



## CIMR-A преобразователь частоты



CIMR-A обладает отличными характеристиками управления двигателем, экономичен и экологичен. Кроме того, CIMR-A обладает высокой функциональностью даже в базовом исполнении. Технология векторного управления CIMR-A включает некоторые функции продуктов следующего поколения.

### **Особенности:**

- До 160 кВт;
- Управление двигателем с постоянными магнитами (PM); и асинхронными двигателями (IM);
- Мощный крутящий момент при 0 Гц, без датчиков или устройств обратной связи;
- Высокопроизводительное управление вектором тока;
- Безопасность в соответствии с EN954-1, категория безопасности 3, категория останова;
- Программное обеспечение CX-Drive для конфигурирования параметров.

### 200 V class

Three-phase: CIMR-A_2A		0004	0006	0010	0012	0021	0030	0040	0056	0069	0081	0110	0138	0169	0211	0250	0312	0360	0415	
Motor kW <sup>*1</sup>	For HD setting	0.40	0.75	1.5	2.2	4.0	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	
	For ND setting	0.75	1.1	2.2	3.0	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	110	
Output characteristics	Inverter capacity kVA at HD <sup>*2</sup>	1.2	1.9	3	4.2	6.7	9.5	12.6	17.9	23	29	32	44	55	69	82	108	132	158	
	Inverter capacity kVA at ND <sup>*2</sup>	1.3	2.3	3.7	4.6	8	11.4	15.2	21	26	31	42	53	64	80	95	119	137	158	
	Rated output current (A) at HD	3.2 <sup>*3</sup>	5 <sup>*3</sup>	8 <sup>*3</sup>	11 <sup>*3</sup>	17.5 <sup>*3</sup>	25 <sup>*3</sup>	33 <sup>*3</sup>	47 <sup>*3</sup>	60 <sup>*3</sup>	75 <sup>*3</sup>	85 <sup>*3</sup>	115 <sup>*3</sup>	145 <sup>*4</sup>	180 <sup>*4</sup>	215 <sup>*4</sup>	283 <sup>*4</sup>	346 <sup>*4</sup>	415 <sup>*5</sup>	
	Rated output current (A) at ND <sup>*5</sup>	3.5	6	9.6	12	21	30	40	56	69	81	110	138	169	211	250	312	360	415	
	Max. output voltage	Proportional to input voltage: 0..240 V																		
Max. output frequency	400 Hz																			
Power supply	Rated input voltage and frequency	3-phase 200..240 V 50/60 Hz																		
	Allowable voltage fluctuation	-15%..+10%																		
	Allowable frequency fluctuation	+5%																		
	Input Current (A) at HD <sup>*6</sup>	2.9	5.8	7.5	11	18.9	28	37	52	68	80	82	111	136	164	200	271	324	394	
	Input Current (A) at ND <sup>*6</sup>	3.9	7.3	10.8	13.9	24	37	52	68	80	96	111	136	164	200	271	324	394	471	

<sup>\*1</sup> Based on a standard 4-pole motor for maximum applicable motor output.

<sup>\*2</sup> Rated Motor Capacity is calculated with a rated output voltage of 220 V.

<sup>\*3</sup> Carrier frequency can be increased up to 8 kHz while keeping this current rating. Higher carrier frequency settings require derating.

<sup>\*4</sup> Carrier frequency can be increased up to 5 kHz while keeping this current rating. Higher carrier frequency settings require derating.

<sup>\*5</sup> Carrier frequency is set to 2 kHz. Current derating is required in order to raise the carrier frequency.

<sup>\*6</sup> Assumes operation at rated output current. Input current rating varies depending on the power supply transformer, input reactor, Wiring conditions, and power supply impedance.

