

# **INSTALLATION INSTRUCTIONS**

**Direct On Line Starter Without Isolator** 

Metal Enclosure to IP55, IEC947-4-1 ISSUE 11

# **Important Safety Information**

All electrical equipment for operating on low voltages contain devices which are capable of causing serious or fatal injuries.

Only skilled & qualified personnel should carry out installation or maintenance work

### Installation

- 1. Remove cover from starter by releasing the 4 captive lid screws with screwdriver.
- 2. Check that the separately supplied Thermal Overload current range is suitable for the motor involved. Fit the overload and assemble the pre-wired Start Contact as shown below.
- 3. Connect the leads provided in the Starter to the Thermal Overload Violet wire from Contactor terminal 14 to Overload terminal 95 and Red wire from Contactor terminal 1 to Overload terminal 96.
- 4. Check the Contactor operating coil Voltage & Frequency is suitable for the intended supply and motor.
- 5. Remove appropriate top/bottom knockouts and mount the Starter base on a vertical surface, free from any vibrations.
- 6. Attach required conduits and/or cable glands.
- 7. Connect the supply and motor cables and ensure ALL terminals are tight.
- 8. Ensure that all Earth connections are fitted and tight, including the base to lid lead supplied as standard.
- 9. Once installed, adjust the Thermal Overload setting lever to match the Full Load Current of the motor to be protected.
- 10. Replace the cover, ensuring that the base mounted seal is in continuous contact with the lid and that the 4 off fixing screws are tight.

# Overloads

Manual reset thermal overloads available up to 43A. Suitable for Direct-on-Line and Star Delta Starters.

Dest No	Rating (A)	
Part No.	Direct-On-Line	Star Delta
ERS/0.25	0.16 - 0.25A	-
ERS/0.4	0.25 - 0.4A	-
ERS/0.63	0.4 - 0.63A	-
ERS/1	0.63 - 1A	-
ERS/1.6	1 - 1.6A	-
ERS/2.5	1.6 - 2.5A	2.7 - 4.3A
ERS/4	2.5 - 4A	4.3 - 6.9A

Part No.	Rating (A)	
	Direct-On-Line	Star Delta
ERS/6	4 - 6A	6.9 - 10.4A
ERS/8	5.5 - 8A	9.5 - 13.8A
ERS/10	7 - 10A	12 - 17A
ERS/13	10 - 13A	17 - 22A
ERS/18	13 - 18A	22 - 31A
ERS/25	_	31 - 43A

# **Enclosure Dimensions:**

 $174h \times 104w \times 134d$  (fixing centres  $4 \times M460w \times 130h$ )

Note: This product is not suitable for DC applications

Removal: Place small screwdrier blade under leading edge of clip and lever off.



Assembly / Removal of Start Contact

The start contact is clipped into position adjacent to terminal 96 on the overload relay.

Assembly: locate contact on lower right hand corner of overload relay moulding and rotate anti - clockwise until firmly clipped into place.



#### **Terminal capacity**

	Main	Auxiliary
Contactor	2x1 - 4mm2	2x1 - 2.5mm2
Overload	2x1 - 4mm2	2x1 - 2.5mm2

#### Summary

A direct-on-line motor starter with ingress protection to IP55. Painted steel enclosure.

#### Trip class 10 requirements IEC 947-4-1

1.05 x FLC	No tripping	
1.2 x FLC	Trip within 2 hours	
1.5 x FLC	Trip within 4 minutes	
7.2 x FLC	Trip between 4s and 10s	

#### **Note:** FLC = Full load current



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