## **Unswitched DOL Starters Type NLSTM\*\*C**

Metal Enclosure to IP55 IEC947-4-1 Issue 11 Installation Instructions

 $\epsilon$ 



Safety - Important.

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 on this equipment and must adhere to all appropriate international, regional & local standards applicable.

#### 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.
- 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.

	Thermal Overload Selection Chart								
	Approximate Motor Rating						Current Ra	nge - Amps	Recommended Fuse
400V/3	400V/3PH AC-3		230V/1PH AC-3		Approx				
kW	hp	FLC Amps	kW	hp	FLC Amps	Reference	Min	Max	Amps Maximum
0.37	0.55	1.1	0.07	0.09	1	NLOLC1	1	1.6	4A
0.55	0.75	1.5	0.1	0.125	1.5	NLOLC1	1	1.6	4A
0.75	1	1.9	0.18	0.25	2.1	NLOLC2	1.6	2.5	6A
1.1	1.5	2.6	0.25	0.33	2.6	NLOLC3	2.5	4	10A
1.5	2	3.5	0.37	0.5	3.5	NLOLC3	2.5	4	10A
1.8	2.5	4.1	0.55	0.75	4.7	NLOLC4	4	6	16A
2.2	3	5	0.55	0.75	4.7	NLOLC4	4	6	16A
3	4	6.3	0.75	1	6	NLOLC5	5.5	8	20A
3.7	5	7.8	0.75	1	6	NLOLC5	5.5	8	20A
4	5.5	8.5	1.1	1.5	8.8	NLOLC6	7	10	20A
5.5	7.5	11.3	1.5	2	11.7	NLOLC7	10	13	25A
7.5	10	15.2	2.2	3	17.1	NLOLC8	13	18	32A

Enclosure Dimensions: 174h x 104w x 134d (fixing centres 4 x M4 60w x 130h)

Note: This product is not suitable for DC applications.

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

ASSEMBLY / REMOVAL OF START CONTACT

ASSEMBLY:

Locate contact on lower right hand corner of overload relay moulding and rotate anti clockwise until firmly clipped into place



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



CC Newlec DOL-S Rev1

### **Terminal capacity**

	Main	Auxiliary
Contactor	2 x 1 - 4mm <sup>2</sup>	2 x 1 - 2.5mm <sup>2</sup>
Overload	2 x 1 - 4mm <sup>2</sup>	2 x 1 - 2.5mm <sup>2</sup>

#### **Summary**

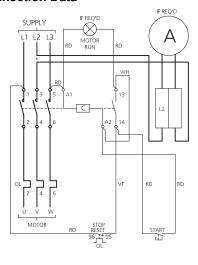
A direct-on-line motor starter with ingress protection to IP55. Painted steel enclosure.

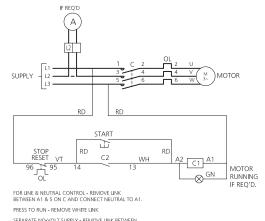
#### Trip class 10 requirements IEC 947-4-1

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

#### **Connection Data**





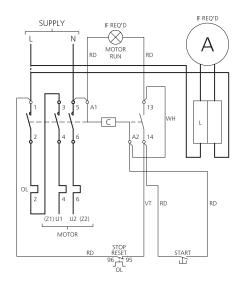
SEPARATE NO-VOLT SUPPLY - REMOVE LINK BETWEEN 1 ON C & 96 ON OL AND 5 ON C & A1. CONNECT SEPARATE SUPPLY TO 96 ON OL & A1.

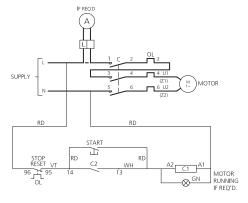
# Type NLSTM4\*C (400Vcoil)







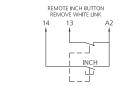




PRESS TO RUN - REMOVE WHITE LINK

SEPARATE NO-VOLT SUPPLY - REMOVE LINK BETWEEN 1 ON C & 96 ON OL AND 5 ON C & A1.

ONNECT SEPARATE SUPPLY TO 96 ON OL & A1.



Type NLSTM 2\*C (230V coil)

REMOTE START-STOP BUTTONS REMOVE VIOLET LINK

14

START

Council of European Communities Directives: The products in this publication conform to relevant EEC Directives and EN Standards. Installation and use of such products must be carried out by competent, properly trained personnel, complying with any instructions supplied by the manufacturer. Liability for improper incorporation, assembly, use, processing, storing or handling of goods remains the sole responsibility of the individual, or company carrying out such work. This publication is for information only. Whilst every care has been taken in the preparation of this leaflet, no liability is accepted for any consequence of its use. No licence to use any patent should be assumed. All dimensions are approximate only and subject to change without notice, as are other technical features resulting from continual development and improvement.

REMOTE CONTROL SWITCH REMOVE VIOLET LINK

OFF ON CONTROL SWITCH