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Contactors


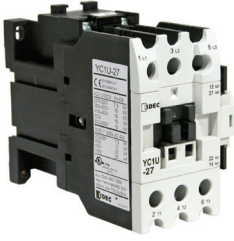






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Selection Guide

Selection by Horsepower Rating (AC Coil)

| Series | YC1N(K) Mini series | YC1U AC Series | YC1N AC Series |
|-----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| |  |  |  |
| Coil Voltage | AC or DC | AC | AC |
| Amp Range (AC3) | 9A & below | 9A - 80A | 80A - 300A |
| RoHS Compliance | Yes | Yes | Yes |
| Page | 989 | 993 | 1000 |
| Approvals |  |  |  |

Bi-Metallic Thermal Overloads

| Series | YC9Z | YC9Z | YC9Z |
|----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| |  |  |  |
| Amp Range | 0.1 - 12.5 Amps | 0.1 - 90 Amps | 65 - 185 Amps |
| Phase Failure | Yes | Yes | Yes |
| Reset Mode | Manual and Automatic | Manual and Automatic | Manual and Automatic |
| RoHS Compliant | Yes | Yes | Yes |
| Page | 991 | 995 | 995 |
| Approvals |  |  |  |

Switches & Pilot Lights

Signaling Lights

Relays & Sockets

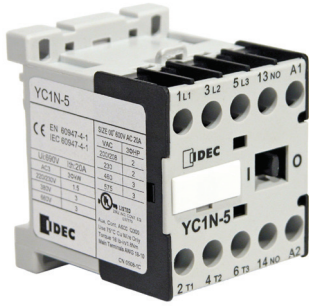
Timers

Contactors

Terminal Blocks

Circuit Breakers

YC1N(K) Mini Contactors



Key Features:

- Phase with built in NO or NC Auxiliary contact
- Top mount snap-on Auxiliary contact blocks
- 4 Amp & 5.5 Amp AC-3 Ratings
- Comply with IEC 60945, UL508, CSA C22.2 standards



Part Number Key

YC1 **N** - **5** **B** **A120**

Coil Voltage Code

N: AC Coil
K: DC Coil

Contactor Size*

(5, 6)

*See selection table for details.

Coil Voltage

A24: 24V AC, 50/60Hz
A120: 120V AC, 50/6-Hz
A240: 240V AC, 50/60Hz
A480: 480V AC, 50/60Hz
D24: 24V DC
D110: 110V DC

Auxiliary Contact Arrangement

Blank: 1NO
B: 1NC

Part Numbers

Selection by Horsepower Rating (AC Coil)

| | Rated Power (Hp) per AC3 IEC 60947-4-1 | | | | | | | Rated Power (Hp) per UL508 CSA C22.2 | | | | | | Auxiliary Contact | Part Numbers | Coil Voltage |
|--|----------------------------------------|------|----------|----------|----------|------|----------|--------------------------------------|----------|----------|----------|----------|------|-------------------|--------------|---------------------------------------------------------------------|
| | 1-Phase | | 3-Phase | | | | | 1-Phase | | 3-Phase | | | | | | |
| | 110V | 220V | 220/240V | 380/400V | 415/440V | 500V | 660/690V | 110/120V | 220/240V | 200/208V | 230/240V | 440/480V | 575V | | | |
| | 0.5 | 1 | 2 | 4 | 4 | 4 | 4 | - | - | 2 | 2 | 3 | 3 | 1NO | YC1N-5 | + A24: 24V AC A120: 120V AC A240: 240V AC A480: 480V AC |
| | | | | | | | | | | | | | | 1NC | YC1N-5B | |
| | 0.75 | 1.5 | 3 | 5.5 | 5.5 | 5.5 | 5.5 | - | - | 3 | 3 | 5 | 5 | 1NO | YC1N-6 | |
| | | | | | | | | | | | | | | 1NC | YC1N-6B | |

Switches & Pilot Lights

Signaling Lights

Relays & Sockets

Timers


Contactors

Terminal Blocks

Circuit Breakers

Switches & Pilot Lights

Selection by Horsepower Rating (DC Coil)

| | Rated Power (Hp) per AC3 IEC 60947-4-1 | | | | | | | Rated Power (Hp) per UL508 CSA C22.2 | | | | | | Auxiliary Contact | Part Numbers | Coil Voltage |
|-----------------------------------------------------------------------------------|----------------------------------------|------|----------|----------|----------|------|----------|--------------------------------------|----------|----------|----------|----------|------|-------------------|--------------|-----------------------------------|
| | 1-Phase | | 3-Phase | | | | | 1-Phase | | 3-Phase | | | | | | |
| | 110V | 220V | 220/240V | 380/400V | 415/440V | 500V | 660/690V | 110/120V | 220/240V | 200/208V | 230/240V | 440/480V | 575V | | | |
|  | 0.5 | 1 | 2 | 4 | 4 | 4 | 4 | - | - | 2 | 2 | 3 | 3 | 1NO | YC1K-5 | + D24: 24V DC D110: 110V DC |
| | | | | | | | | | | | | | | 1NC | YC1K-5B | |
| | 0.75 | 1.5 | 3 | 5.5 | 5.5 | 5.5 | 5.5 | - | - | 3 | 3 | 5 | 5 | 1NO | YC1K-6 | |
| | | | | | | | | | | | | | | 1NC | YC1K-6B | |

Signaling Lights

Selection by Amp Rating (AC Coil)

| | Rated Power (A) per AC3 IEC 60947-4-1 | | | | | | | Rated Power (A) per UL508 CSA C22.2 | | | | | | Auxiliary Contact | Part Numbers | Coil Voltage |
|--|---------------------------------------|------|----------|----------|----------|------|----------|-------------------------------------|----------|----------|----------|----------|------|-------------------|--------------|---------------------------------------------------------------------|
| | 1-Phase | | 3-Phase | | | | | 1-Phase | | 3-Phase | | | | | | |
| | 110V | 220V | 220/240V | 380/400V | 415/440V | 500V | 660/690V | 110/120V | 220/240V | 200/208V | 230/240V | 440/480V | 575V | | | |
| | 8 | 7 | 7.5 | 7 | 6.5/6 | 5 | 4 | - | - | 7.5 | 6.8 | 4.8 | 3.9 | 1NO | YC1N-5 | + A24: 24V AC A120: 120V AC A240: 240V AC A480: 480V AC |
| | | | | | | | | | | | | | | 1NC | YC1N-5B | |
| | 10.5 | 10 | 10.1 | 9 | 8.5/8 | 6.5 | 5 | - | - | 11 | 9.6 | 7.6 | 6.1 | 1NO | YC1N-6 | |
| | | | | | | | | | | | | | | 1NC | YC1N-6B | |

Relays & Sockets

Selection by Amp Rating (DC Coil)

| | Rated Power (A) per AC3 IEC 60947-4-1 | | | | | | | Rated Power (A) per UL508 CSA C22.2 | | | | | | Auxiliary Contact | Part Numbers | Coil Voltage |
|--|---------------------------------------|------|----------|----------|----------|------|----------|-------------------------------------|----------|----------|----------|----------|------|-------------------|--------------|-----------------------------------|
| | 1-Phase | | 3-Phase | | | | | 1-Phase | | 3-Phase | | | | | | |
| | 110V | 220V | 220/240V | 380/400V | 415/440V | 500V | 660/690V | 110/120V | 220/240V | 200/208V | 230/240V | 440/480V | 575V | | | |
| | 8 | 7 | 7.5 | 7 | 6.5/6 | 5 | 4 | - | - | 7.5 | 6.8 | 4.8 | 3.9 | 1NO | YC1K-5 | + D24: 24V DC D110: 110V DC |
| | | | | | | | | | | | | | | 1NC | YC1K-5B | |
| | 10.5 | 10 | 10.1 | 9 | 8.5/8 | 6.5 | 5 | - | - | 11 | 9.6 | 7.6 | 6.1 | 1NO | YC1K-6 | |
| | | | | | | | | | | | | | | 1NC | YC1K-6B | |