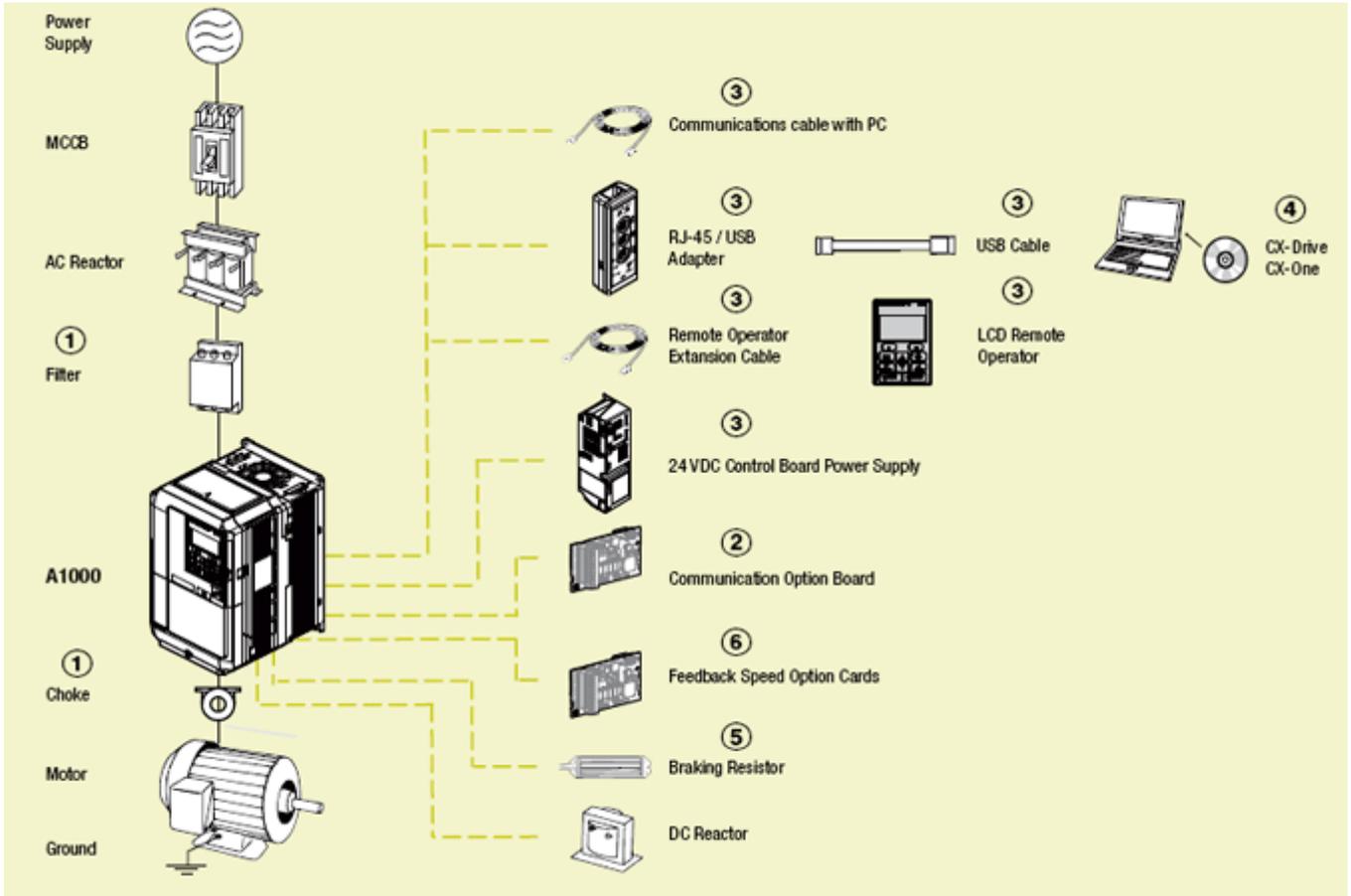
### 400 V class

Three-phase: CIMR-A_4A		0002	0004	0005	0007	0009	0011	0018	0023	0031	0038	0044	0058
Motor kW <sup>*1</sup>	For HD setting	0.4	0.75	1.5	2.2	3.0	4.0	5.5	7.5	11	15	18.5	22
	For ND setting	0.75	1.5	2.2	3.0	4.0	5.5	7.5	11	15	18.5	22	30
Output characteristics	Inverter capacity kVA at HD <sup>*2</sup>	1.4	2.6	3.7	4.2	5.5	7	11.3	13.7	18.3	24	30	34
	Inverter capacity kVA at ND <sup>*2</sup>	1.6	3.1	4.1	5.3	6.7	8.5	13.3	17.5	24	29	34	44
	Rated output current (A) at HD	1.8 <sup>*3</sup>	3.4 <sup>*3</sup>	4.8 <sup>*3</sup>	5.5 <sup>*3</sup>	7.2 <sup>*3</sup>	9.2 <sup>*3</sup>	14.8 <sup>*3</sup>	18 <sup>*3</sup>	24 <sup>*3</sup>	31 <sup>*3</sup>	39 <sup>*3</sup>	45 <sup>*3</sup>
	Rated output current (A) at ND <sup>*5</sup>	2.1	4.1	5.4	6.9	8.8	11.1	17.5	23	31	38	44	58
	Max. output voltage	380..480V (proportional to input voltage)											
Max. output frequency	400 Hz												
Power supply	Rated input voltage and frequency	3-phase 380..480 VAC, 50/60 Hz											
	Allowable voltage fluctuation	-15%..+10%											
	Allowable frequency fluctuation	+5%											
	Input Current (A) at HD <sup>*6</sup>	1.8	3.2	4.4	6	8.2	10.4	15	20	29	39	44	49
Input Current (A) at ND <sup>*6</sup>	2.1	4.3	5.9	8.1	9.4	14	20	24	38	44	52	58	
Three-phase: CIMR-A_4A		0072	0088	0103	0139	0165	0208	0250	0296	0362	0414	0515	0675
Motor kW <sup>*1</sup>	For HD setting	30	37	45	55	75	90	110	132	160	185	220	315
	For ND setting	37	45	55	75	90	110	132	160	185	220	250	355
Output characteristics	Inverter capacity kVA at HD <sup>*2</sup>	48	57	69	85	114	137	165	198	232	282	343	461
