

YASKAWA

Yaskawa Regenerative Energy-saving Unit Series

Power Regenerative Unit

R1000

200 V Class, 3.5 kW to 105 kW
400 V Class, 3.5 kW to 300 kW



Power Regenerative Converter

D1000

200 V Class, 5.0 kW to 130 kW
400 V Class, 5.0 kW to 630 kW



NEW

Low Harmonics
Regenerative
Matrix Converter

U1000



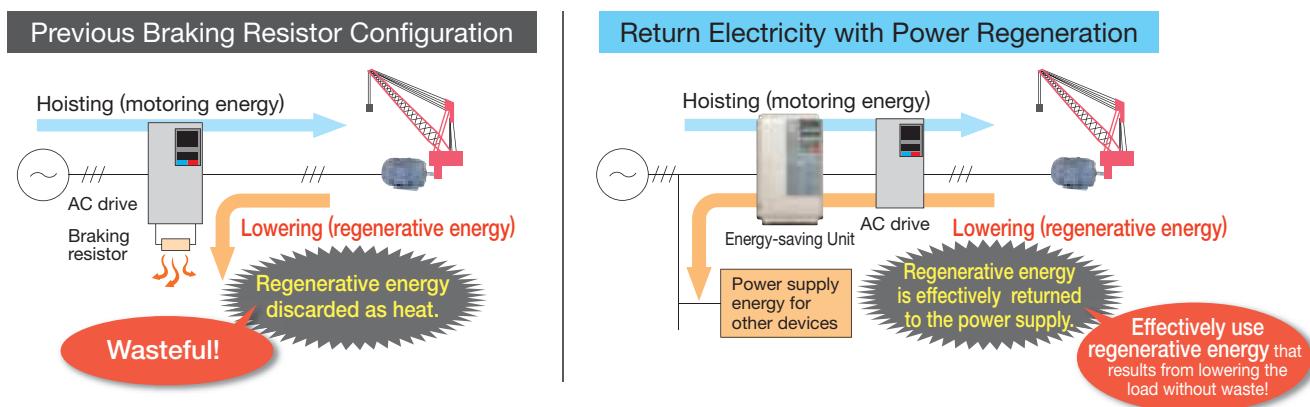
Use Energy Effectively!

Save Energy by Reusing Previously Wasted Energy!

Return the regenerative energy produced by your equipment to the power supply.

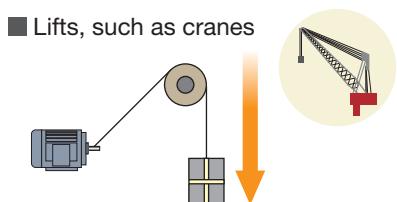
Power Regeneration: How To Save Power.

Power regeneration refers to the function of returning energy that is generated by the motor to the power supply. For example, when a crane lifts a load, the motor requires energy. However, when the crane lowers the load, the weight of the load rotates the motor and generates energy. Conventionally, the generated energy is consumed as heat by the braking resistor, but this energy can be returned to the power supply and reused to save energy.



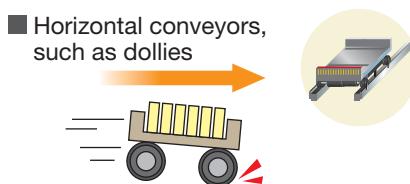
Machines Generate Energy!

Effectively use this energy to save energy!



Gravity rotates the motor when the load is lowered.

Generates energy!



Inertia rotates the motor when the dolly decelerates or is stopped.

Generates energy!



Wind, water, or another external force rotates a motor.

Generates energy!

Applications Model comparison: Energy-Saving Units

● Best ○ Good — N/A

Applicable items	Power Regenerative Unit R1000	Power Regenerative Converter D1000	Low Harmonics Regenerative Matrix Converter U1000
Motor drive	—	—	● (drive function built-in)
Use power regeneration to save energy .	●	●	●
Improve the power factor .	—	●	●
Suppress power supply harmonics .	—	●	●
Reduce the capacity of power equipment .	—	●	●
Apply for multiple drives.	—	●	—
Suppress the cost of introduction .	●	○	○
Downsize control panels .	○	○	●
Simplify main circuit wiring.	○	○	●

The Elite of Complete Power Savings!