Timers

Selection by Kilowatt Rating (AC Coil)

| | Rated Power (kW) per AC3 IEC 60947-4-1 | | | | | | | Auxiliary Contact | Part Numbers | Coil Voltage |
|--|----------------------------------------|------|----------|----------|----------|------|----------|-------------------|--------------|---------------------------------------------------------------------|
| | 1-Phase | | 3-Phase | | | | | | | |
| | 110V | 220V | 220/240V | 380/400V | 415/440V | 500V | 660/690V | | | |
| | 0.37 | 0.75 | 1.5 | 3 | 3 | 3 | 3 | 1NO | YC1N-5 | + A24: 24V AC A120: 120V AC A240: 240V AC A480: 480V AC |
| | | | | | | | | 1NC | YC1N-5B | |
| | 0.55 | 1.1 | 2.2 | 4 | 4 | 4 | 4 | 1NO | YC1N-6 | |
| | | | | | | | | 1NC | YC1N-6B | |

Contactors


Selection by Kilowatt Rating (DC Coil)



| | Rated Power (kW) per AC3 IEC 60947-4-1 | | | | | | | Auxiliary Contact | Part Numbers | Coil Voltage |
|--|----------------------------------------|------|----------|----------|----------|------|----------|-------------------|--------------|-----------------------------------|
| | 1-Phase | | 3-Phase | | | | | | | |
| | 110V | 220V | 220/240V | 380/400V | 415/440V | 500V | 660/690V | | | |
| | 0.37 | 0.75 | 1.5 | 3 | 3 | 3 | 3 | 1NO | YC1K-5 | + D24: 24V DC D110: 110V DC |
| | | | | | | | | 1NC | YC1K-5B | |
| | 0.55 | 1.1 | 2.2 | 4 | 4 | 4 | 4 | 1NO | YC1K-6 | |
| | | | | | | | | 1NC | YC1K-6B | |

Terminal Blocks

Circuit Breakers

Accessories

| Description | Current Range | Part Number |
|---------------------------------------------------------------------------------------------------------|---------------|---------------|
|  <p>Overload Relay</p> | 0.1-0.16A | YC9Z-RHU5AP16 |
| | 0.16-0.25A | YC9Z-RHU5AP25 |
| | 0.25-0.4A | YC9Z-RHU5AP4 |
| | 0.35-0.5A | YC9Z-RHU5AP5 |
| | 0.45-0.63A | YC9Z-RHU5AP63 |
| | 0.55-0.8A | YC9Z-RHU5AP8 |
| | 0.75-1A | YC9Z-RHU5A1P0 |
| | 0.9-1.3A | YC9Z-RHU5A1P3 |
| | 1.1-1.6A | YC9Z-RHU5A1P6 |
| | 1.4-2A | YC9Z-RHU5A2P0 |
| | 1.8-2.5A | YC9Z-RHU5A2P5 |
| | 2.3-3.2A | YC9Z-RHU5A3P2 |
| | 2.9-4A | YC9Z-RHU5A4P0 |
| | 3.5-4.8A | YC9Z-RHU5A4P8 |
| | 4.5-6.3A | YC9Z-RHU5A6P3 |
| | 5.5-7.5A | YC9Z-RHU5A7P5 |
| | 7.2-10A | YC9Z-RHU5A10P |
| | 9-12.5A | YC9Z-RHU5A12P |

| Description | Form A (NO) | Form B (NC) | Part Number |
|-----------------------------------------------------------------------------------------------------------------------|-------------|--------------|--------------|
|  <p>Top Mount Auxiliary Contact</p> | — | 2 NC | YC9Z-CNA202M |
| | — | 4 NC | YC9Z-CNA404M |
| | 1 NO | 1 NC | YC9Z-CNA211M |
| | 1 NO | 3 NC | YC9Z-CNA413M |
| | 2 NO | — | YC9Z-CNA220M |
| | 2 NO | 2 NC | YC9Z-CNA422M |
| | 3 NO | 1 NC | YC9Z-CNA431M |
| 4 NO | — | YC9Z-CNA440M | |
| Mechanical Interlock - for Reversing Contactors | | | YC9Z-CI6 |
|  | | | |
| Surge Suppressor Unit | 120V AC | RC | YC9Z-SS1ES |
| | | VARISTOR | YC9Z-SS2ES |
| | 240V AC | RC | YC9Z-SS1HS |
| | | VARISTOR | YC9Z-SS2HS |

Specifications

General Specifications

| | YC1N-5/6 | YC1K-5/6 |
|-------------------------------------|--------------|----------|
| Contact Configuration | 3A1a or 3A1b | |
| Making Capacity (A) | 10xIe | |
| Breaking Capacity (A) | 8xIe | |
| Switching Frequency (Operations/Hr) | 1,200 | |
| Electrical Life (Operations) | 1,000,000 | |
| Mechanical Life (Operations) | 5,000,000 | |
| Operating Temperature | -20°C ~ 55°C | |
| Storage Temperature | -40°C ~ 70°C | |
| Weight (Kg) | 0.18 | 0.23 |

Note: Ie = rated operational current

Main Pole Contact Specifications

| | YC1N-5/6 | YC1K-5/6 |
|--------------------------------------|-------------|----------|
| Insulation Voltage, Ui (V) | IEC: 690 | UL: 600 |
| Operational Voltage, Ue (V) | IEC: 690 | UL: 600 |
| Thermal Current, I _{th} (A) | IEC /UL: 20 | |
| Short Circuit Current Rating (KA) | 5 | |
| NEMA Size Equivalent (approx.) | 00+ | |

Auxiliary Contacts Specifications

| | | YC1N-5/6 | YC1K-5/6 |
|----------------------------------------------------|---------------|------------------|----------|
| Insulation Voltage, Ui (V) | | IEC /UL: 600/600 | |
| Operational Voltage, Ue (V) | | IEC /UL: 600/600 | |
| Thermal Current, I _{th} (A) | | AC: 10 | DC: 2.5 |
| Operational Current (A) IEC 60947-5-1 UL 508 | AC-15 A600 | 120V | 6 |
| | | 240V | 3 |
| | | 380V | 1.9 |
| | | 480V | 1.5 |
| | | 500V | 1.4 |
| | DC-13 Q300 | 600V | 1.2 |
| | | 125V | 0.55 |
| | | 250V | 0.27 |

Coil Specifications

| | | YC1N-5/6 | YC1K-5/6 |
|------------------------------|---------|----------|----------|
| Pick-up Voltage | 50/60Hz | 75% | 75% |
| Power Consumption, max. (VA) | Inrush | 27 | — |
| | Sealed | 5 | 3 |
| Power Dissipation max. (W) | | 2 | 3 |

Switches & Pilot Lights

Signaling Lights

Relays & Sockets

Timers

Contactors

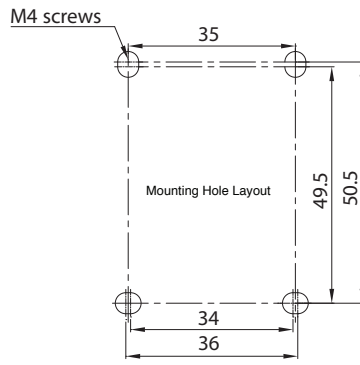
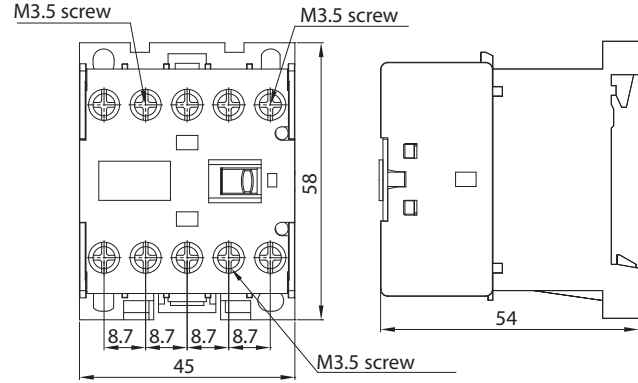
Terminal Blocks

Circuit Breakers

Dimensions (mm)

