

To: Current Holders of NEMA ICS 2-2000  
From: NEMA Communications Department  
Date: May 23, 2002  
Subject: Addendum/Errata to Part 2  
of NEMA ICS 2-2000



Part 2 of the present publication of NEMA ICS 2-2000, *Industrial Control and Systems: Controllers, Contactors and Overload Relays Rated 600 Volts*, has the following addendum and errata pages:

### **ADDENDUM PAGES:**

MG1 & ICS2 LRA up to 500 HP

Revised Locked-Rotor Current Ratings in NEMA ICS 2 Part 2 Based on NEC 2002 and NEMA MG 1

Single Phase Locked-Rotor Current as Published in NEMA MG 1-1993 (paragraphs 12.33 and 12.34) and NEC 2002 (Table 430.151(A)) versus Single Phase LRA published in NEMA ICS 2-2000 (Part 2)

Single Phase Locked-Rotor Current as extrapolated from NEMA MG 1-1993 (paragraphs 12.33 and 12.34), NEC 2002 and NEMA ICS 2-2000 (Part 2)

### **ERRATA PAGES:**

Table 2-4-1, Horsepower (HP) and Locked-Rotor Current (LRA) Ratings for Three-Phase, Single-Speed Full-Voltage Magnetic Controllers for Limited Plugging and Jogging-Duty (Replaces Table 2-4-1 on Page 2-14)

Table 2-4-2, Horsepower (HP) and Locked-Rotor Current (LRA) Ratings for Single-Phase Full-Voltage Magnetic Controllers for Limited Plugging and Jogging-Duty, 50 or 60 HZ (Replaces Table 2-4-2 on page 2-14)

Table 2-4-3, Horsepower (HP) and Locked-Rotor Current (LRA) Ratings for Three-Phase, Single-Speed Full-Voltage Magnetic Controllers for Plug-Stop, Plug-Reverse or Jogging-Duty (Replaces Table 2-4-3 on page 2-15)

Table 2-4-4, Horsepower (HP) and Locked-Rotor Current (LRA) Ratings for Single-Phase Full-Voltage Magnetic Controllers for Plug-Stop, Plug-Reverse, or Jogging-Duty, 50 or 60 HZ (Replaces Table 2-4-4 on page 2-15)

Table 2-4-5, Horsepower (HP) and Locked-Rotor Current (LRA) Ratings for Three-Phase, Reduced-Voltage Magnetic Controllers for Limited Plugging and Jogging-Duty (Replaces Table 2-4-5 on page 2-16)

Table 2-4-6, Horsepower (HP) and Locked-Rotor Current (LRA) Ratings for Single-Phase Reduced-Voltage Magnetic Controllers for Limited Plugging and Jogging-Duty, 50 or 60 HZ (Replaces Table 2-4-6 on page 2-16)

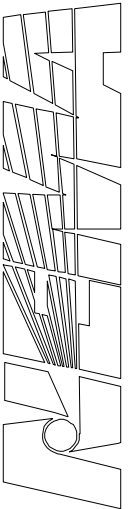
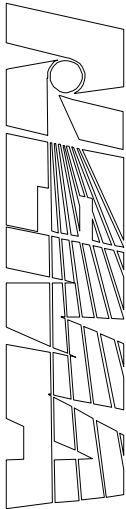
Table 2-4-7, Horsepower (HP) and Locked-Rotor Current (LRA) Ratings for WYE-Delta Magnetic Controllers for Either Open or Closed Transition (Replaces Table 2-4-7 on page 2-17)

Table 2-4-9, Current Ratings for Limited Plugging and Jogging Full-Voltage Polyphase Magnetic Controllers for Motors Suitable for Part-Winding Starting (Replaces Table 2-4-9 on page 2-18)

Table 2-4-11, Current Ratings for Limited Plugging and Jogging Reduced-Voltage Polyphase Magnetic Controllers for Motors Suitable for Part-Winding Starting (Replaces Table 2-4-11 on page 2-19)

Please insert the attached Addendum and Errata pages into your standard.

