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Instruction

BUE20037/40037 Brake Unit

BUE brake units are applied to absorb the motor regeneration energy when the three-phase induction motor stops by deceleration. With BUE brake unit, the regeneration energy will be dissipated in dedicated brake resistors. To prevent mechanical or human injury, please refer to this instruction sheet before wiring. BUE brake units are suitable for DELTA AC Motor Drives VFD-E/EL Series. BUE brake units need to be used in conjunction with BR series brake resistors to provide the optimum brake characteristics.

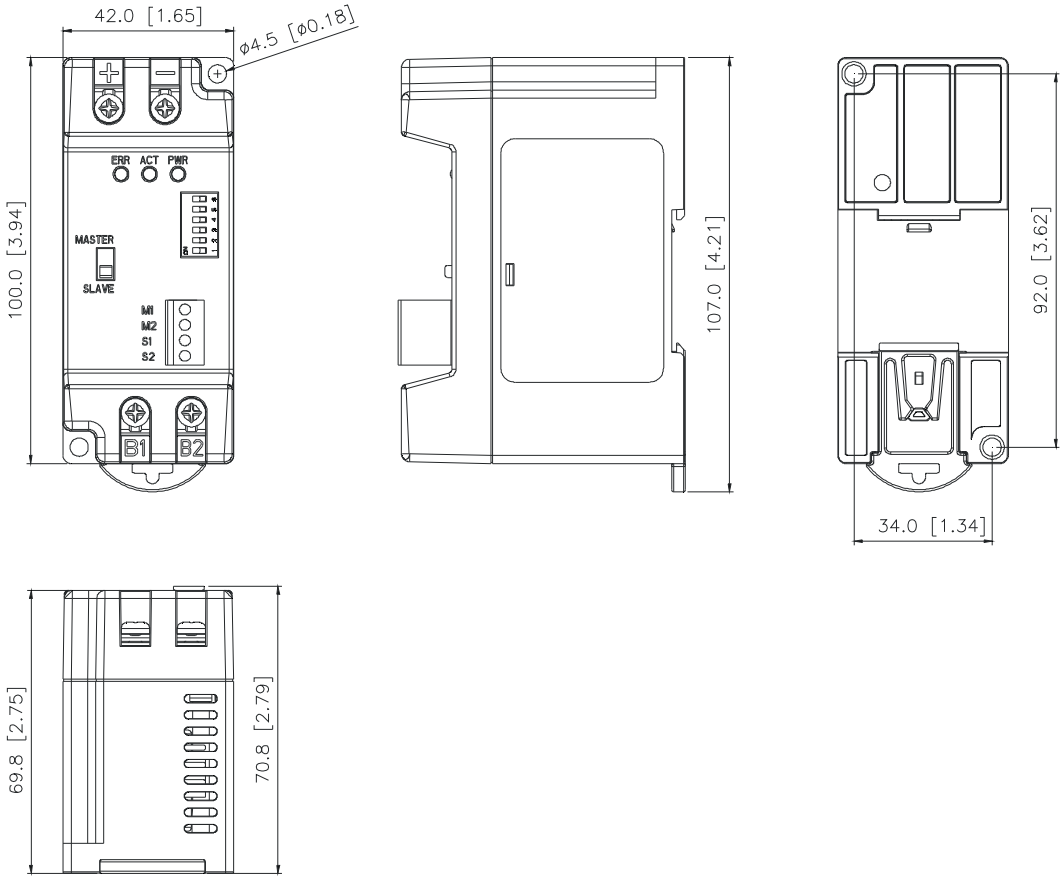
■ Specifications

		115/230V Series		460V Series	
		BUE-20015	BUE-20037	BUE-40015	BUE-40037
Max. Motor Capacity (KW)		1.5	3.7	1.5	3.7
Output Rating	Max. Peak Discharge Current (A) 10%ED	3.6	16	1.8	8
	Brake Start-up Voltage (DC)	328/345/362/380/400±3V		656/690/725/760/800±6V	
Input Rating	DC Voltage	200~400VDC		400~800VDC	
Protection	Heat Sink Overheat	Temperature over +100°C			
	Power Charge Display	Blackout until bus (+~-) voltage below 50VDC			
Environment	Installation Location	Indoor (no corrosive gases, metallic dust)			
	Operating Temperature	-10℃~+50℃			
	Storage Temperature	-20℃~+60℃			
	Humidity	90%R.H., Non-condensing			
	Vibration	9.8m/s^2 (1G) under 20Hz,2m/s^2 (0.2G) at 20~50Hz			
Mechanical Configuration		Wall-mounted enclosed type IP20			

