

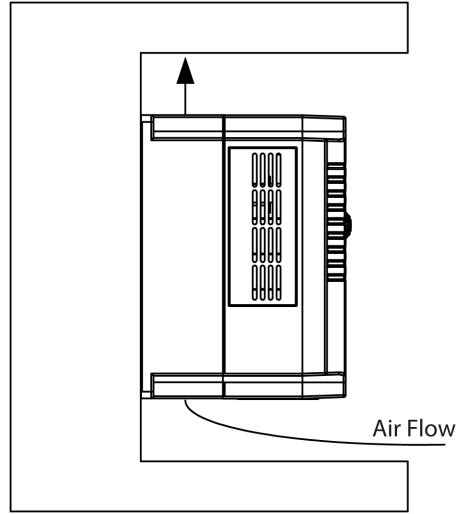
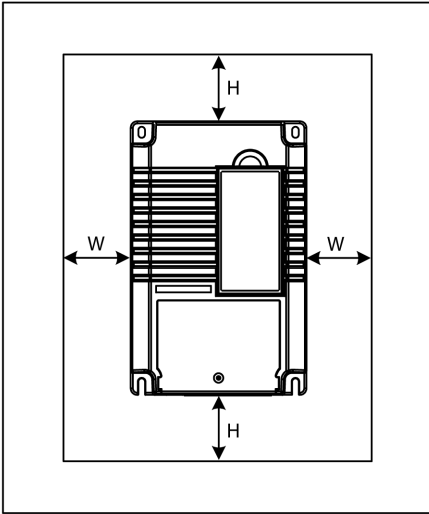
PDBU



Dynamic Braking Unit

The Braking Unit generates heat. Allow sufficient space around the unit for heat dissipation.

Mount the Braking Unit vertically and do not restrict the air flow to the heat sink fins.



| Frame Code | W (min) mm(inch) | H (min) mm(inch) | Air Flow CMH (m3/hr) |
|------------|---------------------|---------------------|-------------------------|
| A | 50 (2) | 150(6) | 110 |
| B | 75 (3) | 175 (7) | 160 |

Installation Environments

- Do not install the Unit in a place subjected to high humidity, steam, dust areas.
- Do not install the Unit in a place subjected to corrosive gases or liquids.
- Do not install the Unit in a place subjected to airborne dust or metallic particles.
- Do not install the Unit in a place subjected to excessive vibration.
- Do not mount the Unit near heat-radiating elements
- Do not install the Unit in a place subjected to temperature exceed : -10°C to +40°C (14°C to 104°C)

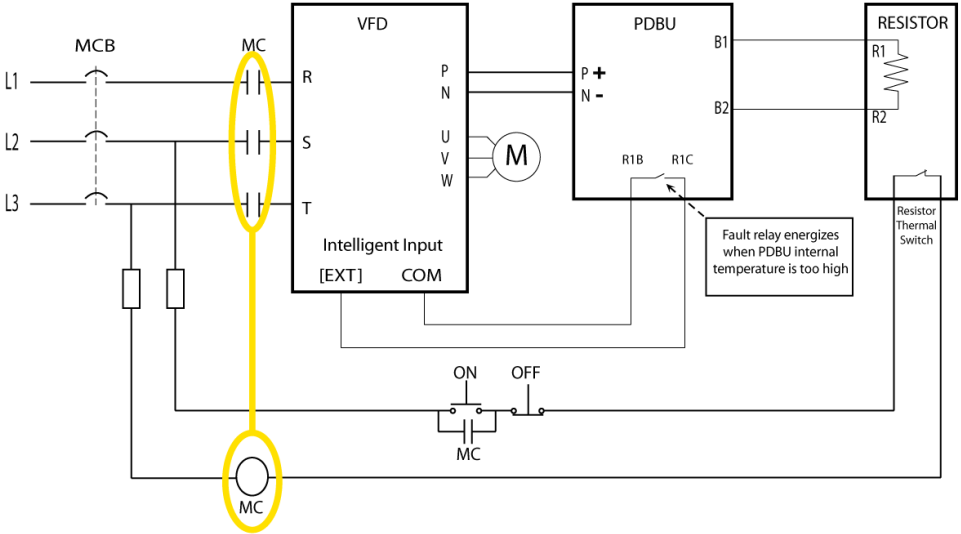
All models in Polyspede Spedestar series can be connected to an external Dynamic Braking unit for additional braking requirements.

PDBU braking units are suitable for all of Spedestar family AC Motor Drives 380V/460V/575V voltage class.

Technical Specification

| Model (PDBU-xxxx) | | 2015 | 2037 | 4045 | 4132 |
|---------------------------------|--|--|-------|---|---------|
| Maximum Motor Capacity | | 15/20 | 37/50 | 45/60 | 132/175 |
| Suitable for Drive Source (ACV) | | 200 to 240 | | 380 to 480 | |
| Power Input Rating (DCV) | | 200 to 400 | | 400 to 800 | |
| Output Rating | Max Discharge Current (Amp. Peak) 10% ED | 40 | 100 | 60 | 240 |
| | Continuous Discharge Current (Amp.) | 15 | 33 | 18 | 75 |
| | Connectable Minimum resistance for Each Braking Unit | 10Ω | 4Ω | 13.6Ω | 3.4Ω |
| Braking Start-up Voltage (DCV) | | 330/345/360/380/400/415 ±3v, Selectable | | 630/660/690/720/760/800/830 ±6v, Selectable | |
| Protection | Heat Sink Overheat | Temperature over +95°C (203°F) | | | |
| | Alarm Output | Relay Contact, 5A 120VAC/28VDC (RA, RB, RC) | | | |
| | Power Charge Display | Lit on when DC bus voltage is above 50VDC | | | |
| Environment | Installation Location | Indoor (no corrosive gases, metallic dust) | | | |
| | Operating Temperature | -10 °C ~ +50°C (14°F to 122°F) | | | |
| | Storage Temperature | -20 °C ~ +60°C (-4°F to 140°F) | | | |
| | Humidity | 90% 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 (NEMA 1) | | | |
| Frame Code | | PDBU-A | | | PDBU-B |

Basic Wiring



Typical Alarm and Safety Circuit

- Note:**
1. Please select the factory default resistance value (Watt) and the duty cycle (E.D. %). The definition of the braking usage ED(%) is for assurance of enough time for the braking unit and braking resistor to dissipate away heat generated by braking. When the braking resistor heats up, the resistance will increase with temperature and braking torque would decrease accordingly.
 2. For an application with large regenerative power such hoisting, the braking torque or other items may exceed the capacity of a braking unit with a braking resistor in a standard combination (and result in capacity overload). Contact your Polyspede representative for sizing Resistors and Braking units.
 3. If damage resulted in the inverter or other equipments due to the fact that the braking resistors and the braking unit in use are not provided by Polyspede, the warranty will be void.
 4. Take into consideration the safety of the environment when installing the braking resistors.
 5. If the minimum resistance value is to be utilized, consult local dealers for the calculation of the Watt figures.
 5. Please select thermal relay trip contact to prevent resistor over load.
 6. When using more than 2 braking units, equivalent resistor value of parallel braking unit can't be less than the value in the column "Minimum resistance for each drive"

Definition for Braking Usage : $ED\% = T1/T0 \times 100(\%)$

WARNING: It is critical to set the jumper appropriately for the local supply

