

Heavy Duty Braking Transistor



Overvoltage Solutions



*Up to 1600A
per unit*

BONITRON

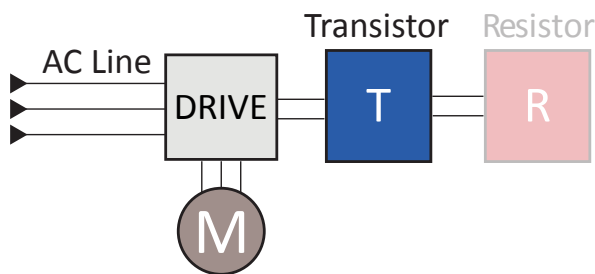
M3452 Series

Bonitron remains a leader in the field of high horsepower braking and proudly maintains its reputation for durability and reliability, with models rated up to 1600A.

Bonitron Braking Transistors are used with AC drives to allow full power braking and eliminate overvoltage faults. This permits controlled braking and dramatically shortens motor stopping time. The M3452 works with Variable Speed Drives (VSDs) to monitor the DC bus. If overvoltage occurs, the M3452 shunts the excess energy through a braking resistor to prevent overvoltage faults. (Standard and custom braking resistors are also available from Bonitron. For more information see the M3775R series).

Optional advanced diagnostics allow for remote monitoring, while local indicators assist in pinpointing issues. Remote configuration and networking capabilities add to the flexibility and reliability of your overall system and reduce your installation wiring.

For lower duty cycle applications, or where advanced I/O isn't required, see our M3575T Standard Duty Braking Transistors.



Product Highlights

- Local and remote status monitoring
- EtherNet/IP™ & PROFIBUS™ DP networking options
- Systems can be reconfigured on-the-fly
- Up to 1600A per unit (Parallel operation for higher ratings)
- Proven record for quality and support

Industry Applications



Conveyors | Cranes | Drawworks | Elevators | Hoists | Pick and Place | Pump Jacks | Top Drives | & More!



www.bonitron.com



615-244-2825

info@bonitron.com



Model Selection

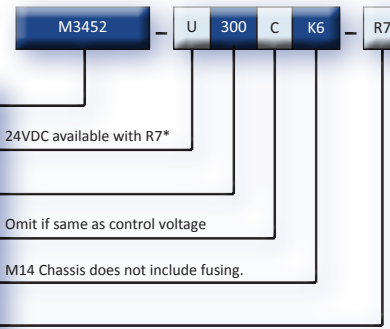
See back cover for control options



when used with
A, R5, R7, R7E control
options

Model Number Breakdown

Base Model Number
Control Voltage
Braking Current
DC Bus Voltage
Chassis
Special Options



230-240VAC

	Power (Peak)	Control Voltage	Base Model Number	Braking Current (Peak)	Braking Current (RMS)	Minimum Resistance	Dimensions (H x W x D)	UL and CUL Listing	
230-240 VAC Drives 375 VDC Setpoint									
	37.5 HP	115-120 VAC 230-240 VAC	M3452-U75LB7 M3452-L75B7	75 A	75 A	5.00 Ω	17.75" x 7.00" x 8.10"	UL and CUL	
	75 HP	115-120 VAC 230-240 VAC	M3452-U150LB7 M3452-L150B7	150 A	150 A	2.50 Ω	17.75" x 7.00" x 8.10"	UL and CUL	
	100 HP	115-120 VAC 230-240 VAC	M3452-U200LK6 M3452-L200K6	200 A	200 A	1.90 Ω	20.00" x 7.12" x 10.50"	UL and CUL	
	150 HP	115-120 VAC 230-240 VAC	M3452-U300LK6 M3452-L300K6	300 A	300 A	1.25 Ω	20.00" x 7.12" x 10.50"	UL and CUL	
	300 HP	115-120 VAC 230-240 VAC	M3452-U600LK6 M3452-L600K6	600 A	300 A	0.63 Ω	20.00" x 7.12" x 10.50"	UL and CUL	
	400 HP	115-120 VAC 230-240 VAC	M3452-U800LK9 M3452-L800K9	800 A	400 A	0.47 Ω	20.00" x 9.05" x 10.25"		
	600 HP	115-120 VAC 230-240 VAC	M3452-U1200LK10 M3452-L1200K10	1200 A	600 A	0.32 Ω	20.00" x 10.00" x 10.50"		

For 24VDC control voltage, replace "U" with "D". Only available with R7, R7E Options. (Not UL Listed)

