

## DYNAMIC BRAKING OPTION

The dynamic braking option allows the ALTIVAR 66 drive to function in quadrants 2 and 4 of the speed/torque curve, dissipating the excess braking energy in an external resistor. The option consists of a resistor and circuit protection. Applications include machines with high inertia and machines with fast cycles. Automatic deceleration ramp modification is disabled when dynamic braking is installed.

### Braking Resistor Kit Catalog Numbers

For Drives	Ohmic Value	Continuous Current Rating of Assembly <sup>a</sup>	Catalog Number	Qty of Kits Used
	R <sub>db</sub>	I <sub>r</sub>		
ATV66U41N4, U54N4, U72N4	120 Ω	1.0 A	VW3A66711	1
ATV66U90N4, D12N4	56 Ω	1.45 A	VW3A66712	1
ATV66D16N4, D23N4	28 Ω	2.7 A	VW3A66713	1
ATV66D33N4, D46N4	14 Ω	3.8 A	VW3A66714	1
ATV66D54N4	10 Ω	10.0 A	VW3A66715	1
ATV66D64N4, D79N4	5 Ω	14.0 A	VW3A66716	1
ATV66C10N4, C13N4, C15N4, C19N4	2.5 Ω	20.0 A	VW3A66717	1
ATV66C23N41	2 Ω	32.0 A	VW3A66718	2
ATV66C28N41, C31N41	1.25Ω	40.0	VW3A66717	2

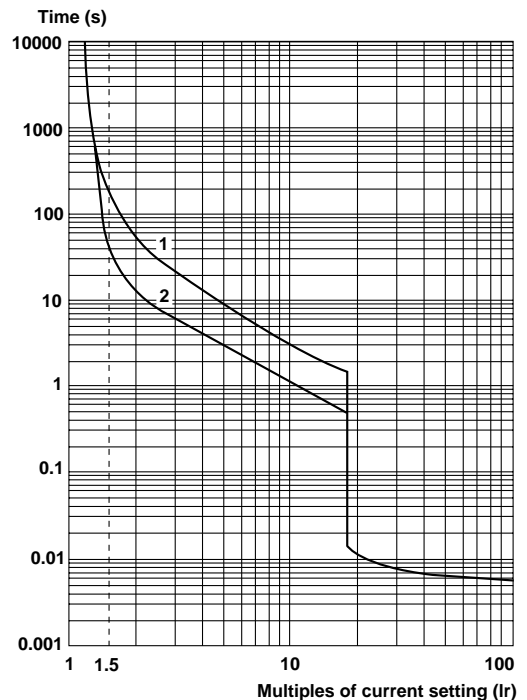
<sup>a</sup> Current rating of resistor assembly is calculated based on setting of internal overload protective device in assembly, overload setting based on enclosure overtemperature protection, and resistor overload versus time characteristics. Resistors are rated for stopping six times rotor inertia of 4-pole motor with drive at current limit.

### Recommended Braking Resistance Values

460 V AC Drive Part No.	PA/PB Minimum Resistance Ω	208/230 V AC Drive Part No.	PA/PB Minimum Resistance Ω
ATV66U41N4	120	ATV66U41M2	47
ATV66U54N4	120	ATV66U72M2	18
ATV66U72N4	120	ATV66U90M2	18
ATV66U90N4	56	ATV66D12M2	12
ATV66D12N4	56	ATV66D16M2	9
ATV66D16N4	28	ATV66D23M2	6
ATV66D23N4	28	ATV66D33M2	4.5
ATV66D33N4	14	ATV66D46M2	3
ATV66D46N4	14		
ATV66D54N4	10		
ATV66D64N4	5.0		
ATV66D79N4	5.0		
ATV66C10N4	2.5		
ATV66C13N4	2.5		
ATV66C15N4	2.5		
ATV66C19N4	2.5		
ATV66C23N41	2.0		
ATV66C28N41	1.25		
ATV66C31N41	1.25		

### Current-Time Characteristic for Dynamic Braking Resistor Assemblies

The curve below shows allowable time at 40 °C according to multiple current settings.



