

| Part No. | Switching function | Key way | Key way | Key way |
|----------------------|--------------------|---------|---------|---------|
| ET115A■-Z | ON | — | — | OFF |
| ET115B■-Z | ON | — | — | (OFF) |
| ET115C■-Z | OFF | — | — | (ON) |
| ET115D■-Z | ON | — | — | ON |
| ET115E■-Z | ON | OFF | — | ON |
| ET115F■-Z | ON | — | — | (ON) |
| ET115G■-Z | (ON) | OFF | — | (ON) |
| ET115H■-Z | ON | OFF | — | (ON) |
| Connecting terminals | 2-3 | — | — | 2-1 |

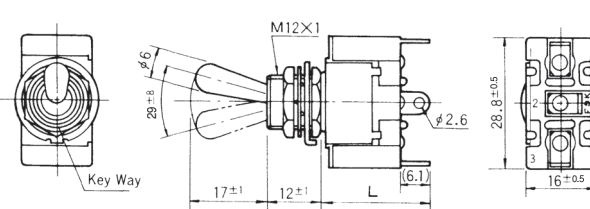
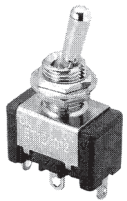
■ : Refer to "Table of Part Numbers" on P.425 for a full list of part numbers.

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|---|------------------------------|---------------------|------------------------|-----------------|
| ET115A■ ET115D■ ET115E■ | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 30,000 cycles |
| ET115B■ ET115C■ ET115F■ ET115G■ ET115H■ | | | | 20,000 cycles |

ET120 (1 pole)

Terminal pin No.2 is not available in switches with Switching Function "A".



Terminal numbers are shown on the bottom of the switch.

L dimensions

| Part No. | Terminal style | TAB#250 | ScrewTerminal | Solder Terminal |
|--------------|----------------|--------------------|--------------------|--------------------|
| ET120A■·D■-Z | | — | — | 24.6 ^{±1} |
| ET120F■~H■-Z | | 27.6 ^{±1} | 27.8 ^{±1} | 24.6 ^{±1} |

| Part No. | Switching function | Key way | Key way | Key way |
|----------------------|--------------------|---------|---------|---------|
| ET120A■-Z | ON | — | — | OFF |
| ET120D■-Z | ON | — | — | ON |
| ET120F■-Z | ON | — | — | (ON) |
| ET120G■-Z | (ON) | OFF | — | (ON) |
| ET120H■-Z | ON | OFF | — | (ON) |
| Connecting terminals | 2-3 | — | — | 2-1 |

■ : Refer to "Table of Part Numbers" on P.425 for a full list of part numbers.

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|-------------------------------|------------------------------|---------------------|------------------------|-----------------|
| ET120A■ ET120D■ | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 20,000 cycles |
| ET120F■ ET120G■ ET120H■ | | | | 20,000 cycles |

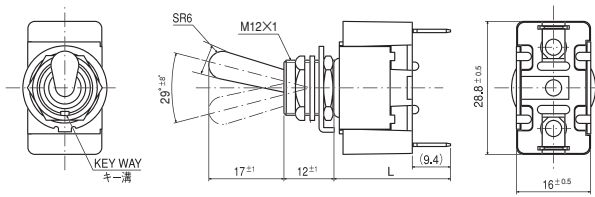
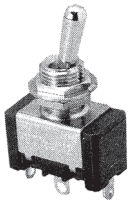
(ON) : Momentary.

■ shows the terminal style "(blank)", "10", or "12".

ET

ET125 (1 pole)

Terminal pin No.2 is not available in switches with Switching Function "A".



Terminal numbers are shown on the bottom of the switch.

L dimensions

| Terminal style | TAB#250 | Screw Terminal | Solder Terminal |
|----------------|---------|----------------|-----------------|
| Part No. | | | |
| ET125A■-Z | 27.6±1 | 28.8±1 | 24.6±1 |
| ET125D■-Z | | 28.8±1 | 24.6±1 |
| ET125E■-Z | — | 28.8±1 | 24.6±1 |

| Switching function | Key way | Key way | Key way |
|----------------------|---------|---------|---------|
| Part No. | | | |
| ET125A■-Z | ON | — | OFF |
| Connecting terminals | 1-3 | — | — |
| ET125D■-Z | ON | — | ON |
| ET125E■-Z | ON | OFF | ON |
| Connecting terminals | 2-3 | — | 2-1 |

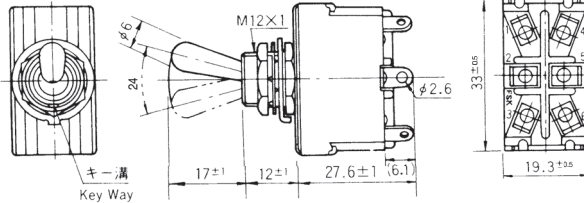
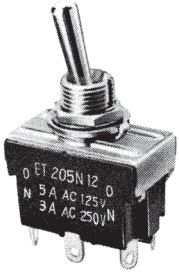
■ : Refer to "Table of Part Numbers" on P.425 for a full list of part numbers.

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life | |
|-------------------------------|----------------------------|------------------------------|-----------------------|------------------------|------------------|
| ET125A■ ET125D■ ET125E■ | AC125V 25A AC250V 15A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 20,000 cycles |

ET205 (2 poles)

Terminal pins No.2 and No.5 are not available in switches with Switching Function "K".



Terminal numbers are shown on the bottom of the switch.

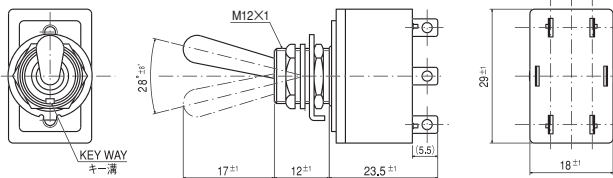
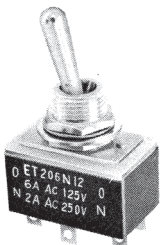
| Switching function | Key way | Key way | Key way |
|----------------------|---------|---------|---------|
| Part No. | | | |
| ★ ET205K12-Z | ON | — | OFF |
| Connecting terminals | 1-3 4-6 | — | — |
| ★ ET205N12-Z | ON | — | ON |
| ★ ET205P12-Z | ON | OFF | ON |
| Connecting terminals | 2-3 5-6 | — | 2-1 5-4 |

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life | |
|----------------------------------|----------------------------|------------------------------|-----------------------|------------------------|------------------|
| ET205K12 ET205N12 ET205P12 | AC125V 5A AC250V 3A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 20,000 cycles |

ET206□12 (2 poles)

Terminal pins No.3 and No.6 are not available in switches with Switching Function "K".