Replaces Braking Resistor



cULus CE

RoHS Compliant
Restriction of Hazardous
Substances Directive

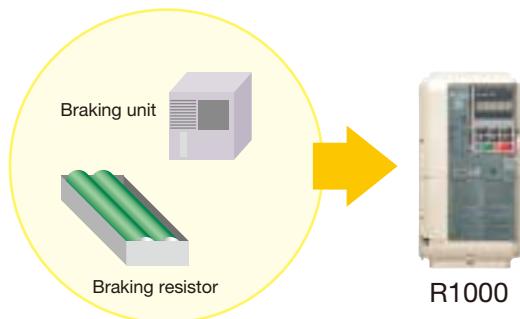
Power Regenerative Unit

R1000

More Compact and Better Braking Power

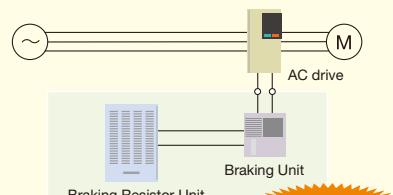
Change from previous braking resistor configuration to the R1000 unit to save energy, increase braking power, and downsize equipment.

Replaces Braking Resistor and Braking Unit

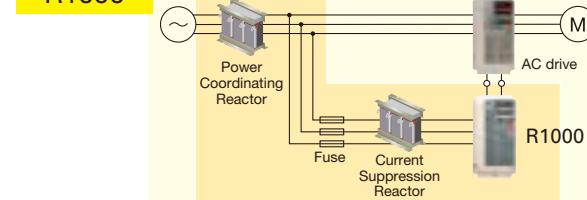


Comparison with Previous configuration

Previous configuration



R1000



Increased braking power & Compact

Save Electricity with Power Regeneration and More

1

Machine Downsizing

The system configuration is much smaller than for a braking resistor system so that you can save space in control panels.

2

More Braking Power

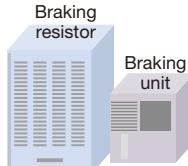
The braking torque is greater than that of conventional braking resistors. More braking power is available when in continuous regenerative operation.

3

Less Heat Generation

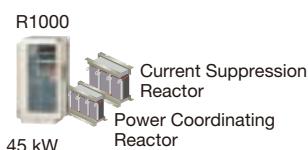
Unlike conventional braking resistors, the unit is safe because it does not convert regenerative energy into heat.

Previous configuration



Footprint: 0.445 m²

R1000



Footprint: 0.167 m²

Footprint
Approx. 1/3
(62% reduced)
(in-house comparison)

Previous configuration

125% (10 s)

Example for LKEB4045

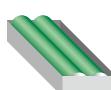
R1000

150% torque (30 s)

