



SWITCHGEAR
SAFE & SURE

Selection Chart for DOL STARTERS

• Co-ordination Type 2 : IS 13947 (PART 4 / Sec.1)/IEC 60947-4-1
50KA, 415V

Sr. No.	Motor 240V-Single Phase			Motor 415V-Three Phase			Relay Range, A	Contactor	Nominal Back up fuse		S - D - F
	HP	kW	A	HP	kW	A			Rating, A	Type	
1				0.125	0.09	0.4	0.3 - 0.5	MN 9	2	HF	FN 32
2				0.16	0.12	0.45	0.3 - 0.5	MN 9	2	HF	FN 32
3				0.2	0.15	0.57	0.45-0.75	MN 9	2	HF	FN 32
4				0.25	0.19	0.75	0.6 - 1.0	MN 9	4	HF	FN 32
5				0.33	0.25	0.9	0.6 - 1.0	MN 9	4	HF	FN 32
6				0.5	0.37	1.2	0.9 - 1.5	MN 9	6	HF	FN 32
7				0.75	0.55	1.6	1.4 - 2.3	MN 9	6	HF	FN 32
8	0.25	0.18	2.00	1	0.75	2.1	1.4 - 2.3	MN 9	8	HF	FN 32
9	0.50	0.40	3.60	1.5	1.1	2.7	2.0 - 3.3	MN 9	10	HF	FN 32
10				1.75	1.3	3	2.0 - 3.3	MN 9	10	HF	FN 32
11				2	1.5	3.5	3.0 - 5.0	MN 9	16	HF	FN 32
12				2.5	1.8	4.8	4.5 - 7.5	MN 9	16	HF	FN 32
13				3	2.25	5	4.5 - 7.5	MN 9	16	HF	FN 32
14				4	3	6.4	4.5 - 7.5	MN 9	20	HF	FN 32
15	1.00	0.75	7.50	5	3.7	7.9	6.0 - 10.0	MN 9	20	HF	FN 32
16				5.5	4	8.5	6.0 - 10.0	MN 9	20	HF	FN 32
17	1.25	0.90	8.00	6	4.5	9	6.0 - 10.0	MN 12	25	HF	FN 32
18	2.00	1.50	9.50	7.5	5.5	11.2	9.0 - 15.0	MN 12	32	HF	FN 32
19	3.00	2.25	14.00	10	7.5	14.8	9.0 - 15.0	MN 16	32	HF	FN 32
20				12.5	9.3	19	14 - 23	MN 25	50	HF	FN 63
21				15	11	22	14 - 23	MN 25	63	HF	FN 63
22				17.5	13	24	20 - 33	MN 32	63	HF	FN 63
23				20	15	29	20 - 33	MN 32	63	HF	FN 63
24				25	18.6	35	30 - 50	MN 45	80	HN 00	FN 100
25				30	22.5	40	30 - 50	MN 45	80	HN 00	FN 100
26				35	26	47	30 - 50	MN 65	100	HN 00	FN 100
27				40	30	55	45 - 75	MN 65	100	HN 00	FN 100
28				45	33.5	60	45 - 75	MN 65	100	HN 00	FN 100
29				50	37	66	45 - 75	MN 80	125	HN 00	FN 125
30				60	45	80	66 - 110	MN 95	160	HN 0	FN 200
31				75	55	100	66 - 110	MN 110	160	HN 0	FN 200
32				90	67.5	120	90 - 150	MN 140	200	HN 0	FN 200
33				100	75	135	90 - 150	MN 140	200	HN 0	FN 200
34				110	80	139	90 - 150	MN 185	200	HN 0	FN 200
35				125	90	165	135 - 225	MN 185	250	HN 1	FN 250
36				150	110	200	135 - 225	MN 225	315	HN 1	FN 315
37				175	130	230	180 - 300	MN 265	315	HN 1	FN 315
38				197	147	260	180 - 300	MN 265	400	HN 2	FN 400
39				200	150	275	180 - 300	MN 325	400	HN 2	FN 400
40				215	160	280	180 - 300	MN 325	400	HN 2	FN 400
41				225	168	300	270 - 450	MN 325	400	HN 2	FN 400
42				245	180	320	270 - 450	MN 325	400	HN 2	FN 400
43				270	200	340	270 - 450	MN 400	500	HN 3	FN 630

NOTES :

- The full load currents given for single phase motors are of capacitor start motors and for 3-phase motors are of squirrel cage induction motors at full load. Motors considered are with speeds more than that mentioned below :
 up to 10 HP - 750 RPM. 10 to 30 HP - 600 RPM.
 30 to 125 HP - 500 RPM. 125 to 300 HP - 375 RPM.
- Contactors/S-D-Fs indicated are of minimum ratings. Higher rating of contactors and S-D-Fs can be used.
- Normal motor starting times, power factor and efficiency are assumed in all cases.
- Type of relays recommended :
 Up to and including range 20-33A : Type MN 2.
 Range 30 - 50 A to range 66 - 110 A : Type MN 5.
 Range 90-150 A and above : Type MN 12.
- All S-D-F ratings are AC 23-A as per IS 13947 (part 3) / IEC 947-3.