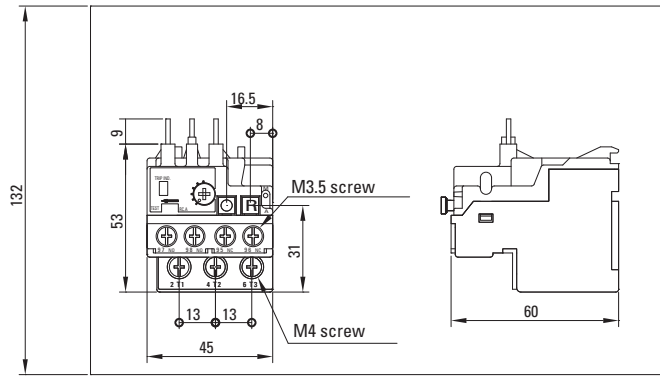
Contactor

YC1N-5/6, YC1K-5/6

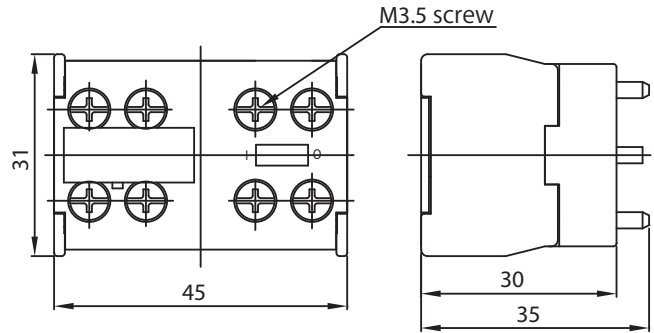


Accessories

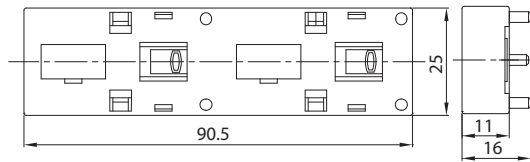
Overload Relay YC9Z-RHU5



Top Mounting Auxiliary Contact YC9Z-CNA

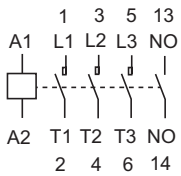


Mechanical Interlock YC9Z-CI6

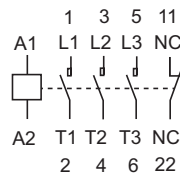


Electrical Diagrams

YC1N-5/6, YC1K-5/6 (1NO Aux.)



YC1N-5/6, YC1K-5/6 (1NC Aux.)



YC1U Series Contactor (AC Coil)



Key Features:

- 3-Phase with built in NO or NC Auxiliary contact
- Side Mount & Top mount snap-on Auxiliary contact blocks
- Comply with IEC 60945, UL508, CSA C22.2 standards



Part Number Key

YC1U - **9** **B** **A120**

Contactor Size*

9, 11, 16, 18, 27, 32, 38, 50, 65, 80

*see selection table for details

Coil Voltage

A24: 24V AC, 50/60Hz
 A120: 120V AC, 50/60Hz
 A240: 240V AC, 50/60Hz
 A480: 480V AC, 50/60Hz

Auxiliary Contact Arrangement

Blank: 1NO (size 9 - 16)
 1NO-1NC (size 18 - 38)
 2NO-2NC (size 50 - 80)
 B: 1NC (size 9 - 16 only)

Part Numbers

Selection by Horsepower Rating

| | Rated Power (Hp) per AC3 IEC 60947-4-1 | | | | | | | Rated Power (Hp) per UL508 CSA C22.2 | | | | | | Auxiliary Contact | Part Numbers | Coil Voltage |
|-----|----------------------------------------|------|----------|----------|----------|------|----------|--------------------------------------|----------|----------|----------|----------|---------|-------------------|--------------|---------------------------------------------------------------------|
| | 1-Phase | | 3-Phase | | | | | 1-Phase | | 3-Phase | | | | | | |
| | 110V | 220V | 220/240V | 380/400V | 415/440V | 500V | 660/690V | 110/120V | 220/240V | 200/208V | 230/240V | 440/480V | 575V | | | |
| | 0.75 | 1.5 | 3.5 | 5.5 | 5.5 | 5.5 | 5.5 | 0.75 | 2 | 3 | 3 | 5 | 7.5 | 1NO | YC1U-9 | + A24: 24V AC A120: 120V AC A240: 240V AC A480: 480V AC |
| | 0.75 | 1.5 | 4 | 7.5 | 7.5 | 7.5 | 7.5 | 1 | 2 | 5 | 5 | 7.5 | 10 | 1NC | YC1U-9B | |
| | 1 | 2 | 5.5 | 10 | 10 | 10 | 10 | 1.5 | 3 | 5 | 5 | 10 | 10 | 1NO | YC1U-11 | |
| | | | | | | | | | | | | | | 1NC | YC1U-11B | |
| | 1 | 2 | 5.5 | 10 | 10 | 10 | 10 | 1.5 | 3 | 5 | 5 | 10 | 10 | 1NO | YC1U-16 | |
| | | | | | | | | | | | | | | 1NC | YC1U-16B | |
| | 1.5 | 3 | 7.5 | 15 | 15 | 15 | 15 | 2 | 3 | 7.5 | 7.5 | 15 | 15 | 1NO-1NC | YC1U-18 | |
| | | | | | | | | | | | | | | | | |
| | 2 | 4 | 10 | 20 | 20 | 20 | 20 | 2 | 5 | 7.5 | 10 | 20 | 20 | 1NO-1NC | YC1U-27 | |
| | 2 | 5 | 12 | 20 | 20 | 25 | 25 | 3 | 5 | 10 | 15 | 25 | 30 | 1NO-1NC | YC1U-32 | |
| | | | | | | | | | | | | | | 1NO-1NC | YC1U-38 | |
| 3 | 7 | 15 | 25 | 30 | 30 | 30 | 3 | 7.5 | 10 | 15 | 30 | 30 | 1NO-1NC | YC1U-38 | | |
| | 4 | 8 | 20 | 35 | 35/40 | 40 | 40 | 5 | 10 | 15 | 20 | 40 | 50 | 2NO-2NC | YC1U-50 | |
| | 4 | 8 | 25 | 40 | 45/50 | 50 | 50 | 5 | 15 | 20 | 25 | 50 | 60 | 2NO-2NC | YC1U-65 | |
| | | | | | | | | | | | | | | 2NO-2NC | YC1U-80 | |
| 5.5 | 10 | 30 | 50 | 54 | 60 | 60 | 7.5 | 15 | 25 | 30 | 60 | 60 | 2NO-2NC | YC1U-80 | | |

Switches & Pilot Lights

Signaling Lights

Relays & Sockets

Timers

Contactors

Terminal Blocks

Circuit Breakers

Switches & Pilot Lights

Selection by Amp Rating

| Rated Power (A) per AC3 IEC 60947-4-1 | | | | | | | Rated Power (A) per UL508 CSA C22.2 | | | | | Auxiliary Contact | Part Numbers | |
|---------------------------------------|------|----------|----------|----------|------|-----------|-------------------------------------|----------|----------|----------|----------|-------------------|--------------|---------------------|
| 1-Phase | | 3-Phase | | | | | 1-Phase | | 3-Phase | | | | | |
| 110V | 220V | 220/240V | 380/400V | 415/440V | 500V | 660/690V | 110/120V | 220/240V | 200/208V | 230/240V | 440/480V | 575V | | |
| 10.5 | 10.5 | 11.5 | 11 | 10/9 | 8 | 6 | 13.8 | 12 | 12 | 9.6 | 7.6 | 9 | 1NO 1NC | YC1U-9 YC1U-9B |
| 10.5 | 10.5 | 12 | 12 | 11 | 9 | 7 | 16 | 12 | 18 | 15.2 | 11 | 11 | 1NO 1NC | YC1U-11 YC1U-11B |
| 13.5 | 14 | 16 | 16 | 15 | 13 | 10 | 20 | 17 | 18 | 15.2 | 14 | 11 | 1NO 1NC | YC1U-16 YC1U-16B |
| 19.5 | 20.5 | 23 | 22 | 21 | 19 | 14 | 24 | 17 | 26 | 22 | 21 | 17 | 1NO-1NC | YC1U-18 |
| 30 | 30 | 30 | 30 | 28/27 | 26 | 21/20 | 24 | 28 | 25.3 | 28 | 27 | 22 | 1NO-1NC | YC1U-27 |
| 35 | 35 | 35 | 32 | 32 | 30 | 23/22 | 34 | 28 | 32.2 | 42 | 34 | 32 | 1NO-1NC | YC1U-32 |
| 39 | 39 | 39 | 38 | 38 | 33 | 25.2/24.2 | 34 | 40 | 32.2 | 42 | 40 | 32 | 1NO-1NC | YC1U-38 |
| 48 | 48 | 55 | 55 | 52 | 45 | 35 | 56 | 50 | 49 | 54 | 52 | 52 | 2NO-2NC | YC1U-50 |
| 50 | 50 | 65 | 64 | 64 | 55 | 45 | 56 | 68 | 63 | 68 | 65 | 62 | 2NO-2NC | YC1U-65 |
| 60 | 60 | 75 | 72 | 72/70 | 65 | 60 | 80 | 68 | 79 | 80 | 77 | 62 | 2NO-2NC | YC1U-80 |