(1) Cold state  
(2) Hot state



# ALTIVAR 66 AC Drives

## List of Catalog Numbers



VW3A6620•

### Options and Accessories

Description	For Drives	Catalog Number
Keypad door mounting kit with 2 m cable	ATV66 all ranges	VW3A66100
Keypad door mounting kit with 3 m cable	ATV66 all ranges	VW3A66101
Eight Operator Control Island <sup>[1]</sup>	ATV66 all ranges	VW3A66102
Six Operator, One Meter Control Island <sup>[1]</sup>	ATV66 all ranges	VW3A66103
Four Operator, Two Meter Control Island <sup>[1]</sup>	ATV66 all ranges	VW3A66104
I/O Extension Module, 24 V	ATV66 all ranges	VW3A66201T
I/O Extension Module, 115 V	ATV66 all ranges	VW3A66202T
3 m Cable for remote mounting of keypad display	ATV66 all ranges	VW3A66311
2 m Cable for remote mounting of keypad display	ATV66 all ranges	VW3A66312
PC Connection Option	ATV66 all ranges	VW3A66331U
Service and Troubleshooting Manual	ATV66 all ranges	VD0C06S701
RFI Filters <sup>[3]</sup>	ATV66U41N4 (1–2 HP)	VW3A66401U
	ATV66U41N4 (3 HP), U54N4	VW3A66402U
	ATV66U72N4, U90N4, D12N4	VW3A66404U
	ATV66D16N4, D23N4	VW3A66405U
	ATV66D33N4, D46N4	VW3A66406U
Dynamic Braking Resistor with Type 1 Enclosure	ATV66U41N4, U54N4, U72N4	VW3A66711
	ATV66U90N4, D12N4	VW3A66712
	ATV66D16N4, D23N4	VW3A66713
	ATV66D33N4, D46N4	VW3A66714
	ATV66D54N4	VW3A66715
	ATV66D64N4, D79N4	VW3A66716
	ATV66C10N4, C13N4, C15N4, C19N4	VW3A66717
	ATV66C23N4 <sup>[4]</sup>	VW3A66718 <sup>[5]</sup>
Gasket Kit for Recess Mounting	ATV66U41N4 to U72N4, ATV66U41M2	VW3A66801T
	ATV66U90N4 to D12N4, U72M2, U90M2	VW3A66802T
	ATV66D16N4 to D23N4, D12M2 to D16M2	VW3A66803
Mounting Adapter Plate for Recess Mounting	ATV66U41N4-U72N4	VW3A66806
	ATV66U41M2	
	ATV66U90N4-D12N4	VW3A66807
	ATV66U72M2, U90M2	
	ATV66D16N4-D23N4	
ATV66D12M2, D16M2	VW3A66808	
Memory Card	All ATV66 drives	VW3A66901T
Metal Conduit Entry Plate	ATV66U41N4-D23N4	VY1A66201
	ATV66U41M2-D16M2 For wall-mounted drives when metallic conduit is used	
Dynamic Braking Resistor Mounting Plate	ATV66C23N4 to ATV66C31N4	VY1A66202
Communication Card for UNI-TELWAY MODBUS RTU/JBUS, MODBUS ASCII Networks <sup>[2]</sup>	All ATV66 drives	VW3A66301U
Communication Card for MODBUS Plus Network <sup>[2]</sup>	All ATV66 drives	VW3A66305U
Communication Card Carrier	ATV66 all ranges	VW3A66205

<sup>[1]</sup> Designed for use with Telemecanique Type ZA2B 22mm operators and 2-1/2" surface mount meters. When used with compatible operators and meters and the enclosed gasket, control island kit maintains Type 12 / IP54 integrity of enclosure sidewall.

<sup>[2]</sup> For use with an I/O extension module or communication card carrier.

<sup>[3]</sup> RFI filters are for use on equipment being designed for European power systems where CE compliance is required. Reference catalog VVDED296034 for more information, and a larger selection of filters.

<sup>[4]</sup> Mounting the dynamic braking resistor assemblies on the ATV66C23N4 to C31N4 AC Drives requires the use of the Dynamic Braking Resistor Mounting Plate Kit VY1A66202.

<sup>[5]</sup> Order quantity of 2. Two kits required on these units.

