

Star-Delta Starters

Metal Enclosure to IP55

IEC947-4-1 Issue 1

Installation Instructions 



Installation

- Remove cover by releasing 4 corner screws with a screwdriver.
- Wiring to overload:
- Connect leads provided from – terminal 14 to terminal 95 and terminal A2 to terminal 96
- Check operating coil voltage and frequency
- Remove appropriate top/bottom conduit knockouts.
- Mount base on a vertical surface using 4 off fixing points. To ensure environmental protection cover screws internally with supplied caps. See Figure 1.
- Connect conduit bushes
- Connect cables and ensure that all terminals are tight. Refer below for details.
- When installed, set the hand/auto rest selector and adjust the current calibration to the desired value.
- Replace cover and re-tighten cover screws.

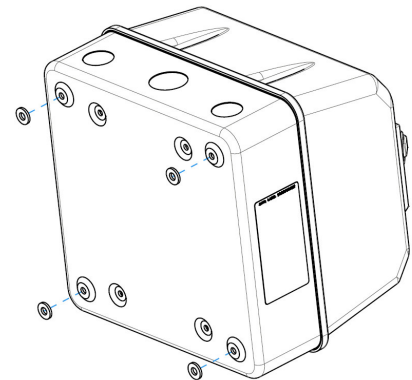
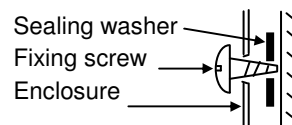


Figure 1



Overload Selection

Order references	Overload in delta-loop 0.58 FLC (A)		Approximate motor rating		Recommended max. fuse size for short circuit protection (A)
	min.	max.	400V/3PH AC3 KW	hp	
TA25DU2.4	1.7	2.4	1.5	2.0	10
TA25DU3.1	2.2	3.1	1.8	2.5	
TA25DU4.0	2.8	4.0	2.2	3.0	
TA25DU5.0	3.5	5.0	3.0	4.0	20
TA25DU6.5	4.5	6.5	4.0	5.5	
TA25DU8.5	6.0	8.5	5.5	7.5	
TA25DU11	7.5	11.0	7.5	10.0	35
TA25DU14	10.0	14.0	11.0	15.0	
TA25DU19	13.0	19.0	15.0	20.0	80
TA25DU32	24.0	32.0	22.0	30.0	80

Conversion Chart

Motor full load current A	Overload setting Delta loop current A
5	2.9
6	3.5
7	4.0
8	4.6
9	5.2
10	5.8
12	7.0
14	8.1
16	9.3
18	10.4
20	11.6
25	14.5
30	17.4
35	20.3

Note: This product is not suitable for d.c. applications.

Note : Overload relay is fitted in the delta loop. It is therefore necessary to use the conversion chart to obtain correct overload setting for a particular motor full load current.

Terminal capacity

Supply terminals	Main
All ratings	6mm ²

Overload	Main	Auxiliary
< 7.5kW	4mm ²	1x4mm ² / 2x2.5mm ²
11kW	4mm ²	" "
15kW	6mm ²	" "
22kW	6mm ²	" "

Trip class 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

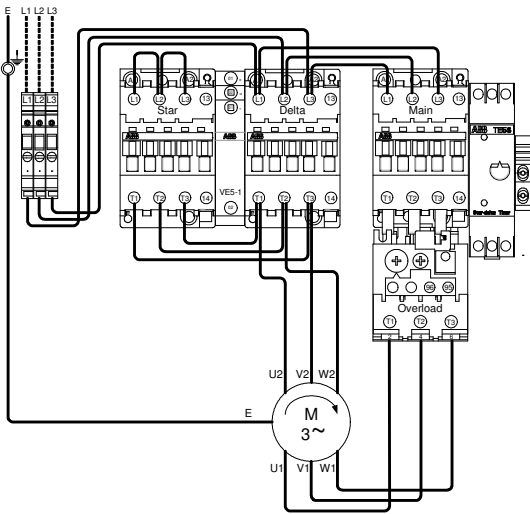
Summary:

A range of star-delta motor starters with ingress protection to IP55. Metal enclosure.

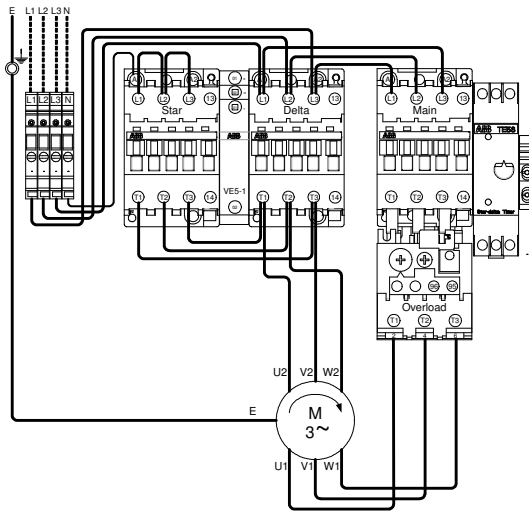
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Connection Data