Terminal numbers are shown on the bottom of the switch.

| Switching function | Key way | Key way | Key way |
|----------------------|---------|---------|---------|
| Part No. | | | |
| ★ ET206K12-Z | ON | — | OFF |
| Connecting terminals | 2-1 5-4 | — | — |
| ★ ET206N12-Z | ON | — | ON |
| Connecting terminals | 2-1 5-4 | — | 2-3 5-6 |

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life | |
|----------|----------------------------|------------------------------|-----------------------|------------------------|------------------|
| ET206K12 | AC125V 6A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 10,000 cycles |
| ET206N12 | AC125V 6A AC250V 2A | | | | |

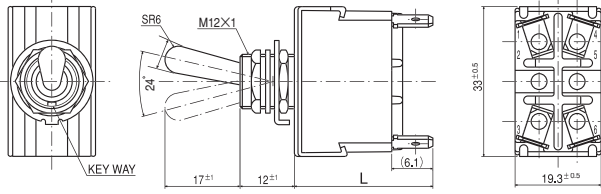
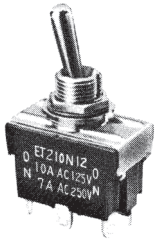
■ shows the terminal style "(blank)", "10", or "12".

☆ : Semi-standard products.

★ : Made to order products.

ET210 (2 poles)

Terminal pins No.2 and No.5 are not available in switches with Switching Function "K".



Terminal numbers are shown on the bottom of the switch.

Specifications

| Rating | | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|-----------|------------|------------------------------|---------------------|------------------------|------------------|
| ET210K | AC125V 10A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 30,000 cycles |
| ET210N | AC250V 7A | | | | |
| ET210P | AC250V 7A | | | | |
| ET210R | AC125V 10A | 20,000 cycles | | | |
| ET210S | AC250V 7A | | | | |
| ET210T | AC250V 7A | | | | |
| ET210PA12 | AC125V 10A | | | | |

L dimensions

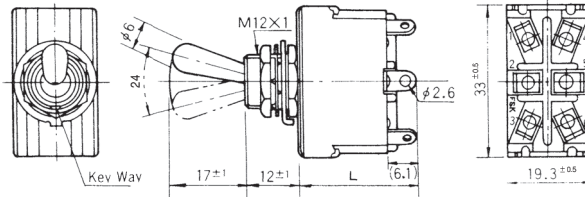
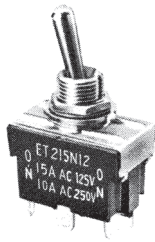
| Terminal style | TAB#250 | ScrewTerminal | Solder Terminal |
|----------------|---------|---------------|-----------------|
| Part No. | | | |
| ET210K■-N■-Z | 30.6±1 | 28.4±1 | 27.6±1 |
| ET210P■-Z | 30.6±1 | 28.4±1 | 27.6±1 |
| ET210R■~T■-Z | 30.6±1 | 28.4±1 | 27.6±1 |
| ET210PA12-Z | — | — | 27.6±1 |

| Switching function | Key way | Key way | Key way |
|----------------------|---------|---------|---------|
| Part No. | | | |
| ET210K■-Z | ON | — | OFF |
| Connecting terminals | 1-3 4-6 | — | — |
| ET210N■-Z | ON | — | ON |
| ET210P■-Z | ON | OFF | ON |
| ET210R■-Z | ON | — | (ON) |
| ET210S■-Z | (ON) | OFF | (ON) |
| ET210T■-Z | ON | OFF | (ON) |
| Connecting terminals | 2-3 5-6 | — | 2-1 5-4 |
| ★ ET210PA12-Z | ON | ON | OFF |
| Connecting terminals | 2-3 5-6 | 5-6 | — |

■ : Refer to "Table of Part Numbers" on P.425 for a full list of part numbers.of part numbers.

ET215 (2 poles)

Terminal pins No.2 and No.5 are not available in switches with Switching Function "K", "L", or "M".



Terminal numbers are shown on the bottom of the switch.

Specifications

| Rating | | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|--------|------------|------------------------------|---------------------|------------------------|------------------|
| ET215K | AC125V 15A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 30,000 cycles |
| ET215N | AC250V 10A | | | | |
| ET215P | AC125V 15A | | | | |
| ET215L | AC125V 15A | 20,000 cycles | | | |
| ET215M | AC250V 10A | | | | |
| ET215R | AC250V 10A | | | | |
| ET215S | AC250V 10A | | | | |
| ET215T | AC250V 10A | | | | |

L dimensions

| Terminal style | TAB#250 | ScrewTerminal | Solder Terminal |
|---------------------------|---------|---------------|-----------------|
| Part No. | | | |
| ET215K■-N■-Z | 30.6±1 | 28.4±1 | 27.6±1 |
| ET215P■-Z | 30.6±1 | 28.4±1 | 27.6±1 |
| ET215 ^{L, M} ■-Z | — | 28.4±1 | 27.6±1 |

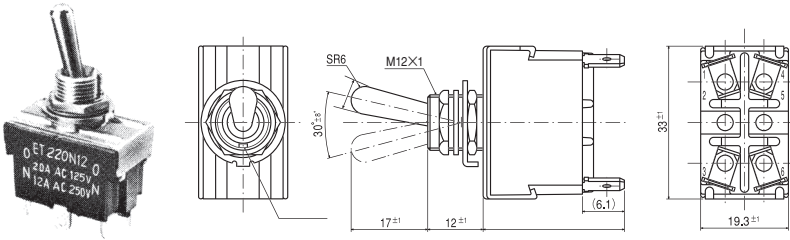
| Switching function | Key way | Key way | Key way |
|----------------------|---------|---------|---------|
| Part No. | | | |
| ET215K■-Z | ON | — | OFF |
| ET215L■-Z | ON | — | (OFF) |
| Connecting terminals | 1-3 4-6 | — | — |
| ET215M■-Z | OFF | — | (ON) |
| Connecting terminals | — | — | 1-3 4-6 |
| ET215N■-Z | ON | — | ON |
| ET215P■-Z | ON | OFF | ON |
| ET215R■-Z | ON | — | (ON) |
| ET215S■-Z | (ON) | OFF | (ON) |
| ET215T■-Z | ON | OFF | (ON) |
| Connecting terminals | 2-3 5-6 | — | 2-1 5-4 |

■ : Refer to "Table of Part Numbers" on P.425 for a full list of part numbers.of part numbers.

