



# Magnum Trishakti Star Delta Starter MaK-1

## Introduction

Magnum Trishakti Star Delta Starters MaK-1 are made for higher H.P Motors. The starters are manufactured using best raw materials, for uninterrupted flawless performance whilst controlling your motor/pump

## Salient Features

1. Powder coated MS enclosure for corrosion resistance.
2. Rugged MaK-1 contactors with wide voltage band (250-440V).
3. Fitted with MaK-1 type relay for reliable overload protection.
4. Manual reset facility after overload protection.
5. ON/OFF status is visible through the window provided on top of the enclosure.
6. A latch on the push button can be used to keep the stop button locked, thus preventing accidental starting.
7. Current peak on changeover from star to delta.
8. Mechanical load on changeover from star to delta.
9. Easy & quick mounting.
10. Ergonomic design with aesthetic looks.
11. There is a provision for using an auxiliary contact block with configuration 2No + 2NC.

## Functions


1. Switches your pump/ motor ON and OFF.
2. Protects the pump/motor from over-current.
3. Trips when there is a persistent overload on the motor.
4. Ensures reliable performance in high temperatures, humidity & under-voltage conditions.

## Applications

Magnum three phase Star Delta starters Trishakti are reliable "Workhorses" for domestic, agricultural and industrial applications. Star Delta Starters are used in

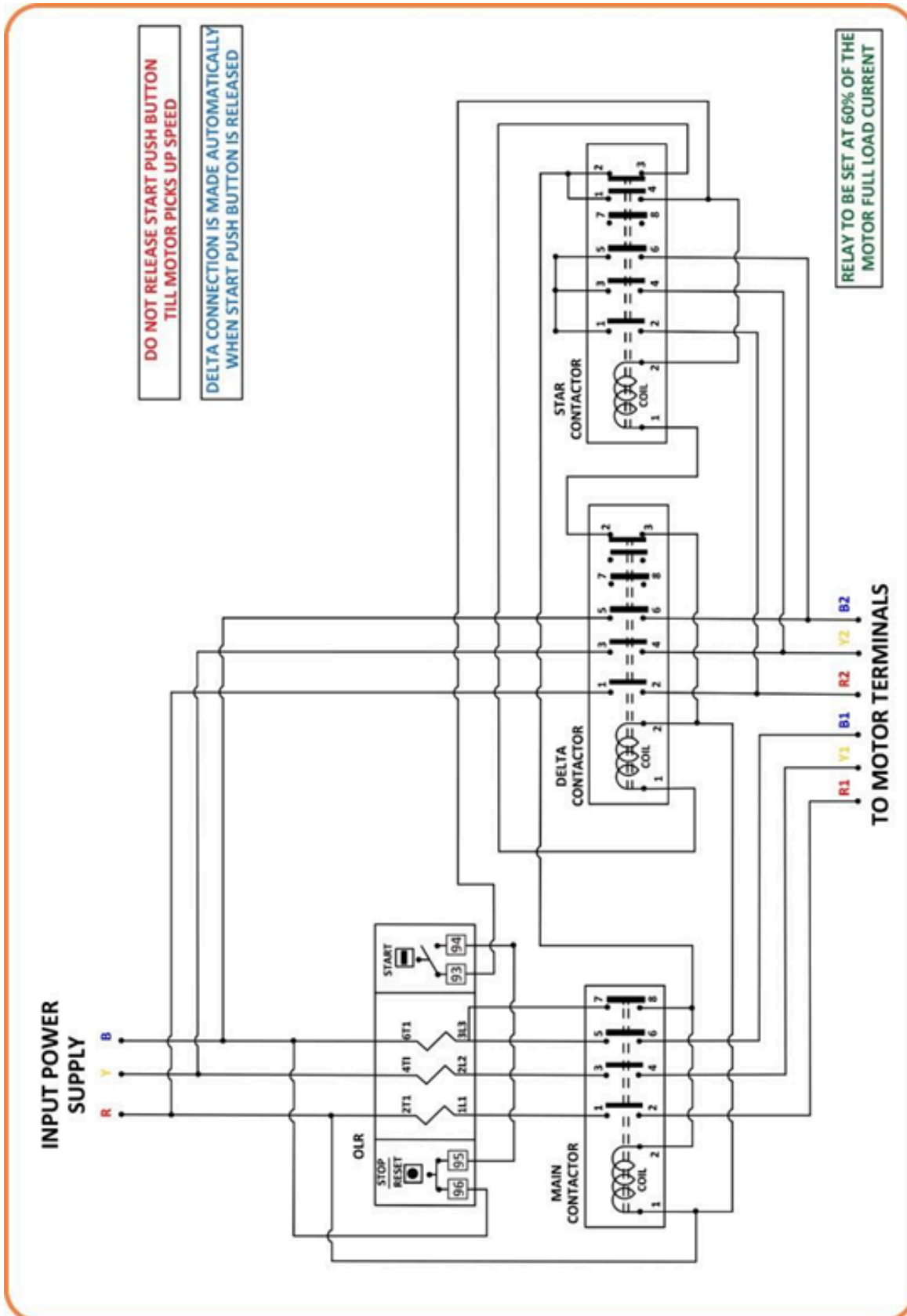
- Industries - Heavy machineries
- Floor Mills, compressor, lathe and others
- Water Irrigation Pumps

