



ADS8 DIRECT-ON-LINE STARTER METAL-CLAD

Instruction leaflet LT1104 (03/06)

IMPORTANT NOTES

1. This product should be installed, commissioned and maintained by or under the supervision of a competent electrician in accordance with current electrical engineering Codes of Practice, Regulations for the Electrical equipment of Buildings (BS7671), HSG224 - Construction (Design and Management) Regulations 1994, HSG150 - Health and Safety in Construction, Statutory requirements and any Specific instruction issued by the Company.
2. After completing the installation and testing of this product it is essential that this leaflet is drawn to the attention of the person responsible for its future operation and maintenance, and is at all times available for ready reference.
3. These notes assume throughout that the product is disconnected from the supply. It is essential that this is done before any work is carried out.

SPARE OVERLOADS AND COILS

MOTOR FLC Ie (AMPS)	OVERLOAD REPLACEMENT LIST No.	STARTER REF. 220...240V 50Hz COIL	STARTER REF. LESS O/L RELAY 220V COIL	SPARE COIL 220...240V	STARTER REF. 380...415V 50Hz COIL	STARTER REF. LESS O/L RELAY 415V COIL	SPARE COIL 380...415V	SPARE COIL 110V
0.63 - 1.00	8TT87	128ADS						
1.00 - 1.60	8TT88	228ADS						
1.60 - 2.5	8TT89	328ADS						
2.5 - 4.0	8TT90	428ADS						
4.0 - 6.0	8TT91	628ADS	28ADS1X	8COIL218		48ADS1X	8COIL418	8COIL118
5.5 - 8.0	8TT98							
7.0 - 10.0	8TT92	1028ADS						
10.0 - 13.0	8TT93	1328ADS						
13.0 - 18.0	8TT94	1828ADS						
18.0 - 25.0	8TT104	2528ADS	28ADS2X		2548ADS	48ADS2X		
23.0 - 32.0	8TT96	3228ADS	28ADS3X	8COIL232	3248ADS	48ADS3X	8COIL432	8COIL132

SHORT CIRCUIT PROTECTION

MOTOR FLC Ie (AMPS)	SCPD		Relay Tightening Torque (Nm)		Contactor Tightening Torque (Nm)	
	Back Up Protection Max HRC Fuse BS88:1 aM	Back Up Protection Max Memshield 2 Mcb Type C				
			Power	Aux	Power	Aux
0.63 - 1.00	4A	MCH306				
1.00 - 1.60	6A	MCH306				
1.60 - 2.5	10A	MCH306				
2.5 - 4.0	16A	MCH310				
4.0 - 6.0	16A	MCH310	1.85	1.2	1.7	1.2
5.5 - 8.0	20A	MCH316				
7.0 - 10.0	25A	MCH320				
10.0 - 13.0	32A	MCH320				
13.0 - 18.0	40A	MCH332				
18.0 - 25.0	50A	MCH340	1.85	1.2	1.85	1.85
23.0 - 32.0	63A	MCH363	2.5	1.2	2.5	1.2

IMPORTANT-Install the contactor assembly on a vertical surface. The mounting surface should be flat and free from mechanical shock and vibration.

MAINTENANCE

Check that the contactor is free from dust or foreign bodies before putting into operation. Never lubricate or grease contacts, sliding guides or magnet assembly.

