

Power Dump Resistors RP0000, 0001, 0007, 0008 and RP1005, 1006, 1007, 1008



The power dump resistors are used with JVL step motor drivers, servo motor controllers and integrated servo motors, the MAC motors, in cases where the internal power dump resistor is not sufficient for a given task.

The power dump resistors are available with continuous power ratings of 100W, 270 W, and 50 W. Peak power can be up to 18kW.

Calculation of whether an external power dump resistor is necessary is difficult. Therefore a practical motor run is often necessary. More specific guidelines can not be given since the actual energy induced depends on motor data, temperature, deceleration, etc.

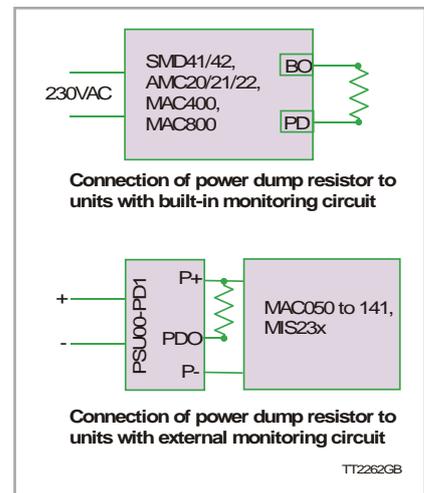
Generally external power dump resistors are required in cases where large inertias has to be braked.

It is important that the resistors are mounted so that the heat can be dissipated. Eventually a heat sink can be used.

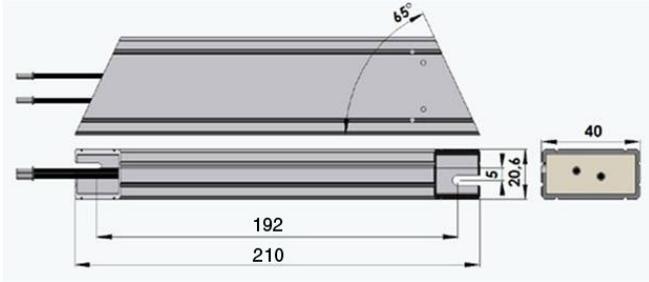
The power dump resistor can be connected directly to output terminals on the Step Motor Drivers SMD41/42, AC Servo Motor Controllers AMC20/21/22 and the Integrated Servo Motors MAC400 and MAC800.

The Integrated Servo Motors MAC050 to MAC141 and the QuickStep Integrated Stepper Motors MIS23x do not have a built-in monitoring circuit and requires an external power dump circuit.

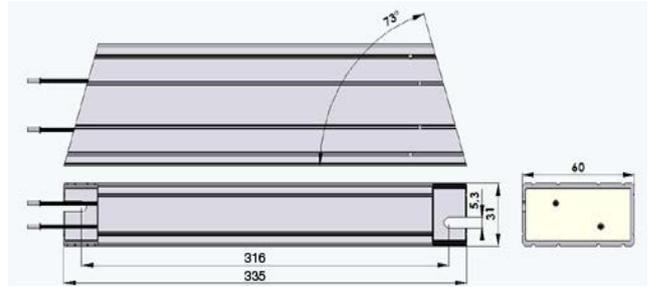
For further information see the data-sheet for PSU00-PD1 (LD0044).



Power Dump Resistor RP1005



Power Dump Resistor RP1006/7/8



Type	Resistance (Ohm)	Power Rating (W)				Weight (g)	Recommended for
		PN	P1/120	P10/120	P40/120		
RP1005	47	100	5500	1100	310	315	AMC20 and PSU00-PDx*
RP1006	70	270	26600	3400	900	1200	MAC400, MAC800, PSU00-PDx*
RP1007	20	270	26600	3400	900	1200	MAC400, MAC800
RP1008	47	270	26600	3400	900	1200	MAC400, MAC800, MAC1500, MAC3000

PN:

Nominal Power, Natural Cooling,
No Heat Sink. Surface temperature
250°C@25°C.

P1/120

Intermediate Load: Pulse width 1
sec. Period time: 120sec. (40 Ohm
resistor)

P10/120

Intermediate Load: Pulse width 10
sec. Period time: 120 sec. (40 Ohm
resistor)

P40/120

Intermediate Load: Pulse width 40
sec. Period time: 120 sec. (40 Ohm
resistor)

Specifications RP1005, RP1006, RP1007 and RP1008:

Temperature coefficient: $\leq \pm 100\text{ppm}$ ($> 10R$)

Resistance Tolerance: $\pm 5\%$, 10%

Dielectric Strength:

Std.: 2500VAC 1 min

Opt.: 4000VAC 1 min

Isolation Resistance: $> 20\text{M}\Omega$

Overload: 10x in 5 sec. 25-60x in 1 sec.

Environmental: -40°C to 155°C

Derating:

Linear from 57% at 155°C to
100% at 25°C

Max. housing temperature: 250°C

($P < \text{PN}$)

Cable optional approved: UL style 1659/VDE 0295 C1.5

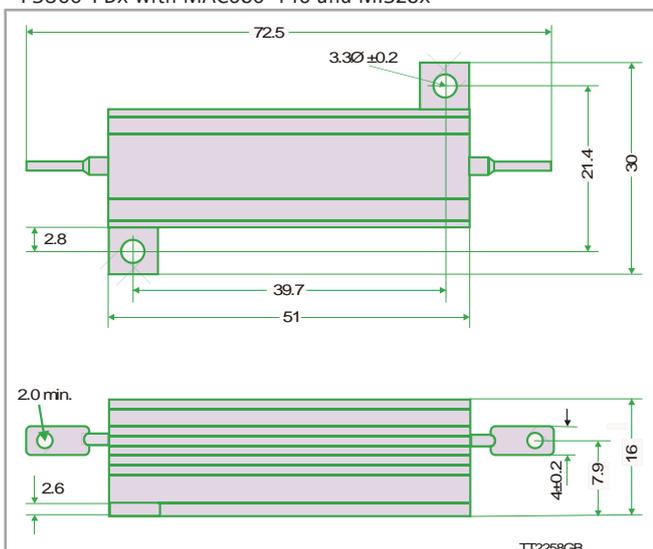
Cable length: 300mm +30-0

Note. The surface of the resistors can be up to 250°C at full power.

Power Dump Resistors RP0000, RP0001, RP0007 and RP0008

Type	Resistance (Ohm)	Power rating (W)	Recommended for
RP0000	22	50	SMD41/42 and PSU00-PDx*
RP0001	33	50	SMD41/42 and PSU00-PDx*
RP0007	100	50	SMD41/42 and PSU00-PDx*
RP0008	220	50	SMD41/42 and PSU00-PDx*

* PSU00-PDx with MAC050-140 and MIS23x



Note. The surface of the resistors can be up to 250°C at full power.



JVL Industri Elektronik A/S
Blokken 42
DK-3460 Birkerød, Denmark
Tel: +45 4582 4440
Fax: +45 4582 5550
E-mail: jvl@jvl.dk www.jvl.dk