ET

ET220 (2 poles)

Terminal pins No.2 and No.5 are not available in switches with Switching Function "K", "L", or "M".



Terminal numbers are shown on the bottom of the switch.

Specifications

| Rating | | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|--------|------------|----------------------------|---------------------|------------------------|------------------|
| ET220K | AC125V 20A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 20,000 cycles |
| ET220N | AC250V 12A | | | | |
| ET220P | | | | | |
| ET220L | AC125V 20A | | | | |
| ET220M | AC250V 12A | | | | |
| ET220R | | | | | |
| ET220S | | | | | |
| ET220T | | | | | |

L dimensions

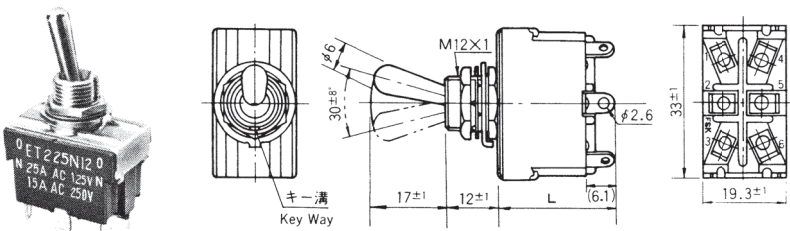
| Terminal style | TAB#250 | ScrewTerminal | Solder Terminal |
|----------------|---------|---------------|-----------------|
| Part No. | | | |
| ET220K-N-Z | — | — | 27.6±1 |
| ET220P-Z | — | — | 27.6±1 |
| ET220R~T-Z | 30.6±1 | 30.8±1 | 27.6±1 |
| ET220M-Z | — | — | 27.6±1 |

| Switching function | Key way | Key way | Key way |
|----------------------|---------|---------|---------|
| Part No. | | | |
| ET220K-Z | ON | — | OFF |
| Connecting terminals | 1-3 4-6 | — | — |
| ET220M-Z | OFF | — | (ON) |
| Connecting terminals | — | — | 1-3 4-6 |
| ET220N-Z | ON | — | ON |
| ET220P-Z | ON | OFF | ON |
| ET220R-Z | ON | — | (ON) |
| ET220S-Z | (ON) | OFF | (ON) |
| ET220T-Z | ON | OFF | (ON) |
| Connecting terminals | 2-3 5-6 | — | 2-1 5-4 |

■ : Refer to "Table of Part Numbers" on P.425 for a full list of part numbers.

ET225 (2 poles)

Terminal pins No.2 and No.5 are not available in switches with Switching Function "K".



Terminal numbers are shown on the bottom of the switch.

Specifications

| Rating | | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|--------|------------|----------------------------|---------------------|------------------------|------------------|
| ET225K | AC125V 25A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 20,000 cycles |
| ET225N | AC250V 15A | | | | |
| ET225P | | | | | |

L dimensions

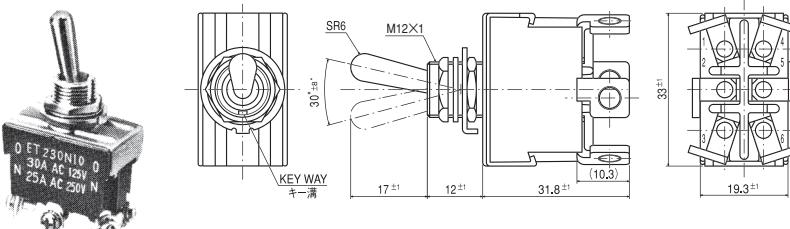
| Terminal style | TAB#250 | ScrewTerminal | Solder Terminal |
|----------------|---------|---------------|-----------------|
| Part No. | | | |
| ET225K-N-Z | 30.6±1 | 31.8±1 | 27.6±1 |
| ET225P-Z | | | |

| Switching function | Key way | Key way | Key way |
|----------------------|---------|---------|---------|
| Part No. | | | |
| ET225K-Z | ON | — | OFF |
| Connecting terminals | 1-3 4-6 | — | — |
| ET225N-Z | ON | — | ON |
| ET225P-Z | ON | OFF | ON |
| Connecting terminals | 2-3 5-6 | — | 2-1 5-4 |

■ : Refer to "Table of Part Numbers" on P.425 for a full list of part numbers.

ET230 (2 poles)

Terminal pins No.2 and No.5 are not available in switches with Switching Function "K".



Terminal numbers are shown on the bottom of the switch.

Specifications

| Rating | | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|----------|------------|----------------------------|------------------------|------------------------|------------------|
| ET230N10 | AC250V 25A | 20mΩ Max. (DC2V 100mA) | AC1500V 1分間/ minute | 100MΩ Min. (DC500V) | 20,000 cycles |
| ET230P10 | AC125V 30A | | | | |

| Switching function | Key way | Key way | Key way |
|----------------------|---------|---------|---------|
| Part No. | | | |
| ★ ET230N-Z | ON | — | ON |
| ★ ET230P-Z | ON | OFF | ON |
| Connecting terminals | 2-3 5-6 | — | 2-1 5-4 |

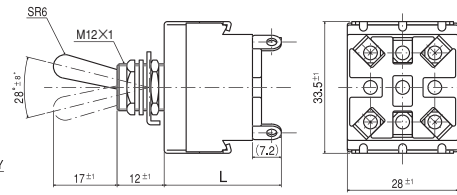
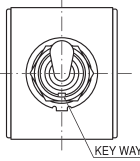
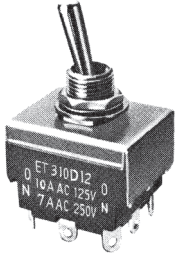
(ON) : Momentary.