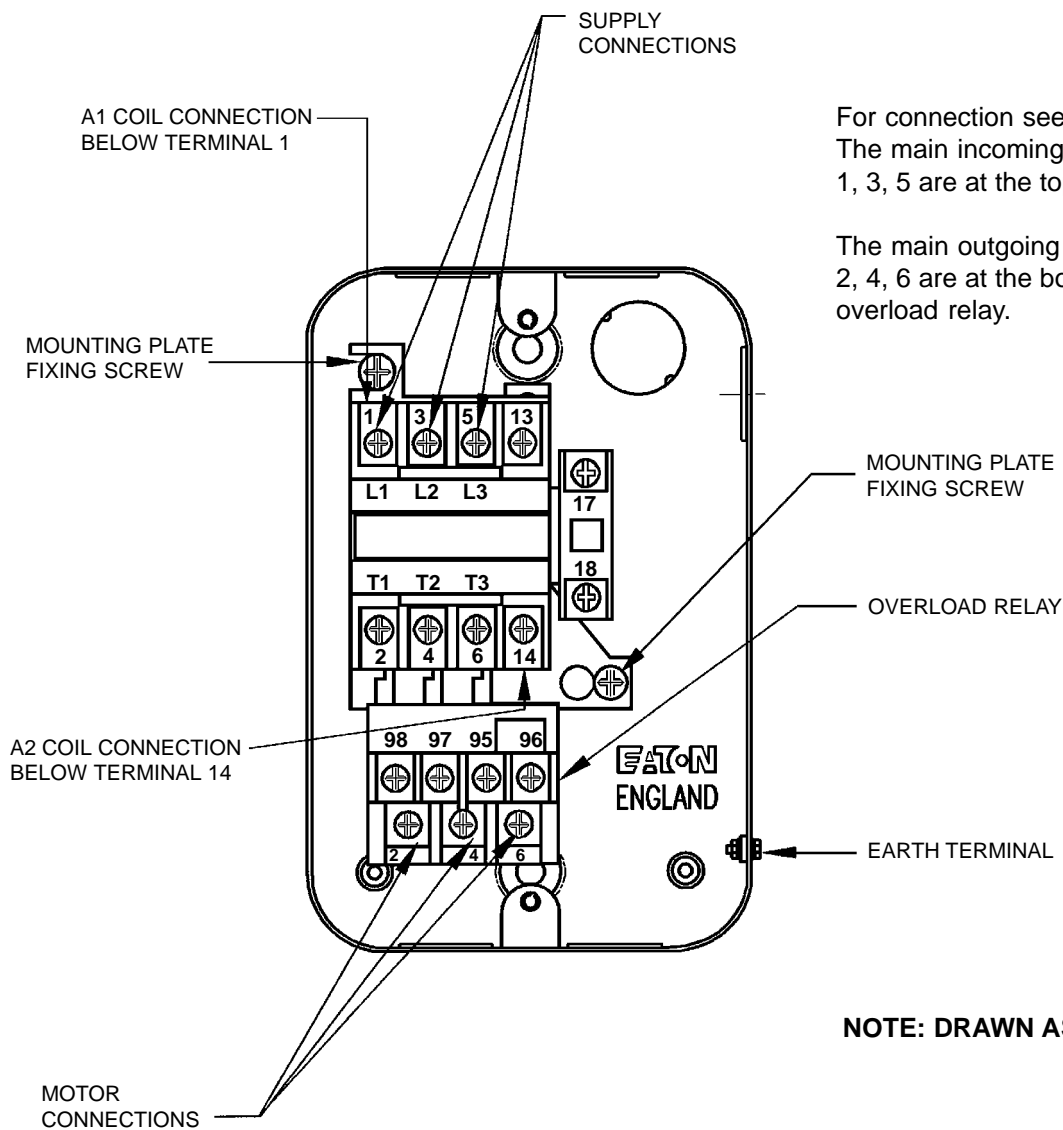
D.O.L. STARTER ENCLOSURE (IP54 to BSEN60529:1992).

5 X 20mm (3/4") conduit knockouts are provided for cable entry at top, bottom and side of the enclosure and 1X20mm (3/4") conduit knockout is provided for cable entry in the rear of the enclosure for ADS1X types. 7 x 20/25mm (3/4"/1") conduit knockouts are provided for cable entry at top, bottom and side of the enclosure for ADS2X and ADS3X types.

The earth terminal may be reversed for external connection but the components must be assembled in the same order as supplied.

OVERLOAD RELAY

All relays have an adjustment scale marked in full load motor current, the range of which is indicated by the rating label on the front of the relay. Set the lever to the actual running current of the motor, if known. Failing this, adequate protection is obtained by setting to the motor rated full load current.



NOTE: DRAWN AS TYPE 1828ADS

INSTALLATION

See Important Notes on page 1 and note that the control circuit voltage should not exceed the nominal voltage by more than 10% and should not be more than 15% below the nominal voltage.