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| Coil Voltage |
|----------------------------------------------------------------|
| A24: 24V AC A120: 120V AC A240: 240V AC A480: 480V AC |

Relays & Sockets

Selection by Kilowatt Rating

| Rated Power (kW) per AC3 IEC 60947-4-1 | | | | | | | Auxiliary Contact | Part Numbers |
|----------------------------------------|------|----------|----------|----------|------|----------|-------------------|---------------------|
| 1-Phase | | 3-Phase | | | | | | |
| 110V | 220V | 220/240V | 380/400V | 415/440V | 500V | 660/690V | | |
| 0.55 | 1.1 | 2.5 | 4 | 4 | 4 | 4 | 1NO 1NC | YC1U-9 YC1U-9B |
| 0.55 | 1.1 | 3 | 5.5 | 5.5 | 5.5 | 5.5 | 1NO 1NC | YC1U-11 YC1U-11B |
| 0.75 | 1.5 | 4 | 7.5 | 7.5 | 7.5 | 7.5 | 1NO 1NC | YC1U-16 YC1U-16B |
| 1.1 | 2.2 | 5.5 | 11 | 11 | 11 | 11 | 1NO-1NC | YC1U-18 |
| 1.5 | 3 | 7.5 | 15 | 15 | 15 | 15 | 1NO-1NC | YC1U-27 |
| 1.5 | 3.7 | 9 | 15 | 15 | 18.5 | 18.5 | 1NO-1NC | YC1U-32 |
| 2.2 | 5 | 11 | 18.5 | 22 | 22 | 22 | 1NO-1NC | YC1U-38 |
| 3 | 6 | 15 | 25 | 25/30 | 30 | 30 | 2NO-2NC | YC1U-50 |
| 3 | 6 | 18.5 | 30 | 33/37 | 37 | 37 | 2NO-2NC | YC1U-65 |
| 4 | 7.5 | 22 | 37 | 40 | 45 | 45 | 2NO-2NC | YC1U-80 |

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| Coil Voltage |
|----------------------------------------------------------------|
| A24: 24V AC A120: 120V AC A240: 240V AC A480: 480V AC |


Timers


Contactors


Terminal Blocks

Circuit Breakers

Accessories

| Item | Contactor Size | Current Range | Part Number | |
|-----------------------------------------------------------------------------------|----------------|----------------|----------------|----------------|
|  | 9-27 | 0.1-0.16 | YC9Z-RHU10AP16 | |
| | | 0.16-0.25 | YC9Z-RHU10AP25 | |
| | | 0.25-0.4A | YC9Z-RHU10AP40 | |
| | | 0.35-0.5A | YC9Z-RHU10AP5 | |
| | | 0.45-0.63A | YC9Z-RHU10AP63 | |
| | | 0.55-0.8A | YC9Z-RHU10AP8 | |
| | | 0.75-1A | YC9Z-RHU10A1P0 | |
| | | 0.9-1.3A | YC9Z-RHU10A1P3 | |
| | | 1.1-1.6A | YC9Z-RHU10A1P6 | |
| | | 1.4-2A | YC9Z-RHU10A2P0 | |
| | | 1.8-2.5A | YC9Z-RHU10A2P5 | |
| | | 2.3-3.2A | YC9Z-RHU10A3P2 | |
| | | 2.9-4A | YC9Z-RHU10A4P0 | |
| | | 3.5-4.8A | YC9Z-RHU10A4P8 | |
| | | 4.5-6.3A | YC9Z-RHU10A6P3 | |
| | | 5.5-7.5A | YC9Z-RHU10A7P5 | |
| | | 7.2-10A | YC9Z-RHU10A10P | |
| | | 9-12.5A | YC9Z-RHU10A12P | |
| | | 11.3-16A | YC9Z-RHU10A16P | |
| | | 15-20A | YC9Z-RHU10A20P | |
| | | 21-25A | YC9Z-RHU10A25P | |
| | | 24.5-30A | YC9Z-RHU10A30P | |
| | | 27-38 | 15-20A | YC9Z-RHU10A220 |
| | | | 17.5-21.5A | YC9Z-RHU10A21P |
| 21-25A | YC9Z-RHU10A225 | | | |
| 24.5-30A | YC9Z-RHU10A230 | | | |
| 29-36A | YC9Z-RHU10A36P | | | |
| 24.5-36A | YC9Z-RHU80A436 | | | |
| 50-80 | 35-47A | YC9Z-RHU80A447 | | |
| | 17-25A | YC9Z-RHU80A325 | | |
| | 24.5-36A | YC9Z-RHU80A336 | | |
| | 35-47A | YC9Z-RHU80A347 | | |
| | 45-60A | YC9Z-RHU80A360 | | |
| 58-75A | YC9Z-RHU80A75P | | | |
| 72-90A | YC9Z-RHU80A90P | | | |

| Item | Part Number |
|-------------------------------------------------------------------------------------|------------------------------------|
|  | for YC1U-9, 11, 16, 18, 27, 32, 38 |
| | YC9Z-CI18 |
| | for YC1U-50, 65, 80 |
| | YC9Z-CI35 |

| Item | Part Number | |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------|
| Side Mount Auxiliary Contact  | for YC1U-9 thru 38 1NO-1NC (1a1b) YC9Z-CNA111SR | |
| Surge Suppressor Unit | 120V AC | |
| | RC | YC9Z-SS1E |
| | VARISTOR | YC9Z-SS2E |
| | 240V AC | RC |
| | VARISTOR | YC9Z-SS2H |

| Item | Form A (NO) | Form B (NC) | Part Number |
|------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|
| Top Mount Auxiliary Contact  | - | 2NC | YC9Z-CUA202 |
| | 1NO | 1NC | YC9Z-CUA211 |
| | 2NO | - | YC9Z-CUA220 |
| | 2NO | 2NC | YC9Z-CUA422 |
| | 3NO | 1NC | YC9Z-CUA431 |
| | 4NO | - | YC9Z-CUA440 |

| Item | Size | Coil Voltage | Part Number | |
|-------------------|---------|--------------|-----------------|-----------------|
| Replacement Coils | 9-27 | 24V AC | YC9Z-LCU22A24* | |
| | | 110V AC | YC9Z-LCU22A110 | |
| | | 120V AC | YC9Z-LCU22A120* | |
| | | 208V AC | YC9Z-LCU22A208 | |
| | | 220V AC | YC9Z-LCU22A220 | |
| | | 240V AC | YC9Z-LCU22A240* | |
| | | 480V AC | YC9Z-LCU22A480* | |
| | | 27-38 | 24V AC | YC9Z-LCU38A24* |
| | | | 110V AC | YC9Z-LCU38A110 |
| | | | 120V AC | YC9Z-LCU38A120* |
| | | | 208V AC | YC9Z-LCU38A208 |
| | | | 220V AC | YC9Z-LCU38A220 |
| | 240V AC | | YC9Z-LCU38A240* | |
| | 480V AC | | YC9Z-LCU38A480* | |
| | 50-80 | | 24V AC | YC9Z-LCU80A24* |
| | | | 110V AC | YC9Z-LCU80A110 |
| | | | 120V AC | YC9Z-LCU80A120* |
| | | | 208V AC | YC9Z-LCU80A208 |
| | | | 220V AC | YC9Z-LCU80A220 |
| | | 240V AC | YC9Z-LCU80A240* | |
| | | 480V AC | YC9Z-LCU80A480* | |

* Standard stock coil voltages.

