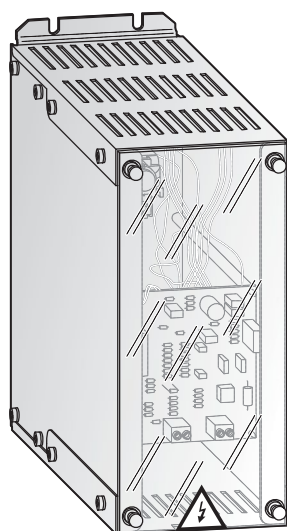


Brake Units BU-UFS



For a braking torque higher than 20 % or a duty cycle higher than 30 % an external brake unit including the adequate brake resistors has to be installed.

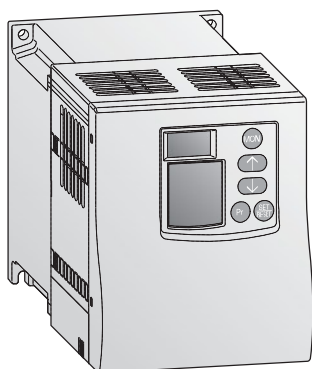
The brake units BU-UFS listed below are cascadeable so that the optimum size can always be achieved.

The brake units here are not fitted with brake resistors, which must be ordered separately (see below).

The configurations in the table are only general recommendations. Please consult Mitsubishi Electric for advice on matching the correct brake modules and brake resistors for your application.

Brake unit	Frequency inverter	Rated voltage [V]	Max. peak current [A]	Max. instantaneous power [kW]	Max. duty cycle [%]	Power loss [W]	Weight [kg]	Art. no.
BU-UFS22	FR-D740/FR-E740 SC FR-A/F740-00023-00250	400	34	25	10	37	2.5	127947
BU-UFS40	FR-A/F740-00250-00470	400	55	41	10	42	2.5	127948
BU-UFS110	FR-A/F740-00470-01160	400	140	105	5	48	3.9	127950

Brake Units FR-BU2



The brake unit FR-BU2 is used when a large brake torque is necessary such as when the motor is made to run by the load, quick deceleration is required, etc.

It is equipped with a control panel for monitoring different values, setting parameters and displaying the alarm history.

The brake units FR-BU2 listed below are cascadeable so that the optimum size can always be achieved.

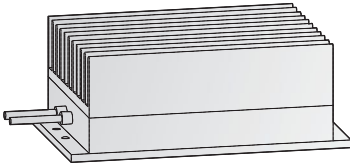
The brake units here are not fitted with brake resistors, which must be ordered separately (brake resistors available soon).

Brake unit	Applicable motor capacity	Multiple (parallel) operation	Protective structure	Power loss				Weight [kg]	Art. no.	
				0 % ED	10 % ED	50 % ED	100 % ED			
200 V class	FR-BU2-1.5K	Capacity of the motor to be used with differs according to the braking torque and duty (% ED)	10 units maximum (Note that torque generated is not more than the tolerable overcurrent amount of connected inverter)	IP00	5	8	18	31	0.9	202420
	FR-BU2-3.7K				5	10	27	49	0.9	202421
	FR-BU2-7.5K				5	12	36	67	0.9	202422
	FR-BU2-15K				5	23	86	165	0.9	202423
	FR-BU2-30K				5	38	149	288	5	202424
	FR-BU2-55K				5	91	318	601	5	202425
400 V class	FR-BU2-H7.5K				5	10	27	47	5	202426
	FR-BU2-H15K				5	13	40	74	5	202427
	FR-BU2-H30K				5	20	72	137	5	202428
	FR-BU2-H55K				5	37	140	268	5	202429
	FR-BU2-H75K				5	49	174	331	5	202430

Brake Resistors for Brake Unit BU-UFS

The brake resistors RUFC are designed for the exclusive use in combination with a brake unit BU-UFS.

Please note that the specifications for the allowed duty cycle (ED max.) included in the instruction manual for the brake unit.



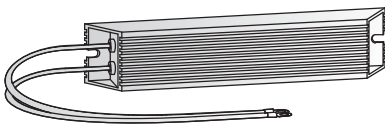
Type	Application	Regenerative brake duty [%]	Resistance [Ω]	Capacity [W]	Art. no.
RUFC22	BU-UFS 22	10	1 x 24	2000	129629
RUFC40 (Set)	BU-UFS 40	10	2 x 6.8	2000	129630
RUFC110 (Set)	BU-UFS 110	10	4 x 6.8	2000	129631

External Brake Resistors FR-ABR-(H)□□K for FR-D700 SC/E700 SC/A700

Among the capacity range of the FR-D720S-025-100/FR-D740 (all) and FR-E720S-030-110SC/FR-E740 SC (all) or FR-A700-00023-00620 the inverter is equipped with an internal brake chopper as standard.

An improvement of the brake duty is achieved by the use of an external brake resistor with a higher rated capacity.

The duty cycle is selectable via parameter 30 and can be specified, according to the inverter, up to 10 % respectively 30 % via parameter 70.



Brake resistor	Frequency inverter	Regenerative brake duty	Resistor [Ω]	Art. no.
FR-ABR-0.4K	FR-D720S-025SC FR-E720S-030SC	10 % (ED)	200	46788
FR-ABR-0.75K	FR-D720S-042SC FR-E720S-050SC	10 % (ED)	100	46602
FR-ABR-2.2K	FR-D720S-070/100SC FR-E720S-080/110SC	10 % (ED)	60	46787
FR-ABR-H 0.4K	FR-D740-012SC FR-E740-016SC FR-A740-00023	10 % (ED)	1200	46601
FR-ABR-H 0.75K	FR-D740-022SC FR-E740-026SC FR-A740-00038	10 % (ED)	700	46411
FR-ABR-H 1.5K	FR-D740-036SC FR-E740-040SC FR-A740-00052	10 % (ED)	350	46603
FR-ABR-H 2.2K	FR-D740-050SC FR-E740-060SC FR-A740-00083	10 % (ED)	250	46412
FR-ABR-H 3.7K	FR-D740-080SC FR-E740-095SC FR-A740-00126	10 % (ED)	150	46413
FR-ABR-H 5.5K	FR-D740-120SC FR-E740-120SC FR-A740-00170	10 % (ED)	110	50045
FR-ABR-H 7.5K	FR-D740-160SC FR-E740-170SC FR-A740-00250	10 % (ED)	75	50049
FR-ABR-H 11K	FR-E740-230SC FR-A740-00310	6 % (ED)	52	191577
FR-ABR-H 15K	FR-E740-300SC FR-A740-00380	6 % (ED)	2x18 serial	191578
FR-ABR-H 22K	FR-A740-00470-00620	6 % (ED)	2 x52 parallel	191579