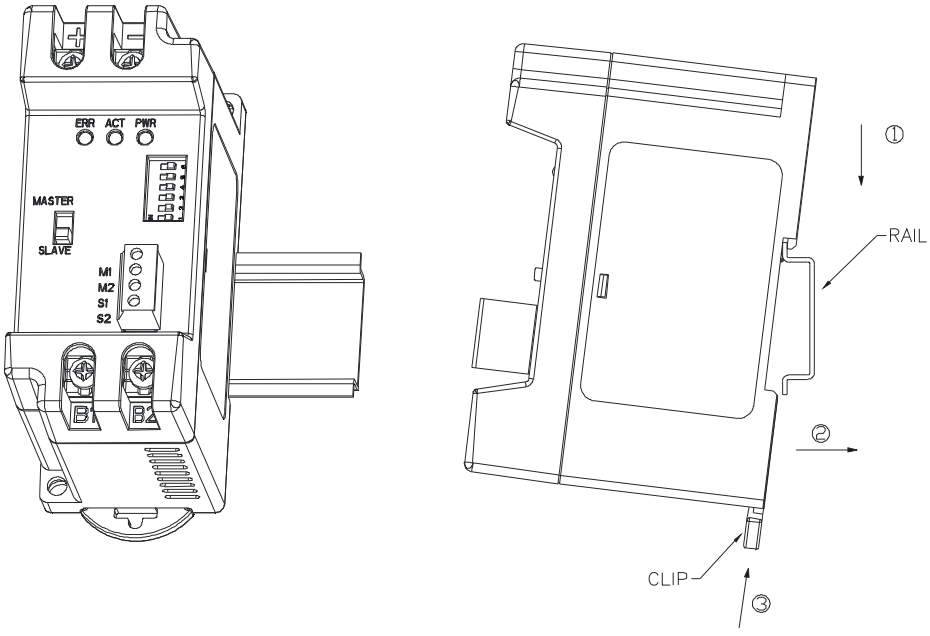
Brake resistor

TYPE	L1	L2	H	D	W	MAX. WEIGHT(g)
BR080W200	140	125	20	5.3	60	160
BR080W750	140	125	20	5.3	60	160
BR300W400	215	200	30	5.3	60	750

