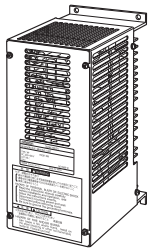
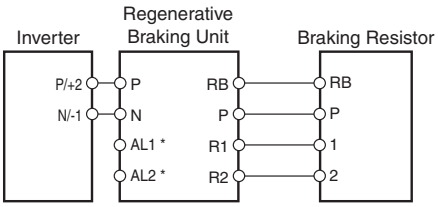
Options

Regenerative Braking Unit 3G3AX-RBU□□

Used with a Braking Resistor when the deceleration time of the motor is needed to be reduced in the 3G3RX.



Connection Example



* The alarm output terminals for the Regenerative Braking Unit.
Provide a circuit to turn off the primary power supply for the Inverter when the temperature relay of the built-in resistor or optional Braking Resistor is activated.

Specifications

Built-in Resistance Type (3G3AX-RBU21/-RBU22/-RBU41)

Class		3-phase 200-V class		3-phase 400-V class
Model name (3G3AX-)		RBU21	RBU22	RBU41*1
Connection resistance		17 Ω min.	17 Ω min.	34 Ω min.
Operating voltage ON/OFF		ON : 362.5 ± 5 V OFF: 355 ± 5 V (–5% or –10% setting available)		ON : 725 ± 5 V OFF: 710 ± 5 V (–5% or –10% setting available)
Operation indication		LED ON (Lit)		
Parallel interlocking operation function*2		5 units max.		
Built-in resistor	Internal resistance	120 W, 180 Ω	120 W, 20 Ω	120 W, 180 Ω × 2 in series
	Allowable consecutive ON time	10 s max.	0.5 s max.	10 s max.
	Allowable operation cycle	Cycle 1/10 (ON for 10 s, OFF for 90 s)	Cycle 1/80 (ON for 0.5 s, OFF for 40 s)	Cycle 1/10 (ON for 10 s, OFF for 90 s)
	Power consumption	Instantaneous 0.73 kW Short-time rating 120 W	Instantaneous 6.6 kW Short-time rating 120 W	Instantaneous 1.46 kW Short-time rating 240 W
Protective function	Built-in resistor overheat protection	• Cooling fin temperature Relay operates at approximately 200°C or higher. Recovers at approximately 170°C or lower. • Built-in temperature fuse (recovery impossible)*3 • Rating of contact 250 V AC 200mA (R load) 12 V DC 500mA (R load) 42 V DC 200mA (R load) • Minimum load 1mA (R load)		
Operating environment	Ambient temperature	–10 to 50°C		
	Ambient storage temperature	–20 to 65°C		
	Ambient operating humidity	20% to 90% (with no condensation)		
	Vibration	5.9 m/s² (0.6G) 10 to 55 Hz		
	Location	At a maximum altitude of 1,000 m (without corrosive gases or dust)		
Paint color		Munselle 5Y7/1 (cooling fan: aluminum ground color)		

*1 To use the braking resistor (Model: 3G3AX-RAB/RBB/RBC) for the 400-V class regenerative braking unit, be sure to remove the built-in resistor and connect two resistors of the same model in series. Using a 400-V class regenerative braking unit with only a single braking resistor connected may cause damage to the braking resistor.
*2 Use DIP switches to set the number of connected units.
*3 The built-in resistor has a thermal fuse. If the alarm terminals are not connected, the fuse may blow out in order to prevent the resistor from burning due to overheating. If the fuse blows out, the built-in resistor must be replaced.

Specifications

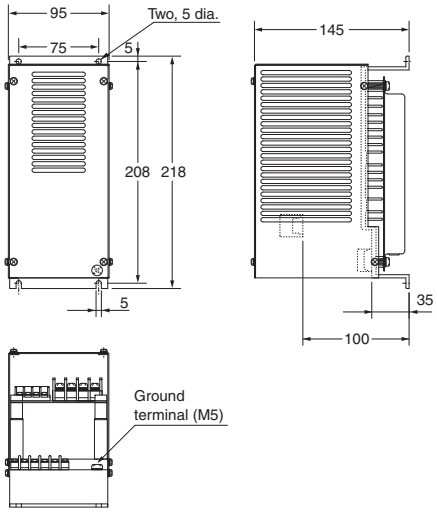
External resistor type (3G3AX-RBU23/-RBU24/-RBU42/-RBU43)