380-415VAC

	Power (Peak)	Control Voltage	Base Model Number	Braking Current (Peak)	Braking Current (RMS)	Minimum Resistance	Dimensions (H x W x D)	UL and CUL Listing	
380 - 415 VAC Drives 620 VDC Setpoint									
	62.5 HP	120 VAC 380 VAC	M3452-U75EB7 M3452-E75B7	75 A	75 A	8.27 Ω	17.75" x 7.00" x 8.10"		
	125 HP	120 VAC 380 VAC	M3452-U150EB7 M3452-E150B7	150 A	150 A	4.13 Ω	17.75" x 7.00" x 8.10"		
	160 HP	120 VAC 380 VAC	M3452-U200EK6 M3452-E200K6	200 A	200 A	3.10 Ω	20.00" x 7.12" x 10.50"		
	240 HP	120 VAC 380 VAC	M3452-U300EK6 M3452-E300K6	300 A	300 A	2.07 Ω	20.00" x 7.12" x 10.50"		
	490 HP	120 VAC 380 VAC	M3452-U600EK6 M3452-E600K6	600 A	300 A	1.04 Ω	20.00" x 7.12" x 10.50"		
	660 HP	120 VAC 380 VAC	M3452-U800EK9 M3452-E800K9	800 A	400 A	0.78 Ω	20.00" x 9.05" x 10.25"		
	1000 HP	120 VAC 380 VAC	M3452-U1200EK10 M3452-E1200K10	1200 A	600 A	0.52 Ω	20.00" x 10.00" x 10.50"		
	1330 HP	120 VAC 380 VAC	M3452-U1600EM14 M3452-E1600M14	1600 A	1200 A	0.39 Ω	28.00" x 13.90" x 14.60"		
	1330 HP	120 VAC 380 VAC	M3452-U1600ET10 M3452-E1600T10	1600 A	1200 A	0.39 Ω	30.59" x 10.12" x 19.18"		



www.bonitron.com



615-244-2825

info@bonitron.com



460-480VAC

	Power (Peak)	Control Voltage	Base Model Number	Braking Current (Peak)	Braking Current (RMS)	Minimum Resistance	Dimensions (H x W x D)	UL and CUL Listing	
460-480 VAC Drives 750 VDC Setpoint									
	75 HP	120 VAC 460 VAC	M3452-U75HB7 M3452-H75B7	75 A	75 A	10.00 Ω	17.75" x 7.00" x 8.10"	UL and CUL	
	150 HP	120 VAC 460 VAC	M3452-U150HB7 M3452-H150B7	150 A	150 A	5.00 Ω	17.75" x 7.00" x 8.10"	UL and CUL	
	200 HP	120 VAC 460 VAC	M3452-U200HK6 M3452-H200K6	200 A	200 A	3.80 Ω	20.00" x 7.12" x 10.50"	UL and CUL	
	300 HP	120 VAC 460 VAC	M3452-U300HK6 M3452-H300K6	300 A	300 A	2.50 Ω	20.00" x 7.12" x 10.50"	UL and CUL	
	600 HP	120 VAC 460 VAC	M3452-U600HK6 M3452-H600K6	600 A	300 A	1.25 Ω	20.00" x 7.12" x 10.50"	UL and CUL	
	800 HP	120 VAC 460 VAC	M3452-U800HK9 M3452-H800K9	800 A	400 A	0.93 Ω	20.00" x 9.05" x 10.25"		
	1200 HP	120 VAC 460 VAC	M3452-U1200HK10 M3452-H1200K10	1200 A	600 A	0.63 Ω	20.00" x 10.00" x 10.50"		
	1600 HP	120 VAC 460 VAC	M3452-U1600HM14 M3452-H1600M14	1600 A	1200 A	0.47 Ω	28.00" x 13.90" x 14.60"	UL and CUL	
	1600 HP	120 VAC 460 VAC	M3452-U1600HT10 M3452-H1600T10	1600 A	1200 A	0.47 Ω	30.59" x 10.12" x 19.18"		

For 24VDC control voltage, replace "U" with "D". Only available with R7, R7E Options. (Not UL Listed)

