



Severe Cycle

$t = 120 \text{ s}$
 $t_1 = 54 \text{ s}$
 $t_2 = 6 \text{ s}$
 $T_{n1} = T_n$
 $T_{n2} = 1.65 \times T_n$

t : period
 T_{n1} : braking torque
 T_{n2} : braking torque
 T_n : nominal torque

Severe braking cycle

References for a severe braking cycle (hoisting applications)

For drives	Degree of protection of the resistor	Ohmic value at 20 °C/ 68 °F	Average power available at 50 °C/ 122 °F (1)	Quantity required per drive	Reference	Weight
		Ω	kW			kg/lb
Supply voltage: 200...240 V or 380...480 V 50/60 Hz						
ATV930U07M3	IP20	100	0.26	1	VW3A7740	2.500/ 5.512
ATV930U15M3	IP20	60	0.5	1	VW3A7741	4.500/ 9.921
ATV930U22M3	IP20	60	3.4	1	VW3A7751	10.000/ 22.046
ATV930U30M3	IP20	28	1.1	1	VW3A7742	4.000/ 8.818
ATV930U55M3	IP20	16	2.2	1	VW3A7743	7.000/ 15.432
ATV930D11M3	IP20	10	3.4	1	VW3A7744	11.500/ 25.353
ATV930D18M3	IP23	5	6.9	1	VW3A7746	27.000/ 59.524
ATV930U07N4...U40N4 ATV950U07N4...U40N4 ATV950U07N4E...U40N4E	IP20	100	1.7	1	VW3A7750	5.500/ 12.125
ATV930U55N4...U75N4 ATV950U55N4...U75N4 ATV950U55N4E...U75N4E	IP20	60	3.4	1	VW3A7751	10.000/ 22.046
ATV930U40M3 ATV930D11N4...D15N4 ATV950D11N4...D15N4 ATV950D11N4E...D15N4E	IP23	28	5.1	1	VW3A7752	25.000/ 55.116
ATV930U75M3 ATV930D18N4...D30N4 ATV950D18N4...D30N4 ATV950D18N4E...D30N4E	IP23	16	14	1	VW3A7753	47.000/ 103.617
ATV930D37N4...D45N4 ATV950D37N4...D45N4 ATV950D37N4E...D45N4E	IP23	10	19	1	VW3A7754	67.000/ 147.710
ATV930D90N4 ATV950D90N4 ATV950D90N4E	IP23	10	19	2		
ATV930D15M3 ATV930D55N4 ATV950D55N4 ATV950D55N4E	IP23	8	25	1	VW3A7755	86.000/ 189.597
ATV930D22M3 ATV930D75N4 ATV950D75N4 ATV950D75N4E	IP23	5	32	1	VW3A7756	126.000/ 277.782
ATV930D30M3...D45M3 ATV930C11N4C...C16N4C	IP23	5	32	2		
ATV930C22N4 ATV930C25N4C	IP23	5	32	3		
ATV930C31N4C	IP23	5	32	4		
ATV930D55M3C...D75M3C	IP23	1.4	29	1	VW3A7757	114.000/ 251.327

(1) Load factor for resistors: The value of the average power that can be dissipated at 50 °C/122 °C from the resistor into the casing is determined for a load factor during braking that corresponds to the majority of normal applications:

- Heavy duty: 54 s braking with a 1 Tn braking torque and 6 s braking with a 1.65 Tn braking torque for a 120 s cycle

PF 15/269A



VW3A7755

References for a severe braking cycle (hoisting applications) (continued)

For drives	Degree of protection of the resistor	Ohmic value at 20 °C/ 68 °F	Average power available at 50 °C/ 122 °F (1)	Quantity required per drive	Reference	Weight
		Ω	kW			kg/lb
Supply voltage: 500...690 V 50/ 60 Hz						
ATV930U22Y6	IP20	100	1.4	1	VW3A7750	5.000/ 11.023
ATV930U30Y6	IP20	100	1.4	1	VW3A7750	5.000/ 11.023
ATV930U40Y6	IP20	100	1.4	1	VW3A7750	5.000/ 11.023
ATV930U55Y6	IP20	60	2.9	1	VW3A7751	8.300/ 18.298
ATV930U75Y6	IP20	60	2.9	1	VW3A7751	8.300/ 18.298
ATV930D11Y6	IP23	28	5.1	1	VW3A7752	27.000/ 59.524
ATV930D15Y6	IP23	28	5.1	1	VW3A7752	27.000/ 59.524
ATV930D18Y6	IP23	16	14	1	VW3A7753	48.500/ 106.924
ATV930D22Y6	IP23	16	14	1	VW3A7753	48.500/ 106.924
ATV930D30Y6	IP23	16	14	1	VW3A7753	48.500/ 106.924
ATV930D37Y6	IP23	10	19	1	VW3A7754	71.000/ 156.528
ATV930D45Y6	IP23	10	19	1	VW3A7754	71.000/ 156.528
ATV930D55Y6	IP23	8	25	1	VW3A7755	87.500/ 192.904
ATV930D75Y6	IP23	5	32	1	VW3A7756	126.000/ 277.782
ATV930D90Y6	IP23	10	19	2	VW3A7754	71.000/ 156.528

(1) Load factor for resistors: The value of the average power that can be dissipated at 50 °C/122 °C from the resistor into the casing is determined for a load factor during braking that corresponds to the majority of normal applications:

- Heavy duty: 54 s braking with a 1 Tn braking torque and 6 s braking with a 1.65 Tn braking torque for a 120 s cycle