High Braking
Torque

LKEB-2015

10Ω 3000 W



Max Heat Loss 3000 W

CIMR-RA2A03P5

200 V 3.5 kW



Rated Heat Loss 106 W

Total Heat Loss
Approx. 1/30



Save Electricity with Power Regeneration

Lift applications with heavy repetitive loads and regenerative power



Automatic Parking System



Escalators



Hoists, Cranes



Automated Vertical Storage System



Decanters, Centrifugal Separators

More Braking Power

- Equipment with large brakes
- Equipment that requires frequent braking



Conveyors



Presses



Carriage

Power Supply Unit



RoHS Compliant
Restriction of Hazardous
Substances Directive

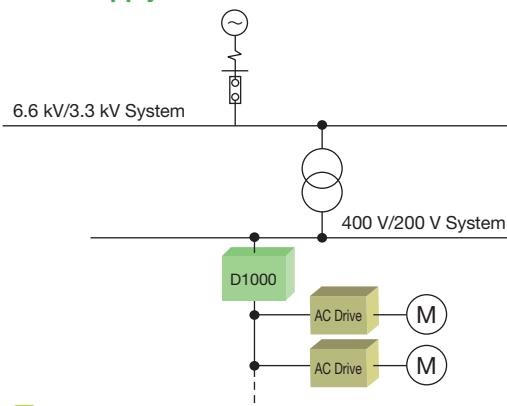
Power Regenerative Converter

D1000

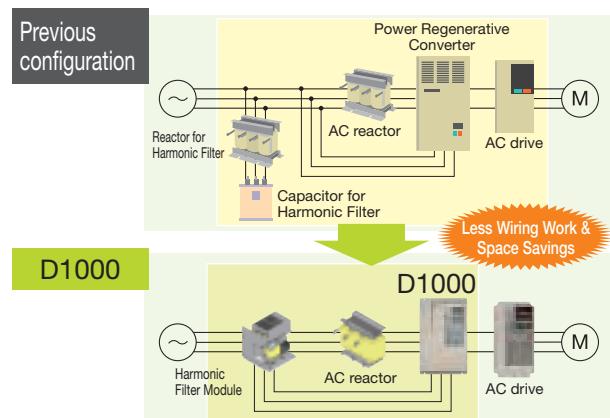
In Pursuit of Power Quality

Achieve higher power factors and suppress harmonics for power supplies with installation to an AC drive.

A Power Supply Unit for AC Drives and Servo Drives



Comparison with Previous configuration



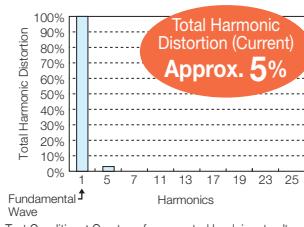
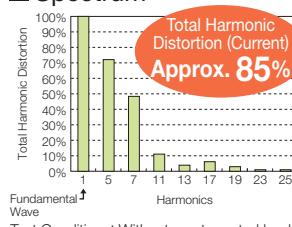
Save Electricity with Power Regeneration and More

1

No Power Supply Harmonics

There are no power supply harmonics.

Spectrum



2

Improved Power Factor

Power factor 1 control enables power to be used effectively and reduces the power supply capacity.

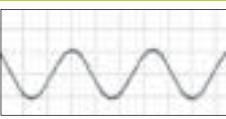
Input Power Supply Current Waveform Comparison

Standard Drive



Power factor: **Approx. 0.7**

Standard Drive with D1000



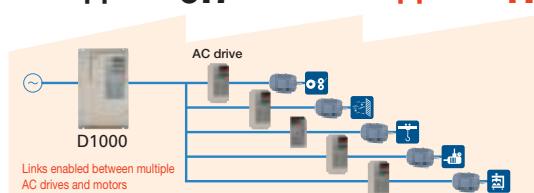
Power factor: **Approx. 1.0** Condition: Rated load.

Power factor:
Approx. 1.0

3

Connect Multiple Units

Stable power supply is enabled by DC links between multiple AC drives.



Application Examples

Save Electricity with Power Regeneration

- Lift applications with heavy repetitive loads and regenerative power
- Equipment with multiple axes



Improved Power Factors and No Power Supply Harmonics

Variable-speed applications in hospitals, schools, office buildings, etc. with strict requirements for harmonic distortion



Compact Drive



Low Harmonics Regenerative Matrix Converter

U1000

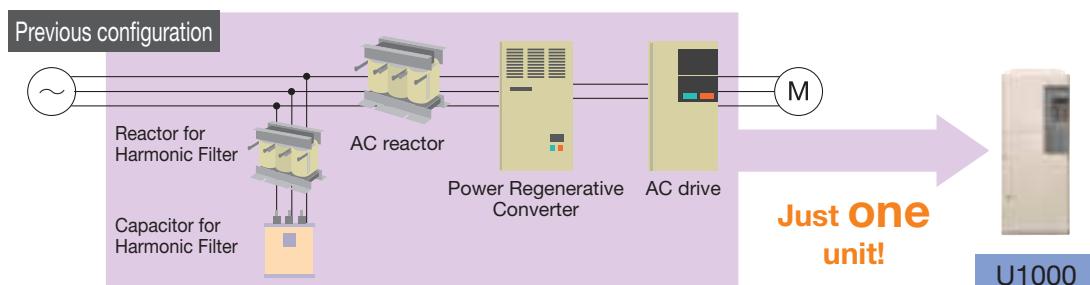
All-in-one Motor Drive

Note: Certification pending

RoHS Compliant
Restriction of Hazardous
Substances Directive

Evolved matrix converter features functions of AC drives, power regeneration, power factor improvement, and power supply harmonic suppression in one body.

Next-generation motor drive surpasses the functions of AC drives

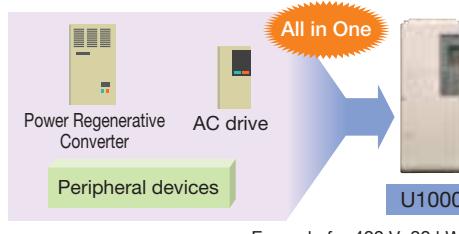


Save Electricity with Power Regeneration and More

1

Compact

The all-in-one design both reduces wiring and saves space.