	Inverter capacity kVA at ND <sup>*2</sup>	55	67	78	106	126	159	191	226	276	316	392	514
	Rated output current (A) at HD	60 <sup>*3</sup>	75 <sup>*3</sup>	91 <sup>*3</sup>	112 <sup>*4</sup>	150 <sup>*4</sup>	180 <sup>*4</sup>	216 <sup>*4</sup>	260 <sup>*4</sup>	304 <sup>*5</sup>	370	450	605
	Rated output current (A) at ND <sup>*5</sup>	72	88	103	139	165	208	250	296	362	414	515	675
	Max. output voltage	380..480V (proportional to input voltage)											
Max. output frequency	400 Hz												



Power supply	Rated input voltage and frequency	3-phase 380..480 VAC, 50/60 Hz										
	Allowable voltage fluctuation	-15%..+10%										
	Allowable frequency fluctuation	+5%										
	Input Current (A) at HD <sup>6</sup>	58	71	86	105	142	170	207	248	300	346	410
Input Current (A) at ND <sup>6</sup>	71	86	105	142	170	207	248	300	346	410	465	657

<sup>6</sup> Based on a standard 4-pole motor for maximum applicable motor output.  
<sup>4</sup> Rated Motor Capacity is calculated with a rated output voltage of 440 V.  
<sup>3</sup> Carrier frequency can be increased up to 8 kHz while keeping this current rating. Higher carrier frequency settings require derating.  
<sup>2</sup> Carrier frequency can be increased up to 5 kHz while keeping this current rating. Higher carrier frequency settings require derating.  
<sup>1</sup> Carrier frequency is set to 2 kHz. Current derating is required in order to raise the carrier frequency.  
 Assumes operation at rated output current. Input current rating varies depending on the power supply transformer, input reactor, wiring conditions, and power supply impedance.



