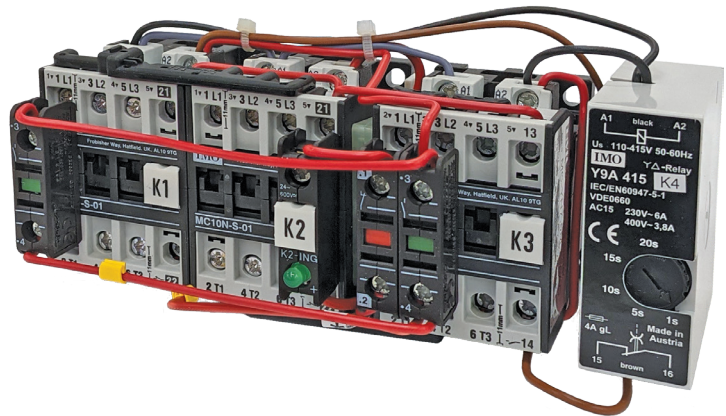# MC-Y Series
## Star Delta Starter

## Key Features

- Open type - assembled and pre-wired to accept separate overload

- LED indication in Delta postion up to 55kW

- Variable electronic timer with inherant dwell period

- DIN Rail mountable up to 55kW

- Mechanical & electrical interlock between Star and Delta contactors

- Designed to EN60947-4-1

UK CA  CE

## Options & Ordering Codes

| MC-Y | 22 | M | 24AC |

| Series | | |
|---|---|---|
| Star Delta Starter | MC-Y | |

| | Coil Voltage | |
|---|---|---|
| 24AC | 24V AC | |
| 24DC | 24V DC | |
| 110AC | 110V AC | |
| 230AC | 230V AC | |
| 400AC | 400V AC | |

| Rating | | | | |
|---|---|---|---|---|
| 7.5kW | N7.5 | 45kW | 45 | |
| 15kW | N15 | 55kW | 55 | |
| 22kW | 22 | 75kW | 75 | |
| 30kW | 30 | 110kW | 110 | |

| M | Mechanical Interlock |
|---|---|

## Specification

| Rating @400VAC | | Construction | | | | | | Product Code | Associated Overload |
|---|---|---|---|---|---|---|---|---|---|
| kW | Amps | Line K1 | Delta K2 | Star K3 | Star-Delta Inter Link | Mechanical Interlock | Timer | | |
| 7.5 | 16 | MC10N-S-01 + MCA10 | MC10N-S-01 | MC10N-S-10 + MCA10 +MCA01 | MCY-C-22 | MC-I-W | Y9A.. | MC-YN7.5M.. | MCOR-1 U12/16E..-MC |
| 15 | 30 | MC18N-S-01 + MCA10 | MC18N-S-01 | MC14N-S-10 + MCA10 +MCA01 | MCY-C-22 | MC-I-W | Y9A.. | MC-YN15M.. | MCOR-1 U12/16E..-MC |
| 22 | 45 | MC24-S-00 + MCA10 +MCA01 | MC24-S-00 + MCA01 | MC18N-S-10 + MCA10 +MCA01 | MCY-C-40 | MC-I-W | Y9A.. | MC-Y22M.. | MCOR-2 |
| 30 | 60 | MC32-S-00 + MCA10 | MC32-S-00 + MCA01 + MCA01 | MC24-S-00 + 2x MCA10 +MCA01 | MCY-C-40 | MC-I-W | Y9A.. | MC-Y30M.. | MCOR-2 |
| 45 | 85 | MC50-S-00 + MCA10 +MCA01 | MC50-S-00 + MCA01 | MC32-S-00 + 2x MCA10 +MCA01 | - | MC-I-X | Y9A.. | MC-Y45M.. | MCOR-3 |
| 55 | 109 | MC62-S-00 + MCA10 +MCA01 | MC62-S-00 + MCA01 | MC50-S-00 + 2x MCA10 +MCA01 | - | MC-I-X | Y9A.. | MC-Y55M.. | MCOR-3 |
| 75 | 150 | MC90-S-00 + MCA10 +MCA01 | MC90-S-00 + MCA01 | MC90-S-00 + 2x MCA10 +MCA01 | - | MC-I-Y | Y9AL.. | MC-Y75M.. | MCOR-4 |
| 110 | 205 | MC115-S-00 + MCA10 +MCA01 | MC115-S-00 + MCA01 | MC90-S-00 + 2x MCA10 +MCA01 | - | MC-I-Y | Y9AL.. | MC-Y110M.. | MCOR-4 |

