

KBG3 Series

Safety Onboard



Integrated Safety and Flexible Communications

0.33 HP – 30 HP (0.25 kW – 22 kW)
115 V | 230 V | 460 V | 575 V

When it comes down to safety, failure is unacceptable. Yet equipment is often more complex than it needs to be.

The KBG3 provides a cost effective approach to safety. It features a dual Safe Torque Off (STO) input, certified to SIL3/PLe safety rating and compliant with EN/IEC 61800-5-2.

As all the work is done inside the drive, no additional parts are needed. When a machine trips, the STO stops the motor from producing torque, preventing accidental start up. A simple solution to a serious problem.



KBG3 Series

Safety Onboard

Flexible Connectivity

Connect with many of the common fieldbuses using the modular 'SI' interface port. It can communicate with Modbus TCP/IP, Ethernet/IP, EtherCAT, PROFINET-RT, PROFIBUS-DP, CANopen and DeviceNet. The AI-485 Adaptor option can also connect to RS485 networks using Modbus RTU.

Increase Your Productivity

To get the most out of your drives, we have developed the KBConnect PC tool. It is designed to aid productivity when commissioning, optimizing, and monitoring drive/system performance.
www.kbelectronics.com/KBG-Drive-Setup.html

More Control. No Extra Cost

If you are using an external PLC in your machinery, you will know that extra functionality comes at a price. Our integrated PLC is included at no extra cost.

Easy to Setup

Our most user-friendly drive yet. Designed to make installation simple and quick. All the parameters you need to get started are on the front of the drive. For everything else, there is the step-by-step guide that comes in the box.

If you prefer, you'll find online support at:
www.kbelectronics.com/KBG-Drive-Setup.html

Save even more time by transferring settings before you install the drive. All you need is our AI-Backup module or AI-Smart Adaptor, and a 24V power supply.

Reliable Workhorse

Our drives keep your machines running, even in the toughest environments. That means working to international standards IEC60068-2-60 to levels defined by IEC721-3-3 2C3.

Technology You Can Trust

Each of our controls go through rigorous testing before they leave the factory. This ensures reliability and provides confidence that your KBG3 series drive performs properly in your application.

Simple to Use

Up and Running in
4 Easy Steps

Safe

Dual Safe Torque Off

Flexible

Connects to Over
7 Common Protocols

Made to Last

2 Years Warranty

Robust

180% (30s) / 150% (60s)
Overload

1-Click Online Support

[kbelectronics.com/
KBG-Drive-Setup.html](http://kbelectronics.com/KBG-Drive-Setup.html)

Drive Specifications

Open Loop Vector or V/Hz	✓
Open Loop Rotor Flux Control (RFC-A)	✓
Analog Inputs / Outputs	2/1
Digital Inputs / Outputs / Bidirectional I/O	4/0/1
Relay Output ¹	1
Safe Torque Off	2
Onboard PLC	✓
RS485 Communications Modbus RTU ²	✓
Cloning via SD Card ³	✓

1. Configurable. 2. Requires AI-485 Adapter. 3. Requires AI-Backup Adapter.



KB Electronics
kbelectronics.com • info@kbelectronics.com

Automation and Control

KBG3 Series Safety Onboard

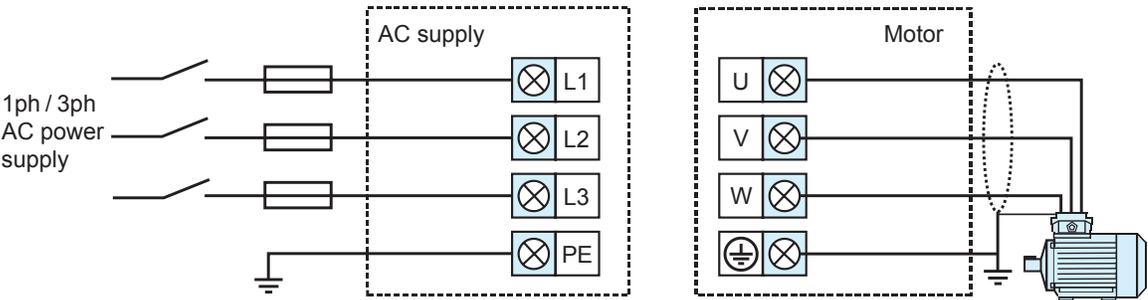
Enhance up-time and system flexibility

- Flexible system integration and remote diagnostics through optional industrial Ethernet and fieldbus communication
- Flexible I/O that is expandable with SI-I/O option module
- Enhanced functionality and onboard PLC programming provides a low-cost system solution, minimizing the need for additional equipment such as PLCs

