



Brochure

# Motor protection and control DRAS enclosed direct-on-line starters



# DRAS09 ... DRAS16 enclosed direct-on-line starters

## 4 to 7.5 kW, protected by thermal overload relays

### AC or DC operated



DRAS  
+ T16 to be ordered separately

#### Description

Enclosed direct-on-line (DOL) starters are used for controlling 3-phase asynchronous motors up to 690 V AC.

Each starter is delivered assembled and wired. It contains:

- IP65 compact plastic enclosure with double insulation, equipped with:
  - 1 green flush "I" ON button and 1 red protruding "O" OFF/RESET button
  - 2 quarter-turn, quick fastening screws and a base with 6 cable inlets and outlets via knockouts.
- 1 AS or ASL 3-pole contactor with holding contact
- 1 PE and 1 neutral terminal.

3 versions of control supply wiring are available: phase-to-phase, separate supply or phase-to-neutral.

T16 thermal overload relay has to be ordered separately and chosen according to motor's nominal current (see table below).

#### DRAS, DRASL enclosed DOL starters

IEC - AC-3				Rated control circuit voltage Uc Other control voltages see voltage code table	Control supply wiring	Type	Order code	Weight Pkg (1 pce) kg
Rated operational power 220 V 230 V 240 V	400 V	500 V	max. current $\theta \leq 40^\circ\text{C}$ Ue=400 V					
kW	kW	kW	A	V 50/60 Hz	V DC			

#### AC operated with AS 3-pole contactors

2.2	4	4	9	24	-	Separate supply	DRAS09-20S	1SBK104235R2000	0.650
				230	-	Phase-to-neutral	DRAS09-26N	1SBK104135R2600	0.650
				240	-	Phase-to-neutral	DRAS09-27N	1SBK104135R2700	0.650
				400	-	Phase-to-phase	DRAS09-28P	1SBK104035R2800	0.650
				415	-	Phase-to-phase	DRAS09-29P	1SBK104035R2900	0.650
3	5.5	5.5	12	24	-	Separate supply	DRAS12-20S	1SBK114235R2000	0.650
				230	-	Phase-to-neutral	DRAS12-26N	1SBK114135R2600	0.650
				240	-	Phase-to-neutral	DRAS12-27N	1SBK114135R2700	0.650
				400	-	Phase-to-phase	DRAS12-28P	1SBK114035R2800	0.650
				415	-	Phase-to-phase	DRAS12-29P	1SBK114035R2900	0.650
4	7.5	7.5	15.5	24	-	Separate supply	DRAS16-20S	1SBK124235R2000	0.650
				230	-	Phase-to-neutral	DRAS16-26N	1SBK124135R2600	0.650
				240	-	Phase-to-neutral	DRAS16-27N	1SBK124135R2700	0.650
				400	-	Phase-to-phase	DRAS16-28P	1SBK124035R2800	0.650
				415	-	Phase-to-phase	DRAS16-29P	1SBK124035R2900	0.650

#### DC operated with ASL 3-pole contactors

2.2	4	4	9	-	24	Separate supply	DRASL09-81S	1SBK104335R8100	0.700
				-	48		DRASL09-83S	1SBK104335R8300	0.700
3	5.5	5.5	12	-	24	Separate supply	DRASL12-81S	1SBK114335R8100	0.700
				-	48		DRASL12-83S	1SBK114335R8300	0.700
4	7.5	7.5	15.5	-	24	Separate supply	DRASL16-81S	1SBK124335R8100	0.700
				-	48		DRASL16-83S	1SBK124335R8300	0.700

#### T16 thermal overload relays to be ordered separately

Setting range	Short-circuit protective device	Trip class	Type	Order code	Weight (1 pce) kg
A	0.5 A, Fuse type T	10	T16-0.13	1SAZ711201R1005	0.100
			T16-0.17	1SAZ711201R1008	0.100
			T16-0.23	1SAZ711201R1009	0.100
0.23...0.31	2.0 A, Fuse type gG		T16-0.31	1SAZ711201R1013	0.100
			T16-0.41	1SAZ711201R1014	0.100
			T16-0.55	1SAZ711201R1017	0.100
0.55...0.74	4.0 A, Fuse type gG		T16-0.74	1SAZ711201R1021	0.100
			T16-1.0	1SAZ711201R1023	0.100
0.74...1.00	6.0 A, Fuse type gG		T16-1.3	1SAZ711201R1025	0.100
			T16-1.7	1SAZ711201R1028	0.100
1.00...1.30	10.0 A, Fuse type gG		T16-2.3	1SAZ711201R1031	0.100
			T16-3.1	1SAZ711201R1033	0.100
2.30...3.10	20.0 A, Fuse type gG		T16-4.2	1SAZ711201R1035	0.100
			T16-5.7	1SAZ711201R1038	0.100
3.10...4.20	35.0 A, Fuse type gG		T16-7.6	1SAZ711201R1040	0.100
			T16-10	1SAZ711201R1043	0.104
4.20...5.70	40.0 A, Fuse type gG		T16-13	1SAZ711201R1045	0.104
			T16-16	1SAZ711201R1047	0.104
5.70...7.60					
7.60...10.0					
10.0...13.0					
13.0...16.0					



