

























Symbol overview IEC Library

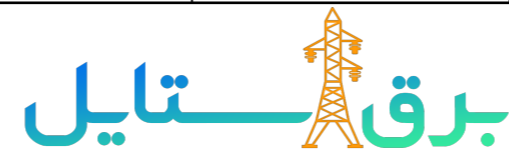


آکادمی تخصصی برق استایل
آموزش تخصصی نقشه خوانی و نقشه کشی برق و اتوماسیون صنعتی








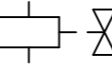



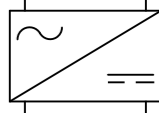

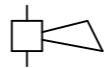
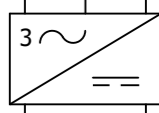

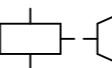
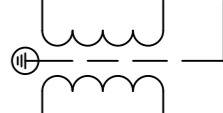


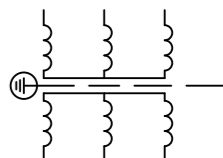


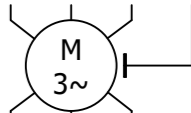
| | | |
|---|---|--|
| <p>Symbol description: Power NO contact of a contactor</p> <p>Function definition: Power NO contact</p> <p>connecting points: 2</p>  | <p>NC contact, late break</p> <p>NC contact, late break</p> <p>2</p>  | <p>Electromechanical operating device of an AC relay</p> <p>Coil, AC</p> <p>2</p>  |
| <p>NO contact</p> <p>NO auxiliary contact</p> <p>2</p>  | <p>NO contact, momentary contact, contact make on actuation (right)</p> <p>NO contact, momentary contact make, right</p> <p>2</p>  | <p>Electromechanical operating device with pick-up and off-delay</p> <p>Coil, with pick-up and drop-out delay</p> <p>2</p>  |
| <p>NC contact</p> <p>NC auxiliary contact</p> <p>2</p>  | <p>NO contact, momentary contact on actuation and release (right and left)</p> <p>NO contact, momentary contact make, right and left</p> <p>2</p>  | <p>Electromechanical operating device of a remanent relay</p> <p>Coil, remanent relay</p> <p>2</p>  |
| <p>NO contact, with delayed closing</p> <p>NO contact, with delayed closing</p> <p>2</p>  | <p>NO contact, momentary contact, contact make on release (left)</p> <p>NO contact, momentary contact make, left</p> <p>2</p>  | <p>Electromechanical operating device with off-delay</p> <p>Coil with drop-out delay</p> <p>2</p>  |
| <p>NC contact, with delayed opening</p> <p>NC contact, with delayed opening</p> <p>2</p>  | <p>NO contact, electrothermal actuation</p> <p>NO contact, thermal release</p> <p>2</p>  | <p>Terminal</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>2</p>  |
| <p>NO contact, with delayed opening</p> <p>NO contact, with delayed opening</p> <p>2</p>  | <p>NC contact, electrothermal actuation</p> <p>NC contact, thermal release</p> <p>2</p>  | <p>Female and male pin</p> <p>Male and female pin</p> <p>2</p>  |
| <p>NC contact, with delayed closing</p> <p>NC contact, with delayed closing</p> <p>2</p>  | <p>Electromechanical operating device, general / relay coil, general</p> <p>Coil for power contactor</p> <p>2</p>  | <p>Fused terminal</p> <p>Terminal, general, 2 connection points</p> <p>2</p>  |
| <p>NO contact, leading</p> <p>NO contact, leading</p> <p>2</p>  | <p>Electromechanical operating device with pick-up delay</p> <p>Coil, with pick-up delay</p> <p>2</p>  | <p>Fused terminal with LED</p> <p>Terminal, general, 2 connection points</p> <p>2</p>  |



Symbol overview IEC Library

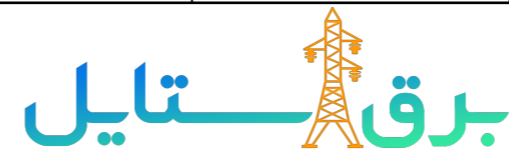


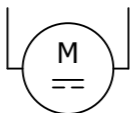

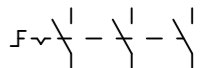
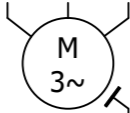

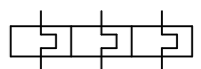

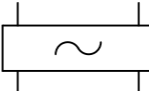
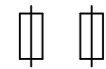

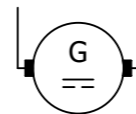
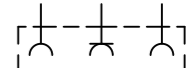
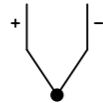
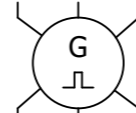



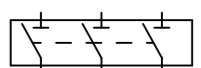





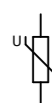
آکادمی تخصصی برق استایل
آموزش تخصصی نقشه خوانی و نقشه کشی برق و اتوماسیون صنعتی

| | | |
|---|--|---|
| <p>Symbol description: Pressure switch, NO contact</p> <p>Function definition: Pushbutton, NO contact</p> <p>connecting points: 2</p>  | <p>Switch, NO contact, operation by key</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Resistor, general</p> <p>Resistor, single</p> <p>2</p>  |
| <p>Pressure switch, NC contact</p> <p>Pushbutton, NC contact</p> <p>2</p>  | <p>Switch, NC contact, operation by key</p> <p>Switch, NC contact</p> <p>2</p>  | <p>Capacitor, general</p> <p>Capacitor, single</p> <p>2</p>  |
| <p>Rotary switch, NO contact</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Solenoid valve, general</p> <p>Valve, single</p> <p>2</p>  | <p>Semiconductor diode, general</p> <p>Semiconductors, 2 connection points</p> <p>2</p>  |
| <p>Rotary switch, NC contact</p> <p>Switch, NC contact</p> <p>2</p>  | <p>Lamp / indicator light, general</p> <p>Lamp, single</p> <p>2</p>  | <p>Rectifier, single-phase</p> <p>Rectifier, variable</p> <p>4</p>  |
| <p>Limit switch, NO contact</p> <p>Limit switch, NO contact</p> <p>2</p>  | <p>Horn</p> <p>Signal device, acoustic, single</p> <p>2</p>  | <p>Bridge rectifier, three-phase</p> <p>Rectifier, variable</p> <p>5</p>  |
| <p>Limit switch, NC contact</p> <p>Limit switch, NC contact</p> <p>2</p>  | <p>Solenoid brake</p> <p>Brake, single</p> <p>2</p>  | <p>Single-phase transformer with two windings and shield</p> <p>Transformer, 5 connection points with PE</p> <p>5</p>  |
| <p>Switch, NO contact, operation by pushing</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Light-emitting diode (LED), general</p> <p>Lamp, single</p> <p>2</p>  | <p>Three-phase transformer, wye-wye connection</p> <p>Transformer, 7 connection points with PE</p> <p>7</p>  |
| <p>Switch, NC contact, operation by pushing</p> <p>Switch, NC contact</p> <p>2</p>  | <p>Fuse, single-pole, general</p> <p>Safety fuse</p> <p>2</p>  | <p>Three-phase induction motor, star-delta connection</p> <p>Motor with PE, variable</p> <p>7</p>  |



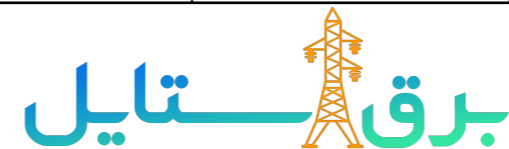
Symbol overview IEC Library








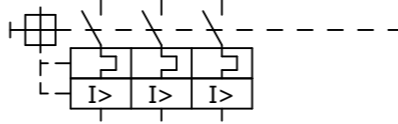
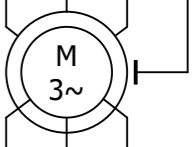



| | | |
|---|--|--|
| <p>Symbol description: DC motor, general</p> <p>Function definition: Single-coil motor without PE</p> <p>connecting points: 2</p>  | <p>Pressure switch, NC contact</p> <p>Switch, NC contact</p> <p>2</p>  | <p>Rotary switch, three-pole, NO contact</p> <p>Switch, triple NO contact</p> <p>6</p>  |
| <p>Three-phase asynchronous motor, one rotation speed</p> <p>Three-phase motor</p> <p>4</p>  | <p>Pushbutton, NC contact, operation by pedal</p> <p>Pushbutton, NC contact</p> <p>2</p>  | <p>Electromechanical device of a thermal relay, three-pole</p> <p>Thermal release (bimetal relay)</p> <p>6</p>  |
| <p>Fuse, three-pole, general</p> <p>Triple safety fuse</p> <p>6</p>  | <p>Line filter, two-pole</p> <p>Converter, variable</p> <p>4</p>  | <p>Fuse, two-pole, form 2</p> <p>Double safety fuse</p> <p>4</p>  |
| <p>Pressure switch, NO contact</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Generator, tacho-generator, general</p> <p>Generator, variable</p> <p>2</p>  | <p>Female receptacle, three-pole</p> <p>Others, variable</p> <p>3</p>  |
| <p>Thermocouple</p> <p>Analog sensor, 2 connection points</p> <p>2</p>  | <p>Pulse generator</p> <p>Generator, variable</p> <p>6</p>  | <p>Fuse circuit breaker, single-pole</p> <p>Fused disconnect, single</p> <p>2</p>  |
| <p>Pushbutton, NO contact, operation by pedal</p> <p>Pushbutton, NO contact</p> <p>2</p>  | <p>Fuse, two-pole, general</p> <p>Double safety fuse</p> <p>4</p>  | <p>Disconnect switch, three-pole</p> <p>Switch, triple NO contact</p> <p>6</p>  |
| <p>Inductor / coil / winding / reactor</p> <p>Inductor, single</p> <p>2</p>  | <p>Cam switch, NO contact</p> <p>Limit switch, NO contact</p> <p>2</p>  | <p>Disconnect switch, single-pole</p> <p>Switch, NO contact</p> <p>2</p>  |
| <p>Inductor with magnetic core</p> <p>Inductor, single</p> <p>2</p>  | <p>Cam switch, NC contact</p> <p>Limit switch, NC contact</p> <p>2</p>  | <p>Resistor, voltage-dependent / varistor</p> <p>Resistor, single</p> <p>2</p>  |



Symbol overview IEC Library

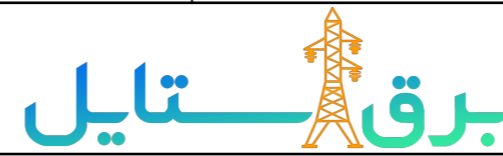


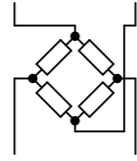
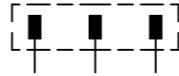


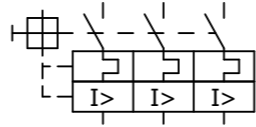


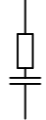
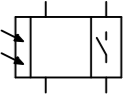

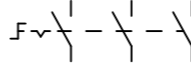
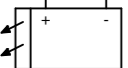

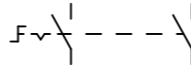
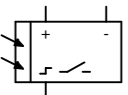


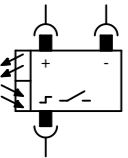
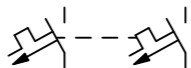

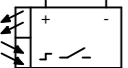


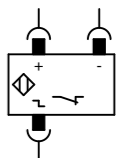
آکادمی تخصصی برق استایل
آموزش تخصصی نقشه خوانی و نقشه کشی برق و اتوماسیون صنعتی

| | | |
|---|--|--|
| <p>Symbol description: Light barrier</p> <p>Function definition: Light barrier, NO contact</p> <p>connecting points: 2</p>  | <p>Clock / secondary clock, general</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Discharger</p> <p>Discharger, single-pole</p> <p>2</p>  |
| <p>Neon lamp</p> <p>Lamp, single</p> <p>2</p>  | <p>NC contact, electrothermal release, lock-out / reset</p> <p>NC contact, thermal release</p> <p>2</p>  | <p>Current transformer (path 1)</p> <p>Inductor, single</p> <p>2</p>  |
| <p>Alarm / bell</p> <p>Signal device, acoustic, single</p> <p>2</p>  | <p>Power circuit breaker / motor overload switch with switch mechanism and line</p> <p>Motor overload switch three-pole</p> <p>6</p>  | <p>Three-phase induction motor, two rotation speeds, pole-change, two separate windings</p> <p>Motor with PE, variable</p> <p>7</p>  |
| <p>Thyristor diode, bidirectional, Diac</p> <p>Semiconductors, 2 connection points</p> <p>2</p>  | <p>Circuit breaker, single-pole</p> <p>Circuit breaker</p> <p>2</p>  | <p>Three-phase induction motor, two rotation speeds, pole-change, one winding</p> <p>Motor with PE, variable</p> <p>7</p>  |
| <p>Count function with NO contact</p> <p>Measuring instrument, variable</p> <p>2</p>  | <p>Thyristor triode</p> <p>Semiconductors, 3 connection points</p> <p>3</p>  | <p>Three-phase motor for ventilating fan</p> <p>Three-phase motor</p> <p>4</p>  |
| <p>Measuring instrument, with voltage display / voltmeter</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>NO temperature switch</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Three-phase asynchronous motor with thermal monitoring, one rotation speed, one speed</p> <p>Motor with PE, variable</p> <p>6</p>  |
| <p>Measuring instrument, with current display, ammeter</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>NC temperature switch</p> <p>Switch, NC contact</p> <p>2</p>  | <p>Bridge rectifier, three-phase</p> <p>Rectifier, variable</p> <p>5</p>  |
| <p>Zener diode / breakdown diode, unidirectional / voltage limiting diode</p> <p>Semiconductors, 2 connection points</p> <p>2</p>  | <p>Magnetic clutch</p> <p>Coupling, single</p> <p>2</p>  | <p>Three-phase induction motor, three rotation speeds, pole-change, two separate windings</p> <p>Motor with PE, variable</p> <p>10</p>  |



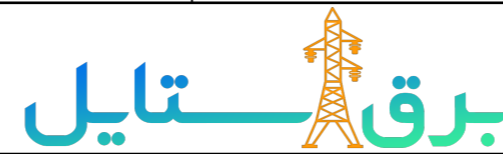
Symbol overview IEC Library

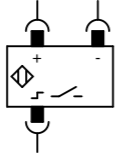

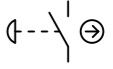
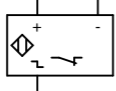

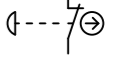
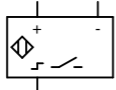


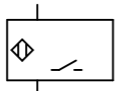


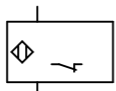


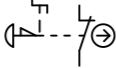


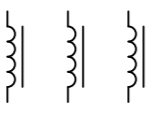
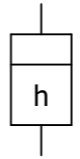
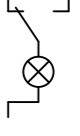
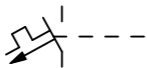

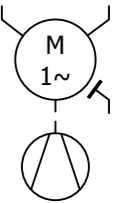


| | | |
|---|--|--|
| <p>Symbol description: Resistance bridge</p> <p>Function definition: Resistor, variable</p> <p>connecting points: 4</p>  | <p>Plug, three-pole</p> <p>Plug with PE, 3 connection points</p> <p>3</p>  | <p>Flow switch, general, NC contact</p> <p>Switch, NC contact</p> <p>2</p>  |
| <p>Heating element</p> <p>Heating, 2 connection points</p> <p>2</p>  | <p>Power circuit breaker / motor overload switch with switch mechanism and without line</p> <p>Motor overload switch three-pole</p> <p>6</p>  | <p>Light barrier, transmitter, AC supply</p> <p>Light barrier, transmitter</p> <p>2</p>  |
| <p>Resistor, variable</p> <p>Resistor, single</p> <p>2</p>  | <p>RC network</p> <p>Resistor, single</p> <p>2</p>  | <p>Light barrier, receiver, AC supply</p> <p>Light barrier, variable</p> <p>4</p>  |
| <p>Buzzer / rattle</p> <p>Signal device, acoustic, single</p> <p>2</p>  | <p>Load-break switch, three-pole, NO contact, operation by turning</p> <p>Switch, triple NO contact</p> <p>6</p>  | <p>Light barrier, transmitter, DC supply</p> <p>Light barrier, transmitter</p> <p>2</p>  |
| <p>Resistor, adjustable</p> <p>Resistor, single</p> <p>2</p>  | <p>Rotary switch, two-pole, NO contact</p> <p>Switch, double NO contact</p> <p>4</p>  | <p>Light barrier, receiver, DC supply</p> <p>Light barrier, NO contact with power supply</p> <p>3</p>  |
| <p>Resistor, inherent, non-linear</p> <p>Resistor, single</p> <p>2</p>  | <p>Float switch, NO contact</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Photoelectric switch, NO contact, with plug-in connection</p> <p>Light barrier, NO contact with power supply</p> <p>3</p>  |
| <p>Circuit breaker, two-pole</p> <p>Double circuit breaker</p> <p>4</p>  | <p>Float switch, NC contact</p> <p>Switch, NC contact</p> <p>2</p>  | <p>Photoelectric switch, NO contact</p> <p>Light barrier, NO contact with power supply</p> <p>3</p>  |
| <p>Lamp, supplied by a built-in transformer</p> <p>Lamp, single</p> <p>2</p>  | <p>Flow switch, general, NO contact</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Proximity sensor, NC contact, with plug-in connection</p> <p>Proximity switch, NC contact with power supply</p> <p>3</p>  |



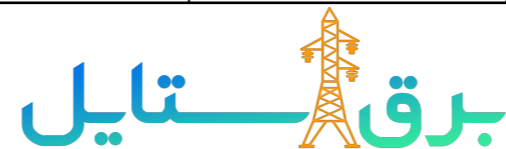
Symbol overview IEC Library

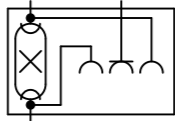


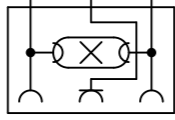
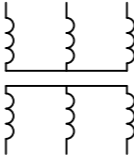
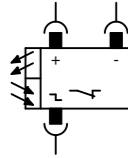
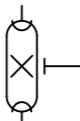

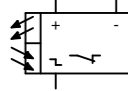
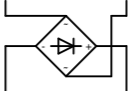

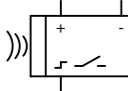
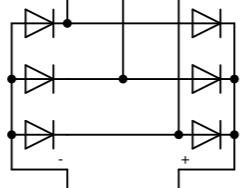

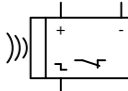
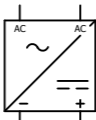



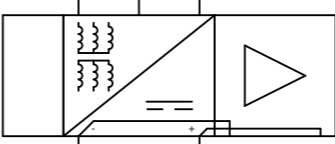






| | | |
|---|---|---|
| <p>Symbol description: Proximity sensor, NO contact, with plug-in connection</p> <p>Function definition: Proximity switch, NO contact with power supply</p> <p>connecting points: 3</p>  | <p>Pushbutton, NO contact, general</p> <p>Pushbutton, NO contact</p> <p>2</p>  | <p>Emergency stop switch / Emergency stop pushbutton, NO contact</p> <p>Pushbutton, NO contact</p> <p>2</p>  |
| <p>Proximity sensor, NC contact</p> <p>Proximity switch, NC contact with power supply</p> <p>3</p>  | <p>Pushbutton, NC contact, general</p> <p>Pushbutton, NC contact</p> <p>2</p>  | <p>Emergency stop switch / Emergency stop pushbutton, NC contact</p> <p>Pushbutton, NC contact</p> <p>2</p>  |
| <p>Proximity sensor, NO contact</p> <p>Proximity switch, NO contact with power supply</p> <p>3</p>  | <p>Female and male pin, coaxial</p> <p>Male and female pin</p> <p>2</p>  | <p>Slipring transformer</p> <p>Device connection point, 2 connection points</p> <p>2</p>  |
| <p>Proximity sensor, NO contact</p> <p>Proximity switch, NO contact</p> <p>2</p>  | <p>Electromechanical operating device of an overvoltage release</p> <p>Overvoltage release</p> <p>2</p>  | <p>Circuit breaker, three-pole, with line for auxiliary contact</p> <p>Triple circuit breaker</p> <p>6</p>  |
| <p>Proximity sensor, NC contact</p> <p>Proximity switch, NC contact</p> <p>2</p>  | <p>Electromechanical operating device of an undervoltage release</p> <p>Undervoltage release</p> <p>2</p>  | <p>Indicator light, blinking</p> <p>Lamp, single</p> <p>2</p>  |
| <p>Emergency stop switch / Emergency stop pushbutton, NC contact, with turn-to-reset</p> <p>Pushbutton, NC contact</p> <p>2</p>  | <p>Electromechanical operating device of a ground fault current release</p> <p>Current circuit breaker</p> <p>2</p>  | <p>Rotating lamp</p> <p>Lamp, single</p> <p>2</p>  |
| <p>Inductor with magnetic core, three-phase</p> <p>Inductor, variable</p> <p>6</p>  | <p>Operating hours counter</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Lamp / indicator light, with lamp test function</p> <p>Lamp, 3 connection points</p> <p>3</p>  |
| <p>Circuit breaker, single-pole, with line for auxiliary contact</p> <p>Circuit breaker</p> <p>2</p>  | <p>Pulse counter</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>AC motor for ventilating fan</p> <p>AC motor with PE</p> <p>3</p>  |



