

1-800-GRAINGER (472-4643)

NEMA Magnetic Motor Starters with Solid State Overload Relays

- Class 10/20 selectable thermal protection
- 3-pole, 60/50 Hz, 600VAC max.
- Accessories and replacement parts on page 163

Full-voltage starters start and stop 3-phase AC motors. Manual push-to-test and visible trip indicator. Trip-free construction allows overload relay to trip even if reset lever is blocked or in

the reset position. Overload relay has heaterless construction and adjustable full load amp setting.

Normally open holding circuit contact allows 3-wire control. Angled contacts provide high contact pressure and positive seating. Spring-assisted gravity dropout on de-energizing quickly extinguishes any arcing. UL Listed and CSA Certified.



**Nonreversing, Open
5E748**



**Reversing, Open
2MMG7**

NEMA Size	Amps AC	Coil Volts	NEMA Size	Amps AC	Coil Volts	Model
2	45	240V AC	5F061	2	45	240V AC
2	45	480V AC	5F063	2	45	480V AC
2	45	208V AC	5F065	3	90	480V AC
3	90	480V AC	2MMA7	3	90	120V AC
3	90	208V AC	5F099	3	90	208V AC
3	90	240V AC	5F105	4	135	120V AC
4	135	120V AC	2MMC6	4	135	480V AC
4	135	480V AC	2MMC8	12, 3R Enclosure NEMA Rating		
3	90	120V AC	2MMA8	No Enclosure NEMA Rating		
00	9	120V AC	21ET55	00	9	120V AC
0	18	120V AC	5E748	0	18	120V AC
0	18	240V AC	5E750	0	18	240V AC
0	18	480V AC	5E752	0	18	480V AC
1	27	120V AC	5F019	1	27	120V AC
1	27	240V AC	5F021	1	27	240V AC
1	27	480V AC	5F023	1	27	480V AC
1	27	208V AC	5F025	1	27	208V AC
2	45	120V AC	5F059	2	45	120V AC

NEMA Size	Amps AC	Coil Volts	Model
0	18	208V AC	5F001
1	27	120V AC	5F035
1	27	240V AC	5F037
1	27	480V AC	5F039
1	27	208V AC	5F041
2	45	120V AC	5F075
2	45	240V AC	5F077
2	45	480V AC	5F079
2	45	208V AC	5F081
3	90	120V AC	5F115
3	90	240V AC	5F117
3	90	480V AC	5F119
3	90	208V AC	5F121
4	135	480V AC	2MMD5
4	135	208V AC	2MMD6

NEMA Size	Amps AC	Coil Volts	Model
4	135	120V AC	5F155
4	135	240V AC	5F157
NEMA Style Magnetic Motor Starter, Reversing			
1 Enclosure NEMA Rating			
1	27	120V AC	5F187
No Enclosure NEMA Rating			
00	9	120V AC	21ET58
0	18	120V AC	5F179
1	27	120V AC	5F195
2	45	120V AC	5F331
3	90	120V AC	2MMG4T
4	135	120V AC	2MMG7

† 240VAC and 480VAC coil not available.

NEMA Magnetic Motor Starters with Standard Overload Relays

- Melting alloy thermal overload relays
- Class 20 thermal protection
- 2- or 3-pole, 60/50 Hz, 600VAC max.
- Thermal units sold separately, page 166
- Accessories and replacement parts on page 163

Full-voltage starters start and stop 1- and 3-phase AC motors. Manual push-to-test and visible trip indicator. Trip-free construction allows overload relay to trip even if reset lever is blocked or in the reset position.

Normally open holding circuit contact for 3-wire control. Angled contacts provide high contact pressure and positive seating. Spring-assisted gravity dropout on de-energizing contacts quickly extinguishes any arcing. UL Listed and CSA Certified.



