

# U1000

## Let us solve your power supply problems.

Harmonic current causes power supply problems.

*Problems caused by harmonic current*

Harmonic current

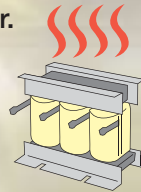
Malfunction of control devices and leaking breaks.



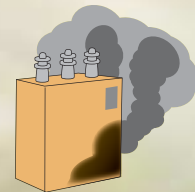
TV flickering:  
Radio noise



Overheat and burn of power supply reactor.



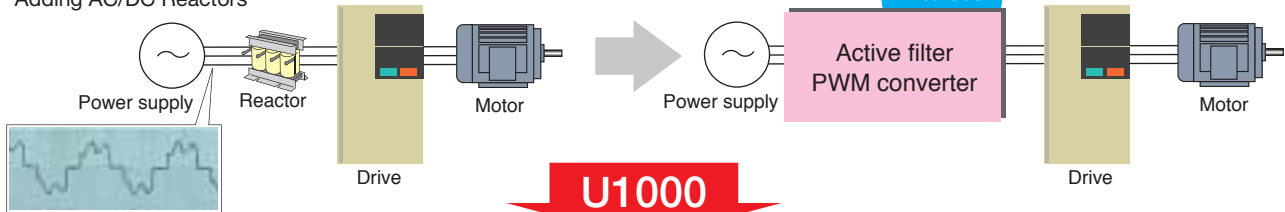
Burn, noise, and vibration to phase advance capacitors.



Harmonic current interferes with electric devices.

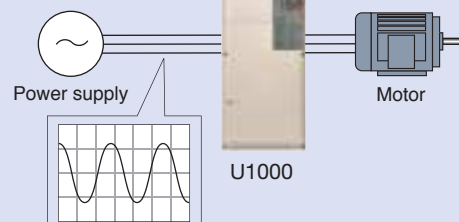
If normal solutions are not enough, additional methods are necessary.

Normal solutions:  
Adding AC/DC Reactors



**One U1000 can solve your harmonics problems!**

Power Current Waveform Samples	Input Current Spectrums	Current Distortion	Power factor
		<b>5%</b>	<b>0.98</b>



## Standard Specifications

200 V Class

ND: Normal Duty, HD: Heavy Duty


Model CIMR-U-2A		0028	0042	0054	0068	0081	0104	0130	0154	0192	0248	
Rated Input/Output	Rated Input	ND	25	38	49	62	74	95	118	140	175	226
	Current A	HD	20	25	38	49	62	74	95	118	140	175
	Rated Input	ND	12	17	22	28	34	43	54	64	80	103
	Capacity kVA	HD	9	12	17	22	28	34	43	54	64	80
	Rated Output	ND	28	42	54	68	81	104	130	154	192	248
Rated Input/Output	Current A	HD	22	28	42	54	68	81	104	130	154	192
	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)										
Carrier Frequency		4 kHz (User adjustable up to 10 kHz. Derating may be required.)										
Max. Output Voltage		Depends on input voltage										
Max. Output Frequency		400 Hz										
Power	Rated Voltage/Rated Frequency	Three-phase AC power supply: 200 to 240 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%										
Harmonic Current Distortion Rate		5% or less (IEEE 519)										
Input Power Factor		0.98 or more (for rated load)										

400 V Class

Model CIMR-U-4A		0011	0014	0021	0027	0034	0040	0052	0065	0077	0096	0124	0156	0180	0216	0240	0302	0361	0414	0477	0590	0720	0900	0930		
Rated Input/Output	Rated Input	ND	10	13	19	25	31	36	47	59	70	87	113	142	164	197	218	275	329	377	Available soon.					
	Current A	HD	8.7	10	13	19	25	31	36	47	59	70	87	113	142	164	197	218	275	329						
	Rated Input	ND	9	12	17	22	28	33	43	54	64	80	103	130	150	180	200	251	300	344						
	Capacity kVA	HD	8	9	12	17	22	28	33	43	54	64	80	103	130	150	180	200	251	300						
	Rated Output	ND	11	14	21	27	34	40	52	65	77	96	124	156	180	216	240	302	361	414						
Rated Input/Output	Current A	HD	9.6	11	14	21	27	34	40	52	65	77	96	124	156	180	216	240	302	361						
	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)																								
Carrier Frequency		4 kHz (User adjustable up to 10 kHz. Derating may be required.)																								
Max. Output Voltage		Depends on input voltage																								
Max. Output Frequency		400 Hz																								
Power	Rated Voltage/Rated Frequency	Three-phase AC power supply: 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%																								
Harmonic Current Distortion Rate		5% or less (IEEE 519)																								
Input Power Factor		0.98 or more (for rated load)																								

Note: For details, refer to the U1000 catalogs (No. KAEP C710636 02).

## Yaskawa also offer other products for harmonic solutions.

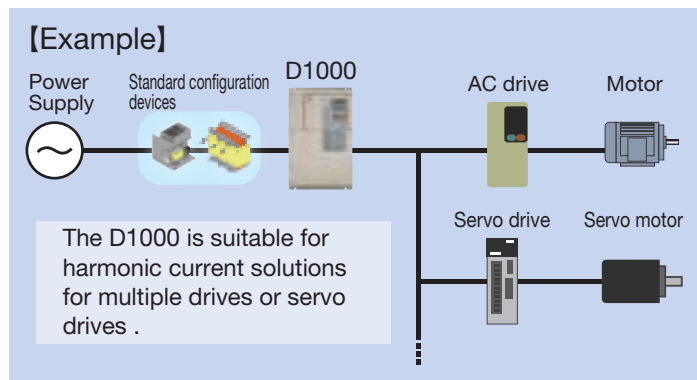


D1000 with a drive or servo drive to improve the power factor and suppress harmonics.

**YASKAWA Regenerative Energy-saving Unit Power Regenerative Converter**

**D1000**

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



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