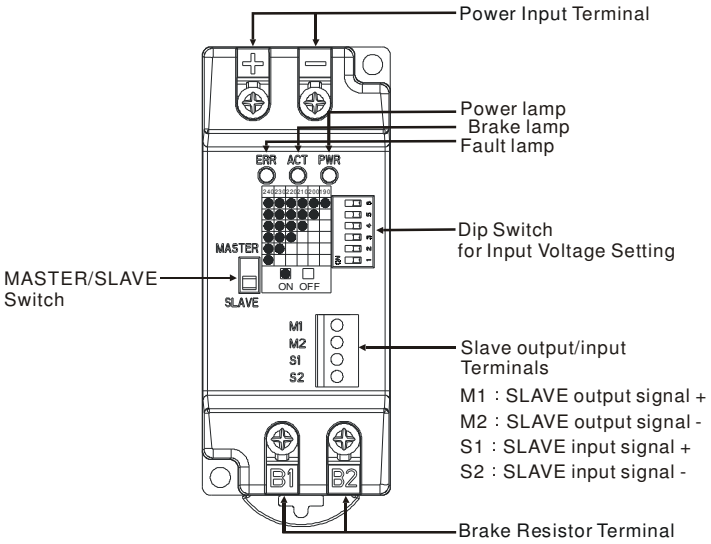
Brake Unit



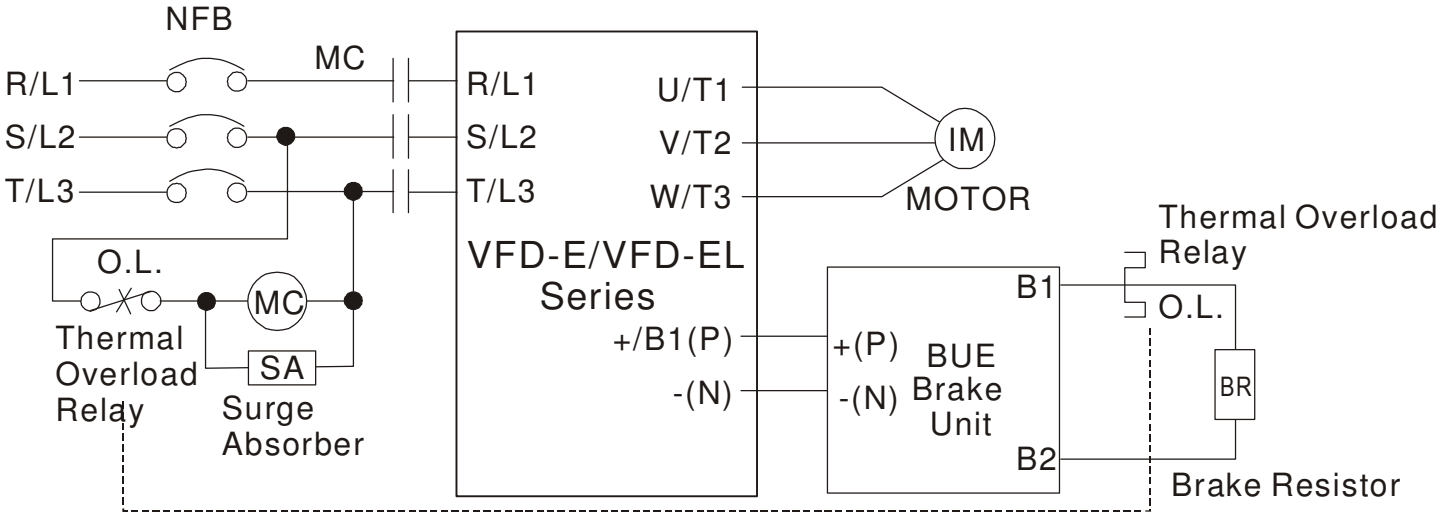
DIN Rail Installation



■ Outline



■ Basic Wiring Diagram



Note1: When the AC drive uses with DC reactor, please refer to the wiring diagram in the VFD-E/EL user manual for wiring terminal +(P) of brake unit.

Note2: **DO NOT** wire terminal -(N) to neutral point of power system.

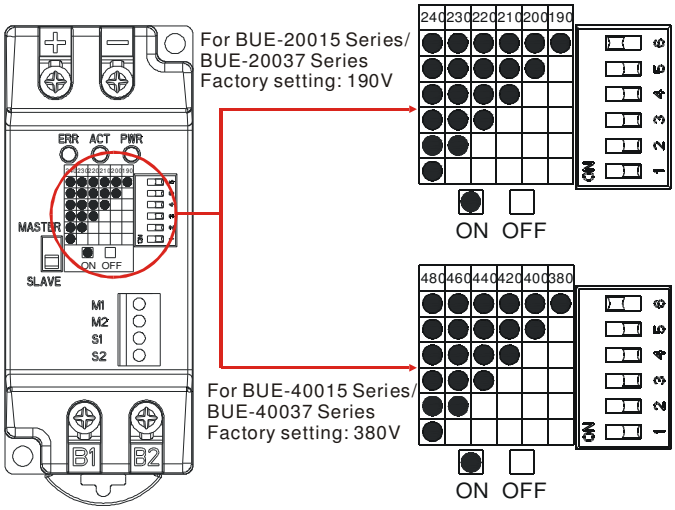
■ The Voltage Settings

The power source of the brake unit is the DC power from the + (P) and - (N) terminals of the AC motor drive. Therefore, it is an important step to set the voltage by the input voltage of the AC motor drive before operation. This setting will affect the voltage level of the brake unit.

Table 1: The voltage selection and operation level of the PN DC voltage

115V/230V Model AC Power Voltage	Brake Start-up voltage DC Bus (+(P), -(N)) Voltage	460V Model AC Power Voltage	Brake Start-up voltage DC Bus (+(P), -(N)) Voltage
190Vac	330Vdc	380Vac	660Vdc
200Vac	345Vdc	400Vac	690Vdc
210Vac	360Vdc	420Vac	725Vdc
220Vac	380Vdc	440Vac	760Vdc
230Vac	400Vdc	460Vac	800Vdc

NOTE: Input Power With Tolerance ±10%



Brake Resistors/Units for Delta VFD AC Motor Drives Series

Voltage	Applicable Motor HP	Applicable Motor kW	Full-load output torque KG-M	Equivalent brake resistor for each AC drive	Brake Unit Model and Quantity		Brake Resistor Model and Quantity		Brake Torque 10% ED%	Min. Equivalent Resistor Value for Each AC Drive	Typical Thermal Overload Relay Value
115/230V Series	1/4	0.2	0.110	200W 250Ω	BUE20015	1	BR200W250	1	320	200Ω	2A
	1/2	0.4	0.216	200W 250Ω	BUE20015	1	BR200W250	1	170	100Ω	3A
	1	0.75	0.427	200W 150Ω	BUE20015	1	BR200W150	1	140	80Ω	4A
	2	1.5	0.849	300W100Ω	BUE20015	1	BR300W100	1	107	80Ω	4A
	3	2.2	1.262	600W 50Ω	BUE20037	1	BR300W100	2	150	25Ω	12A
	5	3.7	2.080	900W 30Ω	BUE20037	1	-	-	150	25Ω	12A
460V	1/2	0.4	0.216	300W 400Ω	BUE40015	1	BR300W400	1	400	400Ω	2A
	1	0.75	0.427	300W 400Ω	BUE40015	1	BR300W400	1	200	200Ω	3A
	2	1.5	0.849	400W 300Ω	BUE40015	1	BR200W150	1	140	160Ω	4A
	3	2.2	1.262	300W 400Ω	BUE40037	1	BR300W400	2	150	100Ω	6A
	5	3.7	2.080	900W 120Ω	BUE40037	1	-	-	150	100Ω	6A

Ordering information

Type	Function	minimum order	Model no.
Brake unit	Brake unit	6pcs	BUE20037/40037

Except release date

Model no.	date	CE/UL approval
BUE20037/40037	Mar. /2008	