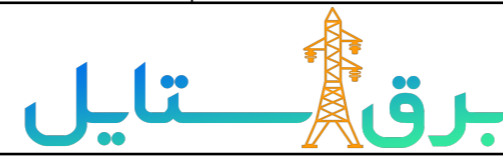
Symbol overview IEC Library



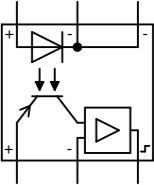
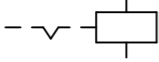
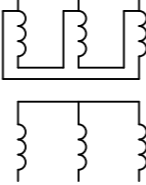







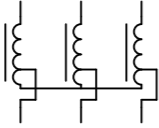
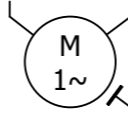
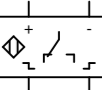
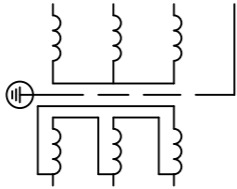
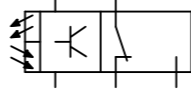

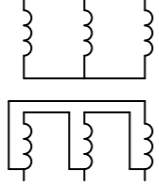
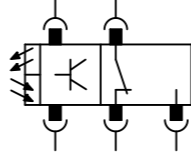
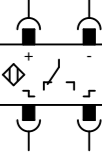

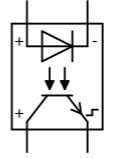
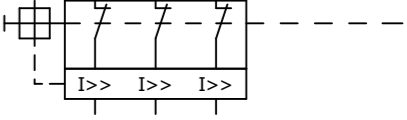


| | | |
|---|---|--|
| <p>Symbol description: Enclosure light with female receptacle</p> <p>Function definition: Light, variable</p> <p>connecting points: 3</p>  | <p>Single-phase transformer with two windings</p> <p>Transformer, 4 connection points</p> <p>4</p>  | <p>Current transformer (path 3)</p> <p>Inductor, single</p> <p>2</p>  |
| <p>Enclosure light with female receptacle</p> <p>Light, 3 connection points</p> <p>3</p>  | <p>Three-phase transformer, wye-wye connection</p> <p>Transformer, 6 connection points</p> <p>6</p>  | <p>Photoelectric switch, NC contact, with plug-in connection</p> <p>Light barrier, NC contact with power supply</p> <p>3</p>  |
| <p>Fluorescent lamp with PE</p> <p>Light, 3 connection points</p> <p>3</p>  | <p>Transformer, 2 windings on one side</p> <p>Transformer, 4 connection points</p> <p>4</p>  | <p>Photoelectric switch, NC contact</p> <p>Light barrier, NC contact with power supply</p> <p>3</p>  |
| <p>Rectifier in bridge circuit</p> <p>Rectifier, variable</p> <p>4</p>  | <p>NO contact without cross-reference</p> <p>NO auxiliary contact</p> <p>2</p>  | <p>Ultrasonic sensor, NO contact</p> <p>Proximity switch, NO contact with power supply</p> <p>3</p>  |
| <p>Three-phase bridge circuit</p> <p>Rectifier, variable</p> <p>5</p>  | <p>NC contact without cross-reference</p> <p>NC contact (do not use anymore)</p> <p>2</p>  | <p>Ultrasonic sensor, NC contact</p> <p>Proximity switch, NC contact with power supply</p> <p>3</p>  |
| <p>Bridge rectifier, two-phase, secondary side</p> <p>2 connection points</p> <p>Rectifier, variable</p> <p>4</p>  | <p>Isolating terminal, closed</p> <p>Isolating terminal, 2 connection points</p> <p>2</p>  | <p>Switch, NO contact, general</p> <p>Switch, NO contact</p> <p>2</p>  |
| <p>Electromechanical operating device of a blinking relay</p> <p>Coil, clock generator</p> <p>2</p>  | <p>Potential transformer with phase monitoring</p> <p>Converter, variable</p> <p>5</p>  | <p>Switch, NC contact, general</p> <p>Pushbutton, NC contact</p> <p>2</p>  |
| <p>Electromechanical operating device of a multi-function relay</p> <p>Coil, multi-function relay</p> <p>2</p>  | <p>Current transformer (path 2)</p> <p>Inductor, single</p> <p>2</p>  | <p>Pushbutton, NO contact, operation by key</p> <p>Pushbutton, NO contact</p> <p>2</p>  |



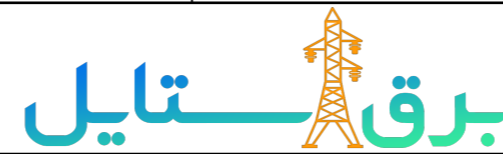
Symbol overview IEC Library

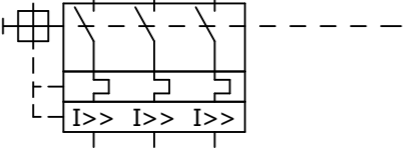



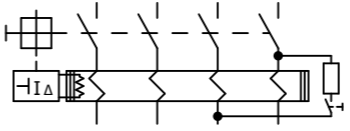


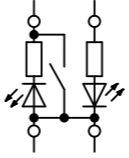


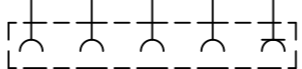





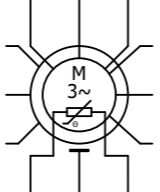


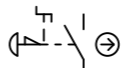






| | | |
|--|---|--|
| <p>Symbol description: Pushbutton, NC contact, operation by key</p> <p>Function definition: Pushbutton, NC contact</p> <p>connecting points: 2</p>  | <p>Photoresistor</p> <p>Resistor, single</p> <p>2</p>  | <p>Optocoupler, 6 conductors</p> <p>Converter, variable</p> <p>6</p>  |
| <p>Second coil for remanent relay (detached representation)</p> <p>Coil, remanent relay</p> <p>2</p>  | <p>Three-phase transformer, delta-star connection</p> <p>Transformer, 6 connection points</p> <p>6</p>  | <p>Socket of a plug connection</p> <p>Female pin, 2 connection points</p> <p>1</p>  |
| <p>NO cam-switch device</p> <p>Limit switch, NO contact</p> <p>2</p>  | <p>Potential transformer</p> <p>Transformer, 4 connection points</p> <p>4</p>  | <p>Female pin of a plug connection with direct connection point</p> <p>Female pin, 2 connection points</p> <p>2</p>  |
| <p>NC cam-switch device</p> <p>Limit switch, NC contact</p> <p>2</p>  | <p>Battery / primary or secondary element / accumulator</p> <p>Voltage source, variable</p> <p>2</p>  | <p>Plug of a plug connection</p> <p>Male pin, 2 connection points</p> <p>1</p>  |
| <p>3-phase line reactor for NC devices</p> <p>Inductor, variable</p> <p>6</p>  | <p>AC motor</p> <p>AC motor with PE</p> <p>3</p>  | <p>Proximity sensor, change-over contact</p> <p>Proximity switch, variable</p> <p>4</p>  |
| <p>Three-phase transformer, star-delta connection</p> <p>Transformer, 7 connection points with PE</p> <p>7</p>  | <p>Photoelectric switch, change-over contact</p> <p>Light barrier, variable</p> <p>5</p>  | <p>Plug of a plug connection with direct connection point</p> <p>Male pin, 2 connection points</p> <p>2</p>  |
| <p>Three-phase transformer, star-delta connection</p> <p>Transformer, 6 connection points</p> <p>6</p>  | <p>Photoelectric switch, change-over contact, with plug-in connection</p> <p>Light barrier, variable</p> <p>5</p>  | <p>Proximity sensor, change-over contact, with plug-in connection</p> <p>Proximity switch, variable</p> <p>4</p>  |
| <p>Isolating terminal, opened</p> <p>Isolating terminal, 2 connection points</p> <p>2</p>  | <p>Optocoupler, 4 conductors</p> <p>Converter, variable</p> <p>4</p>  | <p>Limiter without thermal contacts, with switch mechanism and line</p> <p>Motor overload switch three-pole</p> <p>6</p>  |



Symbol overview IEC Library



| | | |
|--|---|--|
| <p>Symbol description: Limiter with thermal contacts, switch mechanism and line</p> <p>Function definition: Motor overload switch three-pole</p> <p>connecting points: 6</p>  | <p>Resistor with two fixed tapplings</p> <p>Resistor, variable</p> <p>4</p>  | <p>Resistor, carbon pile</p> <p>Resistor, single</p> <p>2</p>  |
| <p>Switch, leading NO contact, operation by key</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Ground fault current circuit-breaker, four-pole</p> <p>Ground fault current breaker, four-pole</p> <p>8</p>  | <p>Feedthrough capacitor</p> <p>Capacitor, 3 connection points</p> <p>3</p>  |
| <p>Resistor, PTC thermistor</p> <p>Analog sensor, 2 connection points</p> <p>2</p>  | <p>Diode terminal</p> <p>Terminal, variable</p> <p>4</p>  | <p>Capacitor, polarized (electrolytic capacitor)</p> <p>Capacitor, single</p> <p>2</p>  |
| <p>Resistor, NTC thermistor</p> <p>Analog sensor, 2 connection points</p> <p>2</p>  | <p>Female receptacle, five-pole (CEE)</p> <p>Female receptacle with PE, 5 connection points</p> <p>5</p>  | <p>Capacitor, variable</p> <p>Capacitor, single</p> <p>2</p>  |
| <p>Resistor with movable contact</p> <p>Resistor, single</p> <p>2</p>  | <p>NO contact with action line</p> <p>NO auxiliary contact</p> <p>2</p>  | <p>Capacitor with default setting</p> <p>Capacitor, single</p> <p>2</p>  |
| <p>Resistor with movable contact / potentiometer</p> <p>Resistor, 3 connection points</p> <p>3</p>  | <p>Three-phase asynchronous motor with thermal monitoring, two separate windings, change-pole, three rotation speeds</p> <p>Motor with PE, variable</p> <p>12</p>  | <p>NO contact, late break</p> <p>NO contact, late break</p> <p>2</p>  |
| <p>Resistor with movable contact and "Off" position</p> <p>Resistor, single</p> <p>2</p>  | <p>Emergency stop switch / Emergency stop pushbutton, NO contact, with turn-to-reset</p> <p>Pushbutton, NO contact</p> <p>2</p>  | <p>NC contact, leading</p> <p>NC contact, leading</p> <p>2</p>  |
| <p>Resistor, adjustable, with movable contact / potentiometer, adjustable</p> <p>Resistor, 3 connection points</p> <p>3</p>  | <p>Shunt / Resistor with separate electrical and voltage connections</p> <p>Resistor, variable</p> <p>4</p>  | <p>NO contact, with delayed closing and opening</p> <p>NO contact, with delayed closing and opening</p> <p>2</p>  |



Symbol overview IEC Library

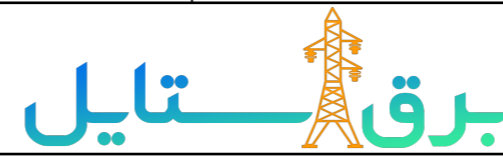



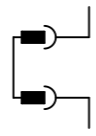

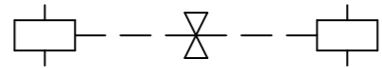
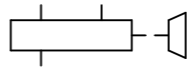
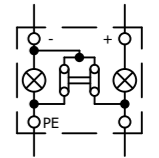
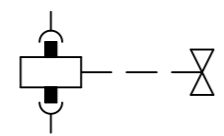
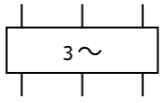
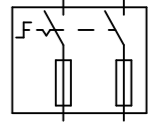
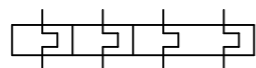
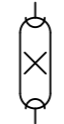
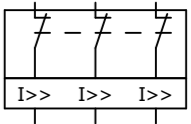

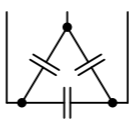
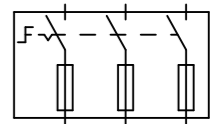

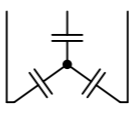
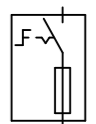
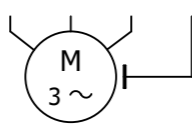
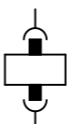
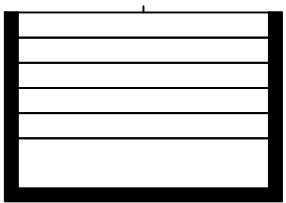

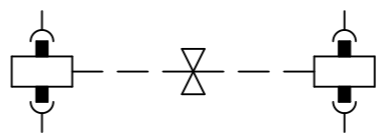
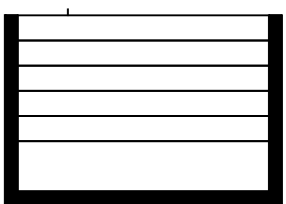
آکادمی تخصصی برق استایل
آموزش تخصصی نقشه خوانی و نقشه کشی برق و اتوماسیون صنعتی

| | | | | | |
|--|--|--|--|--|--|
| <p>Symbol description: Pushbutton, NO contact, operation by pulling</p> <p>Function definition: Pushbutton, NO contact</p> <p>connecting points: 2</p> | | <p>Switch disconnecter, single-pole</p> <p>Switch, NO contact</p> <p>2</p> | | <p>Series motor, DC</p> <p>Single-coil motor without PE</p> <p>2</p> | |
| <p>NC contact with automatic thermal actuation</p> <p>Switch, NC contact</p> <p>2</p> | | <p>Siren</p> <p>Signal device, acoustic, single</p> <p>2</p> | | <p>Shunt motor, DC</p> <p>Single-coil motor without PE</p> <p>2</p> | |
| <p>NO contact, power circuit breaker</p> <p>Switch, NO contact</p> <p>2</p> | | <p>Whistle, electrically-operated</p> <p>Signal device, acoustic, single</p> <p>2</p> | | <p>Transformer with center tap on one side</p> <p>Transformer, 5 connection points without PE</p> <p>5</p> | |
| <p>Power NO contact of a contactor with automatic actuation</p> <p>Power NO contact</p> <p>2</p> | | <p>Switch, NO contact, touch-sensitive</p> <p>Switch, NO contact</p> <p>2</p> | | <p>Power circuit breaker / motor overload switch with switch mechanism, thermal release, without line</p> <p>Motor overload switch three-pole</p> <p>6</p> | |
| <p>Power NC contact of a contactor</p> <p>Power NC contact</p> <p>2</p> | | <p>Proximity switch, NO contact</p> <p>Switch, NO contact</p> <p>2</p> | | <p>Equipotential, electrically isolated equipotential bonding</p> <p>PE device connection point</p> <p>1</p> | |
| <p>Disconnect switch</p> <p>Switch, NO contact</p> <p>2</p> | | <p>Switch, NO contact, proximity-sensitive, actuated by proximity of a magnet</p> <p>Switch, NO contact</p> <p>2</p> | | <p>Housing frame</p> <p>PE device connection point</p> <p>1</p> | |
| <p>Inductor with air gap in magnetic core</p> <p>Inductor, single</p> <p>2</p> | | <p>Fuse switch, single-pole</p> <p>Fused disconnect, single</p> <p>2</p> | | <p>Protective ground / protective conductor connection</p> <p>PE device connection point</p> <p>1</p> | |
| <p>Inductor with magnetic core, permanently variable</p> <p>Inductor, single</p> <p>2</p> | | <p>Fuse switch disconnecter, single-pole</p> <p>Fused disconnect, single</p> <p>2</p> | | <p>Ground, low-noise</p> <p>PE device connection point</p> <p>1</p> | |



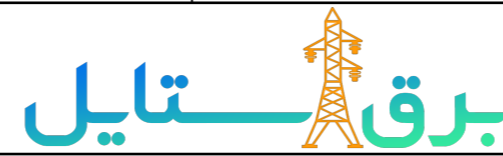
Symbol overview IEC Library



| | | |
|---|---|--|
| <p>Symbol description: Ground, general</p> <p>Function definition: PE device connection point</p> <p>connecting points: 1</p>  | <p>Connector for door</p> <p>Others, variable</p> <p>2</p>  | <p>Actuator motor</p> <p>Three-phase motor</p> <p>4</p>  |
| <p>Solenoid valve, 2 coils</p> <p>Valve, variable</p> <p>4</p>  | <p>Solenoid brake, three-wire</p> <p>Brake, 3 connection points, without PE</p> <p>3</p>  | <p>Earth-isolating terminal</p> <p>Terminal, variable</p> <p>4</p>  |
| <p>Solenoid valve with plug-in connection (stretched)</p> <p>Valve, single</p> <p>2</p>  | <p>Line filter, three-pole</p> <p>Converter, variable</p> <p>6</p>  | <p>Fused switch, two-pole</p> <p>Fused disconnect, double</p> <p>4</p>  |
| <p>Electromechanical device of a thermal relay, four-pole</p> <p>Overload, variable</p> <p>8</p>  | <p>Fluorescent lamp without PE</p> <p>Light, 2 connection points</p> <p>2</p>  | <p>Limiter without thermal contacts</p> <p>Motor overload switch three-pole</p> <p>6</p>  |
| <p>Power-operated mechanism, general, NO contact</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Capacitors, delta connection</p> <p>Capacitor, 3 connection points</p> <p>3</p>  | <p>Fused switch, three-pole</p> <p>Fused disconnect, triple</p> <p>6</p>  |
| <p>Power-operated mechanism, general, NC contact</p> <p>Switch, NC contact</p> <p>2</p>  | <p>Capacitors, star connection</p> <p>Capacitor, 3 connection points</p> <p>3</p>  | <p>Fused switch, single-pole</p> <p>Fused disconnect, single</p> <p>2</p>  |
| <p>Three-phase asynchronous motor, one rotation speed</p> <p>Three-phase motor</p> <p>4</p>  | <p>Solenoid valve, coil with plug-in connection</p> <p>Valve, single</p> <p>2</p>  | <p>PLC connection point, distributed view</p> <p>PLC connection point, general</p> <p>1</p>  |
| <p>Electromechanical operating device of an undervoltage release</p> <p>Undervoltage release</p> <p>2</p>  | <p>Solenoid valve, 2 coils, with plug-in connection</p> <p>Valve, variable</p> <p>4</p>  | <p>PLC connection point, distributed view for combination with additional connection point</p> <p>PLC connection point, general</p> <p>1</p>  |



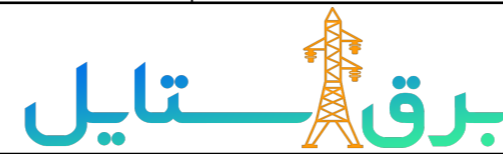
Symbol overview IEC Library

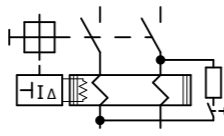
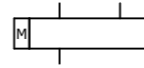





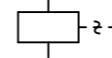

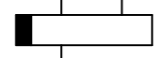
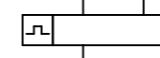