Footprint reduced by approx. 65%

Wiring reduced by approx. 70% (20 → 6)

Weight reduced by approx. 81%

2

High Power Factor and Power Supply Harmonic Suppression

High power factor control and power supply harmonics suppression reduce the power supply capacity.

Input Power Supply Current Waveform Comparison

Standard Drive



U1000



Power factor: More than approx. 0.98

Conforms to IEEE519

Large power supply current distortion rate.

Power factor: **Approx. 0.7**

Small power supply current distortion rate.

Power factor: **More than approx. 0.98**

Test Conditions: With rated load of less than 1% input voltage distortion using a dedicated transformer

3

Greater Efficiency

There is less energy lost in comparison with previous power regeneration systems because a regenerative converter and peripheral devices are not required.

Previous configuration

Total loss

1134 W

(Efficiency: Approx. 92%)

Example for 400 V 15 kW

U1000

Total loss

922 W

(Efficiency: Approx. 94%)

19% less power loss

2% increased efficiency



Save Electricity with Power Regeneration

Lift applications with heavy repetitive loads and regenerative power

High Power Factor and Power Supply Harmonic Suppression

- Variable-speed applications in hospitals, schools, data centers, and office buildings with strict requirements for harmonic distortion
- Power generator application



■ R1000 Standard Specifications

Voltage		200 V Class												400 V Class															
Model CIMR-RA <i>**A</i>		03P5	0005	0007	0010	0014	0017	0020	0028	0035	0053	0073	0105	03P5	0005	0007	0010	0014	0017	0020	0028	0035	0043	0053	0073	0105	0150	0210	0300
Rating	Regeneration Capacity kW	3.5	5	7	10	14	17	20	28	35	53	73	105	3.5	5	7	10	14	17	20	28	35	43	53	73	105	150	210	300
	Rated Output Current (DC) A	14	20	27	41	55	68	81	112	138	207	282	413	7	11	15	22	30	36	43	58	73	89	109	149	217	320	440	629
	Rated Input Current (AC) A	10	15	20	30	41	50	60	83	102	153	209	306	5	8	11	16	22	27	32	43	54	66	81	110	161	237	326	466
Input	Rated Voltage/ Rated Frequency	200 to 240 V 50/60 Hz												380 to 480 V 50/60 Hz															
	Allowable Voltage Fluctuation	-15 to +10%																											
	Allowable Power Voltage Imbalance between Phases	±2%																											
Control Characteristics	Control Method	120° excitation method																											
	Input Power Factor	0.9 minimum (for rated load)																											
	Overload Protection	30 s at approx. 150% of rated current.																											
	Regenerative Torque	150% 30 s, 100% 25% ED 60 s, 80% continuous																											
Status Output		1 C-relay output at failures, 1 a contact output (multi-function) during operation, 2 multi-function PFC outputs selectable at alarms, 2 multi-function analog outputs selectable for analog outputs																											

■ R1000 Dimensions mm

Regenerative Unit

Voltage Class		200 V Class												400 V Class															
Model CIMR-RA <i>**A</i>		03P5	0005	0007	0010	0014	0017	0020	0028	0035	0053	0073	0105	03P5	0005	0007	0010	0014	0017	0020	0028	0035	0043	0053	0073	0105	0150	0210	0300
Open-Chassis (IP00)	Width (W)	140	140	140	180	180	220	220	220	275	325	450	500	140	140	140	180	180	220	220	220	275	325	325	450	450	500	500	
	Height (H)	260	260	260	300	300	365	365	385	450	550	705	800	260	260	260	300	300	365	365	365	450	450	550	550	705	705	800	
	Depth (D)	167	167	167	187	187	197	197	258	283	330	350	167	167	167	187	187	197	197	258	283	283	330	330	350	350	350	350	
Enclosed Wall-Mounted (NEMA Type1)	Width (W)	140	140	140	180	180	220	220	220	275	329	450	-	140	140	140	180	180	220	220	220	275	329	329	450	450	-	-	
	Height (H)	260	260	260	300	300	365	365	385	450	730	705	-	260	260	260	300	300	365	365	365	450	450	730	730	705	705	-	
	Depth (D)	167	167	167	187	187	197	197	258	283	330	-	167	167	167	187	187	197	197	258	283	283	330	330	-	-	-	-	