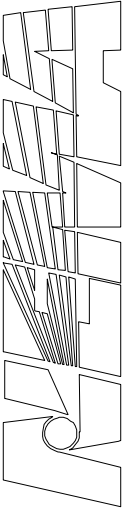
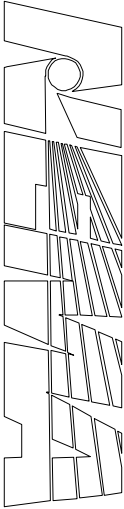
Thank you for your attention in this matter.



**Addendum and Errata**  
Part 2 of the present publication of

**NEMA Standards Publication ICS 2-2000**

*Industrial Control and Systems Controllers: Contactors and Overload Relays  
Rated 600 Volts*



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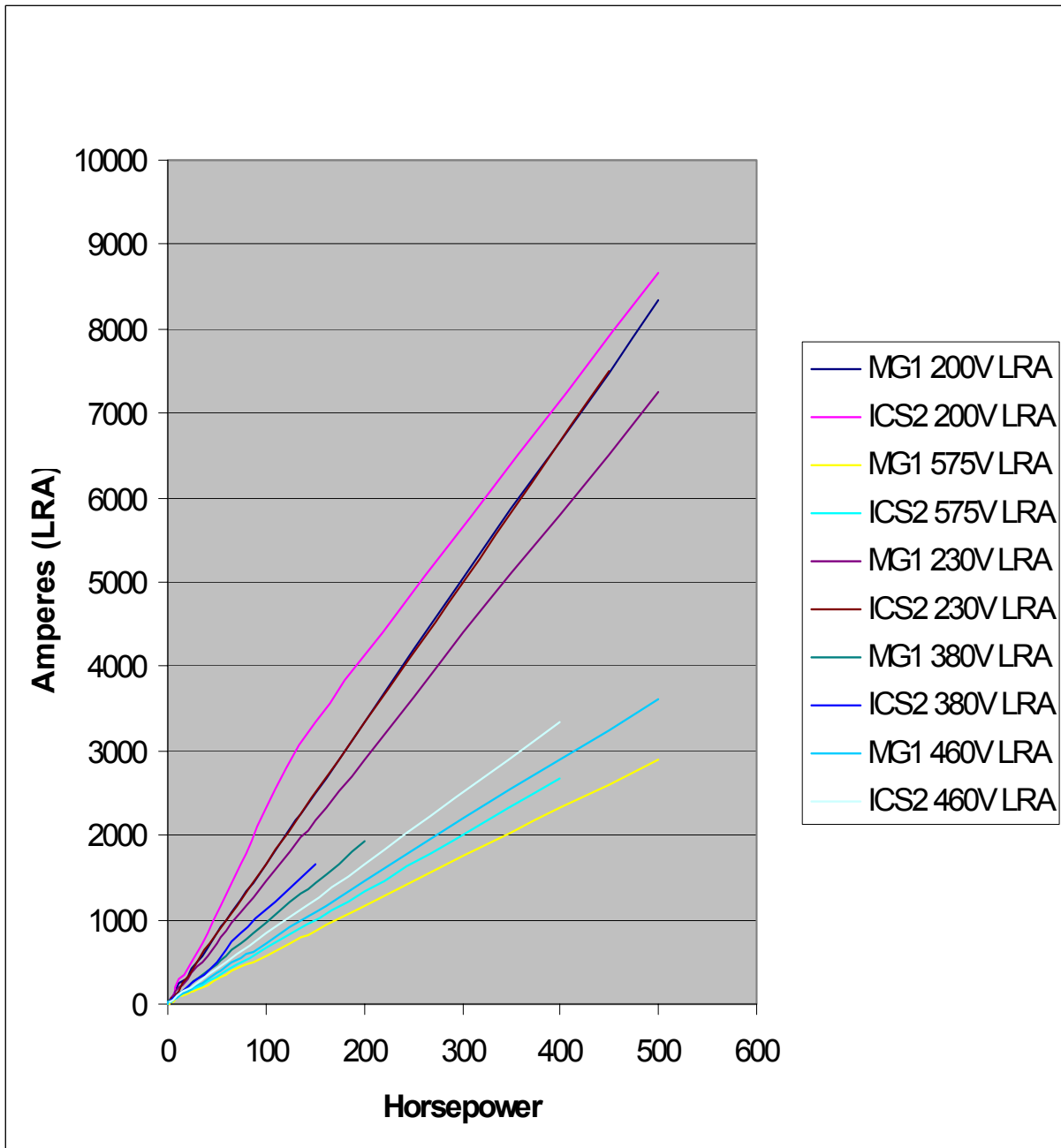