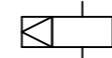

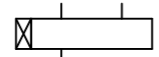


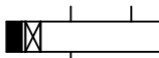


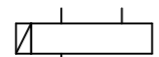




| | | |
|--|---|---|
| <p>Symbol description: PLC connection point, distributed view for combination with additional connection point (plug connection) Function definition: PLC connection point, general connecting points: 1</p> | <p>PLC connection point, distributed view PLC connection point, general 1</p> | <p>PLC connection point, distributed view (with rotated plug connection) PLC connection point, general 1</p> |
| <p>PLC connection point, distributed view (plug connection) PLC connection point, general 1</p> | <p>PLC connection point, distributed view, additional connection point PLC connection point, general 1</p> | <p>PLC connection point, distributed view for combination with additional connection point (male pin) PLC connection point, general 1</p> |
| <p>PLC connection point, distributed view for combination with additional connection point (with rotated plug connection) PLC connection point, general 1</p> | <p>PLC connection point, distributed view for combination with additional connection point PLC connection point, general 1</p> | <p>PLC connection point, distributed view for combination with additional connection point (female pin) PLC connection point, general 1</p> |
| <p>PLC connection point, distributed view (with rotated plug connection) PLC connection point, general 1</p> | <p>PLC connection point, distributed view for combination with additional connection point (plug connection) PLC connection point, general 1</p> | <p>PLC connection point, distributed view, additional connection point (male pin) PLC connection point, general 1</p> |
| <p>PLC connection point, distributed view for combination with additional connection point (male pin) PLC connection point, general 1</p> | <p>PLC connection point, distributed view, additional connection point (plug connection) PLC connection point, general 1</p> | <p>PLC connection point, distributed view, additional connection point (female pin) PLC connection point, general 1</p> |
| <p>PLC connection point, distributed view for combination with additional connection point (female pin) PLC connection point, general 1</p> | <p>PLC connection point, distributed view (plug connection) PLC connection point, general 1</p> | <p>PLC connection point, distributed view (male pin) PLC connection point, general 1</p> |
| <p>PLC connection point, distributed view (male pin) PLC connection point, general 1</p> | <p>PLC connection point, distributed view for combination with additional connection point (with rotated plug connection) PLC connection point, general 1</p> | <p>PLC connection point, distributed view (female pin) PLC connection point, general 1</p> |
| <p>PLC connection point, distributed view (female pin) PLC connection point, general 1</p> | <p>PLC connection point, distributed view, additional connection point (with rotated plug connection) PLC connection point, general 1</p> | <p>Fused switch, single-pole Safety fuse, variable 3</p> |



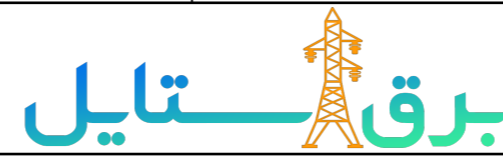
Symbol overview IEC Library


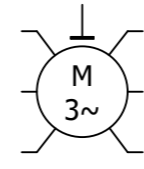
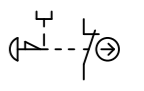
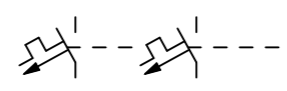
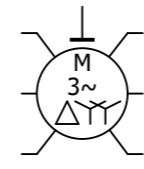
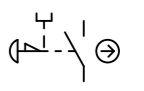
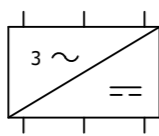
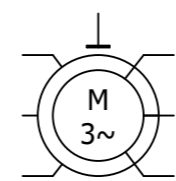
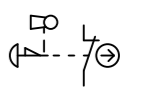
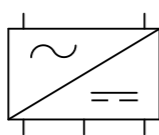
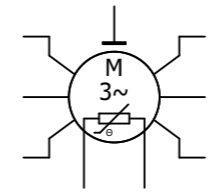
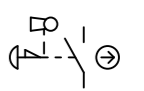
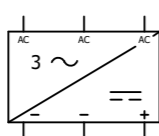
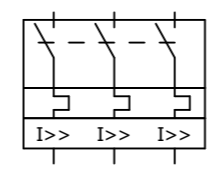
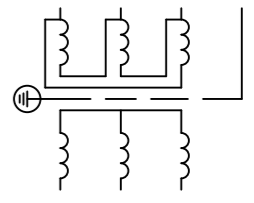
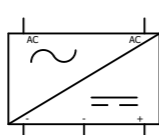
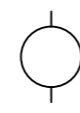
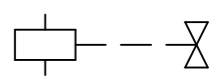



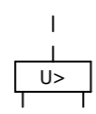




| | | |
|--|---|--|
| <p>Symbol description: Ground fault current circuit-breaker, two-pole</p> <p>Function definition: Ground fault current circuit breaker, two-pole</p> <p>connecting points: 4</p>  | <p>Electromechanical operating device of a multi-function relay</p> <p>Multi-function relay, 3 connection points</p> <p>3</p>  | <p>Pushbutton, NC contact, operation by pulling</p> <p>Pushbutton, NC contact</p> <p>2</p>  |
| <p>Electromechanical operating device of a latching relay</p> <p>Coil for power contactor</p> <p>2</p>  | <p>Electromechanical operating device of a very fast switching relay</p> <p>Coil for power contactor</p> <p>2</p>  | <p>Pushbutton, NC contact, operation by turning</p> <p>Pushbutton, NC contact</p> <p>2</p>  |
| <p>Electromechanical operating device of a shunt release</p> <p>Motor overload switch one-pole</p> <p>2</p>  | <p>Electromechanical operating device of a tuned relay</p> <p>Coil for power contactor</p> <p>2</p>  | <p>Pushbutton, NO contact, operation by turning</p> <p>Pushbutton, NO contact</p> <p>2</p>  |
| <p>Electromechanical operating device with off-delay</p> <p>Coil, with drop-out delay, 3 connection points</p> <p>3</p>  | <p>Electromechanical operating device of a blinking relay</p> <p>Clock generator, 3 connection points</p> <p>3</p>  | <p>Proximity switch, NC contact</p> <p>Switch, NC contact</p> <p>2</p>  |
| <p>Electromechanical operating device, insensitive to AC</p> <p>Coil for power contactor</p> <p>2</p>  | <p>Electromechanical operating device of an interlock relay</p> <p>Coil for power contactor</p> <p>2</p>  | <p>Switch, NC contact, touch-sensitive</p> <p>Switch, NC contact</p> <p>2</p>  |
| <p>Electromechanical operating device with pick-up delay</p> <p>Coil, with pick-up delay, 3 connection points</p> <p>3</p>  | <p>Change-over contact with break point (2-path)</p> <p>Change-over auxiliary contact</p> <p>3</p>  | <p>Switch, NC contact, proximity-sensitive, actuated by proximity of magnet</p> <p>Switch, NC contact</p> <p>2</p>  |
| <p>Electromechanical operating device with pick-up and off-delay</p> <p>Coil, with pick-up and drop-out delay, 3 connection points</p> <p>3</p>  | <p>Change-over contact with break point (3-path)</p> <p>Change-over auxiliary contact</p> <p>3</p>  | <p>NO contact with automatic thermal actuation</p> <p>Switch, NO contact</p> <p>2</p>  |
| <p>Electromechanical operating device of a remanent relay</p> <p>Remanent relay, 3 connection points</p> <p>3</p>  | <p>NC contact, with delayed closing and opening</p> <p>NC contact, with delayed closing and opening</p> <p>2</p>  | <p>Fuse circuit-breaker, three-pole</p> <p>Fused disconnect, triple</p> <p>6</p>  |



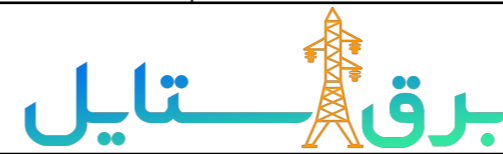
Symbol overview IEC Library






| | | |
|---|--|---|
| <p>Symbol description: Circuit breaker, three-pole</p> <p>Function definition: Triple circuit breaker</p> <p>connecting points: 6</p>  | <p>Three-phase induction motor, star-delta connection</p> <p>Motor with PE, variable</p> <p>7</p>  | <p>Emergency stop switch / Emergency stop pushbutton, NC contact, with pull-to-reset</p> <p>Pushbutton, NC contact</p> <p>2</p>  |
| <p>Circuit breaker, two-pole, with line for auxiliary contact</p> <p>Double circuit breaker</p> <p>4</p>  | <p>Three-phase induction motor, two rotation speeds, pole-change, one winding</p> <p>Motor with PE, variable</p> <p>7</p>  | <p>Emergency stop switch / Emergency stop pushbutton, NO contact, with pull-to-reset</p> <p>Pushbutton, NO contact</p> <p>2</p>  |
| <p>Bridge rectifier, three-phase, secondary side</p> <p>3 connection points</p> <p>Rectifier, variable</p> <p>6</p>  | <p>Three-phase induction motor, two rotation speeds, pole-change, two separate windings</p> <p>Motor with PE, variable</p> <p>7</p>  | <p>Emergency stop switch / Emergency stop pushbutton, NC contact, key release</p> <p>Pushbutton, NC contact</p> <p>2</p>  |
| <p>Bridge rectifier, secondary side</p> <p>3 connection points</p> <p>Rectifier, variable</p> <p>5</p>  | <p>Three-phase asynchronous motor, with thermal monitoring, one winding, change-pole, two rotation speeds</p> <p>Motor with PE, variable</p> <p>9</p>  | <p>Emergency stop switch / Emergency stop pushbutton, NO contact, key release</p> <p>Pushbutton, NO contact</p> <p>2</p>  |
| <p>Bridge rectifier, three-phase, secondary side</p> <p>3 connection points</p> <p>Rectifier, variable</p> <p>6</p>  | <p>Limiter with thermal contacts</p> <p>Motor overload switch three-pole</p> <p>6</p>  | <p>Three-phase transformer, delta-star connection, with shield</p> <p>Transformer, 7 connection points with PE</p> <p>7</p>  |
| <p>Bridge rectifier, single-phase, secondary side</p> <p>3 connection points</p> <p>Rectifier, variable</p> <p>5</p>  | <p>Measuring instrument, variable, with display</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Solenoid valve, general (stretched)</p> <p>Valve, single</p> <p>2</p>  |
| <p>Indicator light, supplied by a built-in transformer</p> <p>Lamp, single</p> <p>2</p>  | <p>Counter, variable</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Solenoid valve, PE connection point</p> <p>PE device connection point</p> <p>1</p>  |
| <p>Electromechanical operating device of an overvoltage release</p> <p>Overvoltage release</p> <p>2</p>  | <p>Count function with NC contact</p> <p>Measuring instrument, variable</p> <p>2</p>  | <p>NC contact with action line</p> <p>NC auxiliary contact</p> <p>2</p>  |



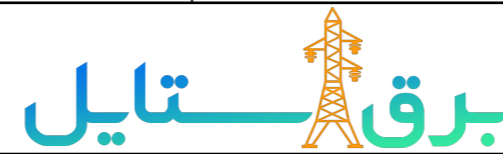
Symbol overview IEC Library

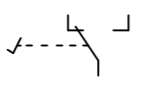
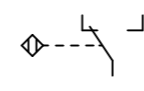
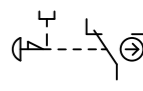
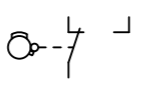
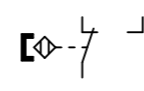
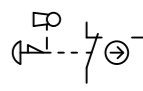
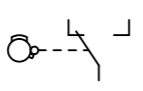
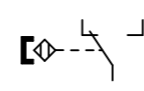
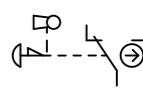
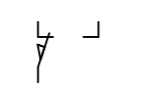
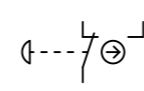
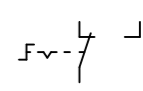

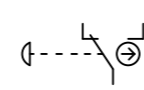
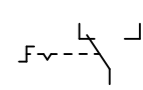
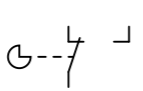
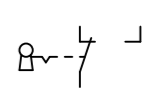
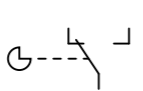
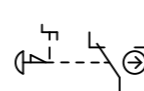
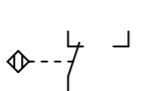
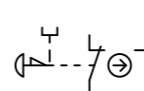
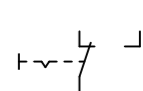


| | | |
|---|---|---|
| <p>Symbol description: NC contact with spring return</p> <p>Function definition: NC auxiliary contact</p> <p>connecting points: 2</p>  | <p>Switch, change-over contact (3-path), operated by pressing</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Change-over contact, momentary contact, contact make on actuation (right)</p> <p>Change-over contact, momentary contact make, right</p> <p>3</p>  |
| <p>Electromechanical device of a thermal relay, single-pole</p> <p>Overload, variable</p> <p>2</p>  | <p>Switch, change-over contact (2-path), operated by pressing</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Rotary switch, NC contact, 2 positions</p> <p>Switch, NC contact</p> <p>2</p>  |
| <p>NO contact with spring return</p> <p>NO auxiliary contact</p> <p>2</p>  | <p>Change-over contact (2-path), with pick-up delay</p> <p>Change-over contact, on-delay</p> <p>3</p>  | <p>Rotary switch, NO contact, 2 positions</p> <p>Switch, NO contact</p> <p>2</p>  |
| <p>N-position switch, 2 positions</p> <p>Switch, variable</p> <p>3</p>  | <p>Change-over contact (3-path), with pick-up delay</p> <p>Change-over contact, on-delay</p> <p>3</p>  | <p>Switch, change-over contact (2-path), touch-sensitive</p> <p>Switch, change-over contact</p> <p>3</p>  |
| <p>N-position switch, 3 positions</p> <p>Switch, variable</p> <p>4</p>  | <p>Change-over contact (2-path), with drop-out delay</p> <p>Change-over contact, off-delay</p> <p>3</p>  | <p>Switch, change-over contact (3-path), touch-sensitive</p> <p>Switch, change-over contact</p> <p>3</p>  |
| <p>N-position switch, 4 positions</p> <p>Switch, variable</p> <p>5</p>  | <p>Change-over contact (3-path), with drop-out delay</p> <p>Change-over contact, off-delay</p> <p>3</p>  | <p>Pushbutton, change-over contact (2-path), operation by pushing</p> <p>Pushbutton, change-over contact</p> <p>3</p>  |
| <p>N-position switch, 5 positions</p> <p>Switch, variable</p> <p>6</p>  | <p>Change-over contact, momentary contact on actuation and release (right and left)</p> <p>Change-over contact, momentary contact make, right and left</p> <p>3</p>  | <p>Pushbutton, change-over contact (3-path), operation by pushing</p> <p>Pushbutton, change-over contact</p> <p>3</p>  |
| <p>N-position switch, 6 positions</p> <p>Switch, variable</p> <p>7</p>  | <p>Change-over contact, momentary contact, contact make on release (left)</p> <p>Change-over contact, momentary contact make, left</p> <p>3</p>  | <p>Pushbutton, change-over contact (2-path), operation by pedal</p> <p>Pushbutton, change-over contact</p> <p>3</p>  |



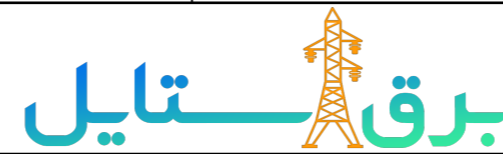
Symbol overview IEC Library

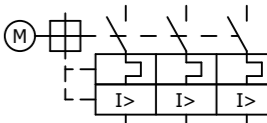

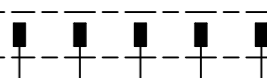
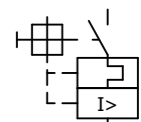





| | | |
|---|--|--|
| <p>Symbol description: Pushbutton, change-over contact (3-path), operation by pedal</p> <p>Function definition: Pushbutton, change-over contact</p> <p>connecting points: 3</p>  | <p>Proximity switch, change-over contact (3-path)</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Emergency stop switch / Emergency stop pushbutton, change-over contact (3-path), with pull-to-reset</p> <p>Pushbutton, change-over contact</p> <p>3</p>  |
| <p>Cam-switch device, change-over contact (2-path)</p> <p>Limit switch, change-over contact</p> <p>3</p>  | <p>Switch, change-over contact (2-path), proximity-sensitive, actuated by proximity of magnet</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Emergency stop switch / Emergency stop pushbutton, change-over contact (2-path), key release</p> <p>Pushbutton, change-over contact</p> <p>3</p>  |
| <p>Cam-switch device, change-over contact (3-path)</p> <p>Limit switch, change-over contact</p> <p>3</p>  | <p>Switch, change-over contact (3-path), proximity-sensitive, actuated by proximity of magnet</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Emergency stop switch / Emergency stop pushbutton, change-over contact (3-path), key release</p> <p>Pushbutton, change-over contact</p> <p>3</p>  |
| <p>Limit switch, change-over contact (2-path), mechanically operated</p> <p>Limit switch, change-over contact</p> <p>3</p>  | <p>Emergency stop switch / Emergency stop pushbutton, change-over contact (2-path)</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Switch, change-over contact (2-path), operated by turning</p> <p>Switch, change-over contact</p> <p>3</p>  |
| <p>Limit switch, change-over contact (3-path), mechanically operated</p> <p>Limit switch, change-over contact</p> <p>3</p>  | <p>Emergency stop switch / Emergency stop pushbutton, change-over contact (3-path)</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Switch, change-over contact (3-path), operated by turning</p> <p>Switch, change-over contact</p> <p>3</p>  |
| <p>Cam switch, change-over contact (2-path)</p> <p>Limit switch, change-over contact</p> <p>3</p>  | <p>Emergency stop switch / Emergency stop pushbutton, change-over contact (2-path), with turn-to-reset</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Switch, change-over contact (2-path), operated by key</p> <p>Switch, change-over contact</p> <p>3</p>  |
| <p>Cam switch, change-over contact (3-path)</p> <p>Limit switch, change-over contact</p> <p>3</p>  | <p>Emergency stop switch / Emergency stop pushbutton, change-over contact (3-path), with turn-to-reset</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Switch, change-over contact (3-path), operated by key</p> <p>Switch, change-over contact</p> <p>3</p>  |
| <p>Proximity switch, change-over contact (2-path)</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Emergency stop switch / Emergency stop pushbutton, change-over contact (2-path), with pull-to-reset</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Switch, change-over contact (2-path), general</p> <p>Switch, change-over contact</p> <p>3</p>  |



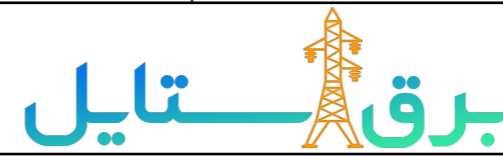
Symbol overview IEC Library



| | | |
|--|---|--|
| <p>Symbol description: Switch, change-over contact (3-path), general</p> <p>Function definition: Switch, change-over contact</p> <p>connecting points: 3</p>  | <p>Pushbutton, change-over contact (3-path), operation by pulling</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Electromechanical operating device with off-delay</p> <p>Coil, with drop-out delay, 4 connection points</p> <p>4</p>  |
| <p>Pushbutton, change-over contact (2-path), general</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Switch, change-over contact (2-path), operation by turning, 2 positions</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Single-phase autotransformer</p> <p>Transformer, 4 connection points</p> <p>4</p>  |
| <p>Pushbutton, change-over contact (3-path), general</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Switch, change-over contact (3-path), operation by turning, 2 positions</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Power circuit breaker / motor overload switch with switch mechanism, motor drive</p> <p>Motor overload switch three-pole</p> <p>6</p>  |
| <p>Pushbutton, change-over contact (2-path), operation by turning</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Change-over contact (2-path), with pick-up and off-delay</p> <p>Change-over contact, on- and off-delay</p> <p>3</p>  | <p>Plug, five-pole (CEE)</p> <p>Plug with PE, 5 connection points</p> <p>5</p>  |
| <p>Pushbutton, change-over contact (3-path), operation by turning</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Change-over contact (3-path), with pick-up and off-delay</p> <p>Change-over contact, on- and off-delay</p> <p>3</p>  | <p>Power circuit breaker / motor overload switch with switch mechanism and without line</p> <p>Motor overload switch one-pole</p> <p>2</p>  |
| <p>Pushbutton, change-over contact (2-path), operation by key</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Electromechanical operating device with pick-up delay</p> <p>Coil, with pick-up delay, 4 connection points</p> <p>4</p>  | <p>Fuse, n-pole, general (placeholder)</p> <p>Safety fuse, variable</p> <p>0</p>  |
| <p>Pushbutton, change-over contact (3-path), operation by key</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Electromechanical operating device with pick-up and off-delay</p> <p>Coil, with pick-up and drop-out delay, 4 connection points</p> <p>4</p>  | <p>Terminal</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>2</p>  |
| <p>Pushbutton, change-over contact (2-path), operation by pulling</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Electromechanical operating device of a multi-function relay</p> <p>Multi-function relay, 4 connection points</p> <p>4</p>  | <p>Electromechanical operating device of a remanent relay</p> <p>Remanent relay, 4 connection points</p> <p>4</p>  |