575-600VAC

	Power (Peak)	Control Voltage	Base Model Number	Braking Current (Peak)	Braking Current (RMS)	Minimum Resistance	Dimensions (H x W x D)	UL and CUL Listing	
575-600 VAC Drives 940 VDC Setpoint									
	95 HP	120 VAC 575 VAC	M3452-U75CB7 M3452-C75B7	75 A	75 A	12.50 Ω	17.75" x 7.00" x 8.10"	UL and CUL	
	190 HP	120 VAC 575 VAC	M3452-U150CB7 M3452-C150B7	150 A	150 A	6.30 Ω	17.75" x 7.00" x 8.10"	UL and CUL	
	250 HP	120 VAC 575 VAC	M3452-U200CK6 M3452-C200K6	200 A	200 A	4.70 Ω	20.00" x 7.12" x 10.50"	UL and CUL	
	380 HP	120 VAC 575 VAC	M3452-U300CK6 M3452-C300K6	300 A	300 A	3.20 Ω	20.00" x 7.12" x 10.50"	UL and CUL	
	760 HP	120 VAC 575 VAC	M3452-U600CK6 M3452-C600K6	600 A	300 A	1.60 Ω	20.00" x 7.12" x 10.50"	UL and CUL	
	1000 HP	120 VAC 575 VAC	M3452-U800CK9 M3452-C800K9	800 A	400 A	1.20 Ω	20.00" x 9.05" x 10.25"		
	1500 HP	120 VAC 575 VAC	M3452-U1200CK10 M3452-C1200K10	1200 A	600 A	0.78 Ω	20.00" x 10.00" x 10.50"		
	2015 HP	120 VAC 575 VAC	M3452-U1600CM14 M3452-C1600M14	1600 A	1200 A	0.58 Ω	28.00" x 13.90" x 14.60"	UL and CUL	
	2015 HP	120 VAC 575 VAC	M3452-U1600CT10 M3452-C1600T10	1600 A	1200 A	0.58 Ω	30.59" x 10.12" x 19.18"		



www.bonitron.com



615-244-2825

info@bonitron.com



690VAC

	Power (Peak)	Control Voltage	Base Model Number	Braking Current (Peak)	Braking Current (RMS)	Minimum Resistance	Dimensions (H x W x D)	UL and CUL Listing	
690 VAC Drives				1090 VDC Setpoint					
	110 HP	120 VAC	M3452-U75YB7	75 A	75 A	14.50 Ω	17.75" x 7.00" x 8.10"		
	220 HP	120 VAC	M3452-U150YB7	150 A	150 A	7.30 Ω	17.75" x 7.00" x 8.10"		
	300 HP	120 VAC	M3452-U200YK6	200 A	200 A	5.50 Ω	20.00" x 7.12" x 10.50"		
	440 HP	120 VAC	M3452-U300YK6	300 A	300 A	3.60 Ω	20.00" x 7.12" x 10.50"		
	875 HP	120 VAC	M3452-U600YK6	600 A	300 A	1.95 Ω	20.00" x 7.12" x 10.50"		
	1170 HP	120 VAC	M3452-U800YK9	800 A	400 A	1.40 Ω	20.00" x 9.05" x 10.25"		
	1750 HP	120 VAC	M3452-U1200YK10	1200 A	600 A	0.91 Ω	20.00" x 10.00" x 10.50"		
	2300 HP	120 VAC	M3452-U1600YM14	1600 A	1200 A	0.68 Ω	28.00" x 13.90" x 14.60"		

Specifications

Voltages.....230 - 690VAC

Current Rating.....75 to 1600Amps

Connections.....Drive DC Bus

Input AC Line (Control)

Ground

Max. 'On-Time'.....Peak rating for 60 seconds

Continuous rating - continuous

A, R5, R7, R7E ,
R7EIP/PDP
Control Options are



Line Regen

M3545 & M3645 Series

Bonitron Line Regens replace traditional braking transistor and resistor options that waste energy as heat during drive braking. Instead of dissipating braking energy as heat in a resistor, Line Regen solutions return this energy to the power grid. This reduces demand from the utility, which equates to ample energy savings. Check out our solutions at Bonitron.com/line_regen.html



Braking Resistors

M3775R Series

Whether you're buying a reputable Bonitron Transistor or using your drives' internal brake, there's no need to go anywhere other than Bonitron - we're your one stop shop! Our selection of resistors is rated up to the megawatts. Need a custom resistor? We do those too! Bonitron.com/m3775r.html



www.bonitron.com



615-244-2825

info@bonitron.com



Network and Control Options

	Control Options	A	R5	R7	R7E	R7EIP & R8EIP	R7PDP & R8EIP	R7PNET & R8PNET
Inputs	Enable							
	Master/Slave							
	Bus Discharge							
	Fault Reset							
Outputs	Module Ready							
	Logic Power OK							
	Not IGBT Open							
	Not IGBT Shorted							
	Not Overtemp							
	Not Blown Fuse							
	Control Ready							
	Master/Slave Status							
	Power Stage Ready							
	Not Overcurrent							
	Blink Codes							

EtherNet/IP is registered trademark of ODVA. PROFIBUS is a registered trademark of PROFIBUS Trade Organization.

	Discrete Hardwire Connection	75 - 150A (B7) Options Available with "A" Only 1200A (K10) and 1600A (M14) Options R5, R7, R7E, R7EIP, R7PDP, R7PNET 1600A (T10) Options R7, R7E, R7EIP, R7PDP, R7PNET - All units above 200A have Master/Slave capability
	Ethernet Network Connection	
	Profibus Network Connection	
	Profinet Network Connection	