Figure 1 of Addendum  
MG 1 AND ICS 2 LRA UP TO 500 HP

**Table 1 of Addendum  
 REVISED LOCKED-ROTOR CURRENT RATINGS IN NEMA ICS 2 PART 2  
 BASED ON NEC 2002 AND NEMA MG 1**

**Three Phase Locked-Rotor Current  
 as Published in NEMA MG 1-1993 (Paragraph 12.35.1, 12.36, Table 12-1),  
 NEC 2002 (Table 430.151(B), and NEMA ICS 2-2000 (Part 2)**

HP	200V			230V			380V		400V	460V			575V		
	MG1	NEC	ICS2	MG1	NEC	ICS2	MG1	ICS2	MG1	MG1	NEC	ICS2	MG1	NEC	ICS2
1.5	46	46	46	40	40	30	27	30	26	20	20		16	16	
2	58	57.5		50	50		34		32	25	25	25	20	20	20
3	74	73.6	74	64	64	64	43		41	32	32		26	25.6	
5	106	105.8		92	92		61	64	58	46	46	53	37	36.8	42
7.5	146	146	151	127	127	107	84		80	64	63.5		51	50.8	
10	186	186.3	255	162	162		107	107	102	81	81	88	65	64.8	70
15	267	267		232	232	255	154		146	116	116		93	93	121
25	420	420	500	365	365		243	255	231	183	183	210	146	146	168
30	500	500		435	435	500	289		275	218	218		174	174	
40	667	667	835	580	580		387		368	290	290		232	232	291
50	834	834		725	725	835	482	500	458	363	363	418	290	290	334
75	1248	1248	1670	1085	1085		722	835	686	543	543		434	434	578
100	1668	1668		1450	1450	1670	965		917	725	725	835	580	580	668
150	2496	2496	3340	2170	2170		1441	1670	1369	1085	1085		868	868	1155
200	3335	3335		2900	2900	3340	1927		1831	1450	1450	1670	1160	1160	1334
300	5060		5020	4400		5000				2200	2200	2510	1760	1760	2000
350	5865			5100		5020				2550	2550		2040	2040	
400	6670			5800						2900	2900	3340	2320	2320	2670
450	7475			6500		7500				3250	3250		2600	2600	
500	8338		8660	7250		8660				3625	3625		2900	2900	

**Table 1 of Addendum  
REVISED LOCKED-ROTOR CURRENT RATINGS IN NEMA ICS 2 PART 2  
BASED ON NEC 2002 AND NEMA MG 1  
(continued)**

**Three Phase Locked-Rotor Current  
as Extrapolated from NEMA MG 1-1993 (Paragraph 12.35.1, 12.36, Table 12-1)  
and as Published in NEMA ICS 2-2000 (Part 2)**

HP	200V		230V		380V		400V	460V		575V	
	MG1	ICS2	MG1	ICS2	MG1	ICS2	MG1	MG1	ICS2	MG1	ICS2
250					2409	2510	2288				
300					2891	3340	2746				
450					4336	5000	4119				
500					4818	5020	4577				
600	10005		8700		5781		5492	4350		3480	4000
700	11673		10150		6745		6407	5075	5020	4060	
750	12506	13000	10875		7226		6865	5438		4350	
800	13340		11600	13400	7708	8660	7323	5800		4640	
900	15008		13050		8672		8238	6525	7500	5220	6000
1000	16675		14500		9635	13000	9153	7250	8660	5800	6930
1500	25013	23200	21750	23200	14453		13730	10875	13000	8700	10400
1600	26680		23200		15416		14645	11600	13400	9280	10700
2000	33350		29000		19270	23200	18307	14500		11600	
3000	50025		43500		28905		27460	21750	23200	17400	18500