1. Remove starter cover and relay/contactor assembly by loosening mounting plate fixing screws.
2. Remove appropriate knockout for cable entry.
3. Fix starter to wall using appropriate fixings and install cable tails as appropriate.
4. Connect cable tails to relay and contactor.
5. Refit relay/contactor assembly to enclosure and tighten mounting plate fixing screws.
6. Ensure cables are neatly routed and refit starter cover.

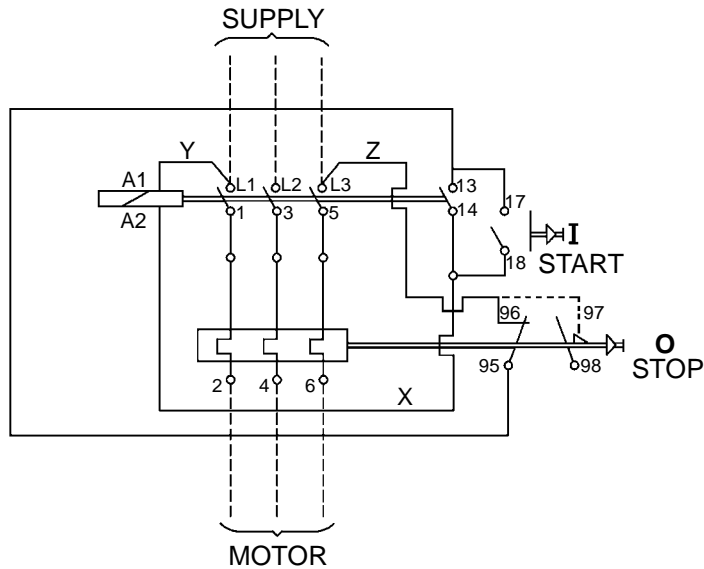
COIL CHANGING

1. Remove Overload Relay/Contactor assembly from enclosure, after loosening the two mounting plate screws.
2. Slacken off screws at L3 and 13 and withdraw wiring.
3. Slacken off screws at T1, T2 and T3.
4. Tilt overload away from contactor and unclip mouldings to release Overload Relay from Contactor.
5. Slacken off screws at 14, L1, A1 and A2 to remove wires.
6. Undo slotted screws located below terminals L3 and T2.
7. Separate top and bottom halves of Contactor and withdraw coil assembly.
8. Fit new coil assembly noting that the printing on the moulding is positioned at the top of the Contactor.
9. Re assemble in the reverse order ensuring that all wires are re attached to their correct terminals. See table on front page. For slotted contactor assembly screws (item 6) re tighten to 1.2 Nm.

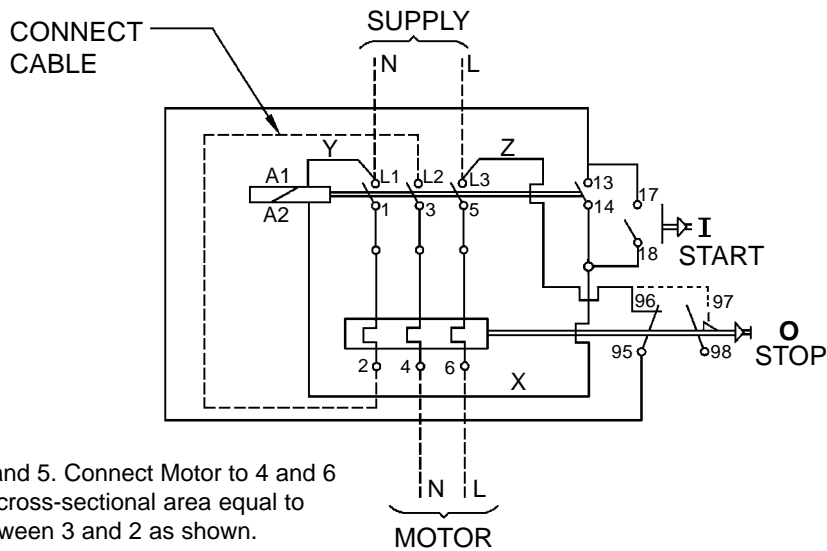
NOTE: When attaching Overload to Contactor ensure that the hook on the Overload engages with the Contactor and is tilted into position before tightening screws at T1, T2 and T3.

