

# Digitax HD M75C Series Capacitor Module Installation Sheet

## 1 Safety information



### Follow the instructions

The mechanical and electrical installation instructions must be adhered to. Any questions or doubt should be referred to the supplier of the equipment. It is the responsibility of the owner or user to ensure that the installation of the drive and any external option unit, and the way in which they are operated and maintained, comply with the requirements of the Health and Safety at Work Act in the United Kingdom or applicable legislation and regulations and codes of practice in the country in which the equipment is used.



### Competence of the installer

The drive must be installed by qualified personnel only, who are familiar with the requirements for safety and EMC. The installer is responsible for ensuring that the end product or system complies with all the relevant laws in the country where it is to be used.



### Isolation device

The AC / DC supply must be disconnected from the drive using an approved isolation device before any cover is removed from the drive or before any servicing work is performed.

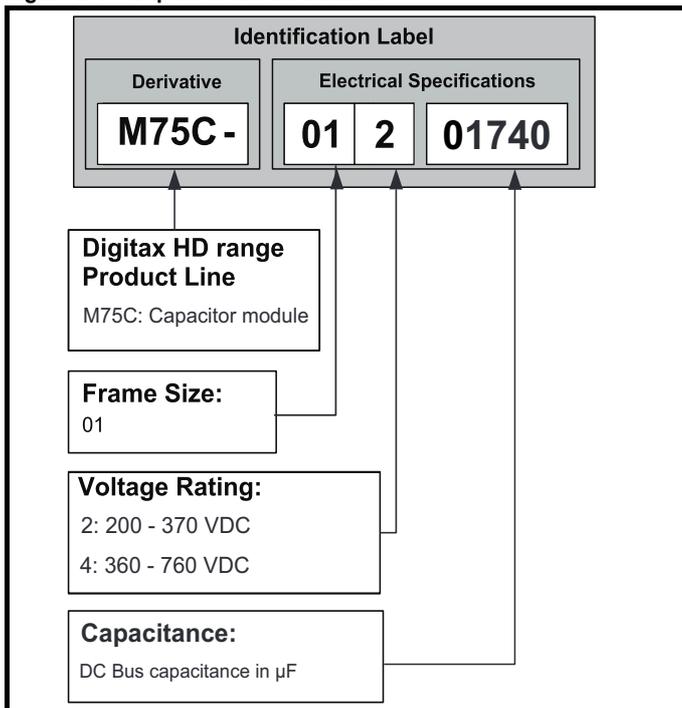
## 2 Introduction

This document covers the installation instructions for the M75C CapShare Capacitor Module. The capacitor module can be directly connected to the drive and used to improve single phase ratings, extend drive operation in mains loss conditions and improve DC bus regenerative energy absorption under motor deceleration. It is possible to connect the M75C CapShare Capacitor Module to drives other than Digitax HD.

### 2.1 Capacitor module number

The model numbers for the capacitor modules are illustrated in Figure 2-1.

Figure 2-1 Capacitor model number



## 2.2 Item supplied with the capacitor module

Table 2-1 Part supplied with the capacitor module.

Description	Capacitor module
Status relay connector	
24 V Supply input connector	
M4 x 8 Screws	

To connect the M75C CapShare Capacitor Module to a Digitax HD drive one of the following kits is required:

Table 2-2

Option	Part number	Description
	9500-1047	Multi axis kit (standard - without SI-Option mounting kit fitted). Includes DC busbar, ground screws, 24 V link and communications link
	9500-1048	Multi axis kit (with SI-Option kit fitted). Includes DC busbar, ground screws, 24 V link and communications link