■ shows the terminal style "(blank)", "10", or "12".

★ : Made to order products.

ET310 (3 poles)

Terminal pins No.2, No.5, and No.8 are not available in switches with Switching Function "A".



Terminal numbers are shown on the bottom of the switch.

L dimensions

| Part No. | Terminal style | TAB#250 | ScrewTerminal | Solder Terminal |
|-------------------|--------------------|------------------|---------------|-----------------|
| | ET310A ■-Z | 34 ^{±2} | — | — |
| ET310D ■-Z | 36.4 ^{±1} | — | — | — |
| ET310E ■-Z | — | — | — | — |

| Part No. | Switching function | Key way | Key way | Key way |
|----------------------|--------------------|---------|---------|----------------|
| | ET310A ■-Z | ON | — | — |
| Connecting terminals | 1-3 4-6 7-9 | — | — | — |
| ET310D ■-Z | ON | — | — | ON |
| ET310E ■-Z | ON | OFF | — | ON |
| Connecting terminals | 2-3 5-6 8-9 | — | — | 2-1 5-4 8-7 |

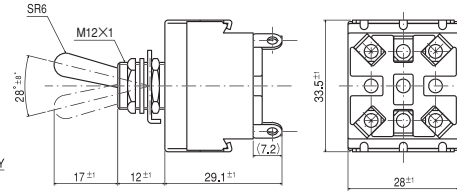
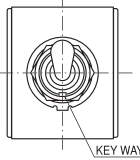
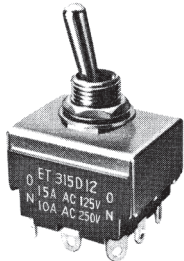
■ : Refer to "Table of Part Numbers" on P.425 for a full list of part numbers.

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life | |
|---|----------------------------|---------------------------|-----------------------|------------------------|---------------|
| ET310A ■ ET310D ■ ET310E ■ | AC125V 10A AC250V 7A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 20,000 cycles |

ET315 12 (3 poles)

Terminal pins No.2, No.5, and No.8 are not available in switches with Switching Function "A".



Terminal numbers are shown on the bottom of the switch.

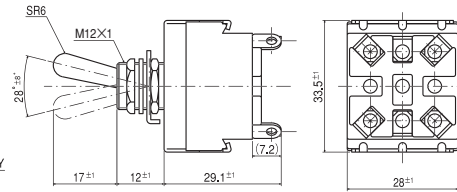
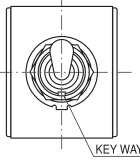
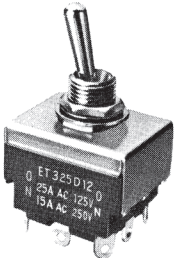
| Part No. | Switching function | Key way | Key way | Key way |
|----------------------|---------------------|---------|---------|----------------|
| | ★ ET315A12-Z | ON | — | — |
| Connecting terminals | 1-3 4-6 7-9 | — | — | — |
| ★ ET315D12-Z | ON | — | — | ON |
| ★ ET315E12-Z | ON | OFF | — | ON |
| ★ ET315F12-Z | ON | — | — | (ON) |
| ★ ET315G12-Z | (ON) | OFF | — | (ON) |
| ★ ET315H12-Z | ON | OFF | — | (ON) |
| Connecting terminals | 2-3 5-6 8-9 | — | — | 2-1 5-4 8-7 |

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life | |
|---|----------------------------|---------------------------|-----------------------|------------------------|---------------|
| ET315A12 ET315D12 ET315E12 | AC125V 15A AC250V 10A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 20,000 cycles |
| ET315F12 ET315G12 ET315H12 | AC125V 15A AC250V 10A | | | | |

ET325 12 (3 poles)

Terminal pins No.2, No.5, and No.8 are not available in switches with Switching Function "A".



Terminal numbers are shown on the bottom of the switch.

| Part No. | Switching function | Key way | Key way | Key way |
|----------------------|---------------------|---------|---------|----------------|
| | ★ ET325A12-Z | ON | — | — |
| Connecting terminals | 1-3 4-6 7-9 | — | — | — |
| ★ ET325D12-Z | ON | — | — | ON |
| ★ ET325E12-Z | ON | OFF | — | ON |
| Connecting terminals | 2-3 5-6 8-9 | — | — | 2-1 5-4 8-7 |

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life | |
|---|----------------------------|---------------------------|-----------------------|------------------------|---------------|
| ET325A12 ET325D12 ET325E12 | AC125V 25A AC250V 15A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 20,000 cycles |

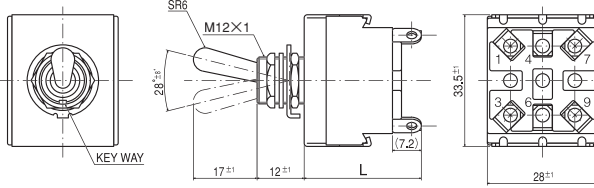
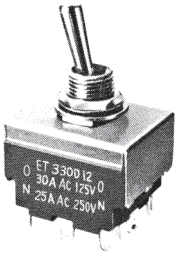
★ : Made to order products.

(ON) : Momentary.

■ shows the terminal style "blank" or "12".

ET330□12 (3 poles)

Terminal pins No.2, No.5, and No.8 are not available in switches with Switching Function "A".



Terminal numbers are shown on the bottom of the switch.