**Table 2 of Addendum  
 SINGLE PHASE LOCKED-ROTOR CURRENT  
 AS PUBLISHED IN NEMA MG 1-1993 (PARAGRAPHS 12.33 AND 12.34)  
 AND NEC 2002 (TABLE 430.151(A)) VERSUS SINGLE PHASE LRA  
 PUBLISHED IN NEMA ICS 2-2000 (PART 2)**

HP	115 V					230 V					
	MG1			NEC	ICS2	MG1				NEC	ICS2
	O	N	L			O	N	L	M		
1/3	50	31			50	25	18				
1/2	50	45	45	58.8	53	25	25	25		29.4	
1		80	80	96	80		45	45		48	43
1-1/2				120	93			50	40	60	
2				144	150			65	50	72	60
3				204	250			90	70	102	135
5				336	300			13 5	10 0	168	150
7 - 1/2				480	500			20 0	15 0	240	250
10				600						300	300

**Table 3 of Addendum  
 SINGLE PHASE LOCKED-ROTOR CURRENT  
 AS EXTRAPOLATED FROM NEMA MG 1-1993 (PARAGRAPHS 12.33 AND 12.34), NEC 2002  
 AND NEMA ICS 2-2000 (PART 2)**

HP	Volt	MG1		NEC	ICS2
		L	M		
15	230	390	300	450	500



**Errata for  
Table 2-4-1  
HORSEPOWER (HP) AND LOCKED-ROTOR CURRENT (LRA) RATINGS FOR THREE-PHASE, SINGLE-  
SPEED FULL-VOLTAGE MAGNETIC CONTROLLERS FOR LIMITED PLUGGING AND JOGGING-DUTY**

Size of Controller	Continuous Current Rating (Amperes)	At 200V 60 Hz		At 230V 60 Hz		At 400V 50 Hz		At 460V 60 Hz		At 575V 60 Hz		Service-Limit Current rating* (Amperes)
		HP	LRA	HP	LRA	HP	LRA	HP	LRA	HP	LRA	
00	9	1.5	46	1.5	40	1.5	26	2	25	2	20	11
0	18	3	73.6	3	64	5	58	5	46	5	36.8	21
1	27	7.5	146	7.5	127	10	102	10	81	10	64.8	32
2	45	10	186.3	15	232	25	231	25	183	25	146	52
3	90	25	420	30	435	50	458	50	363	50	290	104
4	135	40	667	50	725	75	686	100	725	100	580	156
5	270	75	1248	100	1450	150	1369	200	1450	200	1160	311
6	540	150	2496	200	2900	300	2746	400	2900	400	2320	621
7	810			300	4400			600	4350	600	3480	932
8	1215			450	6500			900	6525	900	5220	1400
9	2250			800	11600			1600	11600	1600	9280	2590

**Errata for  
 Table 2-4-2**

**HORSEPOWER (HP) AND LOCKED-ROTOR CURRENT (LRA) RATINGS FOR SINGLE-PHASE FULL-VOLTAGE MAGNETIC CONTROLLERS FOR LIMITED PLUGGING AND JOGGING-DUTY, 50 OR 60 HZ**

Size of Controller	Continuous Current Rating (Amperes)	115 Hz		230V 60 Hz		Service-Limit Current rating* (Amperes)
		HP	LRA	HP	LRA	
00	9	1/3	50	1	48	11
0	18	1	96	2	72	21
1	27	2	144	3	102	32
1P	36	3	204	5	168	42
2	45	3	204	7.5	240	52
3	90	7.5	480	15	450	104