## Technical Specifications

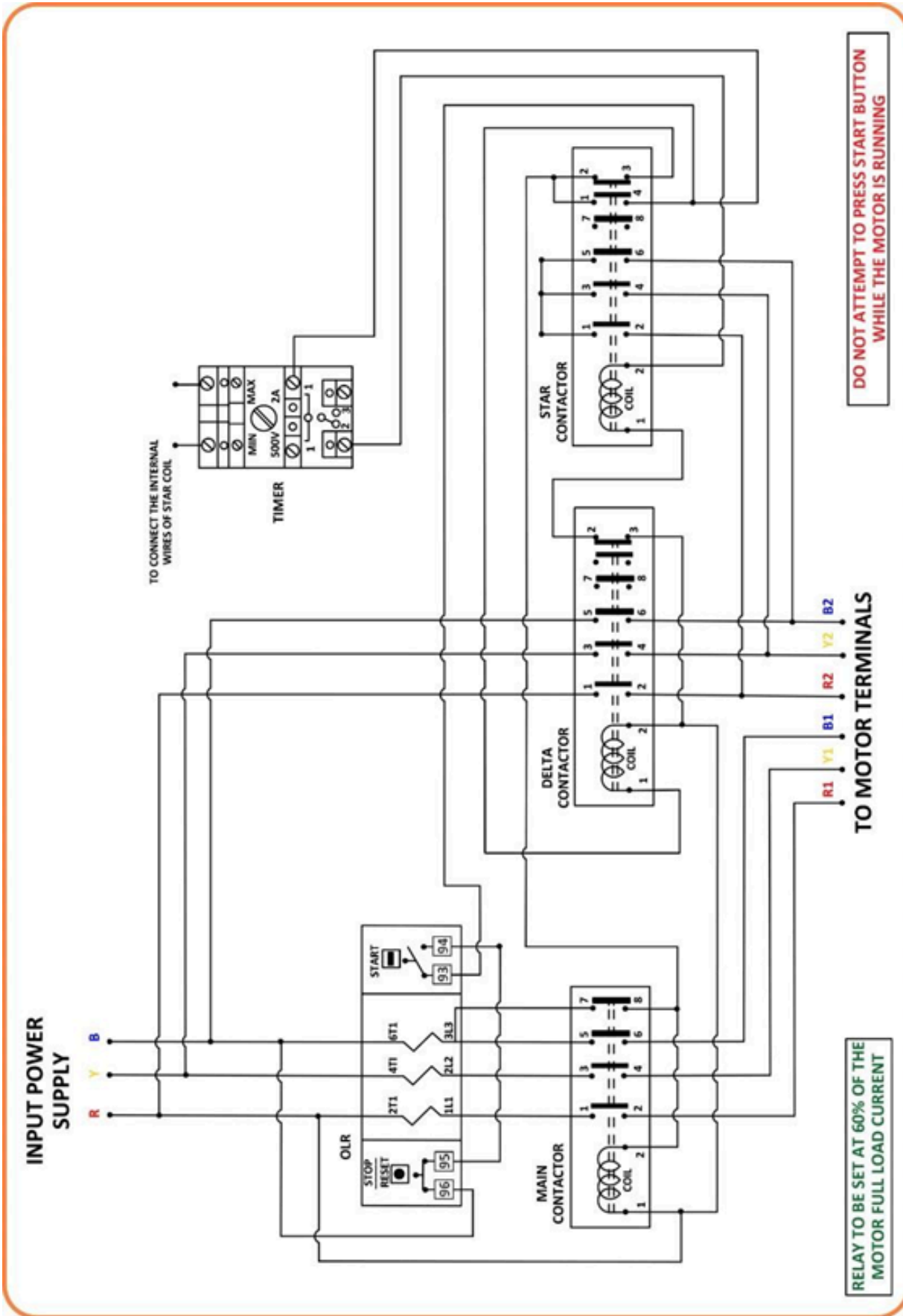
1. Enclosure: Powder Coated Mild Steel
2. Current: AC
3. Operating Voltage: 70% to 105% of coil voltage
4. Pick up voltage: Minimum 70% of coil voltage
5. Drop off voltage: Below 50% of coil voltage
6. Contactor: MaK-1/MaK-1 Heavy Duty 4 Pole
7. Relay: MaK-1 4 Pole
8. Area: MaK-1(210 \* 390 \* 1050) mm
9. Net Weight: 5.30 Kilograms
10. Insulation Voltage AC (Vi): 660V
11. Frequency & Ambient Temperature: 50Hz & (-25°C to +55°C)
12. Terminal Capacity: 1 \* 16 mm<sup>2</sup> or 2 \* 10 mm<sup>2</sup>
13. Power range: Up to 20 HP/32A
14. Coil Voltage: 440 V
15. Phase: 3 Phase
16. Number of cable entries: 2+2 (top+bottom)
17. Enclosure cover: Detachable
18. Country of origin: 