Standard Configuration Devices

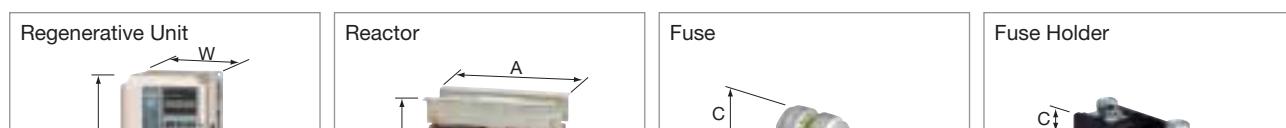
Voltage Class		200 V Class												400 V Class																
Model CIMR-RA <i>**A</i>		03P5	0005	0007	0010	0014	0017	0020	0028	0035	0053	0073	0105	03P5	0005	0007	0010	0014	0017	0020	0028	0035	0043	0053	0073	0105	0150	0210	0300	
Power Coordinating Reactor	Width (A)*2	130	130	130	160	180	180	180	210	210	190	240	265	130	130	160	160	180	180	210	210	240	240	270	270	285	320	320		
	Height (C)*2	110	110	110	135	155	155	155	180	180	245	290	275	123	123	135	135	155	155	180	180	210	210	235	235	255	310	345		
	Depth (B)*2	90	90	100	107	102	102	102	117	107	107	117	90	100	92	107	102	102	97	102	117	128	128	164	164	170	160	197		
Current Suppression Reactor	Width (A)*2	96	96	96	120	120	120	131	131	131	161	161	181	96	96	96	96	120	120	120	120	120	131	131	161	161	181	215	241	
	Height (C)*2	104	104	104	95	95	95	95	110	110	130	130	155	104	104	104	104	95	95	95	110	110	130	130	155	155	170	175	215	
	Depth (B)*2	63	63	63	73	73	73	73	90	90	91	101	101	63	63	63	63	73	73	73	90	100	91	91	101	108	118	128		
Fuse	Width (A)	55	55	55	55	55	55	55	78	78	78	98	110	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	98	100	109	
	Height (C)	18	18	18	18	18	18	18	26	26	26	49	-	19	19	19	19	19	19	19	19	19	19	19	19	19	26	40	49	
	Depth (B)	12	12	12	12	12	12	12	20	20	20	28	20	12	12	12	12	12	12	12	12	12	12	12	12	12	20	20	30	
Fuse Holder	Width (A)	65	65	65	65	65	65	65	88	88	88	145	205	85	85	85	85	85	85	85	85	85	85	85	85	108	108	145	205	205
	Height (C)	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	19	22	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	
	Depth (B)	26	26	26	26	26	26	26	33	33	33	43	85	26	26	26	26	26	26	26	26	26	26	33	33	43	43	85	85	

*1: This number indicates the voltage class (2: 200 V class, 4: 400 V class).

*2: This value indicates the maximum dimension, including tolerance.

Note: 1 R1000 requires standard configuration devices.

2 Refer to R1000 catalog (No. KAEPC71065605) for details.



R1000/D1000 Connectable Models

High performance vector control Drive A1000	Compact vector control Drive V1000	Compact V/f control Drive J1000	Elevator applications L1000A	Advanced vector control Varispeed G7	AC Servo Drives Large-Capacity Σ-V Series

■ D1000 Standard Specifications

Voltage Class		200 V Class										400 V Class																				
Model CIMR-DA ₀₀₀₀₀₀		0005	0010	0020	0030	0050	0065	0090	0130	0005	0010	0020	0030	0040	0060	0100	0130	0185	0270	0370	0630											
Rating	Rated Output Capacity*2 kW	5	10	20	30	50	65	90	130	5	10	20	30	40	60	100	130	185	270	370	630											
	Rated Output Current (DC) A	15	30	61	91	152	197	273	394	8	15	30	45	61	91	152	197	280	409	561	955											
	Rated Input Current (AC) A	15	29	57	83	140	200	270	400	8	16	30	43	58	86	145	210	300	410	560	1040											
	Rated Output Voltage	DC330 V								DC660 V																						
Input	Rated Voltage/Rated Frequency	200 to 240 V 50/60 Hz								380 to 480 V 50/60 Hz																						
	Allowable Voltage Fluctuation	-15 to +10%																														
	Allowable Power Voltage Imbalance between Phases	±2%																														
Control Characteristics	Control Method	Sine-wave PWM control																														
	Input Power Factor	Input power factor of 0.99 minimum (for rated load)																														
	Output Voltage Accuracy	±5%																														
	Overload Protection	Unit stops after 60 s at 150% of rated output current or after 3 s at 200% of rated output current.																														
Status Output		1 C-relay output at failures, 1 a contact output (multi-function) during operation, 2 multi-function PTC outputs selectable at alarms, 2 multi-function analog outputs selectable for analog outputs																														

