

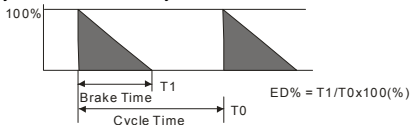
**B.1 All Brake Resistors & Brake Units Used in AC Motor Drives**

Voltage	Applicable Motor		Full Load Torque Nm	Resistor value spec for each AC Motor Drive	Brake Torque 10%ED	Min. Equivalent Resistor Value for each AC Motor Drive
	hp	kW				
230V Series	7.5	5.5	3.111	2400W 16Ω	125	16Ω
	10	7.5	4.148	3000W 12Ω	125	12Ω
	15	11	6.186	4800W 9Ω	125	9Ω
	20	15	8.248	4800W 6.8Ω	125	6.8Ω
	25	18.5	10.281	6000W 6Ω	125	6Ω
	30	22	12.338	9600W 5Ω	125	5Ω
	40	30	16.497	6000W 5Ω	125	5Ω
460V Series	50	37	20.6	9600W 4Ω	125	4Ω
	7.5	5.5	3.111	500W 50Ω	125	50Ω
	10	7.5	4.148	1000W 40Ω	125	40Ω
	15	11	6.186	1000W 33Ω	125	33Ω
	20	15	8.248	1500W 25Ω	125	25Ω
	25	18.5	10.281	4800W 21Ω	125	21Ω
	30	22	12.338	4800W 19Ω	125	19Ω
	40	30	16.497	6000W 20Ω	125	20Ω
	50	37	20.6	9600W 16Ω	125	16Ω
	60	45	24.745	9600W 13.6Ω	125	13.6Ω
	75	55	31.11	12000W 10Ω	125	10Ω
100	75	42.7	19200W 6.8Ω	125	6.8Ω	

**NOTE**

1. Please select the recommended resistance value (Watt) and the duty-cycle value (ED%).
2. Definition for Brake Usage ED%

Explanation: The definition of the brake usage ED(%) is for assurance of enough time for the brake unit and brake resistor to dissipate away heat generated by braking. When the brake resistor heats up, the resistance would increase with temperature, and brake torque would decrease accordingly. Recommended cycle time is one minute.



3. For safety consideration, install an overload relay between the brake unit and the brake resistor. In conjunction with the magnetic contactor (MC) prior to the drive, it can perform complete protection against abnormality. The purpose of installing the thermal overload relay is to protect

the brake resistor from damage due to frequent brake, or due to brake unit keeping operating resulted from unusual high input voltage. Under such circumstance, just turn off the power to prevent damaging the brake resistor.

4. If damage to the drive or other equipment are due to the fact that the brake resistors and the brake modules in use are not provided by Delta, the warranty will be void.
5. Take into consideration the safety of the environment when installing the brake resistors.
6. If the minimum resistance value is to be utilized, consult local dealers for the calculation of the Watt figures.
7. Please select thermal relay trip contact to prevent resistor over load. Use the contact to switch power off to the AC motor drive!
8. When using more than 2 brake units, equivalent resistor value of parallel brake unit can't be less than the value in the column "Minimum Equivalent Resistor Value for Each AC Drive" (the right-most column in the table).
9. Please read the wiring information in the user manual of brake unit thoroughly prior to taking into operation.