**Errata for  
Table 2-4-3  
HORSEPOWER (HP) AND LOCKED-ROTOR CURRENT (LRA) RATINGS  
FOR THREE-PHASE, SINGLE-SPEED FULL-VOLTAGE MAGNETIC CONTROLLERS  
FOR PLUG-STOP, PLUG-REVERSE OR JOGGING-DUTY**

Size of Controller	Continuous Current Rating (Amperes)	At 200V 60 Hz		At 230V 60 Hz		At 400V 50 Hz		At 460V 60 Hz		At 575V 60 Hz		Service-Limit Current rating* (Amperes)
		HP	LRA	HP	LRA	HP	LRA	HP	LRA	HP	LRA	
0	18	1.5	46	1.5	40	1.5	26	2	25	2	20	21
1	27	3	73.6	3	64	5	58	5	46	5	36.8	32
2	45	7.5	146	10	162	15	146	15	116	15	93	52
3	90	15	267	20	290	30	275	30	218	30	174	104
4	135	25	420	30	435	50	458	60	435	60	348	156
5	270	60	1001	75	1085	125	1147	150	1085	150	868	311
6	540	125	2087	150	2170	250	2288	300	2200	300	1760	621

**Errata for  
 Table 2-4-4  
 HORSEPOWER (HP) AND LOCKED-ROTOR CURRENT (LRA) RATINGS  
 FOR SINGLE-PHASE FULL-VOLTAGE MAGNETIC CONTROLLERS  
 FOR PLUG-STOP, PLUG-REVERSE, OR JOGGING-DUTY, 50 OR 60 HZ**

Size of Controller	Continuous Current Rating  Amperes	At 115 Hz		At 230V 60 Hz		Service-Limit Current Rating*  Amperes
		HP	LRA	HP	LRA	
0	18	1/2	58.8	1	48	21
1	27	1	96	2	72	32
1P	36	1-1/2	120	3	102	90
2	45	2	144	5	168	52
3	90	5	336	10	300	104

**Errata for  
Table 2-4-5  
HORSEPOWER (HP) AND LOCKED-ROTOR CURRENT (LRA) RATINGS FOR THREE-PHASE, REDUCED-  
VOLTAGE MAGNETIC CONTROLLERS FOR LIMITED PLUGGING AND JOGGING-DUTY**

Size of Controller	Continuous Current Rating (Amperes)	At 200V 60 Hz		At 230V 60 Hz		At 400V 50 Hz		At 460V 60 Hz		At 575V 60 Hz		Service-Limit Current Rating* (Amperes)
		HP	LRA	HP	LRA	HP	LRA	HP	LRA	HP	LRA	
1	27	7.5	146	7.5	127	10	102	10	81	10	64.8	32
2	45	10	186.3	15	232	25	231	25	183	25	146	52
3	90	25	420	30	435	50	458	50	363	50	290	104
4	135	40	667	50	725	75	686	100	725	100	580	156
5	270	75	1248	100	1450	150	1369	200	1450	200	1160	311
6	540	150	2496	200	2900	300	2746	400	2900	400	2320	621
7	810			300	4400			600	4350	600	3480	932
8	1215			450	6500			900	6525	900	5220	1400
9	2250			800	11600			1600	11600	1600	9280	2590

**Errata for  
 Table 2-4-6  
 HORSEPOWER (HP) AND LOCKED-ROTOR CURRENT (LRA) RATINGS FOR SINGLE-PHASE REDUCED-  
 VOLTAGE MAGNETIC CONTROLLERS FOR LIMITED PLUGGING AND JOGGING-DUTY, 50 OR 60 HZ**

Size of Controller	Continuous Current Rating (Amperes)	115 Hz		230V 60 Hz		Service-Limit Current Rating* (Amperes)
		HP	LRA	HP	LRA	
1	27	2	144	3	102	32
1P	36	3	204	5	168	42
2	45	3	204	7.5	240	52
3	90	7.5	480	15	450	104

