

Short form catalogue

Enclosed control products
Starters, heating/lighting, pushbuttons

Power and productivity
for a better world™

Enclosed control products
Starters, heating/lighting, pushbuttons



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Direct-on-line starters
IP65 plastic - IP55 metal enclosure



Direct on Line IP65 PLASTIC Enclosure 400v up to 7.5kW

100-250v coil

Three Phase 400V [AC3]		Single Phase 230V [AC3]		Dimensions mm			Part No	Product Hierarchy 3600001 Order Code
KW	hp	KW	hp	H	W	D		
5.5	7.5	1.5	2.0	230	106	127	DL205P	1TVC230050P5699
7.5	10.0	2.2	3.0				DL207P	1TVC230070P5699

250-500v coil

5.5	7.5			230	106	127	DL405P	1TVC400050P5699
7.5	10.0						DL407P	1TVC400070P5699



DL205S

Direct on Line IP55 METAL Enclosure 400v up to 7.5kW

100-250v coil

Three Phase 400V [AC3]		Single Phase 230V [AC3]		Dimensions mm			Part No	Product Hierarchy 3600001 Order Code
KW	hp	KW	hp	H	W	D		
5.5	7.5	1.5	2.0	184	184	165	DL205S	1TVC230050S5699
7.5	10.0	2.2	3.0				DL207S	1TVC230070S5699

250-500v coil

5.5	7.5			184	184	165	DL405S	1TVC400050S5699
7.5	10.0						DL407S	1TVC400070S5699



DI205S

Direct on Line with Isolator IP55 METAL Enclosure 400v up to 7.5kW

100-250v coil

Three Phase 400V [AC3]		Single Phase 230V [AC3]		Dimensions mm			Part No	Product Hierarchy 3600001 Order Code
KW	hp	KW	hp	H	W	D		
5.5	7.5	1.5	2.0	184	184	180	DI205S	1TVC230051S5699
7.5	10.0	2.2	3.0				DI207S	1TVC230071S5699

250-500v coil

5.5	7.5			184	184	180	DI405S	1TVC400051S5699
7.5	10.0						DI407S	1TVC400071S5699



DR207S

Direct on Line Reversing IP55 METAL Enclosure 400v up to 7.5kW

100-250v coil

Three Phase 400V [AC3]		Single Phase 230V [AC3]		Dimensions mm			Part No	Product Hierarchy 3600001 Order Code
KW	hp	KW	hp	H	W	D		
7.5	10.0	2.2	3.0	184	184	165	DR207S	1TVC230072S5699

250-500v coil

7.5	10.0			184	184	165	DR407S	1TVC400072S5699

Star delta starters
IP55 metal enclosure

Star-Delta IP65 METAL Enclosure 400V up to 22kW

- Star-Delta Starters in metal enclosure IEC 947-4-1.
- All three phase star delta starters, are complete with pushbuttons, and 100-250v or 250-500v coils.
- Resetting of overload via stop button.
- Overload for standard motor duty is supplied separately.

Note: The overload should be fitted in the Delta loop, therefore overload rating equal to FLC x by 0.58*





SD215S

Star-Delta IP55 METAL Enclosure 400V up to 22kW
100-250v coil

Three Phase 400V [AC3]		Dimensions mm				Product Hierarchy 3600001 Order Code
KW	hp	H	W	D	Part No	
15	20.0	184	284	165	SD215S	1TVC230153S5699
22.0	30.0	305	284	175	SD415S	1TVC400153S5699

250-500v coil

15	20.0	184	284	165	SD222S	1TVC230223S5699
22.0	30.0	305	284	175	SD422S	1TVC400223S5699

Star-Delta with Isolator IP55 METAL Enclosure 400V up to 22kW
100-250v coil



SI215S

Three Phase 400V [AC3]		Dimensions mm				Product Hierarchy 3600001 Order Code
KW	hp	H	W	D	Part No	
15	20.0	184	284	180	SI215S	1TVC230154S5699
22.0	30.0	305	284	190	SI415S	1TVC400154S5699

250-500v coil

15	20.0	184	284	180	SI222S	1TVC230224S5699
22.0	30.0	305	284	190	SI422S	1TVC400224S5699

Overload protection
Selection



TF42

Description

The TF42 thermal overload relays are economic electromechanical protection devices for the main circuit. They offer reliable protection for motors in the event of overload or phase failure. The devices have trip class 10.