# Circuit Diagram

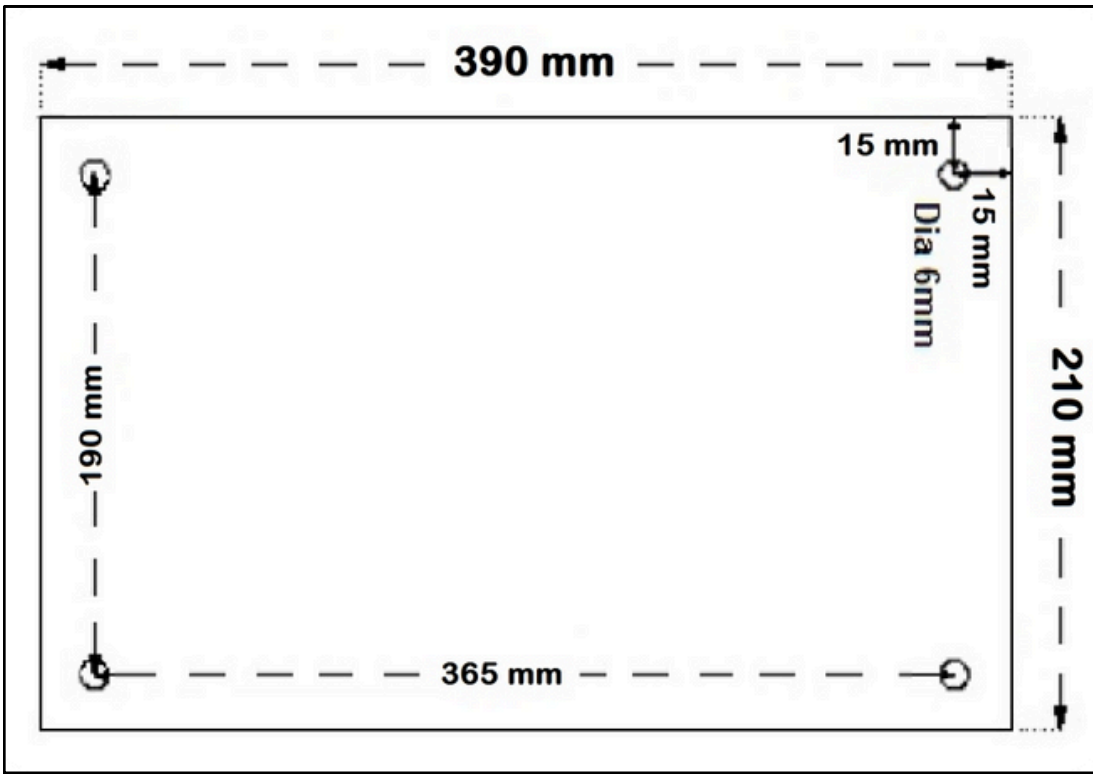
## 1. Three Phase Semi-Automatic Star Delta Starter



**2. Three Phase Fully Automatic Star Delta Starter**



**Mounting Template (mm): (Not to Scale)**



**Selection & Ordering info.**

<b>Relay Range (Amps)</b>	06-10	09-14	11-18	13-21	20-32	20-32
<b>Power in H.P.</b>	7.5	10	12.5	15	17.5	20
<b>MaK-1 SASD</b>	SDS7H	SDS10	SDS12H	SDS15	SDS17H	SDS20
<b>MaK-1 FASD</b>	SDF7H	SDF10	SDF12H	SDF15	SDF17H	SDF20
<b>Std. Pkg.</b>	4/ range					

**Links**

Product page - <https://kalpcontrols.com/product/trishakti-star-delta-starters-mak-1/>  
 Video url - <https://www.youtube.com/playlist?list=PLOXFzEEAifn1jazXer9HjUdur6MFA6qZ>