Symbol overview IEC Library

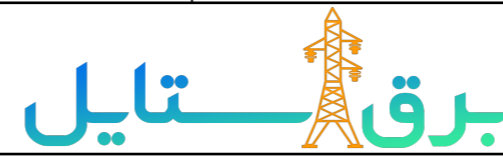


آکادمی تخصصی برق استایل
آموزش تخصصی نقشه خوانی و نقشه کشی برق و اتوماسیون صنعتی

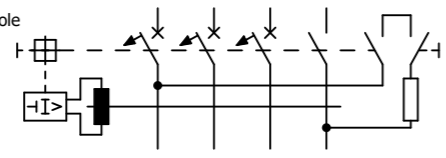
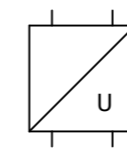


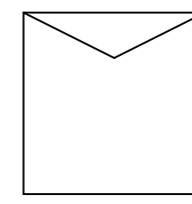

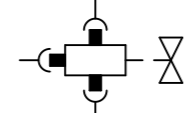
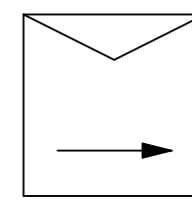

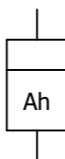
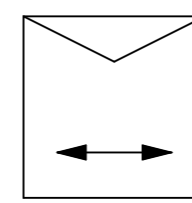

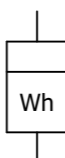
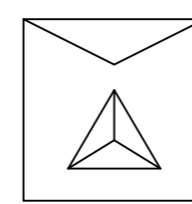

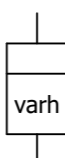
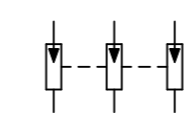
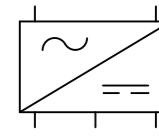
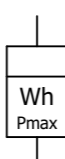
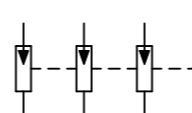
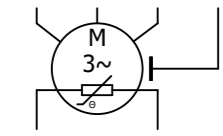
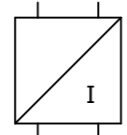

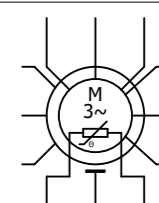
| | | | | | |
|--|--|--|--|--|--|
| <p>Symbol description: Protective circuiting of a coil through a diode</p> <p>Function definition: Protective circuit, diode</p> <p>connecting points: 2</p> | | <p>Change-over contact (2-path), with drop-out delay</p> <p>Change-over contact, off-delay</p> <p>3</p> | | <p>Switch disconnecter, three-pole (double break), with fuse element</p> <p>Safety switch, three-pole</p> <p>6</p> | |
| <p>Protective circuiting of a coil through a diode and zener diode</p> <p>Protective circuit, diode with zener diode</p> <p>2</p> | | <p>Change-over contact (2-path), with pick-up and off-delay</p> <p>Change-over contact, on- and off-delay</p> <p>3</p> | | <p>Switch disconnecter, four-pole (double break), with fuse element</p> <p>Safety switch, four-pole</p> <p>8</p> | |
| <p>Protective circuiting of a coil through a varistor</p> <p>Protective circuit, varistor</p> <p>2</p> | | <p>Change-over contact (2-path), momentary contact, contact make on actuation (right)</p> <p>Change-over contact, momentary contact make, right</p> <p>3</p> | | <p>Ground fault current circuit-breaker, two-pole</p> <p>Ground fault current circuit breaker, two-pole</p> <p>4</p> | |
| <p>Protective circuiting of a coil through an RC element</p> <p>Protective circuit, RC network</p> <p>2</p> | | <p>Change-over contact (2-path), momentary contact, contact make on release (left)</p> <p>Change-over contact, momentary contact make, left</p> <p>3</p> | | <p>Ground fault current circuit-breaker, 2-pole (single-pole protected, 2-pole switching)</p> <p>Ground fault current circuit breaker, two-pole</p> <p>4</p> | |
| <p>DC motor with brushes, general</p> <p>Single-coil motor without PE</p> <p>2</p> | | <p>Change-over contact (2-path), momentary contact on actuation and release (right and left)</p> <p>Change-over contact, momentary contact make, right and left</p> <p>3</p> | | <p>Ground fault current circuit-breaker, 2-pole (2-pole protected, 2-pole switching)</p> <p>Ground fault current circuit breaker, two-pole</p> <p>4</p> | |
| <p>Electromechanical operating device of a remanent relay, detached representation</p> <p>Remanent relay, 4 connection points</p> <p>4</p> | | <p>Change-over contact (2-path) with self-actuating thermal actuation</p> <p>Change-over contact, thermal release</p> <p>3</p> | | <p>Ground fault current circuit-breaker, 2-pole (single-pole protected, 2-pole switching)</p> <p>Ground fault current circuit breaker, two-pole</p> <p>4</p> | |
| <p>Change-over contact (2-path) with break point</p> <p>Change-over auxiliary contact</p> <p>3</p> | | <p>Change-over contact (3-path) with self-actuating thermal actuation</p> <p>Change-over contact, thermal release</p> <p>3</p> | | <p>Ground fault current circuit-breaker, 4-pole (3-pole protected, 4-pole switching)</p> <p>Ground fault current circuit breaker, four-pole</p> <p>8</p> | |
| <p>Change-over contact (2-path), with pick-up delay</p> <p>Change-over contact, on-delay</p> <p>3</p> | | <p>Power circuit breaker / motor overload switch with switch mechanism and without line</p> <p>Motor overload switch, two-pole</p> <p>4</p> | | <p>Ground fault current circuit-breaker, 4-pole</p> <p>Ground fault current circuit breaker, four-pole</p> <p>8</p> | |



Symbol overview IEC Library

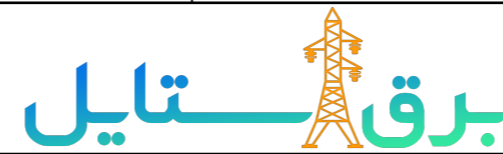


آکادمی تخصصی برق استایل
آموزش تخصصی نقشه خوانی و نقشه کشی برق و اتوماسیون صنعتی

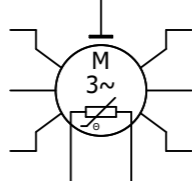
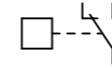
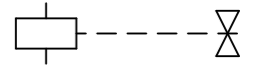
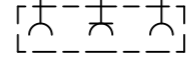

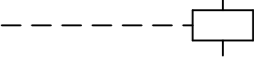
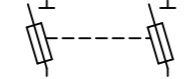

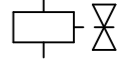

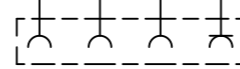
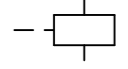

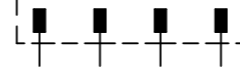
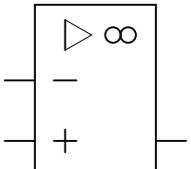

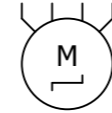


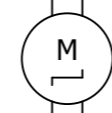
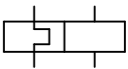

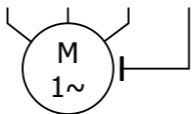
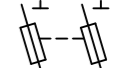
| | | |
|---|--|--|
| <p>Symbol description: Ground fault current circuit-breaker, 4-pole (3-pole protected, 4-pole switching)</p> <p>Function definition: Ground fault current circuit breaker, four-pole</p> <p>connecting points: 8</p>  | <p>Measuring transducer, ideal voltage source</p> <p>Measuring transducer, variable</p> <p>4</p>  | <p>NC temperature switch</p> <p>Switch, NC contact</p> <p>2</p>  |
| <p>Power circuit breaker, four-pole, actuation by thermal overload</p> <p>Safety switch, four-pole</p> <p>8</p>  | <p>Starter general, motor starter</p> <p>Controller, variable</p> <p>0</p>  | <p>Miniature circuit-breaker, single-pole, actuation by thermal or electromagnetic overload</p> <p>Circuit breaker</p> <p>2</p>  |
| <p>Solenoid valve with PE, plug-in connection</p> <p>Valve, 3 connection points, with PE</p> <p>3</p>  | <p>Starter, direct line, without reverse motion</p> <p>Controller, variable</p> <p>0</p>  | <p>Power circuit breaker, single-pole, actuation by thermal or electromagnetic overload</p> <p>Safety switch, single-pole</p> <p>2</p>  |
| <p>Ampere hour meter</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Starter, direct line, with reverse motion</p> <p>Controller, variable</p> <p>0</p>  | <p>Electromechanical operating device of a polarized relay</p> <p>Coil, general</p> <p>2</p>  |
| <p>Watt-hour meter / electricity meter</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Starter for star-delta connection</p> <p>Controller, variable</p> <p>0</p>  | <p>RC network</p> <p>Protective circuit, RC network</p> <p>2</p>  |
| <p>Reactive consumption counter</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Discharger, three-pole</p> <p>Discharger, three-pole, 6 connection points</p> <p>6</p>  | <p>Rectifier, three-phase bridge, two-pase, secondary, 3 connection points</p> <p>Rectifier, variable</p> <p>5</p>  |
| <p>Watt-hour meter with maximum indicator / maximum demand meter</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Discharger, four-pole</p> <p>Discharger, four-pole, 8 connection points</p> <p>8</p>  | <p>Three-phase asynchronous motor with thermal monitoring, one rotation speed, one speed</p> <p>Motor with PE, variable</p> <p>6</p>  |
| <p>Measuring transducer, ideal power source</p> <p>Measuring transducer, variable</p> <p>4</p>  | <p>NO temperature switch</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Three-phase induction motor with thermal monitoring, three rotation speeds, pole-change, two separate windings</p> <p>Motor with PE, variable</p> <p>12</p>  |



Symbol overview IEC Library

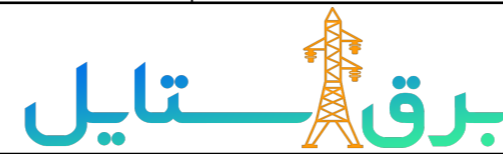


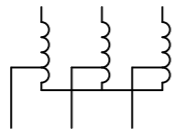
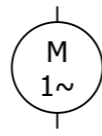

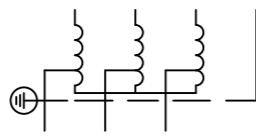
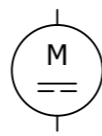


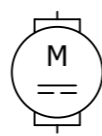

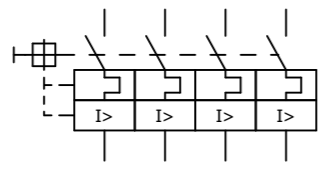
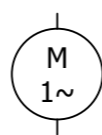

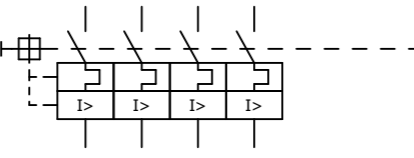
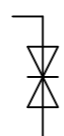

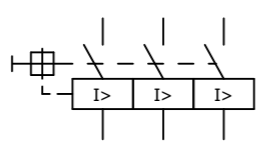


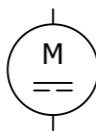



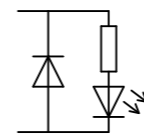

آکادمی تخصصی برق استایل
آموزش تخصصی نقشه خوانی و نقشه کشی برق و اتوماسیون صنعتی

| | | |
|---|---|---|
| <p>Symbol description: Three-phase induction motor with thermal monitoring, two rotation speeds, pole-change, one winding Function definition: Motor with PE, variable connecting points: 9</p>  | <p>Power-operated mechanism, general, change-over contact, two-path Switch, change-over contact 3</p>  | <p>Solenoid valve, double-acting valve (Part 1) Valve, variable 2</p>  |
| <p>Female receptacle with PE, three-pole Female receptacle with PE, 3 connection points 3</p>  | <p>Switch, NO contact, roller operation Switch, NO contact 2</p>  | <p>Solenoid valve, double-acting valve (Part 2) Valve, variable 2</p>  |
| <p>Fuse circuit-breaker, two-pole Fused disconnect, double 4</p>  | <p>Switch, NC contact, roller operation Switch, NC contact 2</p>  | <p>Solenoid valve, double-acting valve (Part 3) Valve, variable 2</p>  |
| <p>Temperature switch, change-over contact (2-path) Switch, change-over contact 3</p>  | <p>Female receptacle, four-pole with PE Female receptacle with PE, 4 connection points 4</p>  | <p>Solenoid valve, double-acting valve (Part 4) Valve, variable 2</p>  |
| <p>Pressure switch, change-over contact (2-path) Switch, change-over contact 3</p>  | <p>Plug, four-pole Plug with PE, 4 connection points 4</p>  | <p>Operational amplifier Semiconductors, variable 3</p>  |
| <p>Float switch, change-over contact (2-path) Switch, change-over contact 3</p>  | <p>Stepping motor, general Stepper motor 4</p>  | <p>Heating element with PE Heating, 3 connection points 3</p>  |
| <p>Flow switch, change-over contact (3-path), general Switch, change-over contact 3</p>  | <p>Stepping motor, general Stepper motor 4</p>  | <p>Electromechanical operating device of an overload (thermal relay) Overload, variable 4</p>  |
| <p>Switch, change-over contact (2-path), operated by key Switch, change-over contact 3</p>  | <p>AC motor, with two directions of rotation (control valves) AC motor, two directions 4</p>  | <p>Fuse circuit-breaker, two-pole, form 2 Fused disconnect, double 4</p>  |



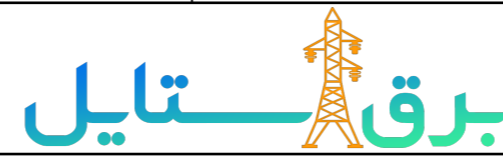
Symbol overview IEC Library



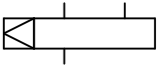


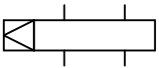
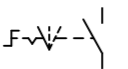


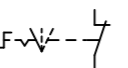



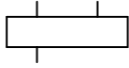

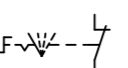



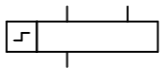


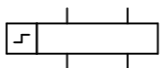



| | | |
|--|---|--|
| <p>Symbol description: Auto transformer, 3-phase, star connection</p> <p>Function definition: Transformer, 6 connection points</p> <p>connecting points: 6</p>  | <p>AC motor, without PE, with straight connection points</p> <p>Single-coil motor without PE</p> <p>2</p>  | <p>Switch, NO contact, reacts to speed or rotational speed (centrifugal switch)</p> <p>Switch, NO contact</p> <p>2</p>  |
| <p>Auto transformer, 3-phase + PE, start connection</p> <p>Transformer, 7 connection points with PE</p> <p>7</p>  | <p>DC motor, general, with straight connection points</p> <p>Single-coil motor without PE</p> <p>2</p>  | <p>Switch, NC contact, reacts to speed or rotational speed (centrifugal switch)</p> <p>Switch, NC contact</p> <p>2</p>  |
| <p>Circuit breaker, four-pole</p> <p>Quadruple circuit-breaker</p> <p>8</p>  | <p>DC motor, general, with straight connection points</p> <p>Single-coil motor without PE</p> <p>2</p>  | <p>Switch, NO contact, operation by pulling (pull switch, pull cord switch)</p> <p>Switch, NO contact</p> <p>2</p>  |
| <p>Power circuit breaker / motor overload switch with switch mechanism and without line</p> <p>Motor overload switch, four-pole</p> <p>8</p>  | <p>AC motor, ventilator / fan</p> <p>Single-coil motor without PE</p> <p>2</p>  | <p>Switch, NC contact, operation by pulling (pull switch, pull cord switch)</p> <p>Switch, NC contact</p> <p>2</p>  |
| <p>Power circuit breaker / motor overload switch with switch mechanism and line</p> <p>Motor overload switch, four-pole</p> <p>8</p>  | <p>Protective circuiting of a coil through an avalanche diode</p> <p>Protective circuit, diode</p> <p>2</p>  | <p>Switch, NC contact, emergency pull wire switch, pull cord switch</p> <p>Switch, NC contact</p> <p>2</p>  |
| <p>Power circuit breaker / motor overload switch with switch mechanism and magnetic release without line (three-pole)</p> <p>Motor overload switch three-pole</p> <p>6</p>  | <p>Protective circuiting of a coil through a suppressor diode</p> <p>Protective circuit, diode</p> <p>2</p>  | <p>Switch, NO contact, actuated by proximity of magnet</p> <p>Switch, NO contact</p> <p>2</p>  |
| <p>DC motor, ventilator / fan</p> <p>Single-coil motor without PE</p> <p>2</p>  | <p>Protective circuiting of a coil through a diode</p> <p>Protective circuit, diode</p> <p>2</p>  | <p>Switch, NO contact, mechanically operated</p> <p>Switch, NO contact</p> <p>2</p>  |
| <p>PE connection point for motor</p> <p>PE device connection point</p> <p>1</p>  | <p>Protective circuiting of a coil through a combination of diode, LED and resistor</p> <p>Protective circuit, diode</p> <p>2</p>  | <p>Switch, NO contact, mechanically operated</p> <p>Switch, NO contact</p> <p>2</p>  |



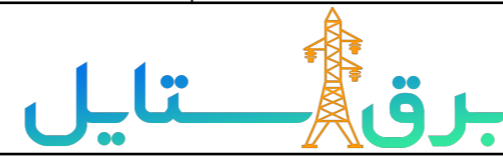
Symbol overview IEC Library




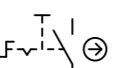

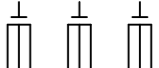
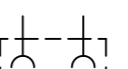
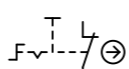






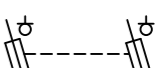

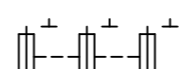
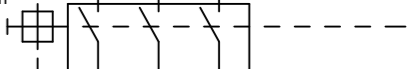