■ D1000 Dimensions mm

Regenerative Converter

Voltage Class		200 V Class										400 V Class												
Model CIMR-DA ₀₀₀₀₀₀		0005	0010	0020	0030	0050	0065	0090	0130	0005	0010	0020	0030	0040	0060	0100	0130	0185	0270	0370	0630			
Open-Chassis (IP00)	Width (W)	-	-	-	275	325	450	450	500	-	-	-	275	275	325	325	500	500	670	670	1250			
	Height (H)	-	-	-	450	550	705	705	800	-	-	-	450	450	550	550	800	800	1140	1140	1380			
	Depth (D)	-	-	-	258	283	330	330	350	-	-	-	258	258	283	283	350	350	370	370	370			
Open-Chassis (IP20)	Width (W)	180	180	220	279	329	456	456	504	180	180	220	279	279	329	329	504	504	-	-	-			
	Height (H)	300	300	365	515	730	960	960	1168	300	300	365	515	515	730	730	1168	1168	-	-	-			
	Depth (D)	187	187	197	258	283	330	330	350	187	187	197	258	258	283	283	350	350	-	-	-			

Standard Configuration Devices

Voltage Class		200 V Class										400 V Class												
Model CIMR-DA ₀₀₀₀₀₀		0005	0010	0020	0030	0050	0065	0090	0130	0005	0010	0020	0030	0040	0060	0100	0130	0185	0270	0370	0630			
Harmonic Filter Module	Width (A)	209	209	232	260	290	290	290	350	209	209	232	260	260	290	290	350	350	-	-	-			
	Height (C)	176	184	265	281	348	350	387	500	176	178	265	293	293	348	385	500	500	-	-	-			
	Depth (B)	285	295	301	305	355	352	352	380	285	295	301	305	305	355	355	380	380	-	-	-			
Input-side AC Reactor 1	Width (A)	160	205	268	268	330	320	380	445	160	206	240	265	268	330	320	385	450	510	560	560			
	Height (C)	133	173	275	290	334	343	382	436	133	173	212	290	285	331	366	382	424	482	549	549			
	Depth (B)	114	106	146	161	161	211	220	240	104	101	126	161	176	161	211	235	240	300	320	320			
Input-side AC Reactor 2	Width (A)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	330	385	452			
	Height (C)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	326	382	545			
	Depth (B)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	176	220	375			
Reactor for Harmonic Filter	Width (A)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	180	210			
	Height (C)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	135	150	190			
	Depth (B)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	100	102			
Capacitor for Harmonic Filter	Width (A)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	438	438	695			
	Height (C)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	502	602	582			
	Depth (B)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	128	128	128			

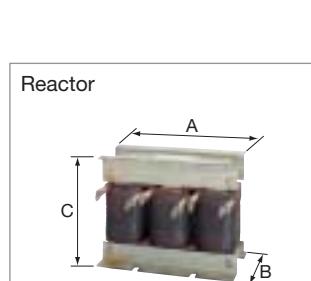
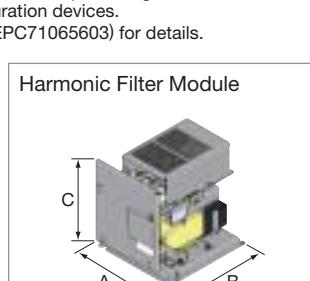
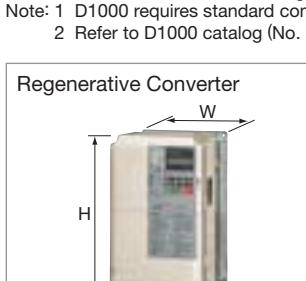
*1: This number indicates the voltage class (2: 200 V class, 4: 400 V class).