# MC-Y Series
## Star Delta Starter

**IMO**

## Thermal Overloads
### Ordering Codes

| Amps | MCOR-1 Hand/Auto Reset | U12/16E Hand Reset | MCOR-2 Hand/Auto Reset | MCOR-3 Hand/Auto Reset | MCOR-4 Hand Reset |
|---|---|---|---|---|---|
| 7.0-10.5 | MCOR-1-6 | U12/16E6-MC | - | - | - |
| 10.5-15.5 | MCOR-1-9 | U12/16E9-MC | - | - | - |
| 14.0-19.0 | MCOR-1-11 | U12/16E11-MC | - | - | - |
| 18.0-24.0 | MCOR-1-14 | U12/16E14-MC | MCOR-2-14 | - | - |
| 23.0-31.0 | MCOR-1-18 | U12/16E18-MC | - | - | - |
| 24.0-35.0 | - | - | MCOR-2-20 | - | - |
| 30.0-40.0 | - | U12/16E23-MC | MCOR-2-28 | - | - |
| 30.0-41.0 | MCOR-1-24 | - | - | - | - |
| 35.0-48.0 | - | - | - | MCOR-3-28 | - |
| 38.0-52.0 | - | U12/16E30-MC | - | - | - |
| 40.0-55.0 | MCOR-1-32 | - | - | - | - |
| 48.0-73.0 | - | - | MCOR-2-42 | MCOR-3-42 | - |
| 70.0-90.0 | - | - | - | MCOR-3-52 | - |
| 90.0-112.0 | - | - | - | MCOR-3-65 | - |
| 104.0-156.0 | - | - | - | - | MCOR-4-90 |
| 140.0-207.0 | - | - | - | - | MCOR-4-120 |
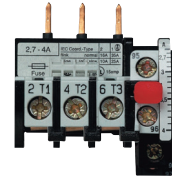
## Y9A Timer

Electronic timer specifically designed for use in Star Delta applications.

Variable run-up time with an inherant dwell period fo 20-30ms during changeover from Star to Delta position, for Y9A times and 40-80. DIN Rail moutning. Contacts rated 4A @ 400VAC, for Y9AL timers.

The timer is not continuously rated and must be wired in accordance with circuit diagram as detailed.

| Time | Voltage | Part Number |
|---|---|---|
| 1-20 secs | 24-60VAC | Y9A60 |
| 1-20 secs | 110-415VAC | Y9A415 |
| 1-20 secs | 24-60VAC | Y9AL60 |
| 1-20 secs | 110-415VAC | Y9AL415 |

## Accessories

| Description | Part Number |
|---|---|
| Additional Auxiliary Contacts | |
| Normally Open 10A @ 690V AC1 | MCA10 |
| Normally Closed 10A @ 690V AC1 | MCA01 |
| Normally Open 25A @ 690V AC1 | MCAH10 |
| Normally Closed 25A @ 690V AC1 | MCAH10 |
| DIN Rail Mounting Set for Overloads | |
| For U12/16E..-MC | U12SM-MC |
| For MCOR-1 | U3/32SM |