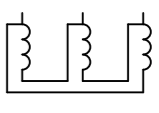


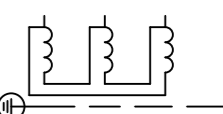


| | | |
|--|--|--|
| <p>Symbol description: Limit switch, NO contact</p> <p>Function definition: Limit switch, NO contact</p> <p>connecting points: 2</p>  | <p>Isolating terminal with saddle jumper connections, 2 targets, closed</p> <p>Terminal with saddle jumper, 2 connection points</p> <p>4</p>  | <p>Electromechanical operating device of an interlock relay</p> <p>Coil, general, 3 connection points</p> <p>3</p>  |
| <p>Limit switch, NC contact</p> <p>Limit switch, NC contact</p> <p>2</p>  | <p>Isolating terminal, switching terminal</p> <p>Terminal, general, 2 connection points</p> <p>2</p>  | <p>Electromechanical operating device of an interlock relay</p> <p>Coil, general, 4 connection points</p> <p>4</p>  |
| <p>Switch, NO contact, operation by turning, 3 switching positions</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Isolating terminal, 2 targets, closed</p> <p>Terminal, general, 2 connection points</p> <p>2</p>  | <p>Electronic NO power contact (contactor semiconductor contact)</p> <p>Power NO contact</p> <p>2</p>  |
| <p>Switch, NC contact, operation by turning, 3 switching positions</p> <p>Switch, NC contact</p> <p>2</p>  | <p>Isolating terminal, 2 targets, opened</p> <p>Terminal, general, 2 connection points</p> <p>2</p>  | <p>Electronic NC power contact (contactor semiconductor contact)</p> <p>Power NC contact</p> <p>2</p>  |
| <p>Switch, NO contact, operation by turning, 4 switching positions</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Electro-mechanical drive</p> <p>Coil, general, 3 connection points</p> <p>3</p>  | <p>Electronic NO contact (semiconductor contact)</p> <p>NO auxiliary contact</p> <p>2</p>  |
| <p>Switch, NC contact, operation by turning, 4 switching positions</p> <p>Switch, NC contact</p> <p>2</p>  | <p>Electro-mechanical drive</p> <p>Coil, general, 4 connection points</p> <p>4</p>  | <p>Electronic NC contact (semiconductor contact)</p> <p>NC auxiliary contact</p> <p>2</p>  |
| <p>Switch, NO contact (single contact for an N-position switch)</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Electromechanical operating device of a latching relay</p> <p>Coil, general, 3 connection points</p> <p>3</p>  | <p>Semiconductor contact / Electronic switch (NPN)</p> <p>NO auxiliary contact</p> <p>2</p>  |
| <p>Switch, NC contact (single contact for an N-position switch)</p> <p>Switch, NC contact</p> <p>2</p>  | <p>Electromechanical operating device of a latching relay</p> <p>Coil, general, 4 connection points</p> <p>4</p>  | <p>Semiconductor contact / Electronic switch (PNP)</p> <p>NO auxiliary contact</p> <p>2</p>  |



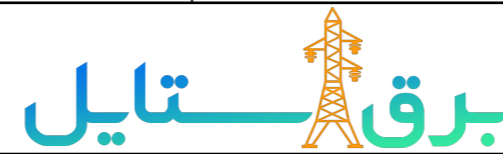
Symbol overview IEC Library













| | | |
|--|--|---|
| <p>Symbol description: Mirror contact (auxiliary NC contact for the main power NO contacts)</p> <p>Function definition: NC auxiliary contact</p> <p>connecting points: 2</p>  | <p>Reactive consumption counter (scaled version)</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>LV HBC fuse switch disconnector, single-line, general</p> <p>Fused disconnect, single</p> <p>2</p>  |
| <p>Rotary switch, NO contact, with push button for opening</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Watt-hour meter with maximum indication / maximum demand meter (scaled version)</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>LV HBC fuse switch disconnector, three-pole, general</p> <p>Fused disconnect, triple</p> <p>6</p>  |
| <p>Female receptacle without PE, two-pole</p> <p>Female receptacle without PE, 2 connection points</p> <p>2</p>  | <p>Rotary switch, NC contact, with push button for loosening</p> <p>Switch, NO contact</p> <p>2</p>  | <p>Fuse switch disconnector, three-pole</p> <p>Fused disconnect, triple</p> <p>6</p>  |
| <p>Plug, two-pole</p> <p>Plug without PE, 2 connection points</p> <p>2</p>  | <p>Fused disconnect switch, single-line, with double break point</p> <p>Fused disconnect, single</p> <p>2</p>  | <p>Lightning current arrester</p> <p>Protective circuit</p> <p>2</p>  |
| <p>Operating hours counter (scaled version)</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Fuse switch disconnector, single-pole, with double-break</p> <p>Fused disconnect, single</p> <p>2</p>  | <p>Fuse switch disconnector, two-pole</p> <p>Fused disconnect, double</p> <p>4</p>  |
| <p>Counter, variable (scaled version)</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Fused disconnect switch, three-line, with double break point</p> <p>Fused disconnect, triple</p> <p>6</p>  | <p>Limiter without thermal contacts with switch mechanism and line</p> <p>Motor overload switch three-pole</p> <p>6</p>  |
| <p>Ampere hour meter (scaled version)</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Fuse switch disconnector, three-pole, with double-break, separately switchable</p> <p>Fused disconnect, triple</p> <p>6</p>  | <p>Three-phase transformer, delta-delta connection</p> <p>Transformer, 6 connection points</p> <p>6</p>  |
| <p>Watt-hour meter / electricity meter (scaled version)</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Fuse switch disconnector, three-pole, separately switchable</p> <p>Fused disconnect, triple</p> <p>6</p>  | <p>Three-phase transformer, delta-delta connection</p> <p>Transformer, 7 connection points with PE</p> <p>7</p>  |



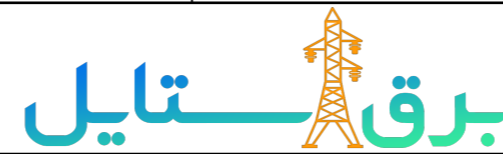
Symbol overview IEC Library



| | | |
|---|--|--|
| <p>Symbol description: Power circuit breaker / motor overload switch with switch mechanism, thermal release, with line</p> <p>Function definition: Motor overload switch three-pole</p> <p>connecting points: 6</p>  | <p>Priority control for NC contact, right</p>  <p>0</p> | <p>Switch, change-over contact (2-path), operated by pressing</p> <p>Switch, change-over contact</p>  <p>3</p> |
| <p>Change-over contact (3-path), momentary contact, contact make on actuation (right)</p> <p>Change-over contact, momentary contact make, right</p> <p>3</p>  | <p>Priority control for NC contact, left</p>  <p>0</p> | <p>Switch, change-over contact (2-path), operated by key</p> <p>Switch, change-over contact</p>  <p>3</p> |
| <p>Change-over contact (3-path), momentary contact, contact make on release (left)</p> <p>Change-over contact, momentary contact make, left</p> <p>3</p>  | <p>Priority control, adaptor</p>  <p>0</p> | <p>Switch, change-over contact (2-path), operated by key</p> <p>Switch, change-over contact</p>  <p>3</p> |
| <p>Change-over contact (3-path), momentary contact on actuation and release (right and left)</p> <p>Change-over contact, momentary contact make, right and left</p> <p>3</p>  | <p>Switch, change-over contact (2-path), operating element general</p> <p>Switch, change-over contact</p>  <p>3</p> | <p>Switch, change-over contact (2-path), roller operation</p> <p>Switch, change-over contact</p>  <p>3</p> |
| <p>Change-over contact (3-path), closes leading against other contacts of the contact set</p> <p>Change-over contact, leading</p> <p>3</p>  | <p>Switch, change-over contact (2-path), operating element general</p> <p>Switch, change-over contact</p>  <p>3</p> | <p>Switch, change-over contact (2-path), cam-operated</p> <p>Switch, change-over contact</p>  <p>3</p> |
| <p>Change-over contact (3-path), closes lagging against other contacts of the contact set</p> <p>Change-over contact, late break</p> <p>3</p>  | <p>Switch, change-over contact (2-path), operated by turning</p> <p>Switch, change-over contact</p>  <p>3</p> | <p>Switch, change-over contact (2-path), operated by pedal</p> <p>Switch, change-over contact</p>  <p>3</p> |
| <p>Positive operation with NO contact, right</p>  <p>0</p> | <p>Switch, change-over contact (2-path), operated by turning</p> <p>Switch, change-over contact</p>  <p>3</p> | <p>Switch, change-over contact (2-path), operated by mushroom head</p> <p>Switch, change-over contact</p>  <p>3</p> |
| <p>Priority control for NO contact, left</p>  <p>0</p> | <p>Switch, change-over contact (2-path), operated by pressing</p> <p>Switch, change-over contact</p>  <p>3</p> | <p>Switch, change-over contact (2-path), cam- and roller-operated</p> <p>Switch, change-over contact</p>  <p>3</p> |



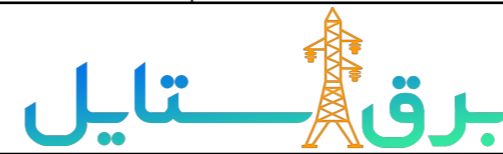
Symbol overview IEC Library




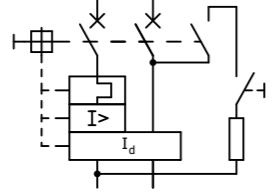


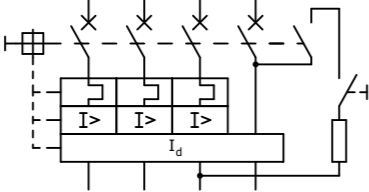


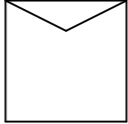


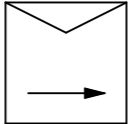


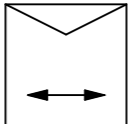










| | | |
|---|--|---|
| <p>Symbol description: Switch, change-over contact (2-path), operated by electric clock</p> <p>Function definition: Switch, change-over contact</p> <p>connecting points: 3</p>  | <p>Switch, change-over contact (2-path), operated by approach of iron</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Miniature circuit-breaker, two-pole</p> <p>Safety switch, two-pole</p> <p>4</p>  |
| <p>Switch, change-over contact (2-path), operated by pulling</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Limit switch, change-over contact (2-path)</p> <p>Limit switch, change-over contact</p> <p>3</p>  | <p>Miniature circuit-breaker, three-pole</p> <p>Safety switch, three-pole</p> <p>6</p>  |
| <p>Switch, change-over contact (2-path), reacts to speed or rotational speed (centrifugal switch)</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Change-over contact (2-path), closes leading against other contacts of the contact set</p> <p>Change-over contact, leading</p> <p>3</p>  | <p>Miniature circuit-breaker, four-pole</p> <p>Safety switch, four-pole</p> <p>8</p>  |
| <p>Switch, change-over contact (2-path), operated by lever</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Change-over contact (2-path), closes lagging against other contacts of the contact set</p> <p>Change-over contact, late break</p> <p>3</p>  | <p>Miniature circuit-breaker, two-pole (1P+N)</p> <p>Safety switch, two-pole</p> <p>4</p>  |
| <p>Switch, change-over contact (2-path), change-over contact with action line for extension</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Change-over contact without break point, sequential change-over element (2-path)</p> <p>Change-over contact, leading and late break</p> <p>3</p>  | <p>Miniature circuit-breaker, four-pole (3P+N)</p> <p>Safety switch, four-pole</p> <p>8</p>  |
| <p>Switch, change-over contact (2-path), touch-sensitive</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Power circuit breaker, single-pole, actuation by thermal or electromagnetic overload, with line for auxiliary contact</p> <p>Circuit breaker</p> <p>2</p>  | <p>Miniature circuit-breaker, two-pole, form 2</p> <p>Safety switch, two-pole</p> <p>4</p>  |
| <p>Proximity switch, change-over contact (2-path)</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Circuit breaker, four-pole, with line for auxiliary contact</p> <p>Quadruple circuit-breaker</p> <p>8</p>  | <p>Miniature circuit-breaker, two-pole (1P+N), form 2</p> <p>Safety switch, two-pole</p> <p>4</p>  |
| <p>Switch, change-over contact (2-path), proximity-sensitive, actuated by proximity of magnet</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Miniature circuit-breaker, single-pole</p> <p>Safety switch, single-pole</p> <p>2</p>  | <p>Circuit breaker, two-pole, form 2</p> <p>Double circuit breaker</p> <p>4</p>  |



Symbol overview IEC Library






| | | |
|---|--|--|
| <p>Symbol description: Circuit breaker, two-pole, with line for auxiliary contact, form 2</p> <p>Function definition: Double circuit breaker</p> <p>connecting points: 4</p>  | <p>Terminal with 2 connection points (1 x graphical line)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>2</p>  | <p>Terminal with plug-in connection, 2 connection points (male pin / direct connection point)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>2</p>  |
| <p>Ground fault current circuit-breaker with switch mechanism without auxiliary line, 2-pole (single-pole protected, 2-pole switching)</p> <p>Ground fault current circuit breaker, two-pole</p> <p>4</p>  | <p>Terminal with 3 connection points (3 x graphical line)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>3</p>  | <p>Terminal with saddle jumper connections, 2 connection points (female pin and direct connection point)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>4</p>  |
| <p>Ground fault current circuit-breaker with switch mechanism without auxiliary line, 4-pole (3-pole protected, 4-pole switching)</p> <p>Ground fault current circuit breaker, four-pole</p> <p>8</p>  | <p>Terminal with 3 connection points (1 x graphical line)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>3</p>  | <p>Terminal with saddle jumper connections, 2 connection points (male pin and direct connection point)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>4</p>  |
| <p>Starter general, motor starter</p> <p>Controller, variable</p> <p>0</p>  | <p>Terminal with 4 connection points (4 x graphical line)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>4</p>  | <p>Terminal with plug-in connection, 3 connection points (female pin / direct connection point)</p> <p>Terminal, general, with saddle jumper, 3 connection points</p> <p>3</p>  |
| <p>Starter, direct line, without reverse motion</p> <p>Controller, variable</p> <p>0</p>  | <p>Terminal with 4 connection points (1 x graphical line)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>4</p>  | <p>Terminal with push-in fitting, 4 connection points (2 female pins / direct connection point)</p> <p>Terminal, general, with saddle jumper, 4 connection points</p> <p>4</p>  |
| <p>Starter, direct line, with reverse motion</p> <p>Controller, variable</p> <p>0</p>  | <p>Terminal with saddle jumper connections, 2 connection points (male pin and female pin)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>4</p>  | <p>Terminal with saddle jumper connections, 4 connection points (2 female pins and direct connection point)</p> <p>Terminal, general, with saddle jumper, 4 connection points</p> <p>6</p>  |
| <p>Starter for star-delta connection</p> <p>Controller, variable</p> <p>0</p>  | <p>Terminal with plug-in connection, 2 connection points (male pin / female pin)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>2</p>  | <p>Terminal with saddle jumper connections, 3 connection points (female pin and direct connection point)</p> <p>Terminal, general, with saddle jumper, 3 connection points</p> <p>5</p>  |
| <p>Terminal with 2 connection points (2 x graphical line)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>2</p>  | <p>Terminal with plug-in connection, 2 connection points (female pin / direct connection point)</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>2</p>  | <p>Terminal with plug-in connection, 3 connection points (female pin / direct connection point)</p> <p>Terminal, general, with saddle jumper, 3 connection points</p> <p>3</p>  |



Symbol overview IEC Library

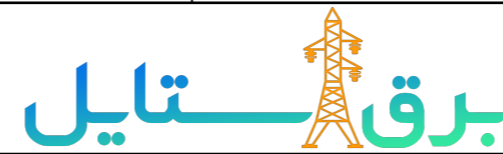


آکادمی تخصصی برق استایل
آموزش تخصصی نقشه خوانی و نقشه کشی برق و اتوماسیون صنعتی

| | | |
|---|---|---|
| <p>Symbol description: Isolating terminal, closed, form 2</p> <p>Function definition: Isolating terminal, 2 connection points</p> <p>connecting points: 2</p>  | <p>Female pin with plug (scaled version)</p> <p>Male and female pin</p> <p>2</p>  | <p>Switch, change-over contact (2-path), operated by key</p> <p>Switch, change-over contact</p> <p>3</p>  |
| <p>Pressure switch, change-over contact (3-path)</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Resistor with movable contact</p> <p>Resistor, single</p> <p>2</p>  | <p>Power-operated mechanism, general, change-over contact, two-path</p> <p>Switch, change-over contact</p> <p>3</p>  |
| <p>Float switch, change-over contact (3-path)</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Resistor with movable contact / potentiometer</p> <p>Resistor, 3 connection points</p> <p>3</p>  | <p>AC motor with thermal monitoring</p> <p>Motor with PE, variable</p> <p>5</p>  |
| <p>Flow switch, change-over contact (3-path), general</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Resistor with movable contact and "Off" position</p> <p>Resistor, single</p> <p>2</p>  | <p>AC motor with thermal cut-out</p> <p>Motor with PE, variable</p> <p>5</p>  |
| <p>Female pin of a coaxial plug connection connection with direct connection point</p> <p>SH female pin, 2 connection points</p> <p>2</p>  | <p>Resistor, adjustable, with movable contact / potentiometer, adjustable</p> <p>Resistor, 3 connection points</p> <p>3</p>  | <p>Three-phase asynchronous motor with thermal cut-out, one rotation speed, one speed</p> <p>Motor with PE, variable</p> <p>6</p>  |
| <p>Plug of a coaxial plug connection connection with direct connection point</p> <p>SH male pin, 2 connection points</p> <p>2</p>  | <p>Temperature switch, change-over contact (2-path)</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Three-phase induction motor with thermal cut-out, two rotation speeds, pole-change, one winding</p> <p>Motor with PE, variable</p> <p>9</p>  |
| <p>Lamp / indicator light, with lamp test function</p> <p>Lamp, 3 connection points</p> <p>3</p>  | <p>Float switch, change-over contact (2-path)</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Three-phase induction motor with thermal cut-out, three rotation speeds, pole-change, two separate windings</p> <p>Motor with PE, variable</p> <p>12</p>  |
| <p>Cam-switch device, change-over contact (3-path)</p> <p>Limit switch, change-over contact</p> <p>3</p>  | <p>Flow switch, change-over contact (3-path), general</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Terminal / distributed terminal with 4 connection points (without graphical line)</p> <p>Terminal, general, with saddle jumper, 4 connection points</p> <p>4</p>  |



Symbol overview IEC Library

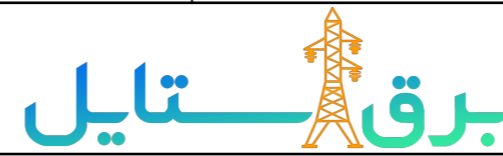


آکادمی تخصصی برق استایل
آموزش تخصصی نقشه خوانی و نقشه کشی برق و اتوماسیون صنعتی

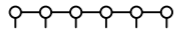

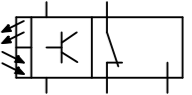
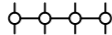
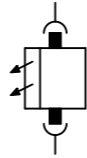
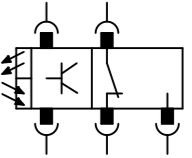
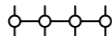
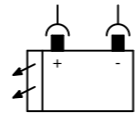
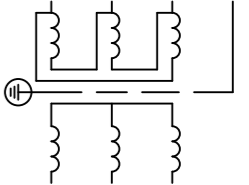
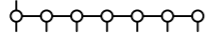
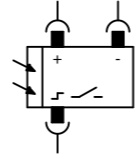

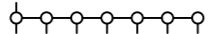
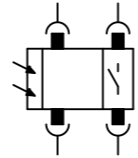

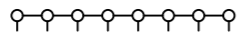
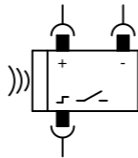

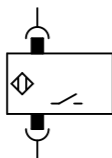
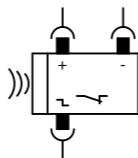