L dimensions

| Terminal style | Part No. | | |
|----------------|----------|----------------|-----------------|
| | TAB#250 | Screw Terminal | Solder Terminal |
| ET330A□-Z | 33.9±0.2 | — | 29.1±0.1 |
| ET330D12-Z | — | — | — |
| ET330E12-Z | — | — | — |

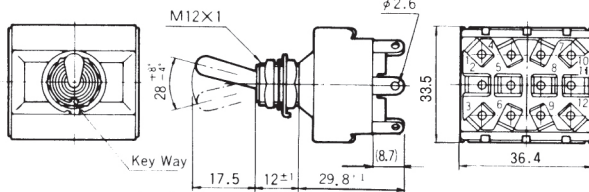
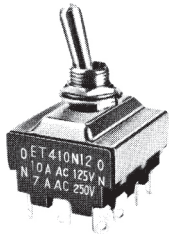
| Switching function | Key way | | |
|----------------------|----------------|-----|----------------|
| | | | |
| Part No. | ET330A□-Z | — | — |
| Connecting terminals | 1-3 4-6 7-9 | — | — |
| ☆ET330D12-Z | ON | — | ON |
| ★ET330E12-Z | ON | OFF | ON |
| Connecting terminals | 2-3 5-6 8-9 | — | 2-1 5-4 8-7 |

■ : Refer to "Table of Part Numbers" on P.425 for a full list of part numbers.

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|---------------------------------|--|---------------------|------------------------|-----------------|
| ET330A□ ET330D12 ET330E12 | AC125V 30A AC250V 25A (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 20,000 cycles |

ET410□12 (4 poles)



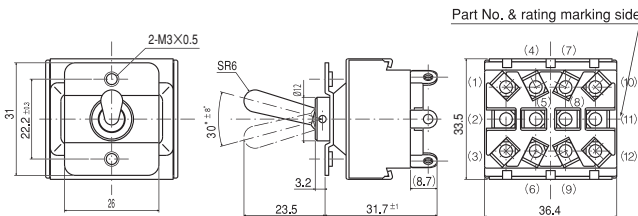
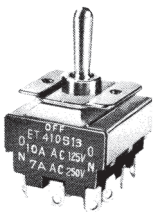
Terminal numbers are shown on the bottom of the switch.

| Switching function | Key way | | |
|----------------------|----------------------|-----|----------------------|
| | | | |
| Part No. | ★ET410N12-Z | — | — |
| ★ET410P12-Z | ON | OFF | ON |
| ★ET410R12-Z | ON | — | (ON) |
| ★ET410S12-Z | (ON) | OFF | (ON) |
| ▲ET410T12-Z | ON | OFF | (ON) |
| Connecting terminals | 2-3 5-6 8-9 11-12 | — | 2-1 5-4 8-7 11-10 |

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|----------------------------------|----------------------------|---------------------|------------------------|-----------------|
| ET410N12 ET410P12 | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 20,000 cycles |
| ET410R12 ET410S12 ET410T12 | | | | |

ET410□13 (4 poles)

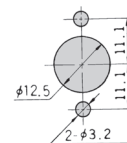


Terminal numbers are shown on the bottom of the switch.

| Switching function | Viewed from part No. and rating marking side | | |
|----------------------|--|---|----------------------|
| | | | |
| Part No. | ★ET410R13-Z | — | (ON) |
| Connecting terminals | 2-3 5-6 8-9 11-12 | — | 2-1 5-4 8-7 11-10 |

Panel Cut-Out Dimensions

Plate mounting type



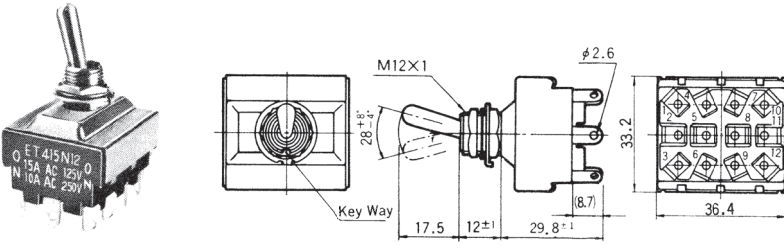
Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|----------|---|---------------------|------------------------|-----------------|
| ET410R13 | AC125V 10A AC250V 7A (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 20,000 cycles |

■ shows the terminal style "blank", "10", or "12". (ON) : Momentary. ▲ : Inquiry products. ☆ : Semi-standard products. ★ : Made to order products.

ET415□12 (4 poles)

Terminal pins No.2, No.5, No.8, and No.11 are not available in switches with Switching Function "K".



Terminal numbers are shown on the bottom of the switch.

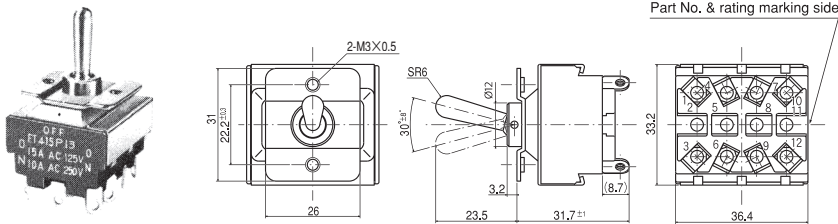
| Switching function | Key way | Key way | Key way |
|----------------------|----------------------|---------|----------------------|
| Part No. | | | |
| ★ET415K12-Z | ON | — | OFF |
| Connecting terminals | 1-3 4-6 7-9 10-12 | — | — |
| ★ET415N12-Z | ON | — | ON |
| ★ET415P12-Z | ON | OFF | ON |
| Connecting terminals | 2-3 5-6 8-9 11-12 | — | 2-1 5-4 8-7 11-10 |

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|----------------------------------|----------------------------|---------------------------|------------------------------------|---|
| ET415K12 ET415N12 ET415P12 | AC125V 15A AC250V 10A | 20mΩ Max. (DC2V 100mA) | AC1500V 1分間/ minute (DC500V) | 100MΩ Min. (DC500V) 20,000 cycles |

ET415□13 (4 poles)

Terminal pins No.2, No.5, No.8, and No.11 are not available in switches with Switching Function "K".



Terminal numbers are shown on the bottom of the switch.