*2: For the 200 V class, rated output capacity is calculated with an input voltage of 220 V.

For the 400 V class, values are given for an input voltage of 440 V.

Note: 1 D1000 requires standard configuration devices.

2 Refer to D1000 catalog (No. KAEPC71065603) for details.



■ U1000 Standard Specifications

200 V Class

ND = Normal Duty, HD = Heavy Duty

Model	CIMR-UA.....	200028	200042	200054	200068	200081	20104	20130	20154	20192	20248
Rated Input/Output	Rated Input Current A	ND HD	25 20	38 25	49 38	62 49	73 62	95 73	118 95	140 118	175 140
	Rated Input Capacity kVA	ND HD	12 9	17 12	22 17	28 22	33 28	43 33	54 43	64 54	80 64
	Rated Output Current* ¹	ND A	28 22	42 28	54 42	68 54	81 68	104 81	130 104	154 130	192 154
		HD									248 192

400 V Class

Model	CIMR-UA.....	400011	40014	40021	40027	40034	40040	40052	40065	40077	40096	40124	40156
Rated Input/Output	Rated Input Current A	ND A	10 8.7	13 10	19 13	25 19	31 31	36 36	47 47	59 59	70 70	87 87	113 113
	Rated Input Capacity kVA	ND HD	9 8	12 9	17 12	22 17	28 22	33 33	43 43	54 54	64 64	80 64	103 80
	Rated Output Current* ¹	ND A	11 9.6	14 11	21 14	27 21	34 34	40 40	52 52	65 65	77 77	96 96	124 124
		HD											124 124
Model	CIMR-UA.....	40180	40216	40240	40302	40361	40414	40477	40590	40720	40900	40930	
Rated Input/Output	Rated Input Current A	ND A	164 142	197 164	218 197	275 218	329 275	377 329	434 377	537 434	655 537	819 655	846 819
	Rated Input Capacity kVA	ND HD	150 130	180 150	200 180	251 200	300 251	344 300	396 344	490 396	598 490	748 598	773 748
	Rated Output Current* ¹	ND A	180 156	216 180	240 216	302 240	361 302	414 361	477 414	590 477	720 590	900 590	930 720
		HD											900 720

Common Specifications

Rated Input/Output	Max. Output Voltage	Depends on input voltage
	Max. Output Frequency	400 Hz
Power Supply Characteristics	Rated Voltage/Rated Frequency	Three-phase AC power supply 200 V Class: 200 to 240 Vac 50/60 Hz, 400 V Class: 380 to 480 Vac 50/60 Hz
	Allowable Voltage Fluctuation	-15% to +10%
	Allowable Frequency Fluctuation	±3% (Frequency fluctuation rate: 1 Hz/100 ms or less)
	Allowable Power Voltage Imbalance between Phases	less than 2%
Control Characteristics	Control Method	Sine-wave PWM (V/f control, V/f Control with PG, Open Loop vector control, Closed Loop Vector Control, Open Loop Vector Control for PM, Advanced Open Loop Vector Control for PM, Closed Loop Vector Control for PM (switched by parameter setting))
	Harmonic Current Distortion Rate* ²	5% or less (IEEE 519)
	Input Power Factor	0.98 or more (for rated load)
	Overload Tolerance	HD Rating: 150% of rated output current for 60 s, ND Rating: 120% of rated output current for 60 s (Derating may be required for repetitive loads)
Status Output	1 C-relay output at failures, 1 a contact output (multi-function) during operation, 2 multi-function PFC outputs selectable at alarms, 2 multi-function analog outputs selectable for analog outputs, Pulse train output: 1 (multi-function)	

*1 : The rated output current of the drive should be equal to or greater than the motor rated current.

*2 : When the harmonic current distortion rate is 5% or less, the maximum output voltage is calculated by multiplying input power voltage × 0.87.
You must also change the parameter from the default setting.