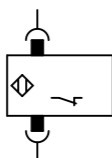
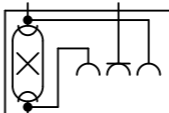

| | | | | | |
|---|--|---|--|---|--|
| <p>Symbol description: Terminal / distributed terminal with 4 connection points (1 x graphical line)</p> <p>Function definition: Terminal, general, with saddle jumper, 4 connection points</p> <p>connecting points: 4</p> | | <p>Terminal with one connection point and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 1 connection point</p> <p>3</p> | | <p>Terminal with 4 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 4 connection points</p> <p>6</p> | |
| <p>Terminal / distributed terminal with 3 connection points (1 x graphical line)</p> <p>Terminal, general, with saddle jumper, 4 connection points</p> <p>3</p> | | <p>Terminal with 2 connection points without saddle jumper connections</p> <p>Terminal, general, 2 connection points</p> <p>2</p> | | <p>Terminal with 4 connection points without saddle jumper connections</p> <p>Terminal, general, 4 connection points</p> <p>4</p> | |
| <p>Terminal / distributed terminal with 2 connection points (1 x graphical line)</p> <p>Terminal, general, with saddle jumper, 4 connection points</p> <p>2</p> | | <p>Terminal with 2 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>4</p> | | <p>Terminal with 4 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 4 connection points</p> <p>6</p> | |
| <p>Terminal / distributed terminal with one connection point (1 x graphical line)</p> <p>Terminal, general, with saddle jumper, 4 connection points</p> <p>1</p> | | <p>Terminal with 2 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 2 connection points</p> <p>4</p> | | <p>Terminal with 4 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 4 connection points</p> <p>6</p> | |
| <p>Current transformer (path 1), 4 connection points</p> <p>Measuring transducer, current, variable</p> <p>4</p> | | <p>Terminal with 3 connection points without saddle jumper connections</p> <p>Terminal, general, 3 connection points</p> <p>3</p> | | <p>Terminal with 6 connection points without saddle jumper connections</p> <p>Terminal, general, 6 connection points</p> <p>6</p> | |
| <p>Current transformer (path 2), 4 connection points</p> <p>Measuring transducer, current, variable</p> <p>4</p> | | <p>Terminal with 3 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 3 connection points</p> <p>5</p> | | <p>Terminal with 6 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 6 connection points</p> <p>8</p> | |
| <p>Current transformer (path 3), 4 connection points</p> <p>Measuring transducer, current, variable</p> <p>4</p> | | <p>Terminal with 3 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 3 connection points</p> <p>5</p> | | <p>Terminal with 6 connection points without saddle jumper connections</p> <p>Terminal, general, 6 connection points</p> <p>6</p> | |
| <p>Terminal with one connection point without saddle jumper connections</p> <p>Terminal, general, 1 connection point</p> <p>1</p> | | <p>Terminal with 4 connection points without saddle jumper connections</p> <p>Terminal, general, 4 connection points</p> <p>4</p> | | <p>Terminal with 6 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 6 connection points</p> <p>8</p> | |



Symbol overview IEC Library

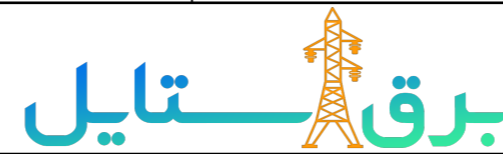


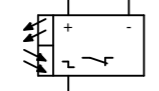

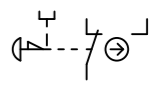
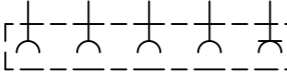


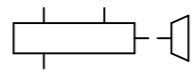
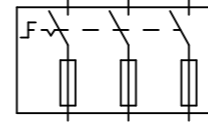

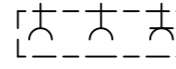

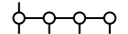
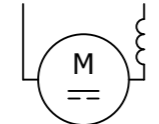
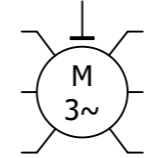
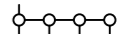
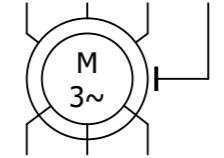
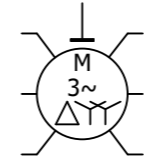
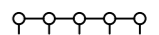
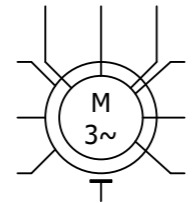
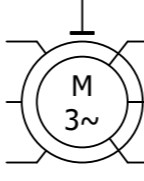
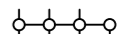
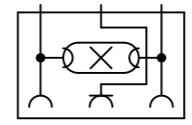
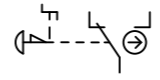
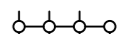
آکادمی تخصصی برق استایل
آموزش تخصصی نقشه خوانی و نقشه کشی برق و اتوماسیون صنعتی

| | | |
|---|--|--|
| <p>Symbol description: Terminal with 6 connection points and 2 saddle jumper connections</p> <p>Function definition: Terminal, general, with saddle jumper, 6 connection points</p> <p>connecting points: 8</p>  | <p>Light barrier with plug-in connection</p> <p>Light barrier, NO contact</p> <p>2</p>  | <p>Photoelectric switch, change-over contact</p> <p>Light barrier, variable</p> <p>5</p>  |
| <p>Terminal with 8 connection points without saddle jumper connections</p> <p>Terminal, general, 8 connection points</p> <p>8</p>  | <p>Light barrier, transmitter, AC supply, with plug-in connection</p> <p>Light barrier, transmitter</p> <p>2</p>  | <p>Photoelectric switch, change-over contact, with plug-in connection</p> <p>Light barrier, variable</p> <p>5</p>  |
| <p>Terminal with 8 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 8 connection points</p> <p>10</p>  | <p>Light barrier, transmitter, DC supply, with plug-in connection</p> <p>Light barrier, transmitter</p> <p>2</p>  | <p>Three-phase transformer, delta-star connection</p> <p>Transformer, 7 connection points with PE</p> <p>7</p>  |
| <p>Terminal with 8 connection points without saddle jumper connections</p> <p>Terminal, general, 8 connection points</p> <p>8</p>  | <p>Light barrier, receiver, DC supply, with plug-in connection</p> <p>Light barrier, NO contact with power supply</p> <p>3</p>  | <p>Pressure switch, change-over contact (2-path)</p> <p>Switch, change-over contact</p> <p>3</p>  |
| <p>Terminal with 8 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 8 connection points</p> <p>10</p>  | <p>Light barrier, receiver, AC supply, with plug-in connection</p> <p>Light barrier, variable</p> <p>4</p>  | <p>Current transformer (path 1), 2 connection points</p> <p>Measuring transducer, current, variable</p> <p>2</p>  |
| <p>Terminal with 8 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 8 connection points</p> <p>10</p>  | <p>Ultrasonic sensor, NO contact, with plug-in connection</p> <p>Proximity switch, NO contact with power supply</p> <p>3</p>  | <p>Current transformer (path 2), 2 connection points</p> <p>Measuring transducer, current, variable</p> <p>2</p>  |
| <p>Proximity sensor, NO contact, with plug-in connection</p> <p>Proximity switch, NO contact</p> <p>2</p>  | <p>Ultrasonic sensor, NC contact, with plug-in connection</p> <p>Proximity switch, NC contact with power supply</p> <p>3</p>  | <p>Current transformer (path 3), 2 connection points</p> <p>Measuring transducer, current, variable</p> <p>2</p>  |
| <p>Proximity sensor, NC contact, with plug-in connection</p> <p>Proximity switch, NC contact</p> <p>2</p>  | <p>Enclosure light with female receptacle</p> <p>Light, variable</p> <p>3</p>  | <p>Actuator motor</p> <p>Three-phase motor</p> <p>4</p>  |



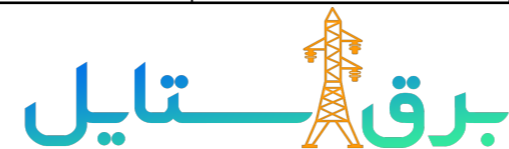
Symbol overview IEC Library



| | | |
|---|--|--|
| <p>Symbol description: Photoelectric switch, NC contact</p> <p>Function definition: Light barrier, NC contact with power supply</p> <p>connecting points: 3</p>  | <p>Electromechanical operating device of an overvoltage release</p> <p>Overvoltage release</p> <p>2</p>  | <p>Emergency stop switch / Emergency stop pushbutton, change-over contact (2-path), with pull-to-reset</p> <p>Pushbutton, change-over contact</p> <p>3</p>  |
| <p>Female receptacle, five-pole (CEE)</p> <p>Female receptacle with PE, 5 connection points</p> <p>5</p>  | <p>Electromechanical operating device of an undervoltage release</p> <p>Undervoltage release</p> <p>2</p>  | <p>Terminal with 5 connection points without saddle jumper connections</p> <p>Terminal, general, 5 connection points</p> <p>5</p>  |
| <p>Solenoid brake, three-wire</p> <p>Brake, 3 connection points, without PE</p> <p>3</p>  | <p>Fused switch, three-pole</p> <p>Fused disconnect, triple</p> <p>6</p>  | <p>Terminal with 5 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 5 connection points</p> <p>7</p>  |
| <p>Female receptacle with PE, three-pole</p> <p>Female receptacle with PE, 3 connection points</p> <p>3</p>  | <p>Solenoid valve, PE connection point</p> <p>PE device connection point</p> <p>1</p>  | <p>Terminal with 5 connection points without saddle jumper connections</p> <p>Terminal, general, 5 connection points</p> <p>5</p>  |
| <p>Series motor, DC</p> <p>Single-coil motor without PE</p> <p>2</p>  | <p>Three-phase induction motor, star-delta connection</p> <p>Motor with PE, variable</p> <p>7</p>  | <p>Terminal with 5 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 5 connection points</p> <p>7</p>  |
| <p>Three-phase asynchronous motor, two separate windings, change-pole, two rotation speeds</p> <p>Motor with PE, variable</p> <p>7</p>  | <p>Three-phase induction motor, two rotation speeds, pole-change, one winding</p> <p>Motor with PE, variable</p> <p>7</p>  | <p>Terminal with 5 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 5 connection points</p> <p>7</p>  |
| <p>Three-phase asynchronous motor, two separate windings, change-pole, three rotation speeds</p> <p>Motor with PE, variable</p> <p>10</p>  | <p>Three-phase induction motor, two rotation speeds, pole-change, two separate windings</p> <p>Motor with PE, variable</p> <p>7</p>  | <p>Terminal with 7 connection points without saddle jumper connections</p> <p>Terminal, general, 7 connection points</p> <p>7</p>  |
| <p>Enclosure light with female receptacle</p> <p>Light, 3 connection points</p> <p>3</p>  | <p>Emergency stop switch / Emergency stop pushbutton, change-over contact (3-path), with turn-to-reset</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Terminal with 7 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 7 connection points</p> <p>9</p>  |



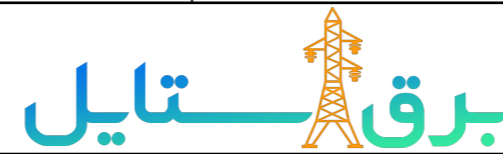
Symbol overview IEC Library


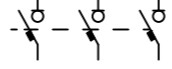
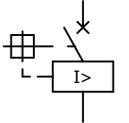

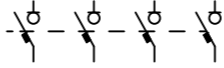
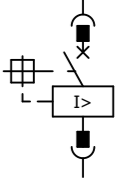
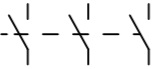
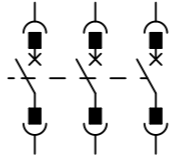
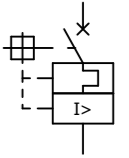
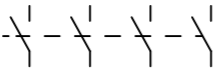
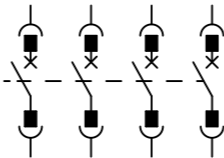
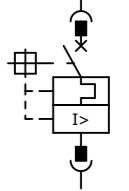
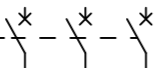
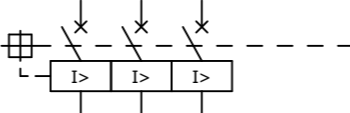
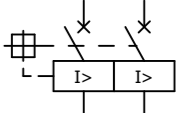

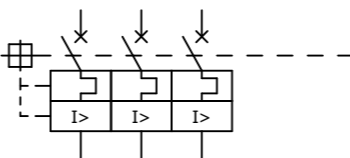
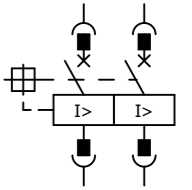
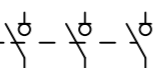
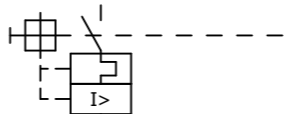
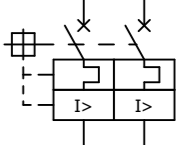
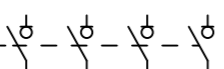
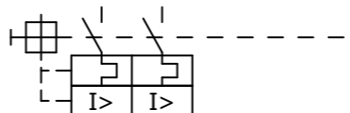
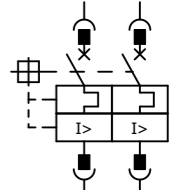


| | | |
|---|---|--|
| <p>Symbol description: Terminal with 7 connection points without saddle jumper connections</p> <p>Function definition: Terminal, general, 7 connection points</p> <p>connecting points: 7</p>  | <p>Operated by turning</p> <p>Others, variable</p> <p>0</p>  | <p>Operation by electrical clock</p> <p>Others, variable</p> <p>0</p>  |
| <p>Terminal with 7 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 7 connection points</p> <p>9</p>  | <p>Operation by turning, with catch</p> <p>Others, variable</p> <p>0</p>  | <p>Operation by key</p> <p>Others, variable</p> <p>0</p>  |
| <p>Terminal with 7 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 7 connection points</p> <p>9</p>  | <p>Operation by pressing</p> <p>Others, variable</p> <p>0</p>  | <p>Operation, general (for NFPA)</p> <p>Others, variable</p> <p>0</p>  |
| <p>Terminal with 9 connection points without saddle jumper connections</p> <p>Terminal, general, 9 connection points</p> <p>9</p>  | <p>Operation by pressing, with catch</p> <p>Others, variable</p> <p>0</p>  | <p>Tripping device</p> <p>Others, variable</p> <p>0</p>  |
| <p>Terminal with 9 connection points and 2 saddle jumper connections</p> <p>Terminal, general, with saddle jumper, 9 connection points</p> <p>11</p>  | <p>Operation by pulling</p> <p>Others, variable</p> <p>0</p>  | <p>Operation by pulling, with catch</p> <p>Others, variable</p> <p>0</p>  |
| <p>Forced operation</p> <p>Others, variable</p> <p>0</p>  | <p>Operation by crank</p> <p>Others, variable</p> <p>0</p>  | <p>Operation by key, with catch</p> <p>Others, variable</p> <p>0</p>  |
| <p>Operation by hand, general</p> <p>Others, variable</p> <p>0</p>  | <p>Operation by detachable grip</p> <p>Others, variable</p> <p>0</p>  | <p>Operation by pressing (mushroom)</p> <p>Others, variable</p> <p>0</p>  |
| <p>Operation by hand, general, with catch</p> <p>Others, variable</p> <p>0</p>  | <p>Operation by electrical motor</p> <p>Others, variable</p> <p>0</p>  | <p>Operation by pressing (mushroom), with catch</p> <p>Others, variable</p> <p>0</p>  |



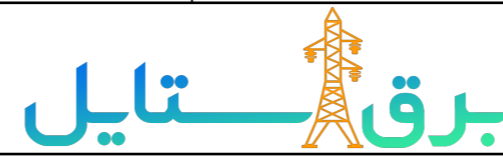
Symbol overview IEC Library



| | | |
|---|--|--|
| <p>Symbol description: Operation, thermal (temperature switch)</p> <p>Function definition: Others, variable</p> <p>connecting points: 0</p>  | <p>Switch disconnecter, three-pole, with automatic actuation by built-in measuring relay</p> <p>Safety switch, three-pole</p> <p>6</p>  | <p>Power circuit breaker, single-pole (magnetic actuation)</p> <p>Safety switch, single-pole</p> <p>2</p>  |
| <p>Operation by pressing (mushroom), with release</p> <p>Others, variable</p> <p>0</p>  | <p>Switch disconnecter, four-pole, with automatic actuation by built-in measuring relay</p> <p>Safety switch, four-pole</p> <p>8</p>  | <p>Power circuit breaker, single-pole, pluggable connection (magnetic actuation)</p> <p>Safety switch, single-pole</p> <p>2</p>  |
| <p>Switch, three-pole</p> <p>Switch, triple NO contact</p> <p>6</p>  | <p>Power circuit breaker, three-pole (pluggable connection)</p> <p>Switch, triple NO contact</p> <p>6</p>  | <p>Power circuit breaker, single-pole (L-, I-characteristic)</p> <p>Safety switch, single-pole</p> <p>2</p>  |
| <p>Switch four-pole</p> <p>Switch, quadruple NO contact</p> <p>8</p>  | <p>Power circuit breaker, four-pole (pluggable connection)</p> <p>Switch, quadruple NO contact</p> <p>8</p>  | <p>Power circuit breaker, single-pole, pluggable connection (L-, I-characteristic)</p> <p>Safety switch, single-pole</p> <p>2</p>  |
| <p>Power circuit breaker, three-pole</p> <p>Switch, triple NO contact</p> <p>6</p>  | <p>Power circuit breaker, three-pole (magnetic actuation)</p> <p>Safety switch, three-pole</p> <p>6</p>  | <p>Power circuit breaker, two-pole (magnetic actuation)</p> <p>Safety switch, two-pole</p> <p>4</p>  |
| <p>Power circuit breaker, four-pole</p> <p>Switch, quadruple NO contact</p> <p>8</p>  | <p>Power circuit breaker, three-pole (L-, I-characteristic)</p> <p>Safety switch, three-pole</p> <p>6</p>  | <p>Power circuit breaker, two-pole, pluggable connection (magnetic actuation)</p> <p>Safety switch, two-pole</p> <p>4</p>  |
| <p>Switch disconnecter, three-pole</p> <p>Switch, triple NO contact</p> <p>6</p>  | <p>Power circuit breaker / motor overload switch with switch mechanism and line</p> <p>Motor overload switch one-pole</p> <p>2</p>  | <p>Power circuit breaker, two-pole (L-, I-characteristic)</p> <p>Safety switch, two-pole</p> <p>4</p>  |
| <p>Switch disconnecter, four-pole</p> <p>Switch, quadruple NO contact</p> <p>8</p>  | <p>Power circuit breaker / motor overload switch with switch mechanism and line</p> <p>Motor overload switch, two-pole</p> <p>4</p>  | <p>Power circuit breaker, two-pole, pluggable connection (L-, I-characteristic)</p> <p>Safety switch, two-pole</p> <p>4</p>  |



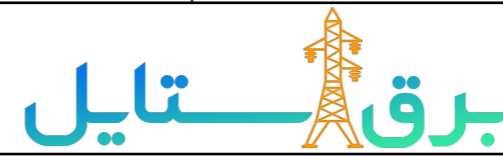
Symbol overview IEC Library

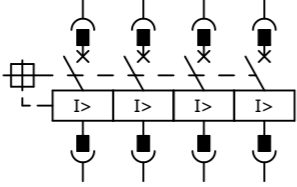
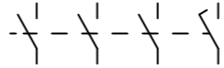

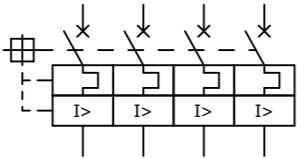

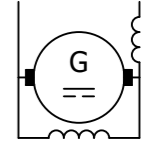
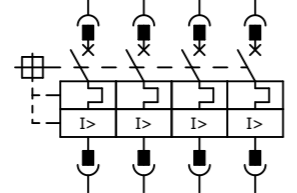
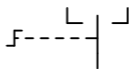
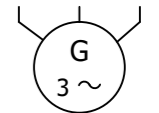
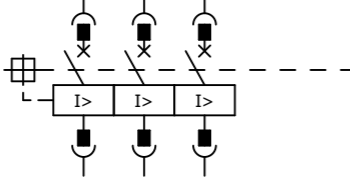

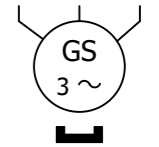
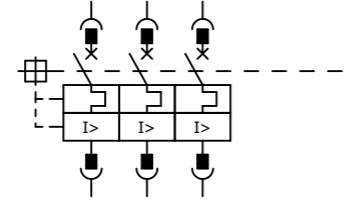

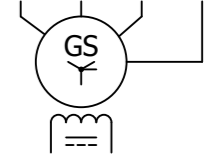
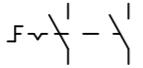

