

The Instruction of Braking Unit

The best function and life can be ensured if based on below-mentioned instruction.

I. Environment

- 1 . Environment temperature:-10℃ ~ 60℃
- 2 . Relative humidity below 90%RH
- 3 . Do not drop anything into the inverter
- 4 . Free of caustic gas
- 5 . Free of metal powder

II. Function parameter

- 1 . Voltage: 300~460V AC, 45~60HZ
- 2 . Braking level: 700V DC
- 3 . Braking width: 20V
- 4 . Braking torque :≤150%
- 5 . Rated duty:≤15% (duty cycle)

III. Instruction

This series braking unit is fit for _____ type inverter. There are two indicating lights on the internal circuit. The red one shows power supply status, the light is on when power supply. Another green light is the indicator for braking, the light is on when braking.

1. Wiring

The insulation grade and section area of cable should suit to the requirement for current, the soft heat-resistant cable or fireproof cable are recommended.

2. Installation

The distance between braking unit and inverter should be as near as possible, The maximum distance is not longer than 1m.

A. There are 4 terminals inside the braking unit i.e. P、 B、 P、 N. Please open the case and connect the braking resistance with the terminal P and B, without the limit of positive or negative pole.

B. Prepare two suitable cables. One cable to be connected the terminal P of braking unit with inverter's P terminal, another to connect the terminal N of braking unit with inverter's N terminal.

3 . Cooling

A. The braking unit cause high heat quantity during running, as well as braking resistance. So ventilation and human security must be taken into consideration during installing.

B. The best ventilation space for braking unit: up and down≥100mm, left and right≥50mm.

C. The braking resistance should be installed far away from flammable and explosive thing, and the place where can be touched by human regularly.

D. The high heat while braking resistance working may influence the other equipment, so it should be paid attention to in advance before installation.

Precaution

A. Braking unit and equipment connected with braking unit always has a dangerous high voltage, wrong operation and installation may cause the injure of human or property loss.

B. Before installation and wiring, the power supply of inverter must be cut. And 5-10 minutes must be waited till the capacitance inside inverter is fully discharged. The terminal P、 N of braking unit should be correctly connected with the terminal P、 N of inverter without opposition.

C. If the loading is too high, the braking resistance will be overheating. If so, please change another braking resistance of higher power or change another braking unit of higher level.

IV. Applicable Braking Resistance and Installation Dimension List

Item Model	External Dimension (mm)	Installation Dimension (mm)	Matched Braking Resistance	External Dimension (mm)	Installation Dimension (mm)	Applicable Power (KW)
HFBU-DR0101	226*135*135	211*100	90Ω/1.5KW	480*74*130	450	≤7.5KW
HFBU-DR0102			90Ω/3KW	480*102*210	450	11、15KW
HFBU-DR0103			65Ω/4KW	550*102*210	550	18.5 ~ 30KW
HFBU-DR0201	226*135*135	211*100	40Ω/6KW	660*102*210	630	37 ~ 55KW
HFBU-DR0301	316.5*211*140	304*194	8Ω/9KW	660*260*130	630	75 ~ 90KW
HFBU-DR0401	316.5*211*140	304*194	2pcs 30Ω/4kw parallel connection with 1pc 40Ω/6kw			110 ~ 132KW
HFBU-DR0501	316.5*211*140	304*194	1pc 30Ω/4kw parallel connection with 3pcs 40Ω/6kw			160 ~ 220KW

Remarks:

1. Suitable Situation: The situation when braking rated duty below 15%.
2. If resistance power exceeds 110KW, then the resistance case can be taken into consideration if requested by customers.
3. The resistance's selection can affect braking moment and the resistance power selection should

correspond to the braking rated duty (The scale of restart cycle in the whole duration of motor's operation). Above listed resistance power is in 15% use ratio and can change braking unit to higher level if braking frequently.