**NEMA 1
1H481**



**Open
1H513**



**NEMA 12
1H477**

NEMA Size	Amps AC	Coil Volts	HP @ 1-Phase 230V	HP @ 3-Phase 240V	HP @ 3-Phase 480V	Thermal Unit Code	Model
Square D Magnetic Motor Starter with Thermal Overload							
1 Enclosure NEMA Rating							
00	9 A	120V AC	1 hp	—	—	A1	1H468
00	9 A	240V AC	1 hp	—	—	A1	1H469
00	9 A	120V AC	—	1 1/2 hp	2 hp	C1	1H470
00	9 A	240V AC	—	1 1/2 hp	2 hp	C1	1H471
00	9 A	480V AC	—	1 1/2 hp	2 hp	C1	1H472
00	9 A	208V AC	—	1 1/2 hp	2 hp	C1	1H473
00	9 A	24V AC	—	1 1/2 hp	2 hp	—	2BX12
00	9 A	120V AC	—	1 1/2 hp	2 hp	D1	2BX76
0	18 A	208V AC	2 hp	—	—	D3	19YA90
0	18 A	120V AC	—	3 hp	5 hp	D3	19YC50
0	18 A	120V AC	2 hp	—	—	A2	1H481
0	18 A	240V AC	2 hp	—	—	A2	1H482
0	18 A	120V AC	—	3 hp	5 hp	C2	1H483
0	18 A	240V AC	—	3 hp	5 hp	C2	1H484
0	18 A	480V AC	—	3 hp	5 hp	C2	1H485
0	18 A	208V AC	—	3 hp	5 hp	C2	1H486
0	18 A	120V AC	—	3 hp	5 hp	D2	1H554
0	18 A	24V AC	—	3 hp	5 hp	—	2BX18
0	18 A	240V AC	—	3 hp	5 hp	D2	2PXC9
1	27 A	240V AC	3 hp	—	—	D3	19YC12
1	27 A	120V AC	3 hp	—	—	A3	1H500
1	27 A	240V AC	3 hp	—	—	A3	1H501
1	27 A	120V AC	—	7 1/2 hp	10 hp	C3	1H504
1	27 A	240V AC	—	7 1/2 hp	10 hp	C3	1H505
1	27 A	480V AC	—	7 1/2 hp	10 hp	C3	1H506
1	27 A	208V AC	—	7 1/2 hp	10 hp	C3	1H507
1	27 A	120V AC	—	7 1/2 hp	10 hp	D3	1H556
1	27 A	24V AC	—	7 1/2 hp	10 hp	—	2BX34
1P	36 A	120V AC	5 hp	—	—	A4	1H502
1P	36 A	240V AC	5 hp	—	—	A4	1H503
2	45 A	120V AC	—	15 hp	25 hp	C4	1H520
2	45 A	240V AC	—	15 hp	25 hp	C4	1H521
2	45 A	480V AC	—	15 hp	25 hp	C4	1H522
2	45 A	208V AC	—	15 hp	25 hp	C4	1H523
2	45 A	120V AC	—	15 hp	25 hp	D4	1H558
2	45 A	240V AC	7 1/2 hp	—	—	A5	2BX51
2	45 A	240V AC	7 1/2 hp	—	—	A5	2BX52
2	45 A	240V AC	—	15 hp	25 hp	D4	2PXC2
3	90 A	120V AC	—	30 hp	50 hp	C5	1H535
3	90 A	240V AC	—	30 hp	50 hp	C5	1H536
3	90 A	480V AC	—	30 hp	50 hp	C5	1H537
3	90 A	208V AC	—	30 hp	50 hp	C5	1H538
4	135 A	120V AC	—	50 hp	100 hp	C6	1H545
4	135 A	480V AC	—	50 hp	100 hp	C6	1H547
4	135 A	208V AC	—	50 hp	100 hp	C6	1H548
4	135 A	240V AC	—	50 hp	100 hp	C6	2PXD8
4, 4X Enclosure NEMA Rating							
0	18 A	120V AC	—	3 hp	5 hp	C2	1H495
1	27 A	120V AC	—	7 1/2 hp	10 hp	C3	5B616
12, 3R Enclosure NEMA Rating							
0	18 A	120V AC	—	3 hp	5 hp	C2	1H477
0	18 A	480V AC	—	3 hp	5 hp	C2	2PW23
0	18 A	208V AC	—	3 hp	5 hp	C2	2PW24
1	27 A	120V AC	—	7 1/2 hp	10 hp	C3	1H496