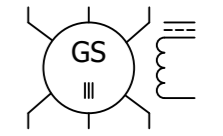


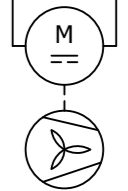


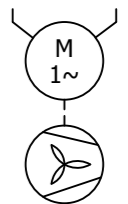


| | | |
|---|---|---|
| <p>Symbol description: Power circuit breaker, two-pole (L-, S-, I-, G-characteristic)</p> <p>Function definition: Safety switch, two-pole</p> <p>connecting points: 4</p> | <p>Power circuit breaker, three-pole (L-, S-, I-, G-characteristic)</p> <p>Safety switch, three-pole</p> <p>6</p> | <p>Power circuit breaker, four-pole (L-, S-, I-, G-characteristic)</p> <p>Safety switch, four-pole</p> <p>8</p> |
| <p>Power circuit breaker, two-pole, pluggable connection (L-, S-, I-, G-characteristic)</p> <p>Safety switch, two-pole</p> <p>4</p> | <p>Power circuit breaker, three-pole, pluggable connection (L-, S-, I-, G-characteristic)</p> <p>Safety switch, three-pole</p> <p>6</p> | <p>Power circuit breaker, four-pole, pluggable connection (L-, S-, I-, G-characteristic)</p> <p>Safety switch, four-pole</p> <p>8</p> |
| <p>Power circuit breaker, three-pole (magnetic actuation)</p> <p>Safety switch, three-pole</p> <p>6</p> | <p>Power circuit breaker, four-pole (L-characteristic)</p> <p>Safety switch, four-pole</p> <p>8</p> | <p>Power circuit breaker, three-pole, with switch mechanism</p> <p>Safety switch, three-pole</p> <p>6</p> |
| <p>Power circuit breaker, three-pole, pluggable connection (magnetic actuation)</p> <p>Safety switch, three-pole</p> <p>6</p> | <p>Power circuit breaker, four-pole, pluggable connection (L-characteristic)</p> <p>Safety switch, four-pole</p> <p>8</p> | <p>Power circuit breaker, four-pole, with switch mechanism</p> <p>Safety switch, four-pole</p> <p>8</p> |
| <p>Power circuit breaker, three-pole (L-, I-characteristic)</p> <p>Safety switch, three-pole</p> <p>6</p> | <p>Power circuit breaker, four-pole (L-, I-characteristic)</p> <p>Safety switch, four-pole</p> <p>8</p> | <p>Power circuit breaker, three-pole, with switch mechanism</p> <p>Safety switch, three-pole</p> <p>6</p> |
| <p>Power circuit breaker, three-pole, pluggable connection (L-, I-characteristic)</p> <p>Safety switch, three-pole</p> <p>6</p> | <p>Power circuit breaker, four-pole, pluggable connection (L-, I-characteristic)</p> <p>Safety switch, four-pole</p> <p>8</p> | <p>Power circuit breaker, three-pole, with switch mechanism (pluggable connection)</p> <p>Safety switch, three-pole</p> <p>6</p> |
| <p>Power circuit breaker, three-pole (L-, S-, I-characteristic)</p> <p>Safety switch, three-pole</p> <p>6</p> | <p>Power circuit breaker, four-pole (L-, S-, I-characteristic)</p> <p>Safety switch, four-pole</p> <p>8</p> | <p>Power circuit breaker, four-pole, with switch mechanism</p> <p>Safety switch, four-pole</p> <p>8</p> |
| <p>Power circuit breaker, three-pole, pluggable connection (L-, S-, I-characteristic)</p> <p>Safety switch, three-pole</p> <p>6</p> | <p>Power circuit breaker, four-pole, pluggable connection (L-, S-, I-characteristic)</p> <p>Safety switch, four-pole</p> <p>8</p> | <p>Power circuit breaker, four-pole, with switch mechanism (pluggable connection)</p> <p>Safety switch, four-pole</p> <p>8</p> |



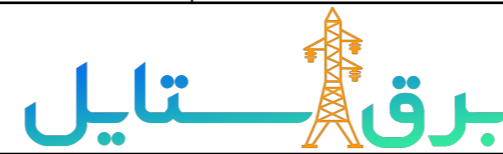
Symbol overview IEC Library


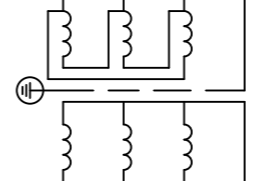
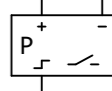
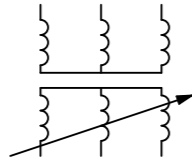
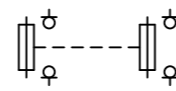
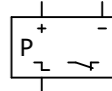
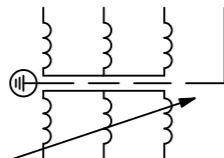
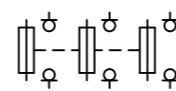
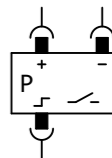
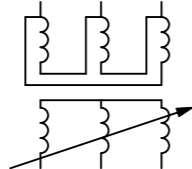
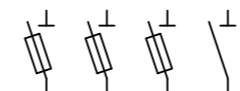
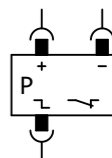
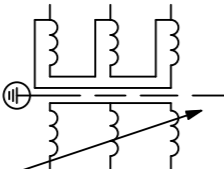
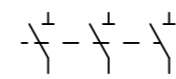

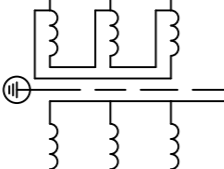
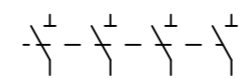

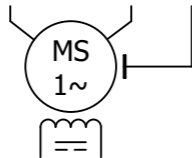
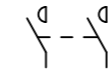

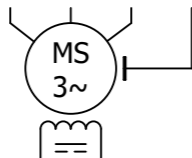
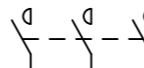



| | | |
|---|---|--|
| <p>Symbol description: Power circuit breaker, four-pole, pluggable connection (L-characteristic)</p> <p>Function definition: Safety switch, four-pole</p> <p>connecting points: 8</p>  | <p>Switch, four-pole, with leading NO contact for neutral conductor connection</p> <p>Switch, quadruple NO contact</p> <p>8</p>  | <p>Operation through pneumatic / hydraulic force</p> <p>Others, variable</p> <p>0</p>  |
| <p>Power circuit breaker, four-pole (L-, I-characteristic)</p> <p>Safety switch, four-pole</p> <p>8</p>  | <p>Change-over contact (3-path), mid-position "Off"</p> <p>Change-over auxiliary contact</p> <p>3</p>  | <p>DC compound generator with series and shunt winding</p> <p>Generator, 2 connection points</p> <p>2</p>  |
| <p>Power circuit breaker, four-pole, pluggable connection (L-, I-characteristic)</p> <p>Safety switch, four-pole</p> <p>8</p>  | <p>Pushbutton, change-over contact (3-path), mid-position "Off", operation by turning</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Three-phase generator, general</p> <p>Generator, variable</p> <p>3</p>  |
| <p>Power circuit breaker, three-pole, pluggable connection (magnetic actuation)</p> <p>Safety switch, three-pole</p> <p>6</p>  | <p>Manual operation with limited access</p> <p>Others, variable</p> <p>0</p>  | <p>Three-phase synchronous generator with permanent magnetic excitation</p> <p>Generator, variable</p> <p>3</p>  |
| <p>Power circuit breaker, three-pole, pluggable connection (L-, I-characteristic)</p> <p>Safety switch, three-pole</p> <p>6</p>  | <p>Operation through handwheel</p> <p>Others, variable</p> <p>0</p>  | <p>Three-phase synchronous generator with separate excitation, star connection, neutral conductor provided</p> <p>Generator, variable</p> <p>4</p>  |
| <p>Rotary switch, two-pole, NO contact, form 2</p> <p>Switch, double NO contact</p> <p>4</p>  | <p>Operation through speed</p> <p>Others, variable</p> <p>0</p>  | <p>Three-phase synchronous generator, both ends of each and every winding provided</p> <p>Generator, variable</p> <p>6</p>  |
| <p>Antenna, general</p> <p>Antenna</p> <p>1</p>  | <p>Operation through rotary speed</p> <p>Others, variable</p> <p>0</p>  | <p>DC motor for ventilator / fan</p> <p>DC motor in protective housing</p> <p>2</p>  |
| <p>Ferrite ring, ferrite bead on a conductor</p> <p>Inductor, single</p> <p>2</p>  | <p>Operation through light</p> <p>Others, variable</p> <p>0</p>  | <p>AC motor for ventilator / fan without grounding</p> <p>AC motor in protective housing</p> <p>2</p>  |



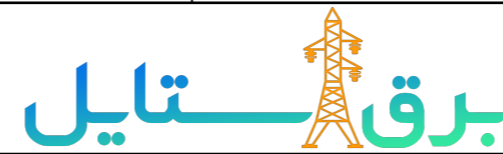
Symbol overview IEC Library



| | | |
|--|--|--|
| <p>Symbol description: Single-phase transformer with two windings each on the primary and secondary side</p> <p>Function definition: Transformer, variable</p> <p>connecting points: 8</p>  | <p>Three-phase transformer, delta-star connection (secondary side with neutral conductor)</p> <p>Transformer with PE, variable</p> <p>8</p>  | <p>Pressure sensor, NO contact</p> <p>Digital sensor, NO contact with power supply</p> <p>3</p>  |
| <p>Three-phase transformer, wye-wye connection, adjustable at secondary side</p> <p>Transformer, 6 connection points</p> <p>6</p>  | <p>Fused switch disconnector, two-pole, with double interruption</p> <p>Fused disconnect, double</p> <p>4</p>  | <p>Pressure sensor, NC contact</p> <p>Digital sensor, NC contact with power supply</p> <p>3</p>  |
| <p>Three-phase transformer, wye-wye connection, adjustable at secondary side</p> <p>Transformer, 7 connection points with PE</p> <p>7</p>  | <p>Fused switch disconnector, three-pole, with double interruption</p> <p>Fused disconnect, triple</p> <p>6</p>  | <p>Pressure sensor, NO contact, with plug-in connections</p> <p>Digital sensor, NO contact with power supply</p> <p>3</p>  |
| <p>Three-phase transformer, delta-star connection, adjustable at secondary side</p> <p>Transformer, 6 connection points</p> <p>6</p>  | <p>Fuse circuit-breaker, four-pole, with integrated disconnect switch for neutral conductor connection</p> <p>Fused disconnect, quadruple</p> <p>8</p>  | <p>Pressure sensor, NC contact, with plug-in connection</p> <p>Digital sensor, NC contact with power supply</p> <p>3</p>  |
| <p>Three-phase transformer, delta-star connection, adjustable at secondary side</p> <p>Transformer, 7 connection points with PE</p> <p>7</p>  | <p>Disconnect switch, three-pole</p> <p>Switch, triple NO contact</p> <p>6</p>  | <p>Power disconnect switch with thermal and electromagnetic overload, single-pole</p> <p>Safety switch, single-pole</p> <p>2</p>  |
| <p>Three-phase transformer, delta-star connection (secondary side with neutral conductor)</p> <p>Transformer with PE, variable</p> <p>8</p>  | <p>Disconnect switch, four-pole</p> <p>Switch, quadruple NO contact</p> <p>8</p>  | <p>Power disconnect switch with thermal and electromagnetic overload, two-pole</p> <p>Safety switch, two-pole</p> <p>4</p>  |
| <p>Synchronous motor, one-phase</p> <p>Motor with PE, variable</p> <p>5</p>  | <p>NO contact, 2-fold, power contact of a contactor</p> <p>Duplicate NO contact</p> <p>4</p>  | <p>Power disconnect switch with thermal and electromagnetic overload, two-pole with neutral conductor connection</p> <p>Safety switch, two-pole</p> <p>4</p>  |
| <p>Synchronous motor, three-phase</p> <p>Motor with PE, variable</p> <p>6</p>  | <p>NO contact, 3-fold, power contact of a contactor</p> <p>Triple NO contact</p> <p>6</p>  | <p>Power disconnect switch with thermal and electromagnetic overload, three-pole</p> <p>Safety switch, three-pole</p> <p>6</p>  |



Symbol overview IEC Library

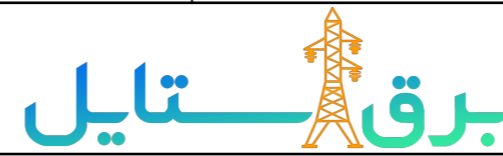



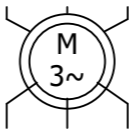

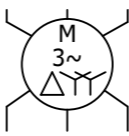
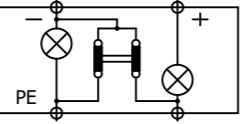
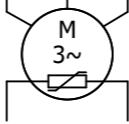
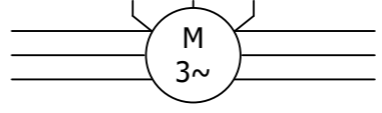
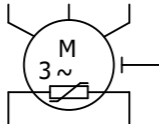
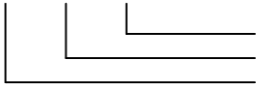
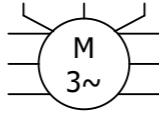
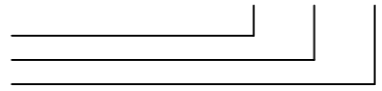

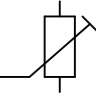

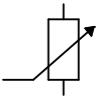
آکادمی تخصصی برق استایل
آموزش تخصصی نقشه خوانی و نقشه کشی برق و اتوماسیون صنعتی

| | | | | | |
|--|--|--|--|---|--|
| <p>Symbol description: Power disconnect switch with thermal and electromagnetic overload, two-pole, form 2</p> <p>Function definition: Safety switch, two-pole</p> <p>connecting points: 4</p> | | <p>Female pin with plug 03-03-05</p> <p>Male and female pin</p> <p>2</p> | | <p>Three-phase transformer, wye-wye connection</p> <p>Transformer, 6 connection points</p> <p>6</p> | |
| <p>Power disconnect switch with thermal and electromagnetic overload, two-pole with neutral conductor connection, form 2</p> <p>Safety switch, two-pole</p> <p>4</p> | | <p>Fused terminal</p> <p>Terminal, 2 connection points</p> <p>2</p> | | <p>Three-phase induction motor, pole-change, 6 connection points</p> <p>Motor, variable</p> <p>6</p> | |
| <p>Microphone</p> <p>Signal device, acoustic, single</p> <p>2</p> | | <p>Wire Number Location (placeholder)</p> <p>Fused terminal, 2 targets (do not use anymore)</p> <p>0</p> | | <p>Low-voltage high-breaking-capacity fuse (l.v. h.b.c.) (placeholder)</p> <p>Others, variable</p> <p>0</p> | |
| <p>Loudspeaker</p> <p>Signal device, acoustic, single</p> <p>2</p> | | <p>Single-phase transformer</p> <p>Transformer, 4 connection points</p> <p>4</p> | | <p>Female receptacle (placeholder)</p> <p>Device connection point, variable</p> <p>0</p> | |
| <p>Loudspeaker - microphone</p> <p>Signal device, acoustic, single</p> <p>2</p> | | <p>Potentiometer</p> <p>Resistor, 3 connection points</p> <p>3</p> | | <p>Low-voltage high-breaking-capacity fuse (l.v. h.b.c.) (placeholder)</p> <p>Others, variable</p> <p>0</p> | |
| <p>Intercom station</p> <p>Signal device, acoustic, single</p> <p>2</p> | | <p>Three-phase transformer, star connection</p> <p>Transformer, 6 connection points</p> <p>6</p> | | <p>Switch disconnecter, cam switch three-pole (placeholder)</p> <p>Others, variable</p> <p>0</p> | |
| <p>Change-over contact hook, universal (placeholder)</p> <p>Change-over contact hook, NO contact (two-path) (do not use anymore)</p> <p>1</p> | | <p>Capacitor, old</p> <p>Capacitor, variable</p> <p>4</p> | | <p>Switch disconnecter, cam switch single-pole (placeholder)</p> <p>Others, variable</p> <p>0</p> | |
| <p>Remanent relay, 3 connection points</p> <p>Remanent relay, 3 connection points</p> <p>3</p> | | <p>Single-phase transformer with two windings</p> <p>Transformer, 4 connection points</p> <p>4</p> | | <p>Thyristor</p> <p>Semiconductors, 3 connection points</p> <p>3</p> | |



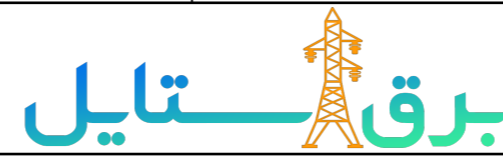
Symbol overview IEC Library

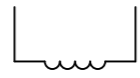

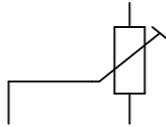
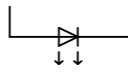
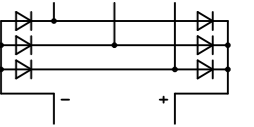
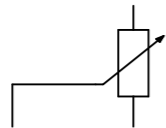
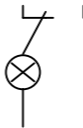
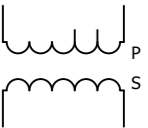


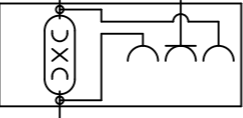



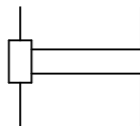
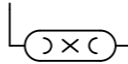



| | | |
|--|--|--|
| <p>Symbol description: Power source</p> <p>Function definition: Voltage source, variable</p> <p>connecting points: 2</p>  | <p>Three-phase motor with slipping rotor 06-08-03</p> <p>Motor, variable</p> <p>6</p>  | <p>Miniature circuit breaker, two-pole (placeholder)</p> <p>Others, variable</p> <p>0</p> |
| <p>Counter 08-05-01</p> <p>Measuring instrument, 2 connection points</p> <p>2</p>  | <p>Three-phase induction motor, delta / 2 x star</p> <p>Motor, variable</p> <p>6</p>  | <p>Plug three-pole (placeholder)</p> <p>Others, variable</p> <p>0</p> |
| <p>Earth-isolating terminal</p> <p>Isolating terminal, variable</p> <p>4</p>  | <p>Three-phase induction motor with PTC thermistor</p> <p>Motor, variable</p> <p>5</p>  | <p>Power circuit breaker (placeholder)</p> <p>Others, variable</p> <p>0</p> |
| <p>Miniature circuit breaker, single-pole (placeholder)</p> <p>Others, variable</p> <p>0</p> | <p>Three-phase current drive, 9 connection points, center</p> <p>Motor, variable</p> <p>3</p>  | <p>Switch disconnecter with automatic actuation by built-in release 07-13-09 (placeholder)</p> <p>Others, variable</p> <p>0</p> |
| <p>Motor with PTC thermistor</p> <p>Motor with PE, variable</p> <p>6</p>  | <p>Three-phase current drive, 9 connection points, left</p> <p>Motor, variable</p> <p>3</p>  | <p>Disconnect switch 07-13-06 (placeholder)</p> <p>Others, variable</p> <p>0</p> |
| <p>Three-phase current drive, 9 connection points, center</p> <p>Motor, variable</p> <p>9</p>  | <p>Three-phase current drive, 9 connection points, right</p> <p>Motor, variable</p> <p>3</p>  | <p>Switch disconnector, cam switch two-pole for transformer 07-13-08 (placeholder)</p> <p>Others, variable</p> <p>0</p> |
| <p>Valve coil, general 02-13-23</p> <p>Valve, single</p> <p>2</p>  | <p>Bridge Rectifier (placeholder)</p> <p>Resistor, variable</p> <p>0</p> | <p>Potentiometer</p> <p>Resistor, 3 connection points</p> <p>3</p>  |
| <p>Current transformer (path 1) 06-13-03</p> <p>Converter, variable</p> <p>2</p>  | <p>Metering Shunt (placeholder)</p> <p>Resistor, single</p> <p>0</p> | <p>Rheostat</p> <p>Resistor, 3 connection points</p> <p>3</p>  |