CIRCUIT DIAGRAMS

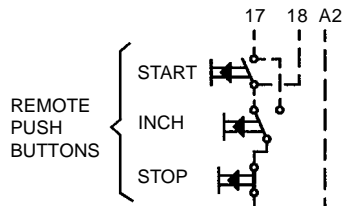
A. THREE PHASE MOTORS-D.O.L. STARTER. LOCAL 3-WIRE (PUSH BUTTON) CONTROL.



B. SINGLE PHASE MOTORS-D.O.L. STARTER LOCAL 3-WIRE (PUSH BUTTON) CONTROL.

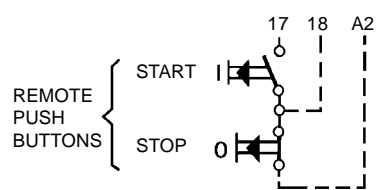


Connect supply to 1 and 5. Connect Motor to 4 and 6 and insert a cable of cross-sectional area equal to the supply cables between 3 and 2 as shown.



REMOTE START/INCH/STOP CONTROL

Connect as above except remove lead X and add connections shown.



LOCAL & REMOTE 3-WIRE (PUSH-BUTTON) CONTROL

Connect as above except remove lead X and add connections shown.

NOTES TO STARTER DIAGRAMS

COIL PHASE TO NEUTRAL:- remove connector Y, connect Neutral to A1

SEPARATE COIL SUPPLY:- remove connectors Y and Z, connect coil supply to A1 and 96.

COIL VOLTAGE:- Ensure correct voltage coil is fitted for separate coil supply and phase to neutral applications.

EXTERNAL INTERLOCK:- Remove connection Z and insert interlock between 5 and 96.

ALARM CIRCUIT:- At trip an alarm signal voltage equal to the coil voltage is available between 98 and A1 when a link is added between 96 & 97. The switch is rated at 440VA, 500V maximum.

CONTROL CIRCUIT FUSES (10A MAX).

Coil connected Phase to neutral (1 fuse):- remove connector Z and connect fuse between 5 and 96.

Coil Connected Phase to Phase (2 fuses):- remove connector Z and connect fuse between 5 and 96. Remove connector Y and connect fuse between 1 and A1.

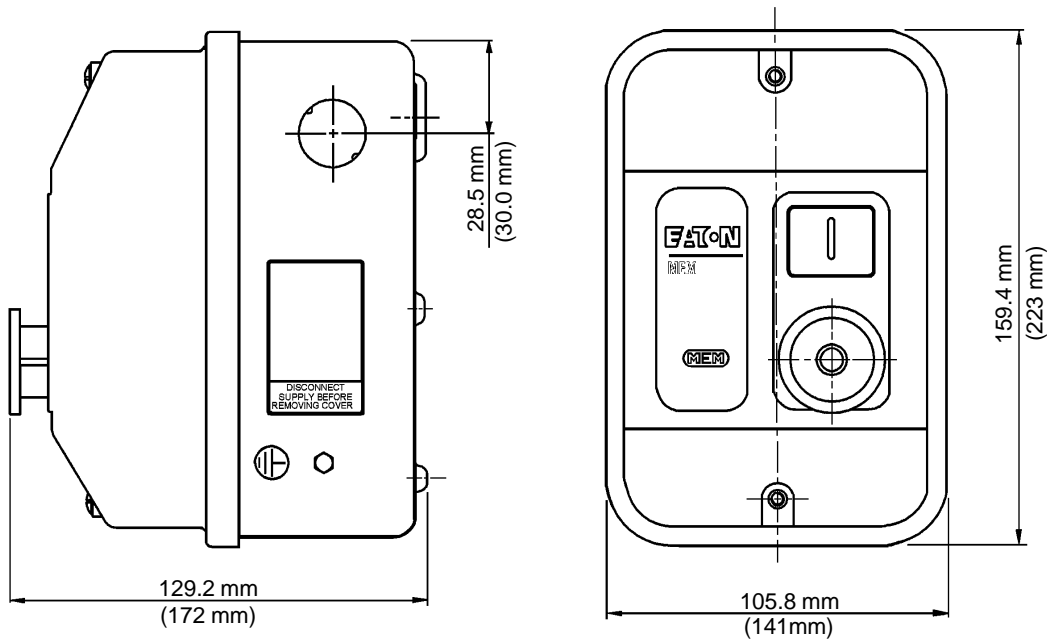
NOTE:- the voltage rating of the fuse(s) must be suitable for the control circuit voltage.