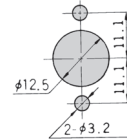
| Switching function | Viewed from part No. and rating marking side | | |
|----------------------|--|---------|----------------------|
| | Key way | Key way | Key way |
| Part No. | | | |
| ★ET415K13-Z | ON | — | OFF |
| Connecting terminals | 1-3 4-6 7-9 10-12 | — | — |
| ★ET415N13-Z | ON | — | ON |
| ▲ET415P13-Z | ON | OFF | ON |
| Connecting terminals | 2-3 5-6 8-9 11-12 | — | 2-1 5-4 8-7 11-10 |

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|----------------------------------|----------------------------|---------------------------|------------------------------------|---|
| ET415K13 ET415N13 ET415P13 | AC125V 15A AC250V 10A | 20mΩ Max. (DC2V 100mA) | AC1500V 1分間/ minute (DC500V) | 100MΩ Min. (DC500V) 20,000 cycles |

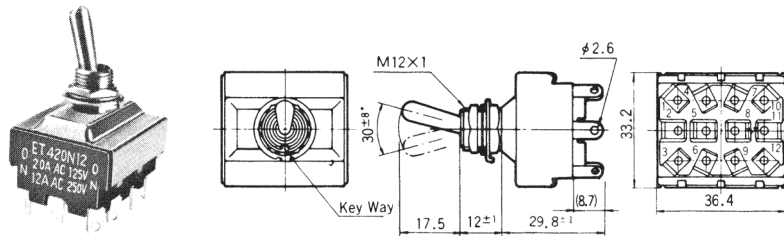
Panel Cut-Out Dimensions

Plate mounting type



ET420□12 (4 poles)

Terminal pins No.2, No.5, No.8, and No.11 are not available in switches with Switching Function "K".



Terminal numbers are shown on the bottom of the switch.

| Switching function | Key way | Key way | Key way |
|----------------------|----------------------|---------|----------------------|
| Part No. | | | |
| ★ET420K12-Z | ON | — | OFF |
| Connecting terminals | 1-3 4-6 7-9 10-12 | — | — |
| ★ET420N12-Z | ON | — | ON |
| ★ET420P12-Z | ON | OFF | ON |
| Connecting terminals | 2-3 5-6 8-9 11-12 | — | 2-1 5-4 8-7 11-10 |

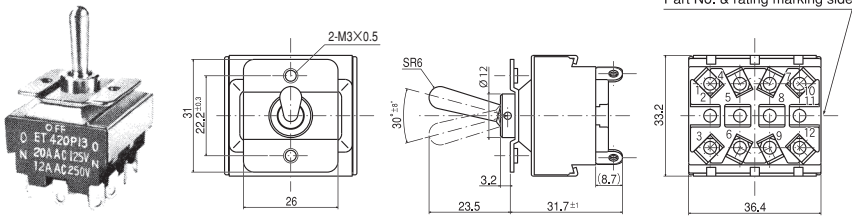
Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|----------------------------------|----------------------------|---------------------------|---------------------------------|---|
| ET420K12 ET420N12 ET420P12 | AC125V 20A AC250V 12A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute (DC500V) | 100MΩ Min. (DC500V) 20,000 cycles |

★ : Made to order products. ▲ : Inquiry products.

ET420 \square 13 (4 poles)

Terminal pins No.2, No.5, No.8, and No.11 are not available in switches with Switching Function "K".



Terminal numbers are shown on the bottom of the switch.

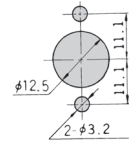
| Switching function | Viewed from part No. and rating marking side | | |
|----------------------|--|-----|----------------------|
| | | | |
| Part No. | ★ET420K13-Z | — | OFF |
| Connecting terminals | 1-3 4-6 7-9 10-12 | — | — |
| Part No. | ★ET420N13-Z | — | ON |
| Part No. | ★ET420P13-Z | OFF | ON |
| Connecting terminals | 2-3 5-6 8-9 11-12 | — | 2-1 5-4 8-7 11-10 |

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|-----------------|----------------------------|---------------------|-----------------------|-----------------|
| ET420K13 | AC125V 20A | 20mΩ Max. | AC1500V | 20,000 cycles |
| ET420N13 | AC250V 12A | (DC2V 100mA) | 1 minute | (DC500V) |
| ET420P13 | | | | |

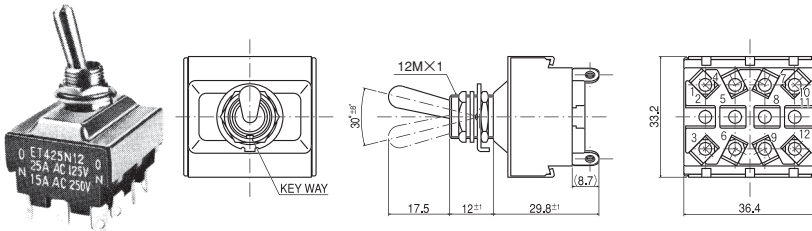
Panel Cut-Out Dimensions

Plate mounting type



ET425 \square 12 (4 poles)

Terminal pins No.2, No.5, No.8, and No.11 are not available in switches with Switching Function "K".



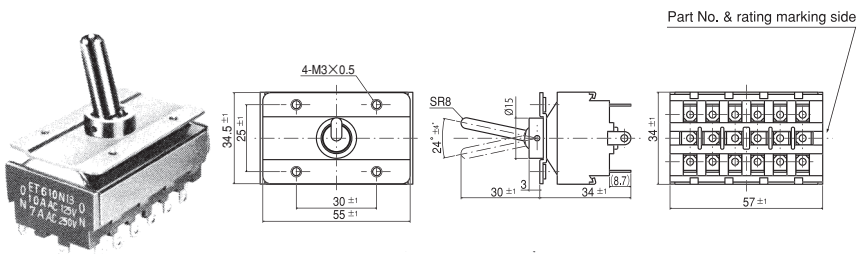
Terminal numbers are shown on the bottom of the switch.

| Switching function | Key way | Key way | Key way |
|----------------------|----------------------|---------|----------------------|
| | | | |
| Part No. | ★ET425K12-Z | — | OFF |
| Connecting terminals | 1-3 4-6 7-9 10-12 | — | — |
| Part No. | ★ET425N12-Z | — | ON |
| Part No. | ★ET425P12-Z | OFF | ON |
| Connecting terminals | 2-3 5-6 8-9 11-12 | — | 2-1 5-4 8-7 11-10 |

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|-----------------|----------------------------|---------------------|-----------------------|-----------------|
| ET425K12 | AC125V 25A | 20mΩ Max. | AC1500V | 20,000 cycles |
| ET425N12 | AC250V 15A | (DC2V 100mA) | 1 minute | (DC500V) |
| ET425P12 | | | | |