Switches & Pilot Lights

Signaling Lights

Relays & Sockets

Timers

Contactors

Terminal Blocks

Circuit Breakers

Specifications

General Specifications

| | YC1U-9 | YC1U-11 | YC1U-16 | YC1U-18 | YC1U-27 | YC1U-32 | YC1U-38 | YC1U-50 | YC1U-65 | YC1U-80 |
|--------------------------------------|--------------|---------|---------|-----------|-----------|---------|---------|-----------|-----------|-----------|
| Contact Configuration | 3A1a , 3A1b | | | 3A1a1b | 3A1a1b | | | 3A2a2b | | |
| Making Capacity (A) | 10xIe | | | 10xIe | 10xIe | | | 10xIe | | |
| Breaking Capacity (A) | 8xIe | | | 8xIe | 8xIe | | | 8xIe | | |
| Switching Frequency (Operations/ Hr) | 1200 | | | 1200 | 1200 | | | 1200 | | |
| Electrical Life (Operations) | 1,000,000 | | | 1,000,000 | 1,000,000 | | | 500,000 | 1,000,000 | 1,000,000 |
| Mechanical Life (Operations) | 5,000,000 | | | 5,000,000 | 5,000,000 | | | 5,000,000 | | |
| Operating Temperature | -20°C ~ 55°C | | | | | | | | | |
| Storage Temperature | -40°C ~ 70°C | | | | | | | | | |
| Weight (Kg) | 0.3 | | | 0.4 | 0.7 | | | 1.3 | | |

Note: Ie = rated operational current

Main Pole Contact Specifications

| | YC1U-9 | YC1U-11 | YC1U-16 | YC1U-18 | YC1U-27 | YC1U-32 | YC1U-38 | YC1U-50 | YC1U-65 | YC1U-80 |
|--------------------------------------|-------------------|---------|---------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|---------------------|
| Insulation Voltage, Ui (V) | IEC: 660 UL: 600 | | | IEC: 660 UL: 600 | IEC: 1000 UL: 600 | | | IEC: 660 UL: 600 | | |
| Operational Voltage, Ue (V) | IEC: 660 UL: 600 | | | IEC: 660 UL: 600 | IEC: 690 UL: 600 | | | IEC: 660 UL: 600 | | |
| Thermal Current, I _{th} (A) | IEC: 25 UL: 24 | | | IEC: 32 UL: 35 | IEC: 50 UL: 45 | IEC: 60 UL: 50 | IEC: 60 UL: 55 | IEC: 70 UL: 72 | IEC: 80/100 UL: 85 | IEC: 100 UL: 104 |
| Short Circuit Current Rating (KA) | 5 | | | 5 | 5 | | | 10 | | |
| NEMA Size Equivalent (approx.) | 0 | 0+ | 0+ | 1+ | 1 | 2 | 2 | 2+ | 2+ | 3+ |

Auxiliary Contacts Specifications

| | YC1U-9 | YC1U-11 | YC1U-16 | YC1U-18 | YC1U-27 | YC1U-32 | YC1U-38 | YC1U-50 | YC1U-65 | YC1U-80 | |
|----------------------------------------------------|------------------|---------|---------|------------------|------------------|---------|---------|------------------|---------|---------|--|
| Contact Configuration | 1a or 1b | | | 1a1b | 1a1b | | | 1a1b | | | |
| Insulation Voltage, Ui (V) | IEC: 600 UL: 600 | | | IEC: 660 UL: 600 | IEC: 690 UL: 600 | | | IEC: 660 UL: 600 | | | |
| Operational Voltage, Ue (V) | IEC: 600 UL: 600 | | | IEC: 600 UL: 600 | IEC: 690 UL: 600 | | | IEC: 660 UL: 600 | | | |
| Thermal Current, I _{th} (A) | AC: 10 DC: 2.5 | | | | | | | | | | |
| Contact Rating Code Designator UL | A600 Q300 | | | | | | | | | | |
| Operational Current (A) IEC 60947-5-1 UL 508 | AC-15 A600 | 120V | | | | 6 | | | | | |
| | | 240V | | | | 3 | | | | | |
| | | 380V | | | | 1.9 | | | | | |
| | | 480V | | | | 1.5 | | | | | |
| | | 500V | | | | 1.4 | | | | | |
| | | 600V | | | | 1.2 | | | | | |
| | DC-13 Q300 | 125V | | | | 0.55 | | | | | |
| | | 250V | | | | 0.27 | | | | | |

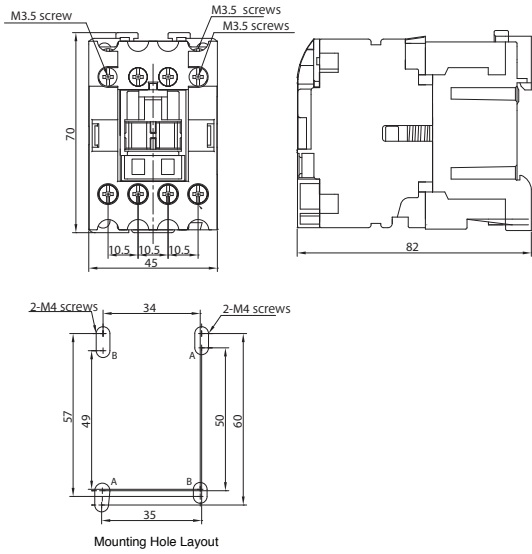
Coil Specifications

| | YC1U-9 | YC1U-11 | YC1U-16 | YC1U-18 | YC1U-27 | YC1U-32 | YC1U-38 | YC1U-50 | YC1U-65 | YC1U-80 |
|------------------------------|---------|---------|---------|---------|-------------------|---------|---------|---------|---------|---------|
| Pick-up Voltage | 50-60Hz | 70% | | 75% | 75% | | | 75% | | |
| Power Consumption, max. (VA) | Inrush | 70 | | 70 | 150 (cos φ = 0.7) | | | 280 | | |
| | Sealed | 12 | | 12 | 15 (cos φ = 0.3) | | | 32 | | |
| Power Dissipation max. (W) | 2-4 | | | 2-4 | 5 | | | 6-7.5 | | |

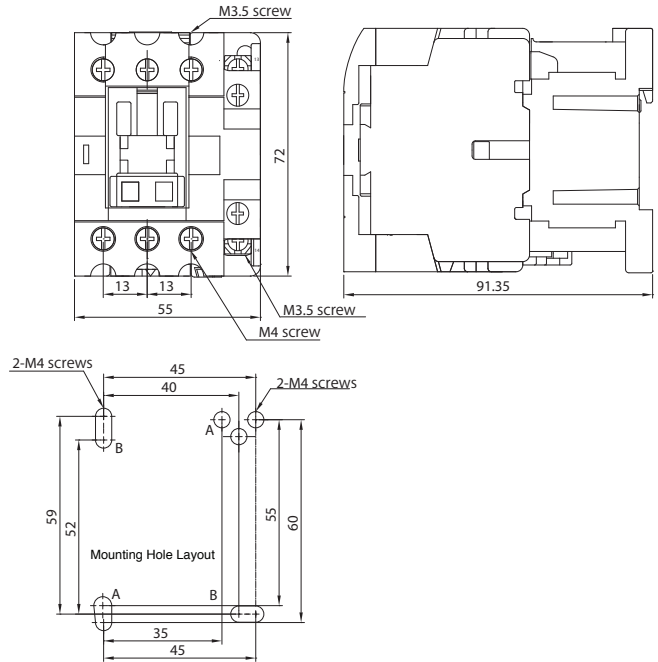
Dimensions (mm)