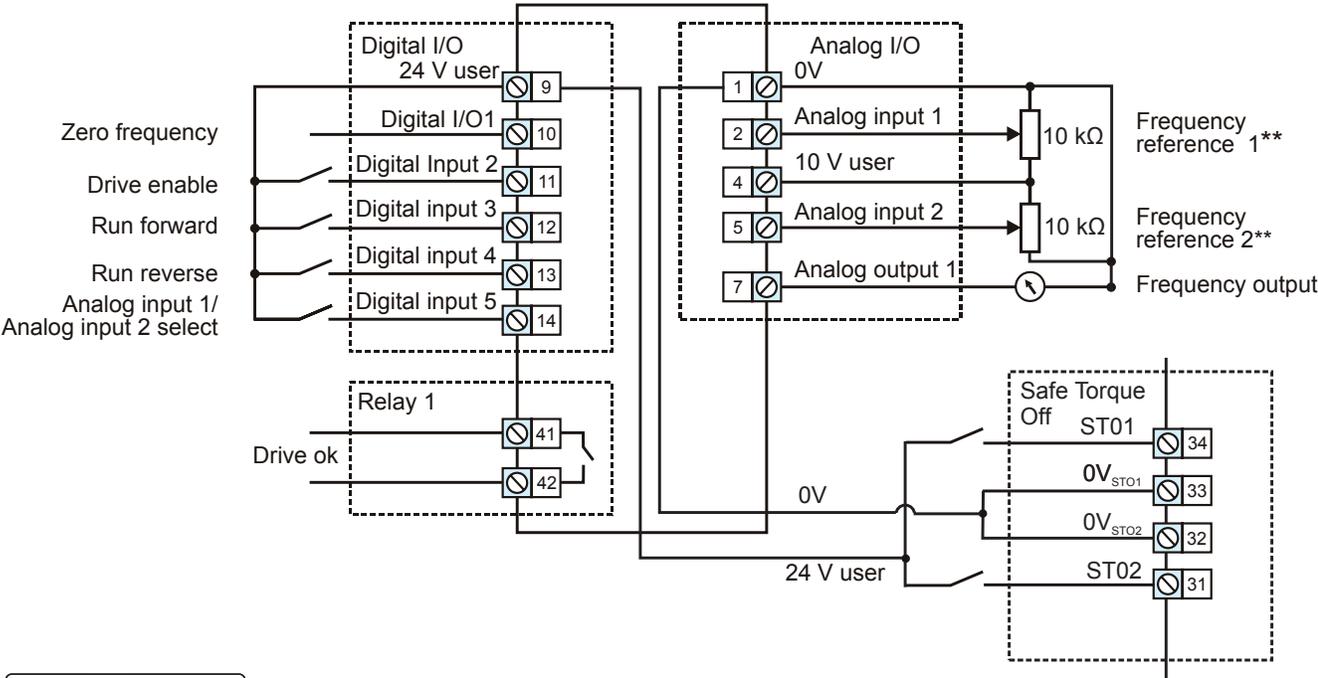
High performance open loop motor control

- RFC-A (Rotor Flux Control) algorithm for exceptional induction motor control of demanding applications
- Closed loop current control without a position feedback device
- Speed control for conveyors, fans, pumps, and mixers, where their function are controlled remotely with fieldbus or Ethernet communications

Wire the Drive



Control Terminal Connections



KBG3 Series

Safety Onboard

KBG3 Order Information and Ratings

115 VAC, 1-Phase 50/60 Hz Input, 230 VAC 3-Phase Output

Order Code		Variable / Constant Torque	
Part No.	Model No.	HP	Amps
N3101	KBG3-11017-1	0.33	1.7
N3102	KBG3-11024-1	0.5	2.4
N3103	KBG3-11042-2	1	4.2
N3104	KBG3-11056-2	1.5	5.6