ET610N13 (6 poles)

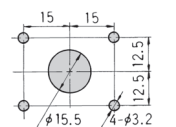


Terminal numbers are shown on the bottom of the switch.

| Switching function | Viewed from part No. and rating marking side | | |
|----------------------|--|---|-------------------------------------|
| | | | |
| Part No. | ☆ET610N13-Z | — | ON |
| Connecting terminals | 2-3 5-6 8-9 11-12 14-15 17-18 | — | 2-1 5-4 8-7 11-10 14-13 17-16 |

Panel Cut-Out Dimensions

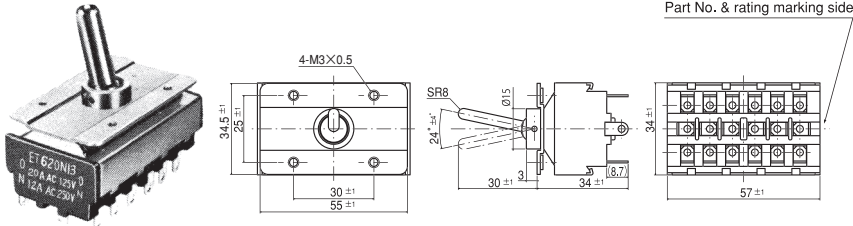
Plate mounting type



Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|-----------------|----------------------------|---------------------------|-----------------------|--|
| ET610N13 | AC125V 10A AC250V 7A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) 5,000 cycles |

ET620N13 (6 poles)



Terminal numbers are shown on the bottom of the switch.

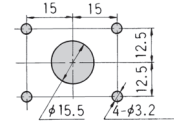
| | | | |
|----------------------|--|---|-------------------------------------|
| Switching function | Viewed from part No. and rating marking side | | |
| | | | |
| Part No. | ★ET620N13-Z | | |
| Connecting terminals | 2-3 5-6 8-9 11-12 14-15 17-18 | — | 2-1 5-4 8-7 11-10 14-13 17-16 |

Panel Cut-Out Dimensions

Specifications

| Rating | Initial contact resistance | Dielectric strength | Insulation resistance | Electrical life |
|--------------------------------------|----------------------------|---------------------|------------------------|-----------------|
| ET620N13 AC125V 20A AC250V 12A | 20mΩ Max. (DC2V 100mA) | AC1500V 1 minute | 100MΩ Min. (DC500V) | 5,000 cycles |

Plate mounting type



UL·CSA Table of Part Numbers

| Terminal Style | Part No. | ※1. | Part No. | ※1. | Part No. | ※1. | Part No. | ※1. |
|------------------|--------------|------------|---------------|------------|--------------|------|--------------|-------|
| TAB terminals | ★ ET110F-Z | | — | | ★ ET215N-Z | 40.0 | ET225P-Z | |
| | ★ ET110G-Z | | ★ ET120G-Z | | ☆ ET215P-Z | 39.7 | ▲ ET310E-Z | |
| | ★ ET110H-Z | | ★ ET125A-Z | 26.6 | ★ ET220R-Z | | ★ ET330A-Z | |
| | Ⓢ ET115A-Z | 29.4 | ▲ ET125D-Z | | ★ ET220S-Z | | — | — |
| | ★ ET115D-Z | | ★ ET210S-Z | | ☆ ET225K-Z | 39.4 | — | — |
| ★ ET115E-Z | | ★ ET215K-Z | 39.3 | ★ ET225N-Z | | — | — | |
| Screw terminals | ★ ET110G10-Z | | ★ ET120G10-Z | | ★ ET215L10-Z | | ★ ET225N10-Z | |
| | ☆ ET115A10-Z | | ★ ET125A10-Z | | ▲ ET215R10-Z | | ★ ET225P10-Z | |
| | ★ ET115C10-Z | | ★ ET125D10-Z | | ★ ET215S10-Z | | — | — |
| | ★ ET115D10-Z | | — | | ▲ ET215T10-Z | | ★ ET230N10-Z | 54.4 |
| | ★ ET115E10-Z | | ★ ET215K10-Z | | ★ ET220R10-Z | 53.6 | ★ ET230P10-Z | |
| | ★ ET115F10-Z | | ☆ ET215N10-Z | | ★ ET220S10-Z | | — | — |
| | ▲ ET115H10-Z | | ★ ET215P10-Z | | ★ ET225K10-Z | | — | — |
| Solder terminals | Ⓢ ET103A12-Z | 21.0 | ★ ET125D12-Z | 26.0 | ★ ET220P12-Z | | ★ ET410R13-Z | 56.9 |
| | ★ ET103A32-Z | 21.0 | ★ ET125E12-Z | | ★ ET220R12-Z | | ★ ET410S12-Z | |
| | ★ ET103V12-Z | 21.0 | ★ ET205K12-Z | | ★ ET220S12-Z | | ▲ ET410T12-Z | |
| | ★ ET103V32-Z | | ★ ET205N12-Z | | ★ ET220T12-Z | | ★ ET415K12-Z | |
| | ☆ ET105A12-Z | | ★ ET205P12-Z | | ☆ ET225K12-Z | 38.1 | ★ ET415K13-Z | 57.6 |
| | ☆ ET105D12-Z | 25.8 | Ⓢ ET206K12-Z | 26.1 | ET225N12-Z | 38.6 | ★ ET415N12-Z | 56.8 |
| | ☆ ET105E12-Z | | ☆ ET206N12-Z | 26.3 | ET225P12-Z | | ★ ET415N13-Z | |
| | ☆ ET110A12-Z | 25.8 | ☆ ET210K12-Z | | ★ ET310A12-Z | 54.0 | ★ ET415P12-Z | |
| | ☆ ET110D12-Z | | ☆ ET210N12-Z | 38.0 | ☆ ET310D12-Z | 54.6 | ▲ ET415P13-Z | |
| | ★ ET110E12-Z | | ☆ ET210P12-Z | 37.9 | ☆ ET310E12-Z | | ★ ET420K12-Z | |
| | ★ ET110F12-Z | | ★ ET210R12-Z | | ★ ET315A12-Z | | ★ ET420K13-Z | |
| | ★ ET110G12-Z | | ★ ET210S12-Z | | ★ ET315D12-Z | 54.7 | ★ ET420N12-Z | |
| | Ⓢ ET115A12-Z | 25.9 | ★ ET210T12-Z | | ★ ET315E12-Z | | ★ ET420N13-Z | |
| | ★ ET115B12-Z | | ★ ET210PA12-Z | | ★ ET315F12-Z | | ★ ET420P12-Z | |
| | ★ ET115C12-Z | | ☆ ET215K12-Z | 37.9 | ★ ET315G12-Z | | ★ ET420P13-Z | 55.0 |
| | Ⓢ ET115D12-Z | 25.9 | ▲ ET215L12-Z | | ★ ET315H12-Z | | ★ ET425K12-Z | |
| | ★ ET115E12-Z | 25.9 | ★ ET215M12-Z | | ★ ET325A12-Z | | ★ ET425N12-Z | |
| | ★ ET115F12-Z | | ☆ ET215N12-Z | 38.1 | ★ ET325D12-Z | | ★ ET425P12-Z | 106.0 |
| | ★ ET115G12-Z | | ★ ET215P12-Z | 37.8 | ★ ET325E12-Z | | ☆ ET610N13-Z | 105.0 |
| | ★ ET115H12-Z | 25.0 | ★ ET215R12-Z | | ★ ET330A12-Z | | ★ ET620N13-Z | |
| | ☆ ET120A12-Z | | ET215S12-Z | 38.4 | ☆ ET330D12-Z | 54.2 | — | — |
| | ★ ET120D12-Z | | ★ ET215T12-Z | | ★ ET330E12-Z | | — | — |
| | ▲ ET120F12-Z | | ★ ET220K12-Z | | — | | — | — |
| | ★ ET120G12-Z | | — | | ★ ET410N12-Z | 57.4 | — | — |
| | ★ ET120H12-Z | | ▲ ET220M12-Z | | ★ ET410P12-Z | | — | — |
| | ☆ ET125A12-Z | 25.9 | ★ ET220N12-Z | | ★ ET410R12-Z | 56.5 | — | — |