Type 1TVS400153P5099 (400Vcoil)
1TVS400223P5099 (400Vcoil)



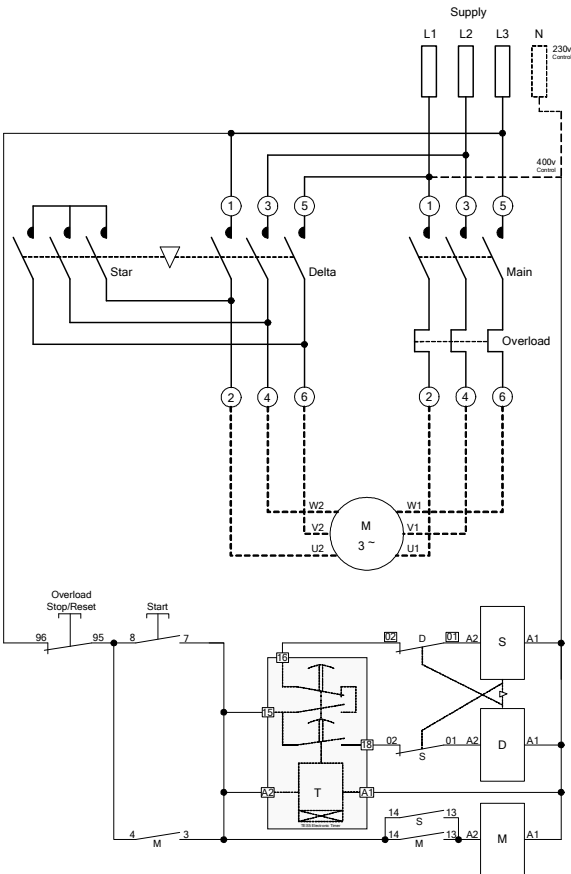
Type 1TVS230153P5099 (230V coil)
Type 1TVS230223P5099 (230V coil)



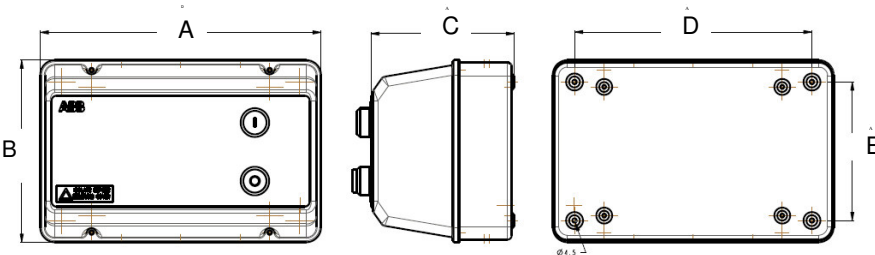
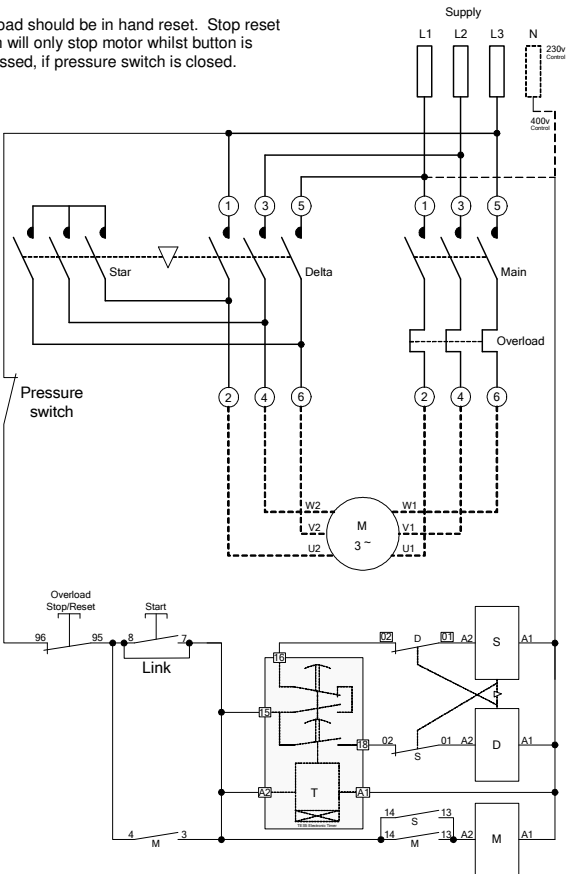
Star-Delta (main contactor in Delta loop)

Circuit

Modification for remote 2-wire control



Overload should be in hand reset. Stop reset button will only stop motor whilst button is depressed, if pressure switch is closed.



Type	A	B	C	D	E
15kw	284	184	146	240	140
22kw	284	305	156	240	261

Type 1TVS230153S5099
1TVS230223S5099
1TVS400153S5099
1TVS400223S5099

4 x 25mm Knockouts (2T&2B)
2 x 32mm Knockouts (1T&1B)