The thermal overload relays are three pole relays with bimetal tripping elements. The motor current flows through the bimetal tripping elements and heats them directly and indirectly. In case of an overload (over current), the bimetal elements bent as a result of the heating. This leads to a release of the relay and a change of the contacts switching position (95-96 / 97-98).

- Manual or automatic reset selectable
- Phase loss sensitive acc. to IEC/EN 60947-4-1
- TEST and STOP function – Trip indication on the front
- Temperature compensation
- Suitable for three- and single-phase applications

TF42 0.10 to 38.0A

Setting range A	Short-circuit protective device	Trip class	Part No	Product Hierarchy 1700009 Order Code
0.10 ... 0.13	0.5 A, fuse type T	10	TF42-0.13	1SAZ721201R1005
0.13 ... 0.17	1.0 A, fuse type T	10	TF42-0.17	1SAZ721201R1008
0.17 ... 0.23	1.0 A, fuse type T	10	TF42-0.23	1SAZ721201R1009
0.23 ... 0.31	1.0 A, fuse type T	10	TF42-0.31	1SAZ721201R1013
0.31 ... 0.41	2.0 A, fuse type gG	10	TF42-0.41	1SAZ721201R1014
0.41 ... 0.55	2.0 A, fuse type gG	10	TF42-0.55	1SAZ721201R1017
0.55 ... 0.74	4.0 A, fuse type gG	10	TF42-0.74	1SAZ721201R1021
0.74 ... 1.00	6.0 A, fuse type gG	10	TF42-1.0	1SAZ721201R1023
1.00 ... 1.30	6.0 A, fuse type gG	10	TF42-1.3	1SAZ721201R1025
1.30 ... 1.70	10.0 A, fuse type gG	10	TF42-1.7	1SAZ721201R1028
1.70 ... 2.30	10.0 A, fuse type gG	10	TF42-2.3	1SAZ721201R1031
2.30 ... 3.10	10.0 A, fuse type gG	10	TF42-3.1	1SAZ721201R1033
3.10 ... 4.20	20.0 A, fuse type gG	10	TF42-4.2	1SAZ721201R1035
4.20 ... 5.70	20.0 A, fuse type gG	10	TF42-5.7	1SAZ721201R1038
5.70 ... 7.60	35.0 A, fuse type gG	10	TF42-7.6	1SAZ721201R1040
7.60 ... 10.0	35.0 A, fuse type gG	10	TF42-10	1SAZ721201R1043
10.0 ... 13.0	40.0 A, fuse type gG	10	TF42-13	1SAZ721201R1045
13.0 ... 16.0	40.0 A, fuse type gG	10	TF42-16	1SAZ721201R1047
16.0 ... 20.0	63.0 A, fuse type gG	10	TF42-20	1SAZ721201R1049
20.0 ... 24.0	63.0 A, fuse type gG	10	TF42-24	1SAZ721201R1051
24.0 ... 29.0	63.0 A, fuse type gG	10	TF42-29	1SAZ721201R1052
29.0 ... 35.0	80.0 A, fuse type gG	10	TF42-35	1SAZ721201R1053
35.0 ... 38.0/40.0	80.0 A, fuse type gG	10	TF42-38	1SAZ721201R1055

Star Delta Starter Overload selection

*Overload Calculation

Motor FLC	Delta Loop Setting	Motor FLC	Delta Loop Setting
5	2.9	18	10.4
6	3.5	20	11.6
7	4.0	25	14.5
8	4.6	30	17.4
9	5.2	35	20.3
10	5.8	40	23.2
12	7.0	45	26.1
14	8.1	50	29.0
16	9.3	55	32.0

Note: The overload should be fitted in the Delta loop, therefore overload rating equal to FLC x by 0.58*