**A1000**

Specifications	Order code				
	Heavy Duty		Normal Duty		Standard
200 V	0.4 kW	3.2 A	0.75 kW	3.5 A	CIMR-AC2A0004FAA
	0.75 kW	5.0 A	1.1 kW	6.0 A	CIMR-AC2A0006FAA
	1.5 kW	8.0 A	2.2 kW	9.6 A	CIMR-AC2A0010FAA
	2.2 kW	11.0 A	3.0 kW	12.0 A	CIMR-AC2A0012FAA
	4.0 kW	17.5 A	5.5 kW	21.0 A	CIMR-AC2A0021FAA
	5.5 kW	25.0 A	7.5 kW	30.0 A	CIMR-AC2A0030FAA
	7.5 kW	33.0 A	11.0 kW	40.0 A	CIMR-AC2A0040FAA
	11 kW	47.0 A	15.0 kW	56.0 A	CIMR-AC2A0056FAA
	15 kW	60.0 A	18.5 kW	69.0 A	CIMR-AC2A0069FAA
	18.5 kW	75 A	22 kW	81 A	CIMR-AC2A0081FAA
	22 kW	85 A	30 kW	110 A	CIMR-AC2A0110AAA
	30 kW	115 A	37 kW	138 A	CIMR-AC2A0138AAA
	37 kW	145 A	45 kW	169 A	CIMR-AC2A0169AAA
	45 kW	180 A	55 kW	211 A	CIMR-AC2A0211AAA
55 kW	215 A	75 kW	250 A	CIMR-AC2A0250AAA	
75 kW	283 A	90 kW	312 A	CIMR-AC2A0312AAA	
90 kW	346 A	110 kW	360 A	CIMR-AC2A0360AAA	
110 kW	415	110 kW	415 A	CIMR-AC2A0415AAA	



400 V	0.4 kW	1.8 A	0.75 kW	2.1 A	CIMR-AC4A0002FAA
	0.75 kW	3.4 A	1.5 kW	4.1 A	CIMR-AC4A0004FAA
	1.5 kW	4.8 A	2.2 kW	5.4 A	CIMR-AC4A0005FAA
	2.2 kW	5.5 A	3.0 kW	6.9 A	CIMR-AC4A0007FAA
	3.0 kW	7.2 A	4.0 kW	8.8 A	CIMR-AC4A0009FAA
	4.0 kW	9.2 A	5.5 kW	11.1 A	CIMR-AC4A0011FAA
	5.5 kW	14.8 A	7.5 kW	17.5 A	CIMR-AC4A0018FAA
	7.5 kW	18.0 A	11.0 kW	23.0 A	CIMR-AC4A0023FAA
	11 kW	24.0 A	15.0 kW	31.0 A	CIMR-AC4A0031FAA
	15 kW	31.0 A	18.5 kW	38.0 A	CIMR-AC4A0038FAA
	18.5 kW	39 A	22 kW	44 A	CIMR-AC4A0044FAA
	22 kW	45 A	30 kW	58 A	CIMR-AC4A0058AAA
	30 kW	60 A	37 kW	72 A	CIMR-AC4A0072AAA
	37 kW	75 A	45 kW	88 A	CIMR-AC4A0088AAA
	45 kW	91 A	55 kW	103 A	CIMR-AC4A0103AAA
	55 kW	112 A	75 kW	139 A	CIMR-AC4A0139AAA
	75 kW	150 A	90 kW	165 A	CIMR-AC4A0165AAA
	90 kW	180 A	110 kW	208 A	CIMR-AC4A0208AAA
	110 kW	216 A	132 kW	250 A	CIMR-AC4A0250AAA
	132 kW	260 A	160 kW	296 A	CIMR-AC4A0296AAA
160 kW	304 A	185 kW	362 A	CIMR-AC4A0362AAA	
185 kW	370 A	220 kW	414 A	CIMR-AC4A0414AAA	
220 kW	450 A	250 kW	515 A	CIMR-AC4A0515AAA	
315 kW	605 A	355 kW	675 A	CIMR-AC4A0675AAA	