■ U1000 Dimensions mm

200 V Class Open Chassis (IP00)

Model	CIMR-UA.....	200028	200042	200054	200068	200081	20104	20130	20154	20192	20248
Width (W)	250	264	264	264	264	264	415	415	490	490	490
Height (H)	480	650	650	650	650	816	816	990	990	1132	1132
Depth (D)	360	420	420	420	420	450	403	403	450	450	450

400 V Class Open Chassis (IP00)

Model	CIMR-UA.....	400011	40014	40021	40027	40034	40040	40052	40065	40077	40096	40124	40156	40180	40216	40302	40361	40414	40477	40590	40720	40900	40930
Width (W)	250	250	250	250	250	264	264	264	264	264	264	415	415	490	490	695	695	695	695	1070	1070	1210	1210
Height (H)	480	480	480	480	480	650	650	650	650	816	816	990	990	1132	1132	1132	1132	1132	1132	1595	1595	1835	1835
Depth (D)	360	360	360	360	360	420	420	420	420	450	450	403	403	450	450	450	450	445	445	445	445	445	445

Note: Optional NEMA Type 1 kit is required for Enclosed Wall-Mounted (NEMA Type 1) models.

Model	EUJ7118.....	00	10	20
U1000 Standard Configuration Devices (Harmonic Filter Module)	Width (W)	700	700	700
	Height (H)	1350	1350	1350
	Depth (D)	432	432	432

YASKAWA**YASKAWA ELECTRIC CORPORATION****DRIVE CENTER (INVERTER PLANT)**
2-13-1, Nishimiyachi, Yukuhashi, Fukuoka, 824-8511, Japan
Phone 81-930-25-3844 Fax 81-930-25-4369**YASKAWA ELECTRIC CORPORATION**
New Pier Takeshiba South Tower, 1-16-1,
Kaigan, Minato-ku, Tokyo, 105-6891, Japan
Phone 81-3-5402-4502 Fax 81-3-5402-4502**YASKAWA AMERICA, INC.**
2121, Norman Drive South, Waukegan, IL 60085, U.S.A.
Phone 1-800-YASKAWA (927-5292) or 1-847-887-7000 Fax 1-847-887-7310**YASKAWA ELÉTRICO DO BRASIL LTDA.**
777, Avenida Piraporinha, Diadema, São Paulo, 09950-000, Brasil
Phone 55-11-3585-1100 Fax 55-11-3585-1187**YASKAWA EUROPE GmbH**
185, Hauptstraße, Eschborn, 65760, Germany
Phone 49-6196-569-300 Fax 49-6196-569-398**YASKAWA ELECTRIC KOREA CORPORATION**
9F, Kyobo Securities Bldg., 26-4, Yeouido-dong,
Yeongdeungpo-gu, Seoul, 150-737, Korea
Phone 82-2-784-7844 Fax 82-2-784-8495**YASKAWA ELECTRIC (SINGAPORE) PTE. LTD.**
151, Lorong Chuan, #04-02A, New Tech Park 556741, Singapore
Phone 65-6282-3003 Fax 65-6289-3003**YASKAWA ELECTRIC (THAILAND) CO., LTD.**
59, 1st-5th Floor, Flourish Building, Soi Ratchadapisek 18, Ratchadapisek Road,
Huaykwang, Bangkok 10310, Thailand
Phone: +66-2-017-0099 Fax: +66-2-017-0799**PT. YASKAWA ELECTRIC INDONESIA**
Secure Building-Gedung B Lantai Dasar & Lantai 1 Jl.
Raya Protokol Halim Perdanakusuma, Jakarta 13610, Indonesia
Phone 62-21-2982-6470 Fax 62-21-2982-6471**YASKAWA ELECTRIC (CHINA) CO., LTD.**
22F, One Corporate Avenue, No.22, Hubin Road, Shanghai, 200021, China
Phone 86-21-5385-2200 Fax 86-21-5385-3299**YASKAWA ELECTRIC (CHINA) CO., LTD. BEIJING OFFICE**
Room 1011, Tower W3 Oriental Plaza, No.1 East Chang An Ave.,
Dong Cheng District, Beijing, 100738, China
Phone 86-10-8518-4086 Fax 86-10-8518-4082**YASKAWA ELECTRIC TAIWAN CORPORATION**
9F, 16, Nanking E. Rd., Sec. 3, Taipei, 104, Taiwan
Phone 886-2-2502-5003 Fax 886-2-2505-1280**YASKAWA INDIA PRIVATE LIMITED**
#17/A, Electronics City, Hosur Road, Bangalore,
560 100 (Karnataka), India
Phone 91-80-4244-1900 Fax 91-80-4244-1901