### NOTE

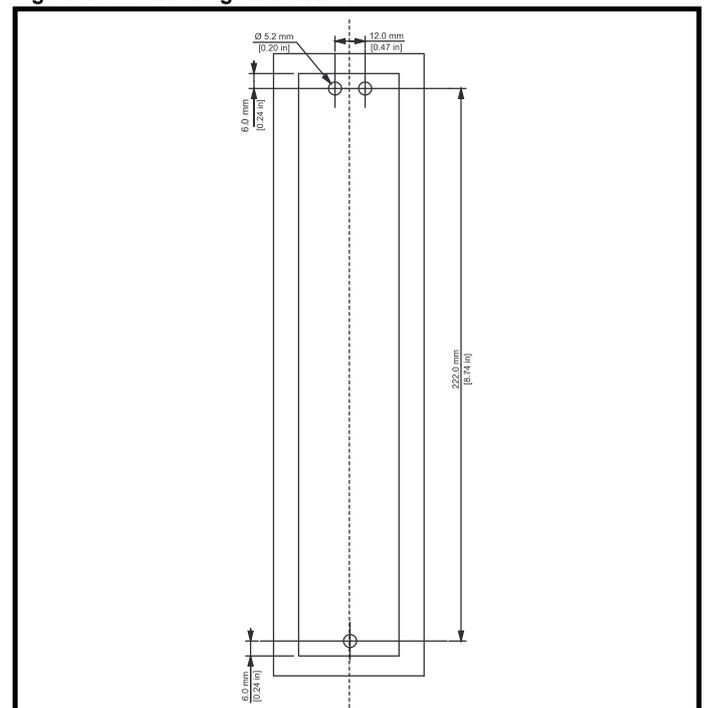
The appropriate kit should be selected based on the requirement to fit an SI-Option mounting kit.

## 3 Installation

### 3.1 Preparing the backplate

Ensure that the mounting hole positions and dimensions are as shown in Figure 3-1.

Figure 3-1 Mounting hole details



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### 3.2 Horizontal mounting

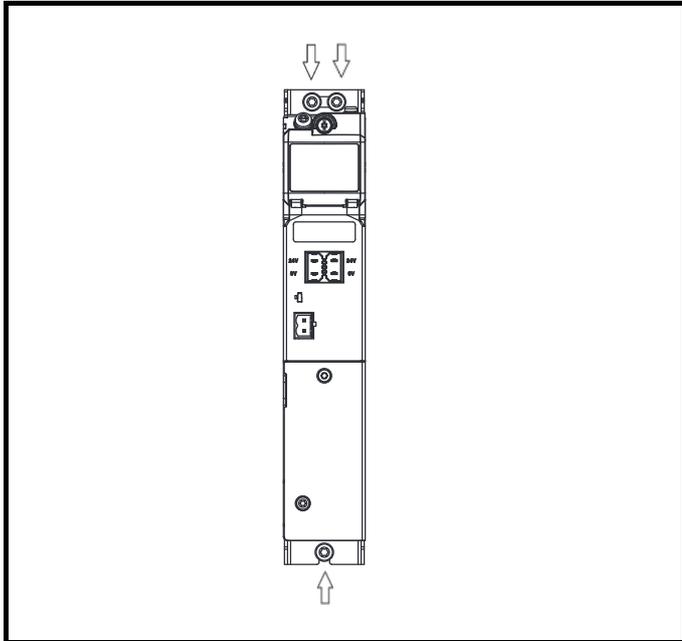
Capacitor modules mounted in the horizontal position give the same thermal performance as module mounted in the vertical position. No derating is necessary.

### 3.3 Securing the drive to the backplate

Align the capacitor module by attaching to the DIN rail.

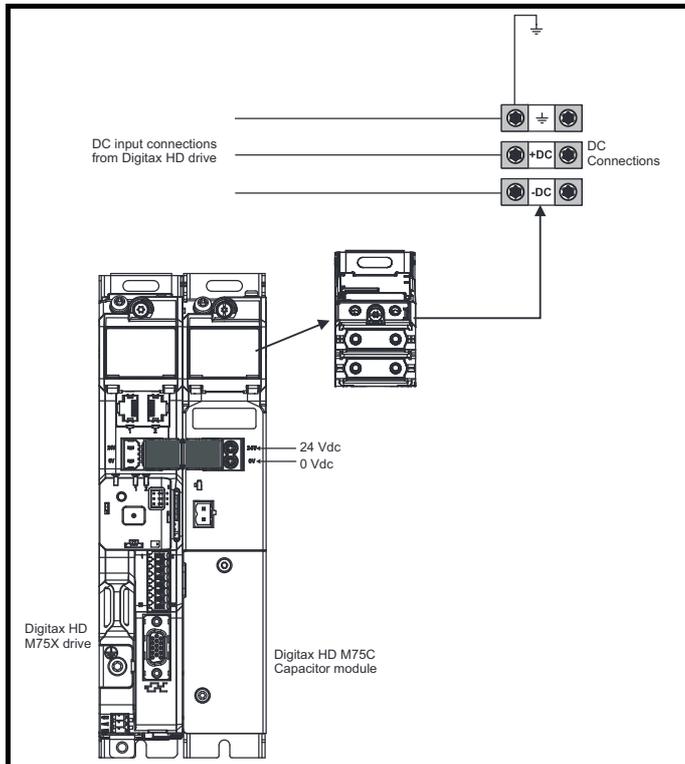
Align the capacitor module by attaching to the DIN rail. Attach the capacitor module to the backplate in the positions shown in Figure 3-2 using suitable M5 fasteners. For multi-axis (side by side) installations, each module can be secured with one M5 fastener in the upper mounting position only.