NEMA Size	Amps AC	Coil Volts	HP @ 1-Phase 230V	HP @ 3-Phase 240V	HP @ 3-Phase 480V	Thermal Unit Code	Model
1	27 A	240V AC	—	7 1/2 hp	10 hp	C3	1H497
1	27 A	480V AC	—	7 1/2 hp	10 hp	C3	1H498
1	27 A	208V AC	—	7 1/2 hp	10 hp	C3	1H499
2	45 A	120V AC	—	15 hp	25 hp	C4	1H517
2	45 A	240V AC	—	15 hp	25 hp	C4	2PXA9
2	45 A	480V AC	—	15 hp	25 hp	C4	2PXC1
2	45 A	208V AC	—	15 hp	25 hp	C4	2PXC2
3	90 A	120V AC	—	30 hp	50 hp	C5	1H532
3	90 A	240V AC	—	30 hp	50 hp	C5	2PXC7
3	90 A	208V AC	—	30 hp	50 hp	C5	2PXC9
4	135 A	120V AC	—	50 hp	100 hp	C6	20AZ20
No Enclosure NEMA Rating							
00	9 A	120V AC	—	1 1/2 hp	2 hp	D1	1H474
00	9 A	240V AC	—	1 1/2 hp	2 hp	D1	1H475
00	9 A	208V AC	—	1 1/2 hp	2 hp	D1	1H476
00	9 A	120V AC	—	1 1/2 hp	2 hp	D1	2BX80
00	9 A	120V AC	1 hp	—	—	B1	2PWY9
00	9 A	480V AC	—	1 1/2 hp	2 hp	D1	5B614
0	18 A	120V AC	2 hp	—	—	D3	19YA95
0	18 A	120V AC	—	3 hp	5 hp	D3	19YA98
0	18 A	240V AC	—	3 hp	5 hp	D3	19YC58
0	18 A	120V AC	2 hp	—	—	B2	1H490
0	18 A	120V AC	—	3 hp	5 hp	D2	1H491
0	18 A	240V AC	—	3 hp	5 hp	D2	1H492
0	18 A	480V AC	—	3 hp	5 hp	D2	1H493
0	18 A	208V AC	—	3 hp	5 hp	D2	1H494
0	18 A	120V AC	—	3 hp	5 hp	D2	1H555
0	18 A	240V AC	2 hp	—	—	B2	2BX25
0	18 A	24V AC	—	3 hp	5 hp	—	2BX26
1	27 A	120V AC	—	7 1/2 hp	10 hp	D3	19XC21
1	27 A	120V AC	3 hp	—	—	B3	1H511
1	27 A	120V AC	—	7 1/2 hp	10 hp	D3	1H513
1	27 A	240V AC	—	7 1/2 hp	10 hp	D3	1H514
1	27 A	480V AC	—	7 1/2 hp	10 hp	D3	1H515
1	27 A	208V AC	—	7 1/2 hp	10 hp	D3	1H516
1	27 A	120V AC	—	7 1/2 hp	10 hp	D3	1H557
1	27 A	24V AC	—	7 1/2 hp	10 hp	—	2BX41
1	27 A	240V AC	3 hp	—	—	B3	2PXA3
1P	36 A	240V AC	5 hp	—	—	B4	20AZ19
2	45 A	120V AC	—	15 hp	25 hp	D4	1H527
2	45 A	240V AC	—	15 hp	25 hp	D4	1H528
2	45 A	480V AC	—	15 hp	25 hp	D4	1H529
2	45 A	208V AC	—	15 hp	25 hp	D4	1H530
2	45 A	24V AC	—	15 hp	25 hp	—	2BX53
2	45 A	120V AC	—	15 hp	25 hp	D4	2PXC5
2	45 A	480V AC	—	15 hp	25 hp	D4	2PXC7
3	90 A	120V AC	—	30 hp	50 hp	D5	1H541
3	90 A	240V AC	—	30 hp	50 hp	D5	1H542
3	90 A	480V AC	—	30 hp	50 hp	D5	1H543
3	90 A	208V AC	—	30 hp	50 hp	D5	1H544