T16



Empty enclosure  
with push-button

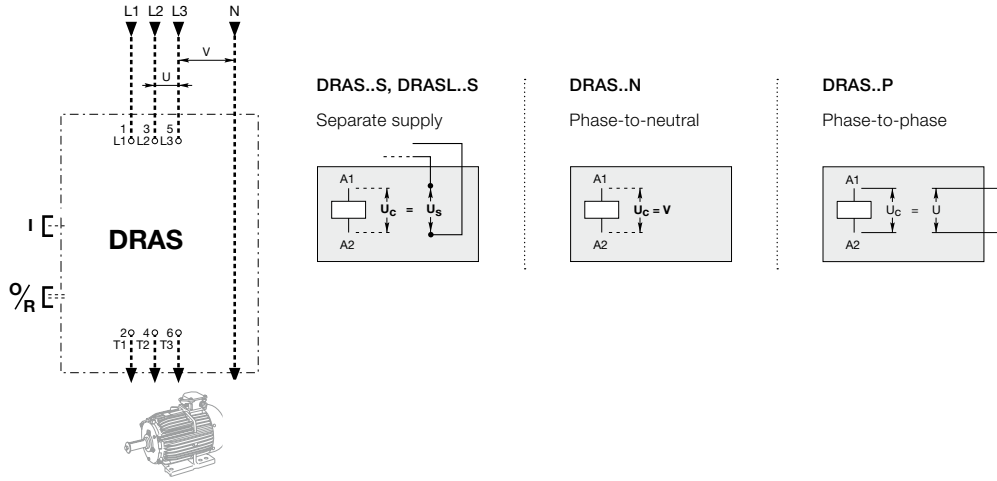
#### Empty enclosure with push-button

-	-	-	FR16AS-12VARS	1SBN101035R1000	0.394
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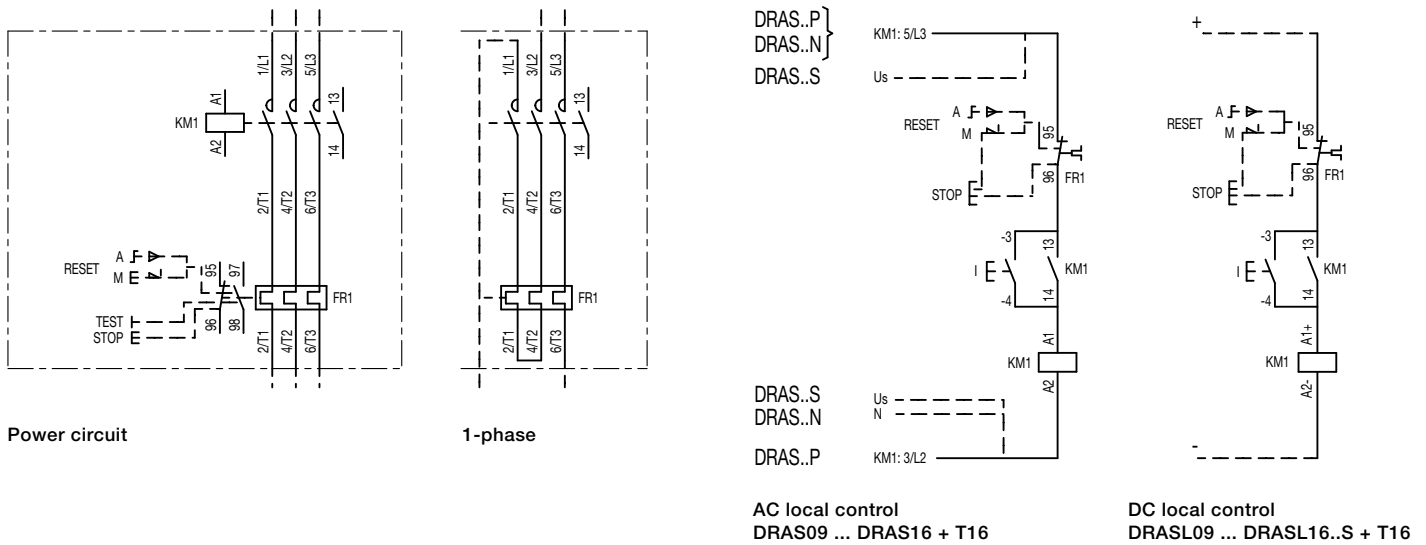
To be completed with AS or ASL contactor, T16 thermal overload relay and MCB-10B (1SFA611610R2001) contact block.