**Figure 3-2 Securing the M75C CapShare Capacitor Module to the backplate**



## 4 Electrical installation

**Figure 4-1 M75C capacitor module power and ground connections**



### 4.1 Orientation of Digitax M75C Capshare Capacitor Module

The M75C CapShare Capacitor Module can be mounted to either the left or right side of the drive. When mounting to the left of the drive a standard multi-axis kit is required regardless of whether an SI-Option mounting kit is fitted.

### 4.2 Ground connections

The drive must be connected to the system ground of the supply. The ground wiring must conform to local wiring regulations and codes of practice.

For further information on ground cable sizes, refer to Table 4-1 below.

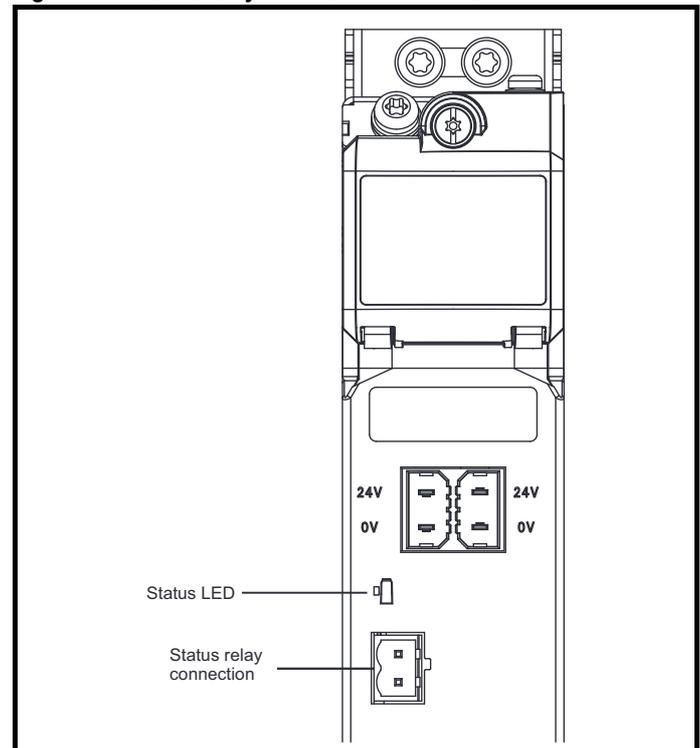
**Table 4-1 Protective ground cable ratings**

Input phase conductor size	Minimum ground conductor size
$\leq 10 \text{ mm}^2$	Either $10 \text{ mm}^2$ or two conductors of the same cross-sectional area as the input phase conductor
$> 10 \text{ mm}^2$ and $\leq 16 \text{ mm}^2$	The same as the cross-sectional area as the input phase conductor

### 4.3 Status relay

The capacitor module has a status relay connection which is closed when power is applied and the module is in a healthy state. The position of the connector is shown in Figure 4-2.

**Figure 4-2 Status relay connector and Status LED**



### 4.4 Status LED

The status LED, shown in Figure 4-2, will remain constantly illuminated under a healthy condition and will flash under a fault condition.

### 4.5 Applying power

Once the capacitor module is fully installed power can be applied to the system. Under the normal conditions the capacitor module will be powered with the status LED constantly illuminated.

For further information, contact the supplier of the drive.