As shown in the above table, not all products are UL-recognized or CSA-certified. Please check with your local sales representative if you have any questions.
 Note: For overseas standards, see P.627.

※1 : Switch mass (g) : includes accessories = hex nut, locking ring, lock washer and terminal screw

★ : Made to order products. ☆ : Semi-standard products. ▲ : Inquiry products.

■ Standard Accessories — 《Supplied with switch》

| Part Name | Hex Nut | Hex Nut | Lockwasher | Locking Ring |
|------------|---------------|--------------|--------------|--------------|
| Part No. | 140008010235 | 140008010221 | 140008030055 | 140008020065 |
| Dimensions | | | | |
| Finish | Nickel plated | Zinc plated | Zinc plated | Zinc plated |

| | | |
|-------------------------|--------------|--------------|
| | | |
| ET115 ET215 | 140000080639 | 140008030057 |
| ET120 ET220 | 140000080651 | 140008030058 |
| ET125 ET225 ET230 | 140000080652 | 140008030060 |

■ Optional Accessories

《Supplied separately》

| Type | ET · 8B | | ET | ET | |
|------------|--------------|--------------|---|--------------|--------------|
| Part Name | Plate | Plate | Waterproof boot | Boot | Bushing |
| Part No. | 140008040021 | 140008040025 | Red 140000610335 Gray 140000610334 Black 140000610333 | 140000610080 | 140008010244 |
| Dimensions | | | | | |
| Type | ET | | | | |
| Part Name | Hex Nut | | | | |
| Part No. | 140008010238 | | | | |
| Dimensions | | | | | |
| | Chromium | | | | |

■ Handling Precautions

1. Soldering Specifications

(1) Manual Soldering

Device : Soldering iron
420°C, Max.; 3 seconds, Max.

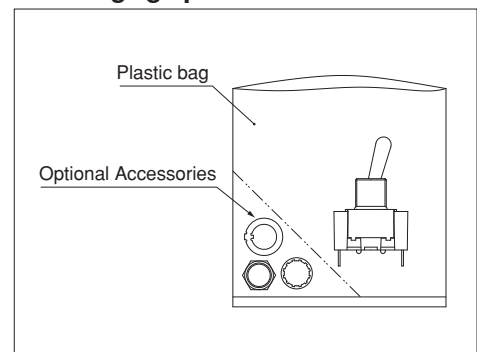
(2) Waterproof boot

- ① The boot is fixed to the switch with the built-in screw.
- ② The boot cannot be used for plate-mounting switches.

2. Flux Cleaning

- (1) Solvent : Fluorine or Alcohol type.
- (2) The ET series are not washable. To wash the PC board, clean the soldering surface of the PC board with a brush so that the switch is not exposed to the cleaning solution.

■ Packaging Specification



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Toggle Switches](#) category:

Click to view products by [Nidec Copal](#) manufacturer:

Other Similar products are found below :

[A19HV](#) [8A1-C-222](#) [60012L](#) [6006L](#) [6663](#) [7101MD9V30GE](#) [7101SPDV30BE](#) [7103SDV30BE](#) [7105D](#) [7108P3YAV2BE](#) [71YY50282](#)
[7201MD9AVBE](#) [7301K38](#) [7306K36](#) [7310K36](#) [7314K36](#) [7506K4](#) [7592K6](#) [7691K14](#) [7700K1](#) [8396K108](#) [8824K14](#) [8828K13](#) [G2VX](#) [G3VX](#)
[PS83-121G](#) [A101MD9AB04](#) [A101SD9AB04](#) [A101SDCQ04](#) [A103SD9AQ04](#) [A107TZB04](#) [A123P32YZQ](#) [A123S1YZG](#) [A127S1YCQ](#) [1-](#)
[1825192-0](#) [A131S1YZQ](#) [A201SCWZB04](#) [A207SYCB04](#) [A208J61ZQ0004](#) [A221K12KAG](#) [A221S1YZQ](#) [A221T1TCQ](#) [A232K12KZQ](#)
[A232M1YCQ](#) [A323S1CWZQ](#) [A423S1CWZG-M8](#) [A423S1YZQ](#) [12149A-3V](#) [12156AX408](#) [12147AGKX679](#)