



# NEWS

Danfoss Commercial Compressors

## CSR STARTING KIT

June, 7th 2007

### Introduction

Single phase reciprocating compressors always require a dedicated starting equipment for proper functioning. The high starting torque solution for compressor series LTZ, NTZ, MT, MTZ and MPZ is to apply a CSR starting kit in pre-wired box, available as accessory from Danfoss. This News presents an overview of these starting kits.

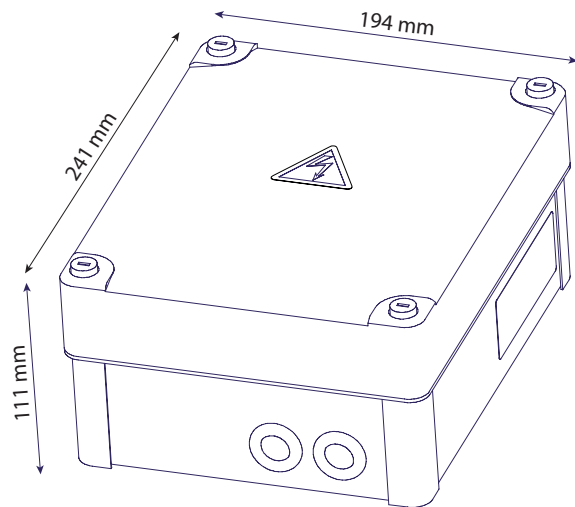
### General specifications

Provides high starting torque for the compressor  
Pre-wiring of the box for application with trickle circuit  
Protection rating: IP 55  
Housing material: PVC

### Inside of pre-wired box



## Dimensions



## Application

Prewired box Code no.	Compressor models - motor code 5 (50 Hz)				
	LTZ	NTZ	MT	MTZ	MPZ
7701028	LTZ022-5 LTZ028-5	NTZ048-5 NTZ068-5	MT018-5 MT022-5 MT028-5	MTZ018-5 MTZ022-5 MTZ028-5	
7701029			MT032-5 MT036-5	MTZ032-5 MTZ036-5	
7701049			MT050-5	MTZ050-5	
120Z0029					MPZ038-5 MPZ048-5 MPZ054-5
7701149					MPZ061-5 MPZ068-5

Prewired box Code no.	Compressor models - motor code 1 (60 Hz)				
	LTZ	NTZ	MT	MTZ	MPZ
7701147	LTZ022-1	NTZ048-1	MT022-1	MTZ022-1	
7701148	LTZ028-1	NTZ068-1	MT028-1	MTZ028-1	
7701149			MT032-1 MT036-1	MTZ032-1 MTZ036-1	
7701150			MT040-1	MTZ040-1	
7701049	LTZ040-1 LTZ044-1 LTZ050-1	NTZ096-1 NTZ108-1 NTZ136-1	MT044-1 MT050-1	MTZ044-1 MTZ050-1	
120Z0029					MPZ038-1 MPZ048-1 MPZ054-1
7701149					MPZ061-1 MPZ068-1

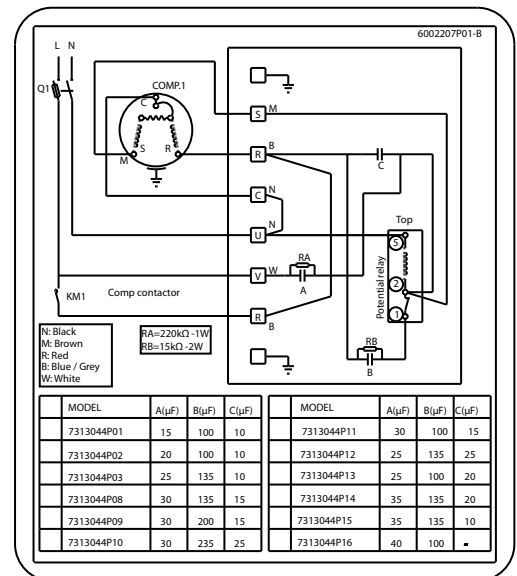
No pre-wired box available for MT(Z) 018-1 / 056-1 / 064-1

## Capacitor and relay values

Prewired box		Start relay	Run capacitor	Run capacitor	Start capacitor	Resistor in parallel to capacitor A and B	
Code no.	Part number		A	C	B	RA	RB
7701028	7313044P02	3ARR3AJ4A4 or RVA6AMKL	20 $\mu$ F	10 $\mu$ F	98 $\mu$ F	220 k $\Omega$ 1 W	15 k $\Omega$ 2 W
7701029	7313044P03		25 $\mu$ F	10 $\mu$ F	140 $\mu$ F		
7701049	7313044P08		30 $\mu$ F	15 $\mu$ F	140 $\mu$ F		
7701147	7313044P11		30 $\mu$ F	15 $\mu$ F	98 $\mu$ F		
7701148	7313044P12		25 $\mu$ F	25 $\mu$ F	140 $\mu$ F		
7701149	7313044P13		25 $\mu$ F	20 $\mu$ F	98 $\mu$ F		
7701150	7313044P14		35 $\mu$ F	20 $\mu$ F	98 $\mu$ F		
120Z0029	7313044P16		40 $\mu$ F	-	98 $\mu$ F		none

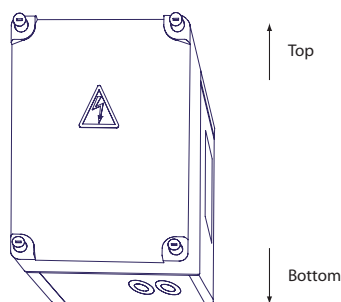
## Wiring diagram inside the box cover

Start capacitor values (B) as indicated in the wiring diagram are nominal values. Supplied capacitors have slightly different values.



## Mounting position

Recommended position



Accepted position