Heating & lighting
IP65 plastic - IP55 metal enclosure





HL025P

Three & Four Pole Heating & Lighting Contactors IP65 PLASTIC Enclosure
100-250v coil (Including neutral terminal strip)

Heating AC1 Amps	Amps per pole Fluorescent Mercury	Amps per pole Tungsten	Main Poles	Part No	Product Hierarchy 3600004 Order Code
25	16	16	4	HL025P	1TVC230025P5604
45	30	32	4	HL045P	1TVC230045P5604



HL025S

Three & Four Pole Heating & Lighting Contactors IP55 METAL Enclosure
100-250v coil (Including neutral terminal strip)

Heating AC1 Amps	Amps per pole Fluorescent Mercury	Amps per pole Tungsten	Main Poles	Part No	Product Hierarchy 3600004 Order Code
25	16	16	4	HL025S	1TVC230025S5604
45	30	32	4	HL045S	1TVC230045S5604
70	40	42	3	HL063S	1TVC230063S5603
100	70	70	3	HL100S	1TVC230100S5603

Dimensions

Enclosure	Part No	Height mm	Width mm	Depth mm
Plastic	HL•••25P4 - HL•••45P4	230	106	127
Metal	HL•••25S4 - HL•••45S4	180	185	145
	HL•••63S3 - HL•••100S3			

Pushbutton stations
Plastic IP65 enclosures





1GO



1RSC-EN



1K2 O-I



2GORC

Plastic Pushbutton Stations IP65

- IP65 thermoplastic control station complete with actuator, contact blocks and legend plate.
  Supplied fully assembled. Other variations are available on request.

One Gang Pushbuttons	Dimensions H	W	D	Part No	Product Hierarchy 3600003 Order Code
1 Way Start/Green	75	101	74	1GO	1TVC110000P3101
1 Way Stop/Red				1RC	1TVC101000P3102
Emergency Stops					
Mushroom Head 30mm (twist release) - to IEC60947-5-5	75	101	92	1RSC	1TVC101000P3203
Emergency Stop 40mm (twist release) - to IEC60947-5-5	75	101	107	1RSC-EN	1TVC101000P3204
Mushroom Head 60mm (twist release) - to IEC60947-5-5	75	101	107	1RMSC50	1TVC101000P3205
Emergency Stop 40mm (with key release) - to IEC60947-5-5	75	101	122	1RMSKC	1TVC101000P3206
Key Switches					
Two-position switch	75	101	74	1H2O-I	1TVC110000P3107
Two-position key switch (key removable both positions)				1K2O-I	1TVC110000P3108
Three position switch				1H3I-O-II	1TVC110100P3109
Three position key switch (key removable in all positions)				1K3I-O-II	1TVC110100P3110
Two Gang Pushbuttons					
Start/Green and Stop/Red	75	141	79	2GORC	1TVC211000P3111
Start/Green and Red/Emergency Stop 40mm (twist release) to IEC60947-5-5	75	141	107	2GORSC-EN	1TVC211000P3112

Pushbutton stations
IP55 stainless steel enclosures



1RSC-ENSS



Stainless Enclosures

Description	Dimensions mm H	W	D	Part No	Product Hierarchy 3600004 Order Code
Emergency Stop 40mm (stay-put) - to EN418	100	140	100	1RSC-ENSS	1TVC100000P5015
1 Gang Empty Enclosure	-	-	55	01.001001.SS1	01.001001.SS1
2 Gang Empty Enclosure	-	-	55	01.001002.SS2	01.001002.SS2
3 Gang Empty Enclosure	-	-	55	01.001003.SS3	01.001003.SS3

Terminal boxes
Plastic IP65 enclosures



10TERM2.5

Terminals in Enclosures

Description	No of Terms	[A] 1th	Dimensions mm H	W	D	Part No	Product Hierarchy 3600005 Order Code
Terminal Box 2.5mm IP55 plastic enclosure	5	24	118	163	72	5TERM2.5	1TVC151800S2349
	10	24				10TERM2.5	1TVC151800S2347
Terminal Box 4mm IP55 plastic enclosure	5	32				5TERM4	1TVC151800S2350
	10	32				10TERM4	1TVC151800S2348

Notes

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