230 VAC, 1-Phase Input, 3-Phase Output, 50/60 Hz Input

Order Code		Variable / Constant Torque	
Part No.	Model No.	HP	Amps
N3105	KBG3-21017-1	0.33	1.7
N3106	KBG3-21024-1	0.5	2.4
N3107	KBG3-21033-1	0.75	3.3
N3108	KBG3-21042-1	1	4.2

230 VAC, 1 or 3-Phase Input, 3-Phase Output, 50/60 Hz Input

Order Code		Variable / Constant Torque	
Part No.	Model No.	HP	Amps
N3109	KBG3-22024-2	0.5	2.4
N3110	KBG3-22033-2	0.75	3.3
N3111	KBG3-22042-2	1	4.2
N3112	KBG3-22056-2	1.5	5.6
N3113	KBG3-22075-2	2	7.5
N3114	KBG3-22100-3	3	10
N3115	KBG3-22133-4	3	13.3

230 VAC, 3-Phase Input, 3-Phase Output, 50/60 Hz Input

Order Code		Variable Torque		Constant Torque	
Part No.	Model No.	HP	Amps	HP	Amps
N3116	KBG3-23176-4	5	17.6	5	17.6
N3117	KBG3-23250-5	10	30	7.5	25
N3118	KBG3-23330-6	15	50	10	33
N3119	KBG3-23440-6	20	58	15	44

Dimensions (H x W x D) & Weights

Frame Size	Inches	Millimeters	Lbs	kg
01	6.3 x 3.0 x 5.6	160 x 76.2 x 142	1.7	0.77
02	8.1 x 3.1 x 6.3	206 x 78.7 x 160	2.2	1.00
03	8.9 x 3.5 x 6.7	226 x 88.9 x 170	3.3	1.50
04	10.9 x 4.5 x 7.3	277 x 114 x 185	6.9	3.13
05	15.4 x 5.6 x 7.9	391 x 142 x 201	16.3	7.39
06	15.4 x 8.3 x 9.0	391 x 211 x 229	30.9	14.02

460 VAC, 3-Phase Input, 3-Phase Output, 50/60 Hz Input

Order Code		Variable Torque		Constant Torque	
Part No.	Model No.	HP	Amps	HP	Amps
N3120	KBG3-43013-2	0.5	1.3	0.5	1.3
N3121	KBG3-43018-2	0.75	1.8	0.75	1.8
N3122	KBG3-43023-2	1	2.3	1	2.3
N3123	KBG3-43032-2	1.5	3.2	1.5	3.2
N3124	KBG3-43041-2	2	4.1	2	4.1
N3125	KBG3-43056-3	3	5.6	3	5.6
N3126	KBG3-43073-3	3	7.3	3	7.3
N3127	KBG3-43094-3	5	9.4	5	9.4
N3128	KBG3-43135-4	7.5	13.5	7.5	13.5
N3129	KBG3-43170-4	10	17	10	17
N3130	KBG3-43270-5	20	30	20	27
N3131	KBG3-43300-5	20	31	20	30
N3132	KBG3-43350-6	25	38	25	35
N3133	KBG3-43420-6	30	48	30	42
N3134	KBG3-43470-6	50	63	30	47

575 VAC, 3-Phase Input, 3-Phase Output, 50/60 Hz Input

Order Code		Variable Torque		Constant Torque	
Part No.	Model No.	HP	Amps	HP	Amps
N3135	KBG3-53030-5	3	3.9	2	3
N3136	KBG3-53040-5	5	6.1	3	4
N3137	KBG3-53069-5	7.5	10	5	6.9
N3138	KBG3-53100-6	10	12	7.5	10
N3139	KBG3-53150-6	15	17	10	15
N3140	KBG3-53190-6	20	22	15	19
N3141	KBG3-53230-6	25	27	20	23
N3142	KBG3-53290-6	30	34	25	29
N3143	KBG3-53350-6	40	43	30	35



KB ELECTRONICS

12095 NW 39th Street, Coral Springs, FL 33065-2516
 +1 (954) 346-4900 • Fax +1 (954) 346-3377 • Call Toll Free +1 (800) 221-6570
 info@kbelectronics.com • www.kbelectronics.com