

Braking Resistors

for AC Drives



Description

Brake resistors are used with AC650, AC650V, or AC690 drives equipped with a braking option modules. They are designed to allow the drive to stop a motor at full load during deceleration or an overhauling load.

Brake resistor selection

Brake resistor assemblies must be rated to absorb both peak braking power during deceleration and the average power over the complete cycle.

Resistors above 500W

Resistors above 500W are available upon request :

- IP20 protection up to 3 kW
- IP13 protection between 4.2 and 9.8 kW

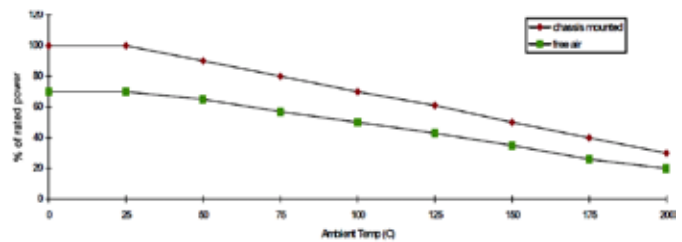
$$\text{Peak braking power} = \frac{0.0055J \times (n^2 - n^2)}{t_b} \text{ (W)}$$

$$\text{Average braking power } P_a = \frac{P_p \times t_b}{t_c}$$

J - total inertia (Kgm²) n - initial speed (rpm)

n² - final speed (rpm) t_b - braking time (s)

t_c - cycle time (s)



Dimensions

Nominal Power (kW)	Dimensions		
	L (mm)	H (mm)	P (mm)
1.0	137	450	140
1.6	182	450	140
2.0	182	450	140
2.5	227	450	140
3.0	227	450	140
4.2	450	440	540
5.6	530	440	540
7.0	530	440	540
8.4	610	440	540
9.8	610	440	540

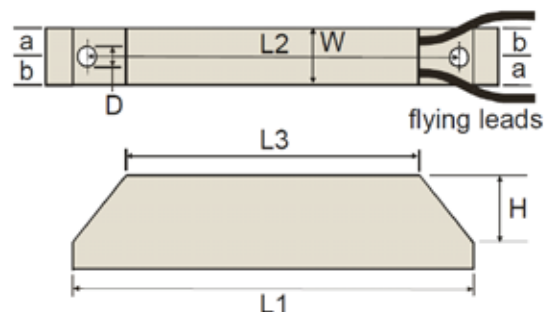
Dimensions

Model	Impe- dance (ohms)	Nom. Power (W)	Dimensions							
			L1	L2	L3	W	H	D	a	b
CZ467715	500	60	100	87	60	22	41	4.3	10	12
CZ467714	200	100	165	152	125	22	41	4.3	10	12
CZ389853	100	100	165	152	125	22	41	4.3	10	12
CZ467717	100	200	165	146	125	30	60	4.3	13	17
CZ463068	56	200	165	146	125	30	60	4.3	13	17
CZ388397	56	200	165	146	125	30	60	4.3	13	17
CZ388396	36	500	335	316	295	30	60	4.3	13	17
CZ467716	28 x 2	500	335	316	295	30	60	4.3	13	17

Overload 5 sec : 500%

Overload 3 sec : 833%

Overload 1 sec : 2500%



EMC Filters

for AC Drives

Description

A range of custom designed optional EMC (Electromagnetic Compatibility) filters are available for use with Parker SSD Drives product range.

They are used to help achieve conformance with the EMC directive BS EN 61800-3:2004 - "Adjustable speed electrical power drive systems - Part 3".

Installation of the drive must be in accordance with the installation guidelines in the product manual. The filters comply with the relevant standards as outlined in the following table.

1st Environment : Drives directly connected without intermediate transformers to a low voltage (<100V rms) supply network that is part of a network that also supplies buildings used for domestic purposes.

2nd Environment : Establishments where there is no direct connection to a low voltage supply network that also supplies buildings used for domestic purpose.

TN Earthing = Grounded neutral AC supply <460V ac

IT Earthing = Ungrounded neutral AC supply <500V ac

Ext. Filter = External filter

Ext. Filter FP = Footprint external filter

EMC Filters

AC Drives	2 nd Environment (Industrial)	1 st Environment (Domestic)
650 / 650V		
Frame 1-3	Indicated by an F in the product code	Indicated by an F in the product code
650V / 690P		
Frame B	Indicated by an F in the product code	Indicated by an F in the product code
Frame C	Standard	TN/IT AC Supply Ext. Filter FP C0467842U044
Frame D	Standard	TN/IT AC Supply Ext. Filter FP C0467842U084
Frame E	Standard	TN/IT AC Supply Ext. Filter FP C0467842U105
Frame F	Standard	TN/IT AC Supply Ext. Filter FP C0467842U215
Frame G/H/J (690PG-1100 and 690PG-1320)	Standard	TN and IT AC Supply Ext. Filter FP C0467842U340
(690PG-1600 and 690PG-1800 and frame H and J)	Standard	TN and IT Ext. Filter 2 x FP C0467842U340

EMC Filters

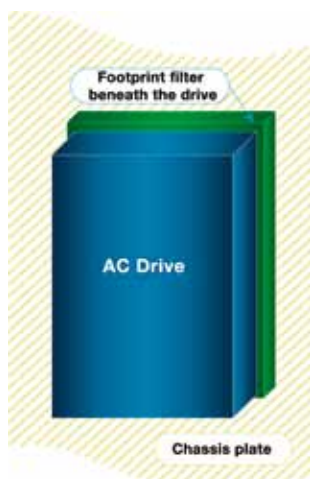
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IP40 mounted: use mounting kits below

Filter	Mounting Kit
CO467842U020	BA467840U020
CO467842U044	BA467840U044
CO467842U084	BA467840U084
CO467842U105	BA467840U105

Dimensions

Filter Reference	Terminal size	Earth terminal	Gland mountings	Filter dimensions	Fixing centres	Filter weight
CO467842U044	10 mm ²	5 mm	4 x 4 mm	400 x 178 x 55 mm	384 x 150 mm	2.1 kg
CO467842U084	25 mm ²	6 mm	4 x 4 mm	513 x 233 x 70 mm	495 x 208 mm	4.2 kg
CO467842U105	50 mm ²	8 mm	4 x 4 mm	698 x 250 x 80 mm	680 x 216 mm	6.2 kg
CO467842U215	95 mm ²	8 mm	N/A	825 x 250 x 115 mm	795 x 216 mm	



Drive mounted on an external footprint filter