### ① Line filters

Inverter		Line filter			
Voltage	Model CIMR-AC_ (Normal duty)	Rated current (A)	Weight (kg)	Order code	
3-Phase 200 VAC	2A0004 / 2A0006 / 2A0010 / 2A0012 / 2A0021	24	2.0	A1000-FIA3024-RE	Rasmi (footprint)
	2A0030 / 2A0040	52	2.4	A1000-FIA2052-RE	Rasmi (footprint)
	2A0056	68	4.2	A1000-FIA2068-RE	Rasmi (footprint)
	2A0069 / 2A0081	96	4.4	A1000-FIA2096-RE	Rasmi (footprint)
	2A0110 / 2A0138 / 2A0169	170	9.0	A1000-FIA3170-RE	Rasmi
	2A0211 / 2A0250	300	13.2	A1000-FIA3300-RE	Rasmi
	2A0312 / 2A0360 / 2A0415	480	13.6	A1000-FIA3480-RE	Rasmi
	3-Phase 400 VAC	4A0002 / 4A0004 / 4A0005 / 4A0007 / 4A0009 / 4A0011 / 4A0018 / 4A0023	24	2.0	A1000-FIA3024-RE
4A0031 / 4A0038		44	2.8	A1000-FIA3044-RE	Rasmi (footprint)
4A0044		52	-	A1000-FIA3052-RE	Rasmi (footprint)
4A0058 / 4A0072		71	5.3	A1000-FIA3071-RE	Rasmi
4A0088 / 4A0103		105	6.5	A1000-FIA3105-RE	Rasmi
4A0139 / 4A0165		170	9.0	A1000-FIA3170-RE	Rasmi
4A0208 / 4A0250 / 4A0296		300	13.2	A1000-FIA3300-RE	Rasmi
4A0362 / 4A0414 / 4A0515		480	13.6	A1000-FIA3480-RE	Rasmi
4A0675		660	23.7	A1000-FIA3660-RE	Rasmi

Inverter		Line filter			
Voltage	Model CIMR-AC_ (Normal duty)	Rated current (A)	Weight (kg)	Order code	
3-Phase 200 VAC	2A0004 / 2A0006 / 2A0008	10	1.2	3G3RV-PFI3010-SE	Schaffner
	2A0010 / 2A0012 / 2A0018 / 2A0021	18	1.3	3G3RV-PFI3018-SE	Schaffner
	2A0030 / 2A0040 / 2A0056	35	1.4	3G3RV-PFI2035-SE	Schaffner
	2A0069 / 2A0081	60	3	3G3RV-PFI2060-SE	Schaffner
	2A00110 / 2A0138	100	4.9	3G3RV-PFI2100-SE	Schaffner
	2A0169 / 2A0211	170	6.0	3G3RV-PFI3170-SE	Schaffner
	3-Phase 400 VAC	4A0002 / 4A0004 / 4A0005 / 4A0007	10	1.2	3G3RV-PFI3010-SE
4A0009 / 4A0011		18	1.3	3G3RV-PFI3018-SE	Schaffner
4A0018 / 4A0023 / 4A0031		35	2.2	3G3RV-PFI3035-SE	Schaffner
4A0038 / 4A0044 / 4A0058		60	4.0	3G3RV-PFI3060-SE	Schaffner
4A0072 / 4A0088		100	4.5	3G3RV-PFI3100-SE	Schaffner
4A0103 / 4A0139 / 4A0165		170	6.0	3G3RV-PFI3170-SE	Schaffner
4A0208 / 4A0250		250	11	3G3RV-PFI3200-SE	Schaffner
4A0296 / 4A0362		400	8.5	3G3RV-PFI3400-SE	Schaffner
4A0414 / 4A0515		600	11.0	3G3RV-PFI3600-SE	Schaffner
4A0675		800	31.0	3G3RV-PFI3800-SE	Schaffner





200V Class	45	0169 ND	2022B	2	-	-	-	-	2015	3000W	10 Ω	2	80	6.4
		0211 HD			-				2022	4800W	6.8 Ω	2	120	
	55	0211 ND	2022B	2	-				2022	4800W	6.8 Ω	2	100	6.4
		0250 HD			-									6.4
	75	0250 ND	2110B	1	-	-	-	-	2022	4800W	6.8 Ω	3	110	1.6
		0312 HD			-									
	90	0312 ND	2110B	1	-				2022	4800W	6.8 Ω	4	120	1.6
		0360 HD			-									
	110	0360 ND	2110B	1	-				2018	4800W	8 Ω	5	100	1.6
		0415 HD			-									