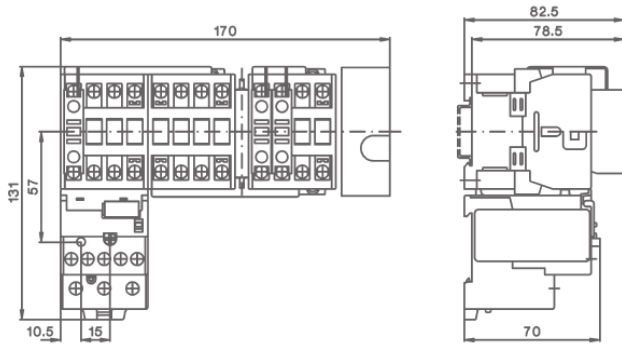## Wiring Diagram - Main Circuit
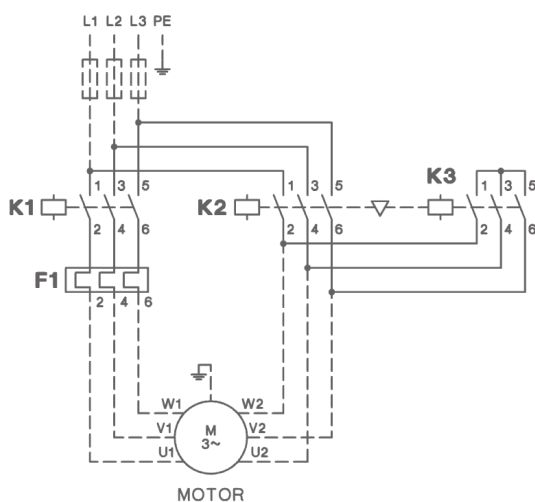


## Wiring Diagram - Control Circuit
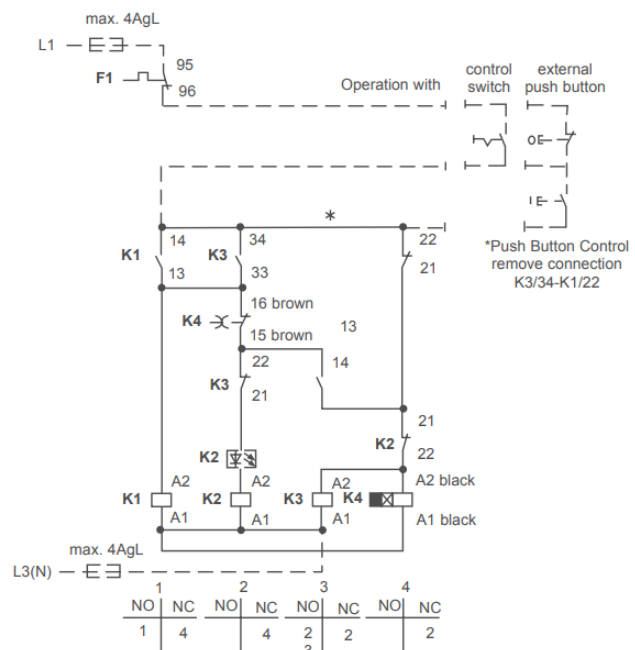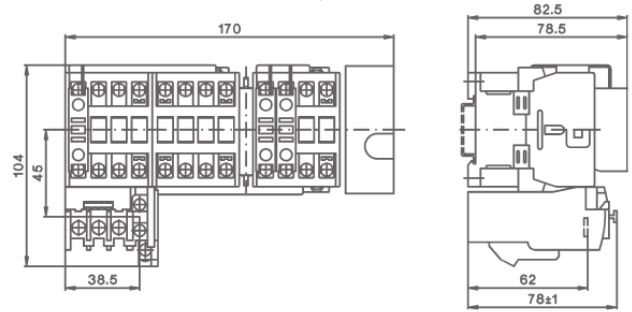
# MC-Y Series
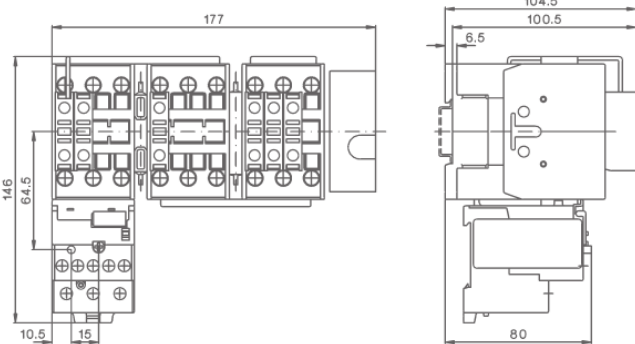## Star Delta Starter