**Errata for  
Table 2-4-7  
HORSEPOWER (HP) AND LOCKED-ROTOR CURRENT (LRA) RATINGS  
FOR WYE-DELTA MAGNETIC CONTROLLERS FOR EITHER OPEN OR CLOSED TRANSITION**

Size of Controller	Continuous Current Rating (Amperes)	Contactor Size			At 200V 60 Hz		At 230V 60 Hz		At 400 V 50 Hz		At 460V 60 Hz		At 575V 60 Hz		Service Limit Current Rating*
		1M & 2M	2 & 1S	2S	HP	LRA	HP	LRA	HP	LRA	HP	LRA	HP	LRA	
1YD	47	1	1		10	186.3	10	162	15	146	15	116	15	93	55
2YD	78	2	2		20	334	25	365	40	368	40	290	40	232	90
3YD	156	3	3		40	667	50	725	75	686	75	543	75	434	179
4YD	135	4	4		60	1001	75	1085	150	1369	150	1085	150	868	270
5YD	270	5	5		150	2496	150	2170	250	2288	300	2200	300	1760	538
6YD	540	6	6		300	5060	350	5100	500	4577	700	5075	700	4060	1075
7YD	810	7	7		500	8338	500	7250	800	7323	1000	7250	1000	5800	1610
8YD	1215	8	8		750	12506	800	11600	1000	9153	1500	10875	1500	8700	2420
9YD	2250	9	9		1500	25013	1500	21750	2000	18307	3000	21750	3000	17400	4480

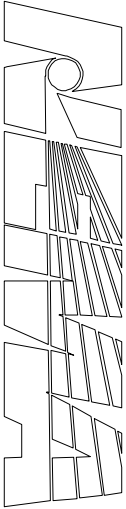
**Errata for  
 Table 2-4-9  
 CURRENT RATINGS FOR LIMITED PLUGGING AND JOGGING  
 FULL-VOLTAGE POLYPHASE MAGNETIC CONTROLLERS  
 FOR MOTORS SUITABLE FOR PART-WINDING STARTING**

Size of Controller	Continuous Current Rating per Winding* Amperes	Contactor Size 1M & 2M	Locked-Rotor Rating per Winding Amperes at					Service Limit Current Rating Per Winding, Amperes*
			60 Hz 200V	60 Hz 230V	50 Hz 400 V	60 Hz 460V	60 Hz 575V	
1PW	27	1	146	127	102	81	64.8	32
2PW	45	2	186.3	232	231	183	146	52
3PW	90	3	420	435	458	363	290	104
4PW	135	4	667	725	686	725	580	156
5PW	270	5	1248	1450	1369	1450	1160	311
6PW	540	6		2900	2746	2900	2320	621
7PW	810	7		4400	4119	4350	3480	932
8PW	1215	8		6500		6525	5220	1400
9PW	2250	9		11600		11600	9280	2590



**Errata for  
Table 2-4-11  
CURRENT RATINGS FOR LIMITED PLUGGING AND JOGGING  
REDUCED-VOLTAGE POLYPHASE MAGNETIC CONTROLLERS  
FOR MOTORS SUITABLE FOR PART-WINDING STARTING**

Size of Controller	Continuous Current Rating per Winding* Amperes	Contactor Size		Locked-Rotor Rating per Winding Amperes at					Service Limit Current Rating per winding, Amperes*
		Line (1M and 2M)	Accelerating	60 Hz 200V	60 Hz 230V	50 Hz 400 V	60 Hz 460V	60 Hz 575V	
1PW	27	1	1	146	127	102	81	64.8	32
2PW	45	2	2	186.3	232	231	183	146	52
3PW	90	3	3	420	435	458	363	290	104
4PW	135	4	4	667	725	686	725	580	156
5PW	270	5	4	1248	1450	1369	1450	1160	311
6PW	540	6	5		2900	2746	2900	2320	621
7PW	810	7	6		4400	4119	4350	3480	932
8PW	1215	8	7		6500		6525	5220	1400
9PW	2250	9	8		11600		11600	9280	2590



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