Inverter		Braking unit		Braking Resistor <sup>*1</sup>										
Max. Applicable Motor kW	Model CIMR-A_2A_	Order code CDBR_	No. of used	Type										
				Order code A1000-RE_	Specifications of Resistor	Qty	Braking torque % (3% ED)	Order code LKEB-	Specifications of Resistor	Qty	Braking torque % (10% ED)	Min Resist Value Ω		
400 V Class	0.4	0002 HD	Built in	J0K10750-IE	60 W 750 Ω	1	230	-	-	-	-	-	-	96
	0.75	0002 ND		J0K10750-IE	60 W 750 Ω	1	130	-	-	-	-	-	-	96
		0004 HD												
	1.5	0004 ND		J0k15400-IE	190 W 400 Ω	1	125	41P5	260W	400 Ω	1	125	96	
		0005 HD											64	
	2.2	0005 ND		J0k15300-IE	190 W 300 Ω	1	115	42P2	260W	250 Ω	1	135	64	
		0007 HD												
	3	0007 ND		J0k15200-IE	190 W 200 Ω	1	125	42P2	260W	250 Ω	1	100	64	
		0009 HD							43P7	390W	150 Ω	1	150	32
	3.7	0009 ND		J0k15200-IE	190 W 200 Ω	1	105	43P7	390W	150 Ω	1	135	32	
		0011 HD												
	5.5	0011 ND		J0k15200-IE	190 W 100 Ω	2	135	45P5	520W	100 Ω	1	135	32	
		0018 HD												
	7.5	0018 ND		-					47P5	780W	75 Ω	1	130	32
		0023 HD												
	11	0023 ND		-					4011	1040W	50 Ω	1	135	32
		0031 HD											20	
	15	0031 ND		-					4015	1560W	40 Ω	1	125	20
		0038 HD												
	18.5	0038 ND		-					4018	4800W	32 Ω	1	125	20
		0044 HD											19.2	
	22	0044 ND		-					4022	4800W	27.2 Ω	1	125	19.2
		0058 HD												
	30	0058 ND		-					4030	6000W	20 Ω	1	125	19.2
		0072 HD												
	37	0072 ND		-					4030	6000W	20 Ω	1	100	19.8
		0088 HD		4045B	1	-			4037	9600W	16 Ω	1	125	12.8
	45	0088 ND		4045B	1	-			4045	9600W	13.6 Ω	1	125	12.8
		0103 HD				-								
	55	0103 ND		4045B	2	-			4045	9600W	13.6 Ω	1	100	12.8
		0139 HD		4030B	2	-			4030	6000W	20 Ω	2	135	19.2
	75	0139 ND		4030B	2	-			4030	6000W	20 Ω	2	100	19.2
		0165 HD		4045B	2	-			4045	9600W	13.6 Ω	2	145	12.8
	90	0165 ND		4045B	2	-			4045	9600W	13.6 Ω	2	120	12.8
		0208 HD				-								
	110	0208 ND		4220B	1	-			4030	6000W	20 Ω	3	100	3.2
		0250 HD				-								
132	0250 ND	4220B	1	-			4045	9600W	13.6 Ω	4	140	3.2		
	0296 HD			-										
160	0296 ND	4220B	1	-			4045	9600W	13.6 Ω	4	120	3.2		
	0362 HD			-										
185	0362 ND	4220B	1	-			4045	9600W	13.6 Ω	4	100	3.2		
	0414 HD			-										
220	0414 ND	4220B	1	-			4037	9600W	16 Ω	5	110	3.2		
	0515 HD			-										
250	0515 ND	4220B	1	-							95	3.2		
315	0675 HD	4220B	2	-			4045	9600W	13.6 Ω	6	105	3.2		
355	0675 ND	4220B	2	-							90			

\*1 When connecting a mounting type resistor or braking resistor unit, set system constant L3-04 to 0 (Stall prevention disabled during deceleration). Motor will not stop at set deceleration time if this constant is not changed. Additionally the Internal braking transistor protection (L8-55) should be set to "0" when a external braking unit (CDBR-) is used.



⑥ Feedback speed option card

Type	Description	Function	Order code
PG option card	Complementary PG	<ul style="list-style-type: none"><li>For speed feedback input by connecting a motor encoder Input: 3 track (one or two tracks), for HTL encoder connection, 50 KHz max Output: 3 track open collector Encoder power supply: 12 V, 200 mA max</li></ul>	PG-B3
	Line Driver PG	<ul style="list-style-type: none"><li>For speed feedback input by connecting a motor encoder Input: 3 track, line driver, 300 kHz max Output: 3 track, line driver Encoder power supply: 5 V or 12 V, 200 mA max</li></ul>	PG-X3