# DRAS09 ... DRAS16 and DRASL09 ... DRASL16 enclosed direct-on-line starters

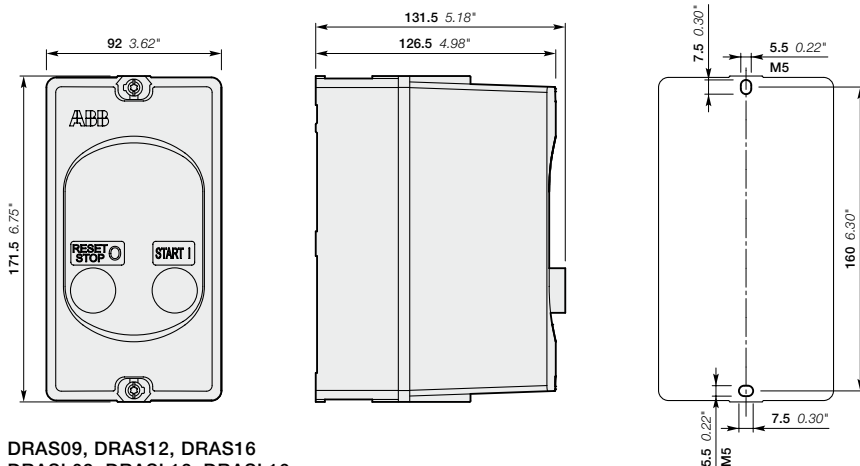
## Control supply wiring versions



## Wiring diagram



## Main dimensions mm, inches

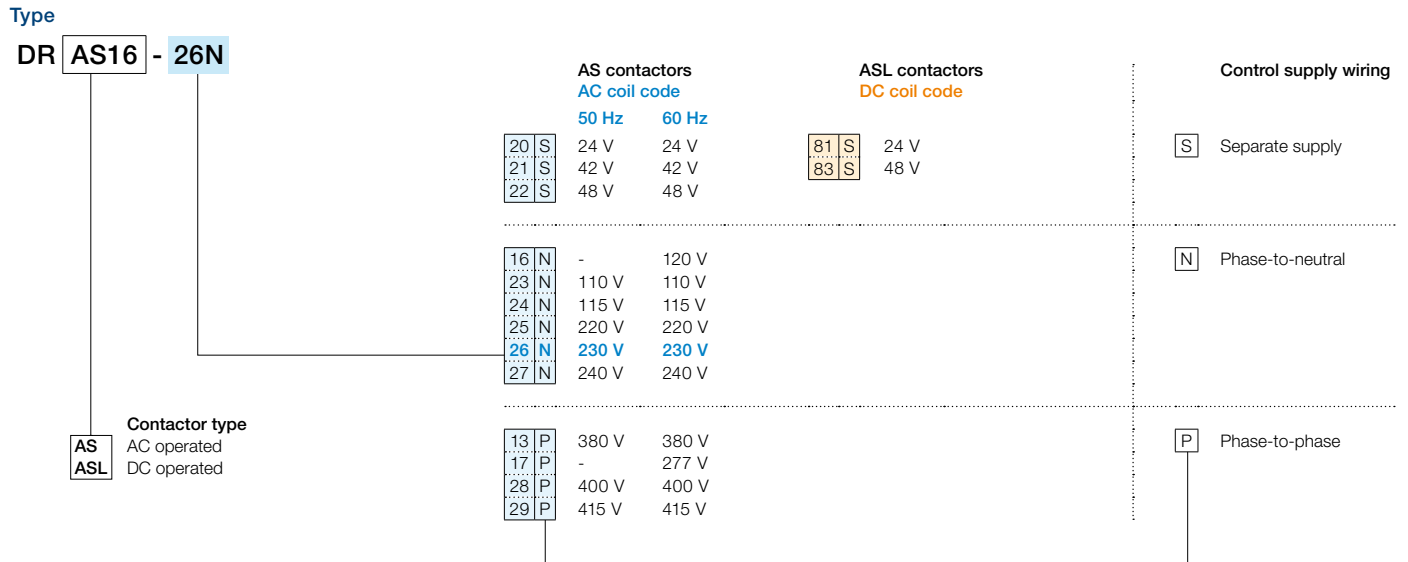


DRAS09, DRAS12, DRAS16  
DRASL09, DRASL12, DRASL16

Cable inlets		Cable outlet
Enclosure top	Enclosure back	Enclosure bottom
2 x $\varnothing$ 20.5/25.5 mm	2 x $\varnothing$ 20.5 mm	2 x $\varnothing$ 20.5/25.5 mm
2 x $\varnothing$ 0.81/1.00"	2 x $\varnothing$ 0.81"	2 x $\varnothing$ 0.81/1.00"
$\varnothing$ 20.5mm - $\varnothing$ 0.81" for ISO M20		
$\varnothing$ 25.5mm - $\varnothing$ 1.00" for ISO M25		

# Voltage code table

## DRAS09 ... DRAS16 and DRASL09 ... DRASL16 enclosed DOL starters



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