

# Getting Started

## > How to code a Standard Starter >



### 1. Starter Type

Code	Description
3DL	Direct-on-Line (D.O.L.)
3DR	Direct-on-Line Reversing
3SD	Star Delta (S.D.)
3DW	Dual Wound
3PC	Pole Change
3SP	Series Parallel
3DS	Duty Standby
3FS	Fan Shaker
3EBS	Enclosures only
3DC	3 Phase DOL DC Brake
3DP	1 Phase DOL DC Brake
3DY	Star Delta DC Brake
3SG	Spinguard
3DLF	ATEX Direct-on-Line
3SDF	ATEX Star-Delta

**Example Starter Code:**  
A22kW Star Delta Starter 400V, 3ph, 50Hz, complete with Isolator, Ammeter & Thermal Overload range 31-43 amps is:

## 3SD3ENI/04

### 2. Main Contactor

Code	Description	Maximum Power & Current			
		D.O.L.		S.D.	
		kW	A	kW	A
1	CC09	5.5	12	11	21
2	CC12	7.5	18	15	30
3	CC18	11.0	25	22	43
4	CC25	15.0	32	30	55
A5	CC32	18.5	40	37	69
5 (05 for 3SD)	CC40	26.0	50	45	85
6 (06 for 3SD)	CC50	30.0	55	55	98
07	CC65	37.0	80	75	138
08	CC80	55.0	100	90	160
09	CCF150	75.0	140	110	208
10	CCF185	90.0	180	150	250
11	CCF265	110.0	200	200	346
12	CCF330	132.0	220	220	380

### 3. Contactor Coil Voltage & Hz

Dual 50 / 60Hz		60Hz Only	
Standard	Voltage	Special	Voltage
A	110		
C	230		
D	24		
E	400		
F	440		
I	48		
Special	Voltage	Special	Voltage
B	120	M	277
X	380	P	208
R	220	U	600
S	480		
Q	240		
W	575		
Y	415		

### 6. Extra Features Suffix Codes

Code	Description
01	Stop/Reset Only
02	Press to Run
03	Hand/Off/Auto Selector
04	Ammeter
05	Separate Control Circuit
06	Control Transformer
07	Line to Neutral Control
08	Motor Running Lamp
09	Anti-Condensation Heater
10	Single Phase Mains Wiring
11	Single Phase & Stop Reset
12	Single Phase & Press to Run
13	Single Phase & Hand/Off/Auto
14	Single Phase & Ammeter
15	Single Phase & Separate Control Circuit
16	Single Phase & Control Transformer
17	Single Phase & Motor Run Lamp
18	Single Phase & Anti-Condensation Heater

### 5. Variations

Code	Starter Version
S	Standard
I	With Isolator
F	With Isolator and Mains Fuses / Switch Fuse*
L	With Mains Fuses
P	Plastic Enclosure
U	Un-enclosed (Interior Only)

\*Hinged Door Enclosure - Switch Fuse Fitted

### 4. Overload Range

Code	D.O.L.	Star Delta	Overload Relay	Fits Contactor
X	0.16 - 0.25A		CR09/0.25	CC09 to CC32
A	0.25 - 0.4A		CR09/0.4	CC09 to CC32
B	0.4 - 0.63A		CR09/0.63	CC09 to CC32
D	0.63 - 1.0A		CR09/1	CC09 to CC32
E	1.0 - 1.6A		CR09/1.6	CC09 to CC32
F	1.6 - 2.5A	2.7 - 4.3A	CR09/2.5	CC09 to CC32
G	2.5 - 4.0A	4.3 - 6.9A	CR09/4	CC09 to CC32
H	4.0 - 6A	6.9 - 10.4A	CR09/6	CC09 to CC32
J	5.5 - 8A	9.5 - 13.8A	CR09/8	CC09 to CC32
K	7.0 - 10A	12 - 17A	CR09/10	CC09 to CC32
L	10 - 13A	17 - 22A	CR12/13	CC09 to CC32
M	13 - 18A	22 - 31A	CR16/18	CC09 to CC32
N	18 - 25A	31 - 43A	CR25/25	CC09 to CC32
C	23 - 32A	39 - 55A	CR32/32	CC25 to CC32
Q	28 - 40A	48 - 69A	CR32/40	CC25 to CC32
R	23 - 32A	39 - 55A	CR40/32	CC40 to CC65
S	30 - 40A	51 - 69A	CR40/40	CC40 to CC65
T	38 - 50A	65 - 86A	CR63/50	CC40 to CC65
U	48 - 57A	83 - 98A	CR63/57	CC40 to CC65
V	57 - 66A	98 - 114A	CR63/66	CC40 to CC65
W	63 - 80A	109 - 138A	CRA80/80	CC40 to CC80
P	80 - 93A	138 - 161A	CRA80/93	CC40 to CC80

Y Thermister Protection  
Z Without Overload Fitted (Wiring for loose O/L to be fitted)

Higher Thermal Overload Ranges available on request

- 1 Method of Starting
- 2 Contactor size to cover Motor Power (kW's) and Full Load Current
- 3 Control Circuit Voltage and Frequency (Hz)
- 4 Overload Range to cover Motor Full Load Current  
*Note: Different Ratings for Direct-On-Line & Star Delta*
- 5 Starter Style
- 6 Extras