Class		3-phase 200-V class		3-phase 400-V class	
Model name (3G3AX-)		RBU23	RBU24	RBU42*1	RBU43*1
Discharge resistance	Continuous operation	6 Ω min.	4 Ω min.	24 Ω min.	12 Ω min.
	Short-time/ operation Allowable operation cycle/ Continuous ON time	4 Ω min. 1/5 2 min	2 Ω min. 1/5 2 min	10 Ω min. 1/10 10 s	6 Ω min. 1/5 2 min
Operating voltage ON/OFF		ON: 362.5 ± 5 V OFF: 355 ± 5 V (–5% or –10% setting available)		ON: 725 ± 5 V OFF: 710 ± 5 V (–5% or –10% setting available)	
Operation indication		LED ON (Lit)			
Maximum number of units operating in parallel*2		2 units max.			
Protective functions	Internal power module overheat protection	Built-in relay specifications Cooling fin temperature Relay operates at approximately 100°C or higher. • Rating of contact : 240 V AC 3 A (R load) 36 V DC 2 A (R load) • Minimum load : 5 V DC 50 mA (R load)			
Operating environment	Ambient temperature	–10 to 50°C			
	Ambient storage temperature	–20 to 65°C			
	Ambient operating humidity	20% to 90% (with no condensation)			
	Vibration	4.9 m/s² (0.5G) 10 to 55 Hz			
	Location	At a maximum altitude of 1,000 m (without corrosive gases or dust)			
Paint color		Munselle 5Y7/1 (cooling fan: aluminum ground color)			

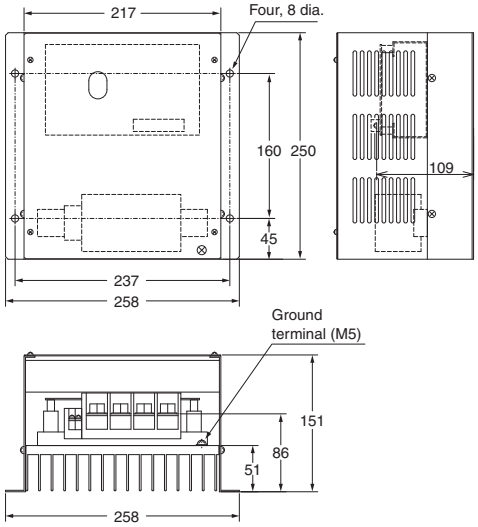
*1 To use the braking resistor (3G3AX-RAB/RBB/RBC) for the 400-V class regenerative braking unit, be sure to remove the built-in resistor and connect two resistors of the same model in series. Using a 400-V class regenerative braking unit with only a single braking resistor connected may cause damage to the braking resistor.
*2 Use DIP switches to set the number of connected units.

Dimensions (Unit: mm)

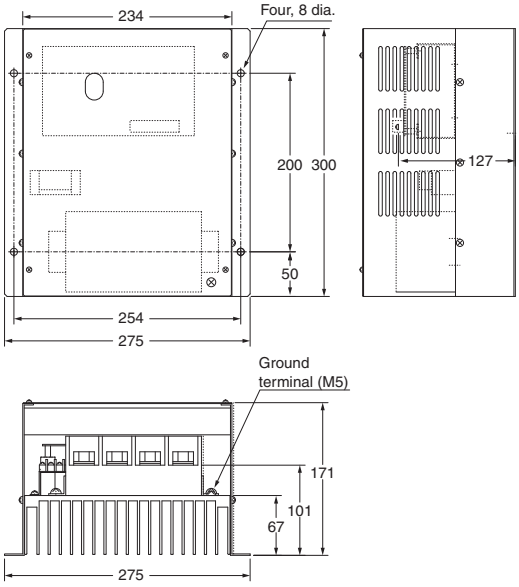
3G3AX-RBU21/-RBU22/-RBU41



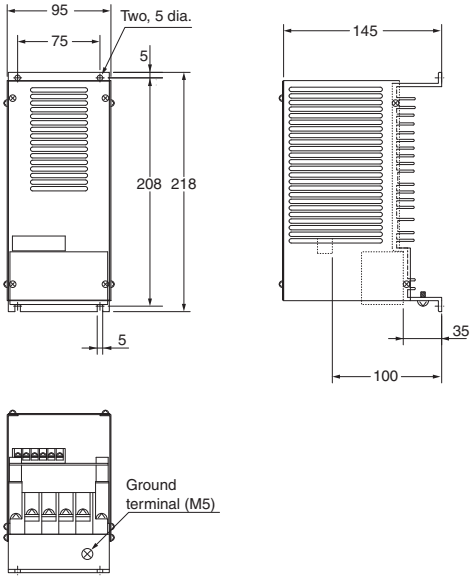
3G3AX-RBU23



3G3AX-RBU24



3G3AX-RBU42



3G3AX-RBU43