SHORT CIRCUIT PROTECTION:- Maximum sizes of fuses or MCB's to give short-circuit protection to this starter are tabulated on page 1.

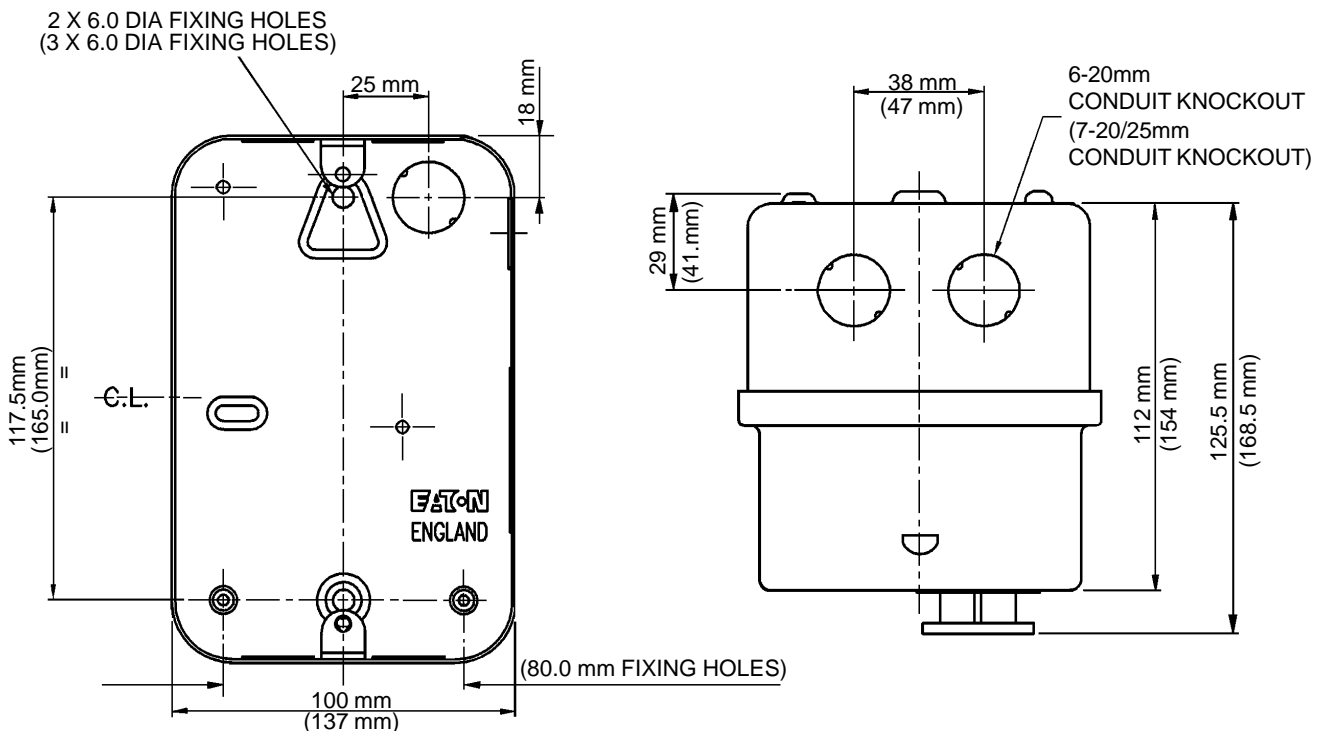
TO REVERSE DIRECTION OF ROTATION (3-Phase Motors):-

Interchange any two supply lines 1, 3 or 5.

OVERALL DIMENSIONS



FIXING AND KNOCKOUT POSITIONS



DIMENSIONS IN BRACKETS REFER TO TYPES 2528ADS(2X) & 3228ADS(3X) SIZED ENCLOSURES

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The use to which this product is put and its place of installation is outside our control. Particular care should therefore be taken to follow the instructions given here and to ensure their continued availability in conjunction with the use of the product.

No responsibility can be accepted by us if these instructions are disregarded. Further copies of these instructions and information concerning the installation and proper use of this product can be obtained by contacting the:

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