Contactors

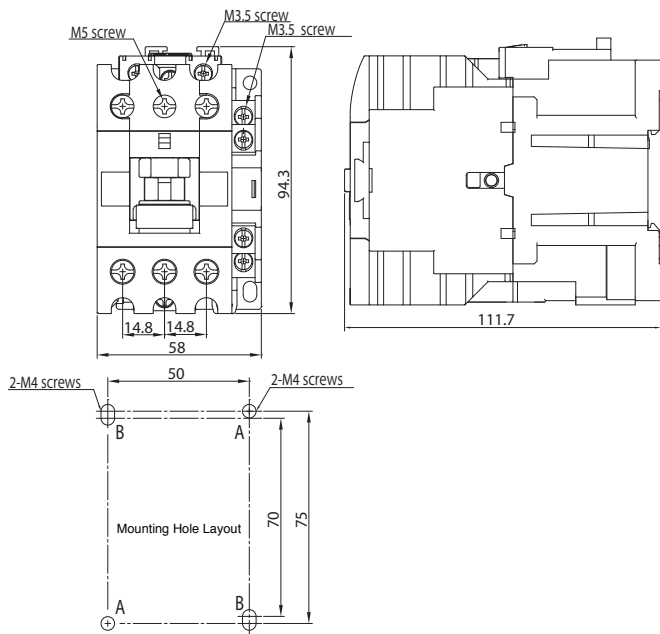
YC1U-9, YC1U-11, YC1U-16



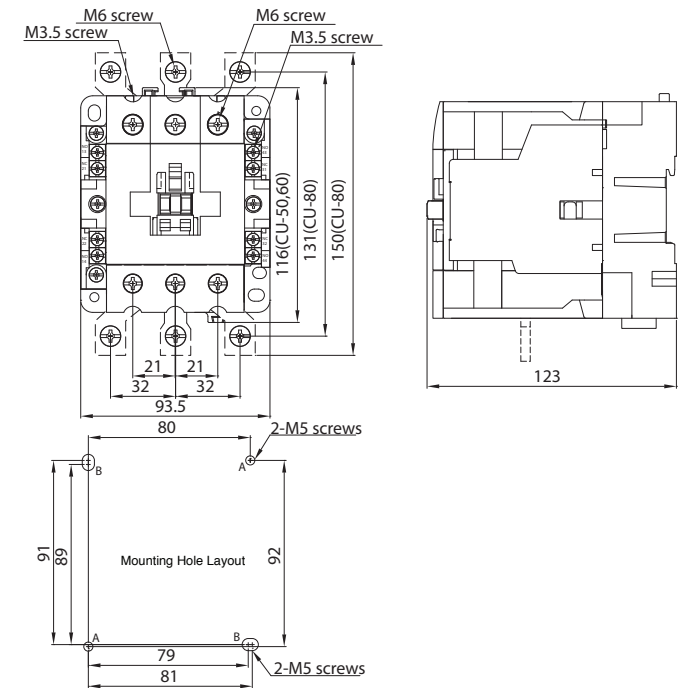
YC1U-18



YC1U-27, YC1U-32, YC1U-38



YC1U-50, YC1U-65, YC1U-80



Switches & Pilot Lights

Signaling Lights

Relays & Sockets

Timers

Contactors

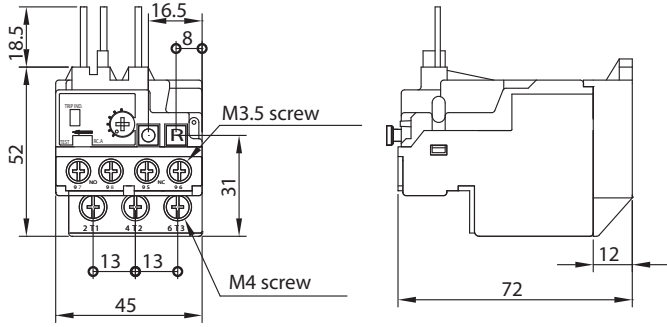
Terminal Blocks

Circuit Breakers

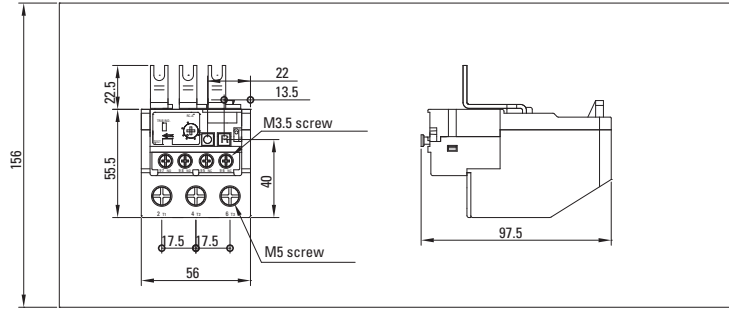
Dimensions (mm)

Overload Relays

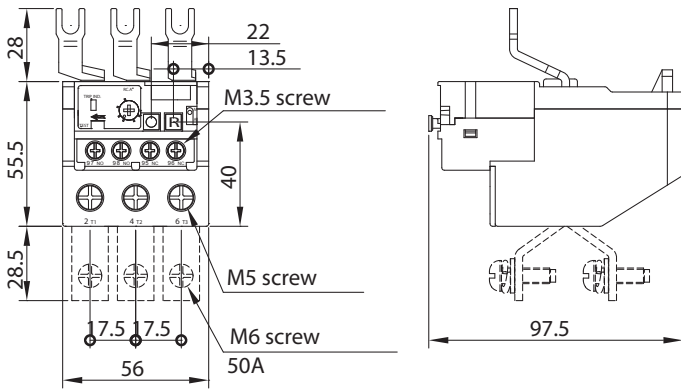
YC9Z-RHU10 (for YC1U-9, 11, 16, 18)



YC9Z-RHU10 (for YC1U-27, 32, 38, 40)

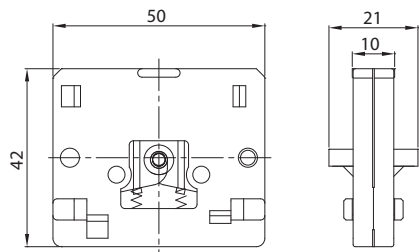


YC9Z-RHU80 (for YC1U-50, 65, 80)

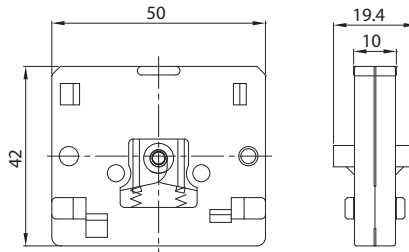


Mechanical Interlocks

YC9Z-CI18 (for YC1U-9, 11, 16, 27, 32, 38)



YC9Z-CI135 (for YC1U-50, 65, 80)



Switches & Pilot Lights

Signaling Lights

Relays & Sockets

Timers

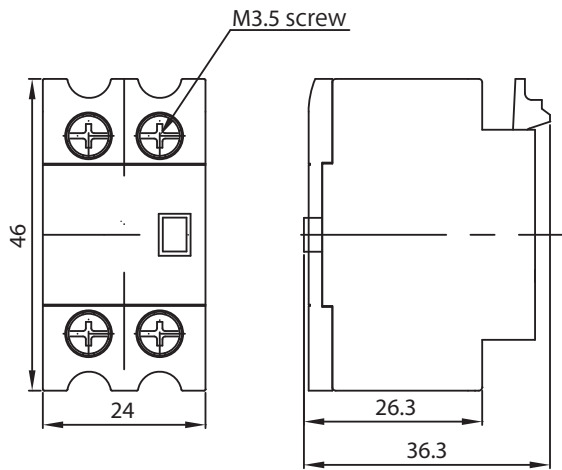
Contactors

Terminal Blocks

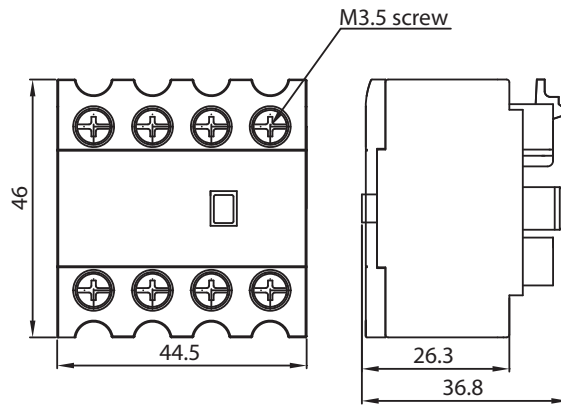
Circuit Breakers

Top Mounting Auxiliary Contacts

YC9Z-CUA2

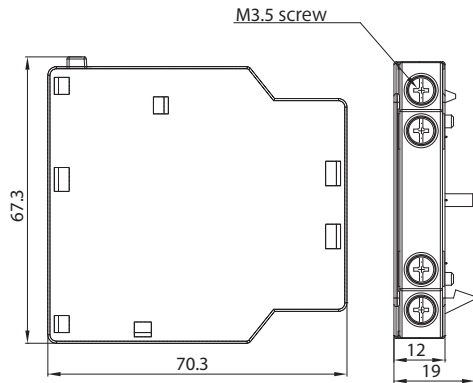


YC9Z-CUA4



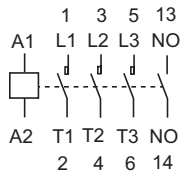
Side Mounting Auxiliary Contact

YC9Z-CNA111SR (1a1b for YC1U-9 to YC1U-38)

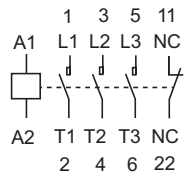


Electrical Diagrams

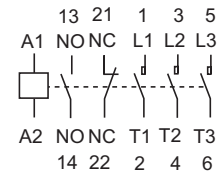
YC1U-9/11/16 (1NO Aux.)



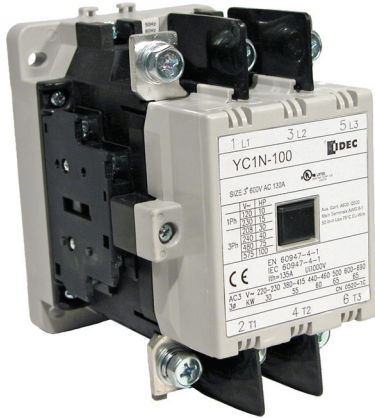
YC1U-9/11/16 (1NC Aux.)



