

ACS 5X0

Hardware Manuals ACS5X0-07 Drives (1.1 ~ 110 kW)



ABB

Resistor braking

What this chapter contains

This chapter describes how to select, protect and wire brake choppers and resistors. The chapter also contains the technical data.

Availability of brake choppers and resistors for the ACS 5X0

For the effective brake, brake choppers are selected differently by the frame types of the drive.

- Frame R1 and R2 drives have a built-in brake chopper as standard equipment, matches the suitable resistor.
- R3 ~ R6 drives have no brake choppers are optionally available as built-in units, Connect a brake chopper and resistor or a brake units to the terminal of direct current of the drive.

Select the brake resistor (Frame size R1 and R2)

Refer to ACS550 User's Manual or ACS510 User's Manual [Technical data :Brake Components](#)

Optional brake chopper and resistor(s) (Frame size R3~R6)

ACS 550-01 type	Brake chopper		Brake resistor(s)		
	type	type	R (ohm)	E_R (kJ)	P_{Rcont} (kW)
3-phase supply voltage 380 ~ 480 V					
-031A-4	BRK-C	Built in	32	—	—
-038A-4	BRK-D	Built in	10.5	—	—
-044A-4	BRK-D	Built in	10.5	—	—
-059A-4	BRK-D	Built in	10.5	—	—
-072A-4	BRK-D	Built in	10.5	—	—
-096A-4	BRK-D	Built in	10.5	—	—
-124A-4	NBRA-656C	SAFUR125F500	4.0	3600	9
-157A-4	NBRA-656C	SAFUR125F500	4.0	3600	9
-180A-4	NBRA-657C	SAFUR125F500	4.0	3600	9
-195A-4	NBRA-657C	SAFUR200F500	2.7	5400	13.5

R Resistance value for the listed resistor assembly. **Note:** This is also the minimum allowed resistance for the brake resistor.

E_R Short energy pulse that the resistor assembly withstands every 400 seconds. This energy will heat the resistor element from 40 °C (104 °F) to the maximum allowable temperature.

P_{Rcont} Continuous power (heat) dissipation of the resistor when placed correctly. Energy E_R dissipates in 400 seconds.

Resistor installation and wiring

All resistors must be installed outside the drive module in a place where they will cool.