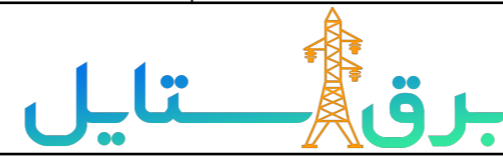
Symbol overview IEC Library



| | | |
|--|---|---|
| <p>Symbol description: Field winding for DC motor 04-03-01</p> <p>Function definition: Field</p> <p>connecting points: 2</p>  | <p>Miniature circuit breaker three-pole, with line for auxiliary contact (placeholder)</p> <p>Others, variable</p> <p>0</p> | <p>PE connection point for motor</p> <p>PE device connection point</p> <p>1</p>  |
| <p>Potentiometer</p> <p>Resistor, 3 connection points</p> <p>3</p>  | <p>LED</p> <p>Lamp, single</p> <p>2</p>  | <p>Three-phase bridge circuit</p> <p>Rectifier, variable</p> <p>5</p>  |
| <p>Rheostat</p> <p>Resistor, 3 connection points</p> <p>3</p>  | <p>Pneumatic luminaire with lamp test</p> <p>Lamp, 3 connection points</p> <p>3</p>  | <p>Transformer, 2-phase</p> <p>Transformer, 4 connection points</p> <p>4</p>  |
| <p>Miniature circuit breaker, three-pole 107-05-08 (placeholder)</p> <p>Others, variable</p> <p>0</p> | <p>Ventilator</p> <p>Single-coil motor without PE</p> <p>2</p>  | <p>Transformer, 3-phase, wye-wye connection (placeholder)</p> <p>Transformer, 6 connection points</p> <p>0</p> |
| <p>Measuring resistor</p> <p>Resistor, variable</p> <p>4</p>  | <p>Enclosure light with female receptacle</p> <p>Light, variable</p> <p>3</p>  | <p>Transformer with center tap on one winding (placeholder)</p> <p>Transformer, 4 connection points</p> <p>0</p> |
| <p>Ventilator</p> <p>Single-coil motor without PE</p> <p>2</p>  | <p>Flourescent Light with Receptacle (placeholder)</p> <p>Light, variable</p> <p>0</p> | <p>Isolating terminal, closed 03-03-17</p> <p>Isolating terminal, variable</p> <p>2</p>  |
| <p>Slipring transformer (placeholder)</p> <p>Others, variable</p> <p>0</p> | <p>Enclosure light (placeholder)</p> <p>Others, variable</p> <p>0</p> | <p>Current transformer (path 2)</p> <p>Converter, variable</p> <p>2</p>  |
| <p>Laboratory resistor</p> <p>Resistor, variable</p> <p>4</p>  | <p>Enclosure light</p> <p>Light, 2 connection points</p> <p>2</p>  | <p>Current transformer (path 3)</p> <p>Converter, variable</p> <p>2</p>  |



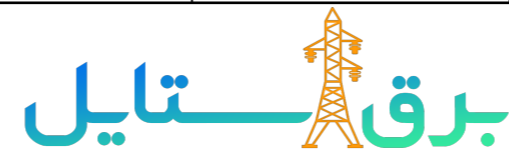
Symbol overview IEC Library


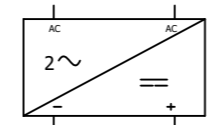
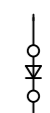
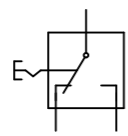
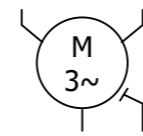
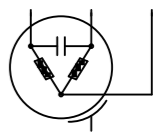
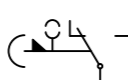
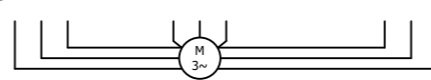
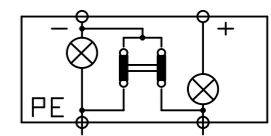


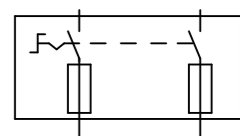

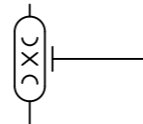

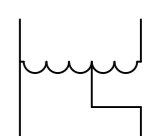

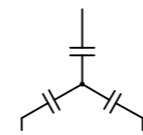
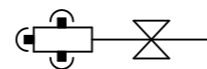



| | | | |
|--|--|--|---|
| <p>Symbol description: Operated by turning 02-13-04 (placeholder)</p> <p>Function definition: Others, variable</p> <p>connecting points: 0</p> | | <p>3-phase line reactor for NC devices</p> <p>Inductor, variable</p> <p>6</p> | <p>Resistor with fixed tapings</p> <p>Resistor, variable</p> <p>4</p> |
| <p>N-position switch, through position</p> <p>Switch, NC contact</p> <p>2</p> | | <p>Three-phase transformer, delta-star connection</p> <p>Transformer, 6 connection points</p> <p>6</p> | <p>Diode terminal</p> <p>Terminal, variable</p> <p>4</p> |
| <p>Position switch open</p> <p>Switch, NO contact</p> <p>2</p> | | <p>Three-phase transformer, delta-star connection (placeholder)</p> <p>Transformer, 6 connection points</p> <p>0</p> | <p>Isolated ground receptacle CEE 5-pole 111-07-03 (placeholder)</p> <p>Others, variable</p> <p>0</p> |
| <p>Female pin with plug without cross-reference 03-03-05</p> <p>Others, variable</p> <p>2</p> | | <p>Three-phase transformer, star-delta connection (placeholder)</p> <p>Transformer, 6 connection points</p> <p>0</p> | <p>Three-phase induction motor, pole-change 9 connection points, with PTC thermistor</p> <p>Motor, variable</p> <p>11</p> |
| <p>Female pin without cross-reference</p> <p>Female pin, 2 connection points</p> <p>1</p> | | <p>Potential transformer (placeholder)</p> <p>Others, variable</p> <p>0</p> | <p>Resistor with separate current and voltage connections</p> <p>Resistor, variable</p> <p>4</p> |
| <p>Pin without cross-reference</p> <p>Male pin, 2 connection points</p> <p>1</p> | | <p>Primary cell, primary element, battery 06-15-01</p> <p>Voltage source, variable</p> <p>2</p> | <p>Terminal with 4 connection points</p> <p>Terminal, variable</p> <p>4</p> |
| <p>Female pin without cross-reference</p> <p>Female pin, 2 connection points</p> <p>1</p> | | <p>Potentiometer</p> <p>Resistor, 3 connection points</p> <p>3</p> | <p>Capacitor, feedthrough capacitor 04-02-03</p> <p>Capacitor, 3 connection points</p> <p>3</p> |
| <p>Pin without cross-reference</p> <p>Male pin, 2 connection points</p> <p>1</p> | | <p>Auxiliary terminal for cable generation 03-02-02</p> <p>Others, variable</p> <p>2</p> | <p>Mushroom, emergency stop pushbutton, NC contact, with forced operation and locking</p> <p>Pushbutton with latching position, NC</p> <p>2</p> |



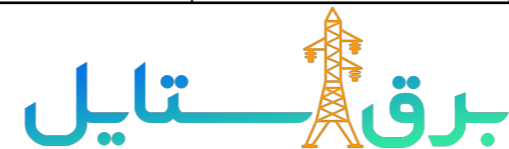
Symbol overview IEC Library


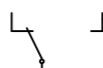


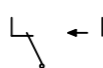
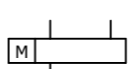




| | | |
|---|--|--|
| <p>Symbol description: Adjustment switch, NO contact, with spring return</p> <p>Function definition: Switch, NO contact</p> <p>connecting points: 2</p>  | <p>Rectifier, two-phase</p> <p>Rectifier, variable</p> <p>4</p>  | <p>Diode terminal</p> <p>Diode component / multipath terminal, 2 targets (do not use anymore)</p> <p>2</p>  |
| <p>Pushbutton, change-over contact, locking</p> <p>Switch, change-over contact</p> <p>3</p>  | <p>Three-phase motor, one speed</p> <p>Three-phase motor</p> <p>4</p>  | <p>Actuator motor</p> <p>Three-phase motor</p> <p>4</p>  |
| <p>Mushroom switch, change-over contact, locking, with key</p> <p>Pushbutton, change-over contact</p> <p>3</p>  | <p>Three-phase induction motor, pole-change, 9 connection points</p> <p>Motor, variable</p> <p>9</p>  | <p>Earth-isolating terminal</p> <p>Isolating terminal, variable</p> <p>4</p>  |
| <p>Isolating terminal</p> <p>Isolating terminal, 2 connection points</p> <p>2</p>  | <p>Undervoltage release, connections at top</p> <p>Undervoltage release</p> <p>2</p>  | <p>Fused switch, two-pole 07-21-01 (2x) + 07-07-04 (2x)</p> <p>Fused disconnect, double</p> <p>4</p>  |
| <p>Terminal, half filled</p> <p>Terminal, general (do not use anymore)</p> <p>2</p>  | <p>Fluorescent lamp 111-07-12</p> <p>Light, variable</p> <p>3</p>  | <p>Limiter, three-pole (placeholder)</p> <p>Others, variable</p> <p>0</p> |
| <p>Terminal, filled</p> <p>Terminal, general (do not use anymore)</p> <p>2</p>  | <p>Delta connection of capacitors (placeholder)</p> <p>Others, variable</p> <p>0</p> | <p>Auto transformer, single-phase</p> <p>Transformer, 4 connection points</p> <p>4</p>  |
| <p>Position switch, 3-position</p> <p>Switch, variable</p> <p>3</p>  | <p>Star connection of capacitors</p> <p>Capacitor, 3 connection points</p> <p>3</p>  | <p>Power circuit breaker with motor drive 07-13-05+02-13-26 (placeholder)</p> <p>Others, variable</p> <p>0</p> |
| <p>Transformer with center tap on one winding (placeholder)</p> <p>Transformer, 5 connection points without PE</p> <p>0</p> | <p>Solenoid valve with PE</p> <p>Valve, 3 connection points, with PE</p> <p>3</p>  | <p>Change-over contact, left</p> <p>Change-over contact (do not use anymore)</p> <p>3</p>  |



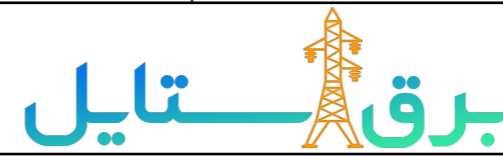
Symbol overview IEC Library



| | | |
|---|---|--|
| <p>Symbol description: Change-over contact, left</p> <p>Function definition: Change-over contact, momentary contact make, right</p> <p>connecting points: 3</p>  | <p>NC contact, with delayed opening 07-05-03</p> <p>Change-over contact, on-delay</p> <p>3</p>  | <p>NC contact, temperature-dependent 07-09-02</p> <p>Change-over contact, thermal release</p> <p>3</p>  |
| <p>Change-over contact, left</p> <p>Change-over contact, momentary contact make, left</p> <p>3</p>  | <p>NC contact, with delayed closing 07-05-04</p> <p>Change-over contact, off-delay</p> <p>3</p>  | <p>NC contact with automatic and thermal actuation 07-09-03</p> <p>Change-over contact, thermal release</p> <p>3</p>  |
| <p>Change-over contact, left</p> <p>Change-over contact (do not use anymore)</p> <p>3</p>  | <p>NC contact, late break 07-04-03</p> <p>Change-over contact, late break</p> <p>3</p>  | <p>NC contact, contactor power contact</p> <p>Power change-over contact</p> <p>3</p>  |
| <p>Change-over contact, left</p> <p>Change-over contact, momentary contact make, right</p> <p>3</p>  | <p>NC contact, thermal release 07-09-03</p> <p>Change-over contact, thermal release</p> <p>3</p>  | <p>Latching relay</p> <p>Coil, 3 connection points</p> <p>3</p>  |
| <p>Change-over contact, left</p> <p>Change-over contact, momentary contact make, left</p> <p>3</p>  | <p>Interlock relay, remanent relay 07-15-19</p> <p>Remanent relay, 3 connection points</p> <p>3</p>  | <p>NC contact, late break 07-04-03</p> <p>Change-over contact, late break</p> <p>3</p>  |
| <p>Change-over contact hook, universal 11</p> <p>Change-over contact (do not use anymore)</p> <p>3</p>  | <p>Multi-function relay</p> <p>Multi-function relay, 3 connection points</p> <p>3</p>  | <p>NC contact, thermal release 07-09-03</p> <p>Change-over contact, thermal release</p> <p>3</p>  |
| <p>Change-over contact hook, universal 11</p> <p>Change-over contact (do not use anymore)</p> <p>3</p>  | <p>NC contact without cross-reference 07-02-03</p> <p>Change-over contact (do not use anymore)</p> <p>3</p>  | <p>Interlock relay, remanent relay 07-15-19</p> <p>Remanent relay, 4 connection points</p> <p>4</p>  |
| <p>NC contact 07-02-03</p> <p>Change-over auxiliary contact</p> <p>3</p>  | <p>NC contact, leading 07-04-04</p> <p>Change-over contact, leading</p> <p>3</p>  | <p>Blinking relay</p> <p>Clock generator, 4 connection points</p> <p>4</p>  |



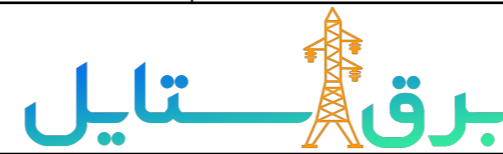
Symbol overview IEC Library

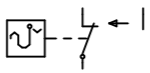
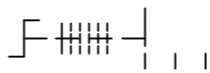


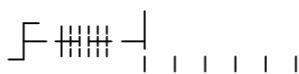


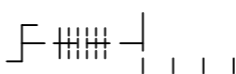


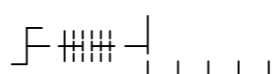

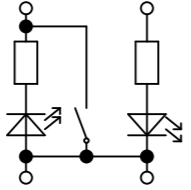
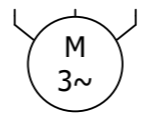

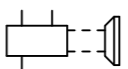


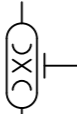


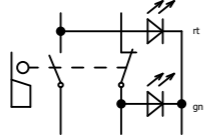




| | | |
|--|--|--|
| <p>Symbol description: NC contact, leading 07-04-04</p> <p>Function definition: Change-over contact, leading</p> <p>connecting points: 3</p>  | <p>Temperature switch, NC contact 02-13-20 + 07-02-03</p> <p>Change-over contact, thermal release</p> <p>3</p>  | <p>NC contact, temperature-dependent 07-09-02</p> <p>Change-over contact, thermal release</p> <p>3</p>  |
| <p>NC contact, temperature-dependent 07-09-02</p> <p>Change-over contact, thermal release</p> <p>3</p>  | <p>NC contact, with delayed opening 07-05-03</p> <p>Change-over contact, on-delay</p> <p>3</p>  | <p>NC contact, contactor power contact</p> <p>Power change-over contact</p> <p>3</p>  |
| <p>NC contact with automatic and thermal actuation 07-09-03</p> <p>Change-over contact, thermal release</p> <p>3</p>  | <p>NC contact, with delayed closing 07-05-04</p> <p>Change-over contact, off-delay</p> <p>3</p>  | <p>NC contact 07-02-03</p> <p>Change-over auxiliary contact</p> <p>3</p>  |
| <p>NC contact, contactor power contact</p> <p>Power change-over contact</p> <p>3</p>  | <p>NC contact, late break 07-04-03</p> <p>Change-over contact, late break</p> <p>3</p>  | <p>NC contact, with delayed opening 07-05-03</p> <p>Change-over contact, on-delay</p> <p>3</p>  |
| <p>Latching relay</p> <p>Coil, 4 connection points</p> <p>4</p>  | <p>NC contact, thermal release 07-09-03</p> <p>Change-over contact, thermal release</p> <p>3</p>  | <p>NC contact, with delayed closing 07-05-04</p> <p>Change-over contact, off-delay</p> <p>3</p>  |
| <p>Electrothermal overcurrent release, lockout, manually detachable 07-09-03 + 02-12-13</p> <p>Change-over contact, thermal release</p> <p>3</p>  | <p>Temperature switch, NC contact 02-13-20 + 07-02-03</p> <p>Change-over contact, thermal release</p> <p>3</p>  | <p>NC contact, late break 07-04-03</p> <p>Change-over contact, late break</p> <p>3</p>  |
| <p>Temperature switch, NC contact 02-13-20 + 07-02-03</p> <p>Change-over contact, thermal release</p> <p>3</p>  | <p>NC contact without cross-reference 07-02-03</p> <p>Change-over contact (do not use anymore)</p> <p>3</p>  | <p>NC contact, thermal release 07-09-03</p> <p>Change-over contact, thermal release</p> <p>3</p>  |
| <p>Electrothermal overcurrent release, lockout, manually detachable 07-09-03 + 02-12-13</p> <p>Change-over contact, thermal release</p> <p>3</p>  | <p>NC contact, leading 07-04-04</p> <p>Change-over contact, leading</p> <p>3</p>  | <p>Electrothermal overcurrent release, lockout, manually detachable 07-09-03 + 02-12-13</p> <p>Change-over contact, thermal release</p> <p>3</p>  |



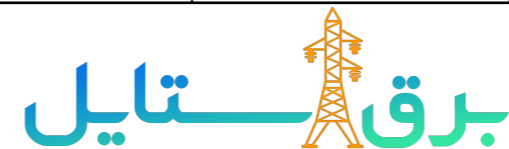
Symbol overview IEC Library



| | | |
|--|--|---|
| <p>Symbol description: Temperature switch, NC contact 02-13-20 + 07-02-03</p> <p>Function definition: Change-over contact, thermal release</p> <p>connecting points: 3</p>  | <p>Position switch, 3-position</p> <p>Switch, variable</p> <p>4</p>  | <p>Change-over contact with break point (3-path),</p> <p>Change-over auxiliary contact</p> <p>3</p>  |
| <p>NC contact, leading 07-04-04</p> <p>Change-over contact, leading</p> <p>3</p>  | <p>Position switch, 6-position</p> <p>Switch, variable</p> <p>7</p>  | <p>Change-over contact (2-path), with pick-up delay</p> <p>Change-over contact, on-delay</p> <p>3</p>  |
| <p>NC contact, temperature-dependent 07-09-02</p> <p>Change-over contact, thermal release</p> <p>3</p>  | <p>Position switch, 4-position</p> <p>Switch, variable</p> <p>5</p>  | <p>Change-over contact (3-path), with pick-up delay</p> <p>Change-over contact, on-delay</p> <p>3</p>  |
| <p>NC contact, contactor power contact</p> <p>Power change-over contact</p> <p>3</p>  | <p>Position switch, 5-position</p> <p>Switch, variable</p> <p>6</p>  | <p>Change-over contact (2-path), with drop-out delay</p> <p>Change-over contact, off-delay</p> <p>3</p>  |
| <p>Diode terminal without cross-reference</p> <p>Terminal, variable</p> <p>4</p>  | <p>Three-phase asynchronous motor</p> <p>Motor, variable</p> <p>3</p>  | <p>Change-over contact (3-path), with drop-out delay</p> <p>Change-over contact, off-delay</p> <p>3</p>  |
| <p>Three-wire brake</p> <p>Brake, 3 connection points, without PE</p> <p>3</p>  | <p>Diode terminal</p> <p>Terminal, general (do not use anymore)</p> <p>2</p>  | <p>Change-over contact (2-path), with pick-up and off-delay</p> <p>Change-over contact, on- and off-delay</p> <p>3</p>  |
| <p>Fluorescent lamp</p> <p>Light, variable</p> <p>3</p>  | <p>Thyristor</p> <p>Semiconductors, 3 connection points</p> <p>3</p>  | <p>Change-over contact (3-path), with pick-up and off-delay</p> <p>Change-over contact, on- and off-delay</p> <p>3</p>  |
| <p>Limit switch, NO contact and NC contact with LEDs</p> <p>Limit switch, variable</p> <p>5</p>  | <p>Change-over contact with break point (2-path)</p> <p>Change-over auxiliary contact</p> <p>3</p>  | <p>Change-over contact, momentary contact make, right (2-path)</p> <p>Change-over contact, momentary contact make, right</p> <p>3</p>  |



Symbol overview IEC Library



| | | |
|---|---|--|
| <p>Symbol description: Change-over contact, momentary contact make, left (2-path)</p> <p>Function definition: Change-over contact, momentary contact make, left</p> <p>connecting points: 3</p> |  | |
| <p>Change-over contact, momentary contact make, right and left (2-path)</p> <p>Change-over contact, momentary contact make, right and left</p> <p>3</p> |  | |
| <p>Potentiometer</p> <p>Resistor, 3 connection points</p> <p>3</p> |  | |
| | | |
| | | |
| | | |
| | | |
| | | |