YC1U-18 to YC1U-38 (1NO-1NC Aux.)



YC1N Series Contactors (AC Coil)



Key Features:

- 3-Phase Contactor with 2NO & 2NC Auxillary Contacts
- Side Mount Auxiliary contact blocks
- Comply with IEC 60945, UL508, CSA C22.2 standards



Part Number Key

YC1N - 125 A120

Contactor Size*

100, 125, 150, 180, 220, 300




Coil Voltage

A24: 24V AC, 50/60Hz
 A120: 120V AC, 50/6-Hz
 A240: 240V AC, 50/60Hz
 A480: 480V AC, 50/60Hz

*see selection table for details

Part Numbers

Selection by Horsepower Rating

| | Rated Power (Hp) per AC3 IEC 60947-4-1 | | | | | Rated Power (Hp) per UL508 CSA C22.2 | | | | | | Auxiliary Contact | Part Numbers | Coil Voltage |
|-------------------------------------------------------------------------------------|----------------------------------------|----------|----------|------|----------|--------------------------------------|----------|----------|----------|----------|------|-------------------|--------------|---------------------------------------------------------------------|
| | 3-Phase | | | | | 1-Phase | | 3-Phase | | | | | | |
| | 220/240V | 380/400V | 415/440V | 500V | 660/690V | 110/120V | 220/240V | 200/208V | 230/240V | 440/480V | 575V | | | |
|  | 40 | 80 | 80 | 85 | 85 | 10 | 15 | 30 | 40 | 75 | 100 | 2NO-2NC | YC1N-100 | + A24: 24V AC A120: 120V AC A240: 240V AC A480: 480V AC |
| | 54 | 100 | 100 | 100 | 100 | - | - | 40 | 50 | 100 | 100 | | YC1N-125 | |
|  | 60 | 110 | 110 | 125 | 136 | - | - | 50 | 75 | 125 | 125 | | YC1N-150 | |
| | 75 | 125 | 136 | 150 | 150 | - | - | 60 | 75 | 150 | 150 | | YC1N-180 | |
|  | 85 | 160 | 170 | 180 | 180 | - | - | 75 | 100 | 200 | 200 | | YC1N-220 | |
| | 120 | 220 | 220 | 220 | 270 | - | - | 100 | 125 | 250 | 250 | | YC1N-300 | |

Switches & Pilot Lights

Signaling Lights

Relays & Sockets

Timers

Contactors

Terminal Blocks

Circuit Breakers

Selection by Amp Rating

| Rated Power (A) per AC3 IEC 60947-4-1 | | | | | Rated Power (A) per UL508 CSA C22.2 | | | | | | Auxiliary Contact | Part Numbers | Coil Voltage | |
|---------------------------------------|----------|----------|------|----------|-------------------------------------|----------|----------|----------|----------|------|-------------------|--------------|--------------|----------------------------------------------------------------|
| 3-Phase | | | | | 1-Phase | | 3-Phase | | | | | | | |
| 220/240V | 380/400V | 415/440V | 500V | 660/690V | 110/120V | 220/240V | 200/208V | 230/240V | 440/480V | 575V | | | | |
| 115 | 115 | 105 | 93 | 75 | 100 | 68 | 92 | 104 | 96 | 99 | 2NO-2NC | YC1N-100 | + | A24: 24V AC A120: 120V AC A240: 240V AC A480: 480V AC |
| 138 | 138 | 138 | 105 | 85 | — | — | 120 | 130 | 124 | 99 | | YC1N-125 | | |
| 150 | 147 | 138 | 129 | 107 | — | — | 150 | 154 | 156 | 125 | | YC1N-150 | | |
| 182 | 179 | 182 | 156 | 118 | — | — | 177 | 192 | 180 | 144 | | YC1N-180 | | |
| 225 | 225 | 220 | 190 | 140 | — | — | 221 | 248 | 240 | 192 | | YC1N-220 | | |
| 300 | 300 | 300 | 250 | 220 | — | — | 285 | 312 | 302 | 242 | | YC1N-300 | | |

Selection by Kilowatt Rating

| Rated Power (kW) per AC3 IEC 60947-4-1 | | | | | Auxiliary Contact | Part Numbers | Coil Voltage | |
|----------------------------------------|----------|----------|------|----------|-------------------|--------------|--------------|----------------------------------------------------------------|
| 3-Phase | | | | | | | | |
| 220/240V | 380/400V | 415/440V | 500V | 660/690V | | | | |
| 30 | 60 | 60 | 65 | 65 | 2NO-2NC | YC1N-100 | + | A24: 24V AC A120: 120V AC A240: 240V AC A480: 480V AC |
| 40 | 75 | 75 | 75 | 75 | | YC1N-125 | | |
| 45 | 80 | 80 | 90 | 100 | | YC1N-150 | | |
| 55 | 95 | 100 | 110 | 110 | | YC1N-180 | | |
| 65 | 120 | 132 | 132 | 132 | | YC1N-220 | | |
| 90 | 160 | 160 | 160 | 220 | | YC1N-300 | | |

Accessories

| Item | Size | Current Range | Part Number |
|----------------|----------|---------------|-----------------|
| Overload Relay | 100, 125 | 65-95A | YC9Z-RHN100A95P |
| | | 85-125A | YC9Z-RHN100A125 |
| | | 110-160A | YC9Z-RHN100A160 |
| | 150 | 65-95A | YC9Z-RHN150A95P |
| | | 85-125A | YC9Z-RHN150A125 |
| | | 110-160A | YC9Z-RHN150A160 |
| | 180 | 110-160A | YC9Z-RHN180A160 |
| | | 125-185A | YC9Z-RHN180A185 |
| | 220, 300 | 110-160A | YC9Z-RHN220A160 |
| | | 125-185A | YC9Z-RHN220A185 |

| Item | Part Number | | |
|------------------------------------------------------------------------------------------------------------------|-----------------------|----------|-----------|
| Mechanical Interlock  | YC9Z-CI100 | | |
| Side Mount Auxiliary Contact  | 1a1b YC9Z-CNA111BC | | |
| Surge Suppressor Unit | 120V AC | RC | YC9Z-SS1E |
| | | VARISTOR | YC9Z-SS2E |
| | 240V AC | RC | YC9Z-SS2H |
| | | VARISTOR | YC9Z-SS1H |

| Item | Contactor Size | Coil Voltage | Part Number | |
|-------------------|----------------|--------------|------------------|------------------|
| Replacement Coils | 100, 125 | 24VAC | YC9Z-LCN125A24* | |
| | | 110VAC | YC9Z-LCN125A110 | |
| | | 120VAC | YC9Z-LCN125A120* | |
| | | 208VAC | YC9Z-LCN125A208 | |
| | | 220VAC | YC9Z-LCN125A220 | |
| | | 240VAC | YC9Z-LCN125A240* | |
| | | 480VAC | YC9Z-LCN125A480* | |
| | | 150, 180 | 24VAC | YC9Z-LCN180A24* |
| | | | 110VAC | YC9Z-LCN180A110 |
| | | | 120VAC | YC9Z-LCN180A120* |
| | | | 208VAC | YC9Z-LCN180A208 |
| | | | 220VAC | YC9Z-LCN180A220 |
| | 240VAC | | YC9Z-LCN180A240* | |
| | 480VAC | | YC9Z-LCN180A480* | |
| | 220, 300 | | 24VAC | YC9Z-LCN300A24* |
| | | | 110VAC | YC9Z-LCN300A110 |
| | | | 120VAC | YC9Z-LCN300A120* |
| | | | 208VAC | YC9Z-LCN300A208 |
| | | | 220VAC | YC9Z-LCN300A220 |
| | | 240VAC | YC9Z-LCN300A240* | |
| | | 480VAC | YC9Z-LCN300A480* | |

* Standard stock coil voltages.