### Dimensions (mm)

#### MC-YN7.5M.. MC-YN15M.. + MCOR-1
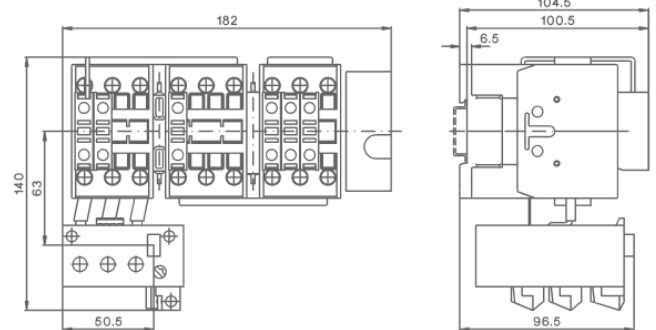


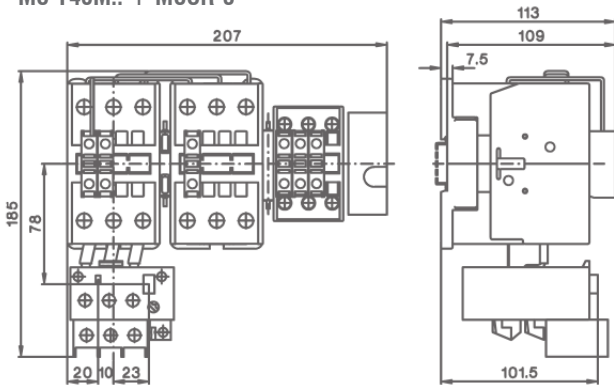#### MC-YN7.5M.. MC-YN15M.. + U12/16E..-MC
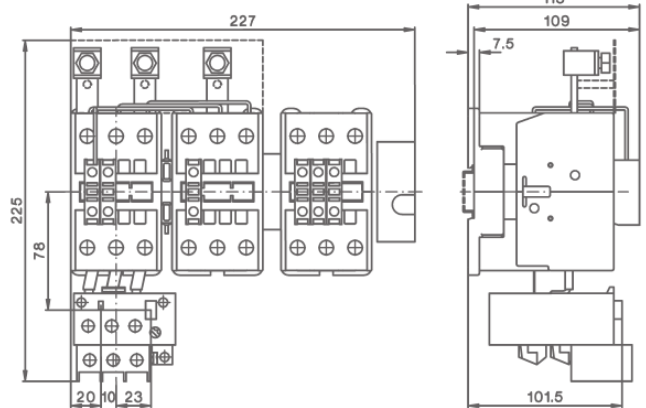


#### MC-Y22M.. MC-Y30M.. + MCOR-1



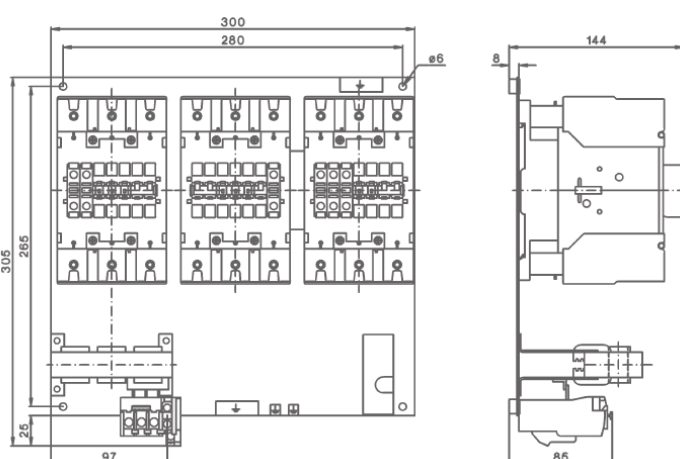#### MC-Y22M.. MC-Y30M.. + MCOR-2



#### MC-Y45M.. + MCOR-3



#### MC-Y55M.. + MCOR-3



#### MC-Y75M.. MC-Y110M.. + MCOR-4



**NOTE: Setting of Timer**

It is essential to adjust the timer for the correct changeover from Star to Delta postion. This will vary according to application.