

R1000

REGENERATIVE BRAKING UNIT



240 V POWER RANGE

- 5 - 140 HP

480 V POWER RANGE

- 5 - 400 HP

AMBIENT OPERATING TEMPERATURE

- -10°C to 50°C
(Open Type IP00)

CERTIFICATION

- UL, cUL, RoHS, CSA B44.1

STANDARD I/O

- (8) Digital Inputs
- (3) Analog Inputs
- (4) Relay Outputs
- (2) Analog Outputs

COMMUNICATION OPTIONS

- Modbus RTU (Standard)
- Single/Dual Port EtherNet/IP
- Single/Dual Port Modbus TCP/IP
- DeviceNet
- Profibus DP
- PROFINET

MECHANICAL OPTIONS

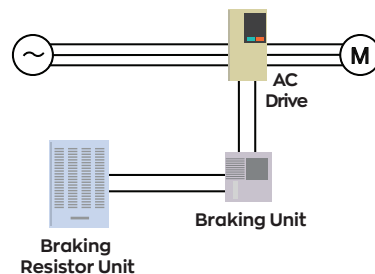
- External Heatsink Kit

Looking for a smart and efficient alternative to dynamic braking? The R1000 Regenerative Braking Unit is your answer.

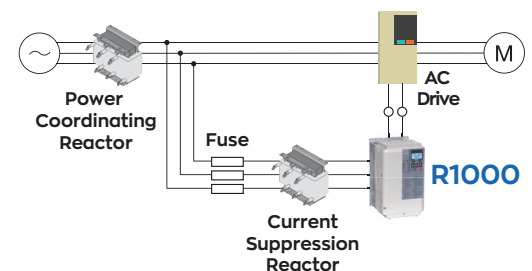
Unlike dynamic braking, which dissipates all braking energy in the form of heat, the R1000 avoids wasted energy by delivering it back to your power source for use by other loads.

Since the R1000 only transfers power during regeneration (not motoring), it is very economical for regenerative applications, and return on investment is often less than 1 year. Not only does this save energy and money, but it also eliminates the need to safely locate braking resistors.

DYNAMIC BRAKING (Wasted Energy)



REGENERATIVE BRAKING (Recovered Energy)



HIGHLIGHTS

- Compatible with all conventional drives having full power access to DC bus
- Rated for 100% power, 25% duty cycle (60 s max. on time), or 80% continuous
- Overload capability of 150% for 30 s
- 0.9 power factor at full load
- Overcurrent and overheat protection

TYPICAL APPLICATIONS

Stopping

- Elevators/Escalators
- Centrifuges
- Saws
- Large Fans
- Machine Tool Spindles

Eccentric

- Presses
- Dryers
- Vibratory Equipment

Continuous Regeneration

- Winders
- Downhill Conveyors
- Dynamometers

R1000 SYSTEM COMPONENTS

REGENERATIVE SYSTEM COMPONENTS

Each regenerative unit system requires an R1000 module, suppression reactor, coordination reactor, and fusing as follows:

	Capacity	R1000 Regen Unit	Dimensions (in)			Suppression Reactor	Coordination Reactor	Fuses (Qty 3 Req'd)	Fuse Holder	
	kW (HP)	Model CIMR-RU	H	W	D	Model No.	Model No.	Model No.	Qty Req'd	Model No.
240 V Input	3.5 (5)	2A03P5FAA	11.8	5.5	6.6	05P00620-0134	05P00620-0136	FU-002031	1	FU-002055
	5 (7)	2A0005FAA	11.8	5.5	6.6	URX000083	05P00620-0138	FU-002031	1	FU-002055
	7 (9)	2A0007FAA	11.8	5.5	6.6	URX000083	05P00620-0044	FU-002032	1	FU-002055
	10 (13)	2A0010FAA	13.4	7.1	7.4	05P00620-0044	05P00620-0140	UFU000153	3	FU-002082
	14 (19)	2A0014FAA	13.4	7.1	7.4	05P00620-0141	05P00620-0141	UFU000479	3	FU-002082
	17 (23)	2A0017FAA	15.8	8.7	7.8	05P00620-0143	05P00620-0143	UFU000154	3	FU-002083
	20 (27)	2A0020FAA	15.8	8.7	7.8	URX000085	05P00620-0143	UFU000155	3	FU-002083
	28 (38)	2A0028FAA	15.8	8.7	7.8	URX000085	05P00620-0013	UFU000156	3	FU-002083
	35 (47)	2A0035AAA	17.7	10.8	10.2	05P00620-0064	05P00620-0070	UFU000156	3	FU-002083
	53 (71)	2A0053AAA	21.7	12.8	11.1	URX000086	05P00620-0146	UFU000494	3	FU-002083
	73 (98)	2A0073AAA	27.8	17.7	13.0	URX000175	URX000175	UFU000375	3	UFU000378
105 (141)	2A0105AAA	31.5	19.7	13.8	URX000178	URX000181	UFU000376	3	UFU000122	
480 V Input	3.5 (5)	4A03P5FAA	11.8	5.5	6.6	05P00620-0025	05P00620-0133	FU-002030	1	FU-002055
	5 (7)	4A0005FAA	11.8	5.5	6.6	05P00620-0133	05P00620-0135	FU-002030	1	FU-002055
	7 (9)	4A0007FAA	11.8	5.5	6.6	05P00620-0135	05P00620-0137	FU-002030	1	FU-002055
	10 (13)	4A0010FAA	13.4	7.1	7.4	05P00620-0137	05P00620-0138	FU-002032	1	FU-002055
	14 (19)	4A0014FAA	13.4	7.1	7.4	URX000083	05P00620-0139	FU-002032	1	FU-002055
	17 (23)	4A0017FAA	15.8	8.7	7.8	05P00620-0044	05P00620-0139	FU-000783	3	FU-002082
	20 (27)	4A0020FAA	15.8	8.7	7.8	05P00620-0049	05P00620-0049	FU-000783	3	FU-002082
	28 (38)	4A0028FAA	15.8	8.7	7.8	05P00620-0142	05P00620-0142	UFU000480	3	FU-002082
	35 (47)	4A0035AAA	17.7	10.8	10.2	05P00620-0144	05P00620-0144	FU-000806	3	FU-002084
	43 (58)	4A0043AAA	17.7	10.8	10.2	05P00620-0143	05P00620-0144	FU-000807	3	FU-002084
	53 (71)	4A0053AAA	21.7	12.8	11.1	URX000085	05P00620-0145	FU-000809	3	FU-002084
	73 (98)	4A0073AAA	21.7	12.8	11.1	05P00620-0064	05P00620-0070	FU-000809	3	FU-002084
	105 (141)	4A0105AAA	27.8	17.7	13.0	05P00620-0075	05P00620-0146	UFU000374	3	UFU000378
	150 (201)	4A0150AAA	27.8	17.7	13.0	URX000175	URX000176	UFU000375	3	UFU000378
	210 (282)	4A0210AAA	31.5	19.7	13.8	URX000181	URX000182	UFU000376	3	UFU000122
300 (402)	4A0300AAA	31.5	19.7	13.8	URX000088	05P00620-0094	UFU000377	3	UFU000122	

Dimensions shown are for R1000 only. For dimensions of reactors and fuseholders, contact Yaskawa Technical Support.