Switches & Pilot Lights

Signaling Lights

Relays & Sockets

Timers

Contactors

Terminal Blocks

Circuit Breakers

Specifications

General Specifications

| | YC1N-100 | YC1N-125 | YC1N-150 | YC1N-180 | YC1N-220 | YC1N-300 |
|--------------------------------------|--------------|----------|----------|----------|----------|----------|
| Contact Configuration | 3A2a2b | | | | | |
| Making Capacity (A) | 10xIe | | | | | |
| Breaking Capacity (A) | 8xIe | | | | | |
| Switching Frequency (Operations/ Hr) | 1,200 | | | | | |
| Electrical Life (Operations) | 1,000,000 | | | | | |
| Mechanical Life (Operations) | 5,000,000 | | | | | |
| Operating Temperature | -20°C ~ 55°C | | | | | |
| Storage Temperature | -40°C ~ 70°C | | | | | |
| Weight (Kg) | 2.2 | | 4.1 | | 6.7 | |

Note: Ie = rated operational current

Main Pole Contact Specifications

| | YC1N-100 | YC1N-125 | YC1N-150 | YC1N-180 | YC1N-220 | YC1N-300 |
|--------------------------------------|-------------------|-------------|------------------|-------------|------------------|-------------|
| Insulation Voltage, Ui (V) | IEC: 1000 UL: 600 | | IEC: 1000 UL:600 | | IEC: 1000 UL:600 | |
| Operational Voltage, Ue (V) | IEC: 690 UL:600 | | IEC: 690 UL:600 | | IEC: 690 UL:600 | |
| Thermal Current, I _{th} (A) | IEC: 135 UL: 130 | IEC/UL: 150 | IEC/UL: 200 | IEC/UL: 240 | IEC/UL: 260 | IEC/UL: 350 |
| Short Circuit Current Rating (KA) | 10 | | 10 | | 18 | |
| NEMA Size Equivalent (approx.) | 3 | 4 | 4 | 4 | 4 | 5 |

Auxiliary Contacts Specifications

| | YC1N-100 | YC1N-125 | YC1N-150 | YC1N-180 | YC1N-220 | YC1N-300 |
|----------------------------------------------------|------------------|----------|----------|----------|----------|----------|
| Insulation Voltage, Ui (V) | IEC: 690 UL:600 | | | | | |
| Operational Voltage, Ue (V) | IEC: 690 UL: 600 | | | | | |
| Thermal Current, I _{th} (A) | AC: 10 DC: 2.5 | | | | | |
| Contact Rating Code Designator UL | A600 Q300 | | | | | |
| Operational Current (A) IEC 60947-5-1 UL 508 | AC-15 A600 | 120V | 6 | | | |
| | | 240V | 3 | | | |
| | | 380V | 1.9 | | | |
| | | 480V | 1.5 | | | |
| | | 500V | 1.4 | | | |
| | | 600V | 1.2 | | | |
| | DC-13 Q300 | 125V | 0.55 | | | |
| | | 250V | 0.27 | | | |

Coil Specifications

| | | YC1N-100/YC1N-125 | YC1N-150/YC1N-180 | YC1N-220/YC1N-300 |
|------------------------------|---------|-------------------|-------------------|-------------------|
| Pick-up Voltage | 50/60Hz | 75% | 75% | 75% |
| Drop-out Voltage | | 60% | 45% | 45% |
| Power Consumption, max. (VA) | Inrush | 560 | 700 | 300 |
| | Sealed | 63 | 88 | 63 |
| Power Dissipation max. (W) | | 6-11.6 | 25-35 | 9-15 |

Switches & Pilot Lights

Signaling Lights

Relays & Sockets

Timers

Contactors

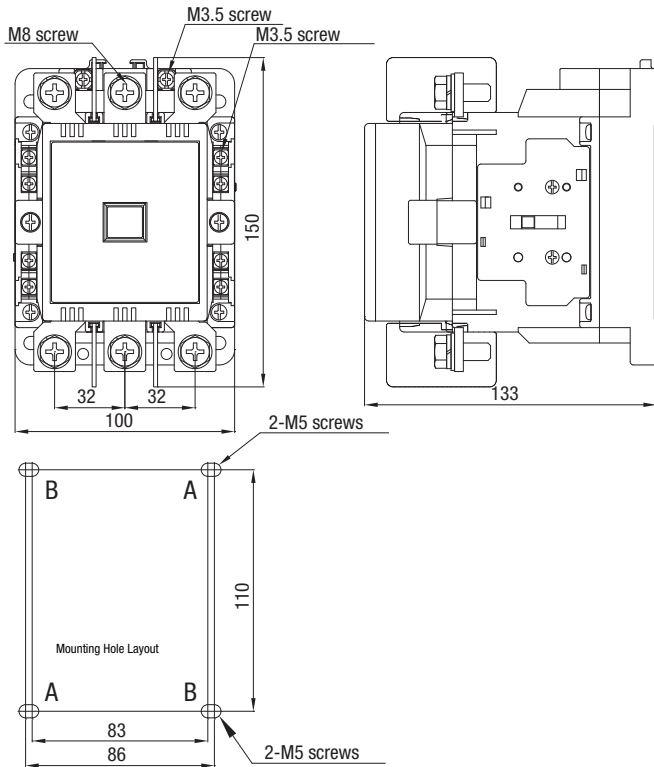
Terminal Blocks

Circuit Breakers

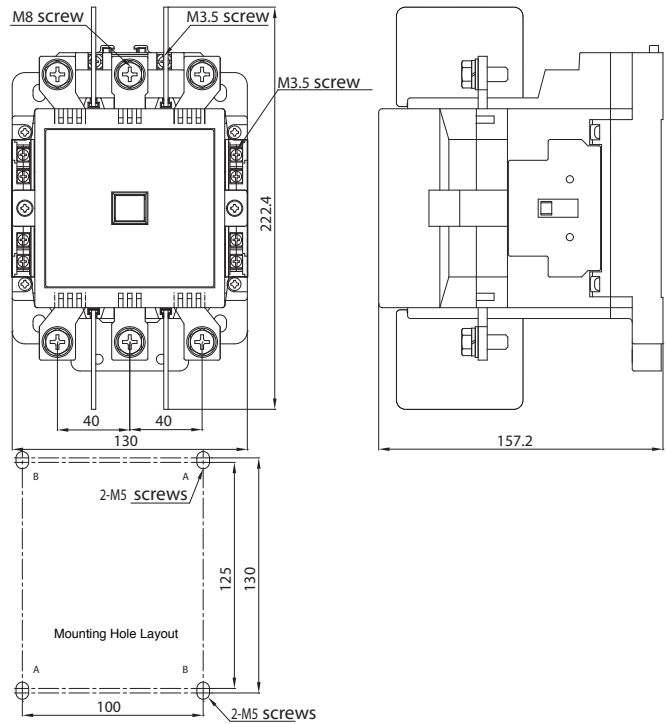
Dimensions (mm)

Contactors

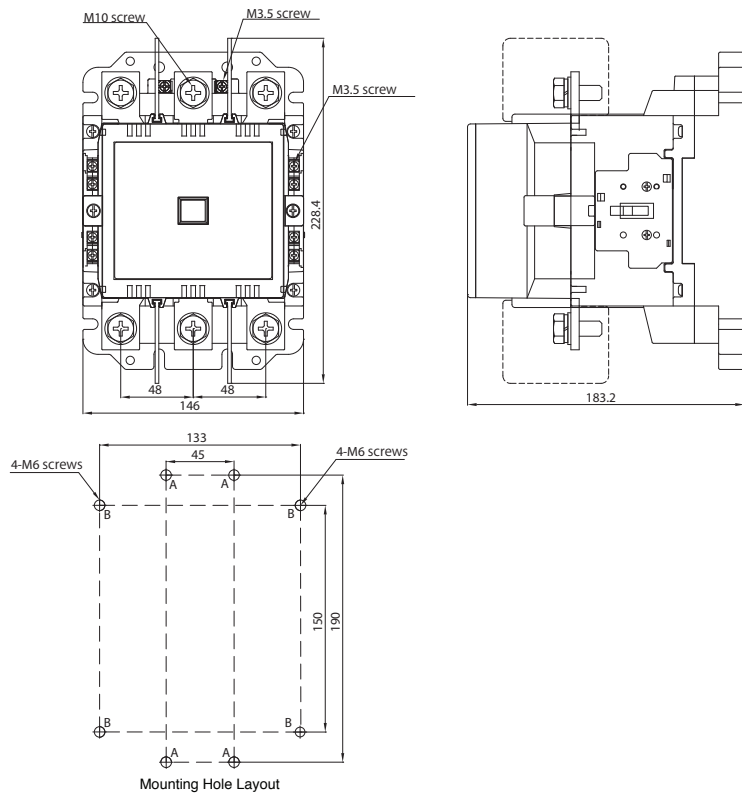
YC1N-100, YC1N-125



YC1N-150, YC1N-180



YC1N-220, YC1N-300



Switches & Pilot Lights
 Signaling Lights
 Relays & Sockets
 Timers

Contactors

Terminal Blocks

Circuit Breakers