



VW3A7608R●●

Presentation

Braking resistors allow Altivar Machine ATV320 drives to operate while braking to a standstill or during slowdown braking, by dissipating the braking energy. They enable maximum transient braking torque.

Depending on the drive rating, the following types of resistor are available:

- Enclosed model (IP 20 casing) designed to comply with the EMC standard and protected by a temperature-controlled switch
- Enclosed model (IP 65 casing) with cordset

Note: To optimize the size of the braking resistor, the DC buses on Altivar Machine ATV320 drives in the same application can be connected in parallel (see page 14).

Applications

Machines with high inertia, driving loads, and machines with fast cycles.

References

For drives	Ohmic value	Average power available at 50 °C/122 °F (1)	Length of connection cable	Reference	Weight
	Ω	W	m/ft		kg/lb
IP 20 resistors					
ATV320U02M●●, ATV320U04M●●, ATV320U04N4●...U30N4●, ATV320U07S6C...U40S6C	100	100	–	VW3A7730	1.500/3.307
ATV320U06M●●...U15M●●, ATV320U40N4C, ATV320U40N4B, ATV320U55N4B, ATV320U55S6C	60	160	–	VW3A7731	1.800/3.968
ATV320U22M●●, ATV320U30M3C, ATV320U75N4B, ATV320D11N4B, ATV320U75S6C, ATV320D11S6C, ATV320D15S6C	28	300	–	VW3A7732	2.700/5.952
ATV320U40M3C, ATV320U55M3C, ATV320D15N4B	16	960	–	VW3A7733	3.800/8.377
ATV320U75M3C	10	960	–	VW3A7734	4.300/9.480
ATV320D11M3C	8	960	–	VW3A7735	18.000/39.683
ATV320D15M3C	5	1900	–	VW3A7736	1.500/3.307

(1) Load factor for resistors: the value of the average power that can be dissipated at 50 °C/122 °F from the resistor into the casing is determined for a load factor during braking that corresponds to the majority of normal applications:
 - 2 s braking with a 0.6 T_n braking torque for a 40 s cycle
 - 0.8 s braking with a 1.5 T_n braking torque for a 40 s cycle

References (continued)					
For drives	Ohmic value	Average power available at 50 °C/122 °F (1)	Length of connection cable	Reference	Weight
	Ω	W	m/ft		kg/lb
IP 65 resistors					
ATV320U02M2C...U07M2C, ATV320U02M2B...U07M2B, ATV320U04N4C, ATV320U22N4C, ATV320U04N4B, ATV320U22N4B, ATV320U07S6C, ATV320U15S6C, ATV320U22S6C, ATV320U40S6C	100	25	0.75/ 2.46	VW3A7608R07	0.410/0.904
			3.0/ 9.84	VW3A7608R30	0.760/1.675
ATV320U30N4C, ATV320U40N4C, ATV320U30N4B, ATV320U40N4B	72	50	0.75/ 2.46	VW3A7606R07	0.930/2.050
			3.0/ 9.84	VW3A7606R30	1.200/2.645
ATV320U11M2C, ATV320U15M2C, ATV320U11M2B, ATV320U15M2B	72	25	0.75/ 2.46	VW3A7605R07	0.620/1.367
			3.0/ 9.84	VW3A7605R30	0.850/1.874
ATV320U55N4B, ATV320U75N4B	27	100	0.75/ 2.46	VW3A7604R07	1.420/3.131
			3.0/ 9.84	VW3A7604R30	1.620/3.571
ATV320U22M2C, ATV320U22M2B	27	50	0.75/ 2.46	VW3A7603R07	0.930/2.050
			3.0/ 9.84	VW3A7603R30	1.200/2.645

(1) Load factor for resistors: the value of the average power that can be dissipated at 50 °C/122 °F from the resistor into the casing is determined for a load factor during braking that corresponds to the majority of normal applications:- 2 s braking with a 0.6 T_n braking torque for a 40 s cycle- 0.8 s braking with a 1.5 T_n braking torque for a 40 s cycle.

Nota: no optional IP65 braking resistors for ATV320U55S6C, ATV320U75S6C, ATV320D11S6C, ATV320D15S6C, and ATV320●●●M3C drives.