

Hybrid Drives

Digital AC Drives with Analog Interface

Enclosure types: Chassis / IP20, NEMA 1 / IP20 & 50 and NEMA 4X / IP65

The NEMA 4X / IP65 drives are housed in a rugged die-cast aluminum enclosure with a hinged cover.

Primary Features

Horsepower 1/8 to 10 HP
115/230/460 VAC - 1ph & 3ph Input
Output 230/460 VAC - 3ph
Starting Torque 200%
FDA Approved Finish*

GFCI Compatible

Allows equipment to operate with Ground Fault Circuit Interruption circuit breakers or outlets.
(Factory programming required.)

Benefits

Saves Time

Easy to Install and Simple to Operate. Does not require commissioning.

Up and running in less than 10 minutes.

Motors Last Longer

Proprietary CL Software

Provides overload protection, prevents motor burnout and eliminates nuisance tripping.
UL approved as electronic overload protector for motors.

Energy Saving

Uses only the power the application requires.
Replacing constant speed with variable speed will significantly reduce energy costs.

Customization for OEM's

When an off the shelf drive does not meet your needs, KB will work with you to provide a custom drive solution, Ready to Use, "Out-of-the-Box."

Customization includes: Pre-calibrating or programming of a stock control, adding a custom label or branding, custom software, PLC functions or designing a new control.

*White cases only.



Automation and Control

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Designed and Assembled in USA



Electrical Ratings

| | Maximum HP | | AC Line Voltage (50/60 Hz) | Phase | Model Number | Part No. | Max. AC Line Current (Amps AC) | Voltage Range (Volts AC) | Max. Load Current (Amps/Phase) | Net Weight | | Dim. Ref. Code |
|---------------|------------|------|----------------------------|--------|--------------|----------|--------------------------------|--------------------------|--------------------------------|------------|-----|----------------|
| | HP | KW | | | | | | | | Lbs. | kg | |
| Chassis, IP20 | 1/2 | 0.37 | 115 | 1 | KBVF-13 | 9957 | 9.6 | 0 – 208/230 | 2.4 | 1.3 | 0.6 | A |
| | 1 | 0.75 | 115 | 1 | KBVF-14 | 9977 | 14 | 0 – 208/230 | 4 | 2.2 | 1.0 | B |
| | 1/2 | 0.37 | 208/230 | 1 | KBVF-23 | 9958 | 6 | 0 – 208/230 | 2.4 | 1.3 | 0.6 | A |
| | 1 | 0.75 | 208/230 | 1 | KBVF-24 | 9978 | 10 | 0 – 208/230 | 4 | 2.2 | 1 | B |
| | 1/10 | 0.07 | 115 208/230 | 1 | KBVF-21D* | 9581 | 4 2.5 | 0 – 208/230 | 1 | 0.7 | 0.3 | C |
| | 1/4 | 0.18 | 115 208/230 | 1 | KBVF-22D* | 9572 | 6 3.8 | 0 – 208/230 | 1.5 | 1.3 | 0.6 | A |
| | 1/2 | 0.37 | 115 208/230 | 1 | KBVF-23D* | 9959 | 9.7 6 | 0 – 208/230 | 2.4 | 1.3 | 0.6 | A |
| | 1 | 0.75 | 115 208/230 | 1 | KBVF-24D* | 9979 | 14 10 | 0 – 208/230 | 4 | 2.2 | 1 | B |
| | 1½ | 1.13 | 115 208/230 | 1 | KBVF-26D* | 9496 | 22 14 | 0 – 208/230 | 5.5 | 2.9 | 1.3 | D |
| | 1/2 | 0.37 | 208/230 | 3 | KBVF-23P | 9676 | 3.1 | 0 – 208/230 | 2.4 | 1.1 | 0.5 | A |
| | 1 | 0.75 | 208/230 | 3 | KBVF-24P | 9677 | 5.2 | 0 – 208/230 | 4 | 2.2 | 1 | B |
| | 2 | 1.5 | 208/230 | 1 3 | KBVF-27 | 9591 | 17 8.7 | 0 – 208/230 | 6.7 | 4.1 | 1.9 | E |
| | 2 | 1.5 | 208/230 | 1 | KBVF-29 | 9593 | 22.5 | 0 – 208/230 | 9 | 4.6 | 2.1 | E |
| | 3 | 2.25 | | 3 | | | 11.7 | | | | | |
| | 1 | 0.75 | 400/460 | 3 | KBVF-42** | 9645 | 2.6 | 0 – 400/460 | 2 | 2.8 | 1.3 | F |
| | 3 | 2.25 | 400/460 | 3 | KBVF-45** | 9590 | 5.3 | 0 – 400/460 | 4.6 | 4.1 | 1.9 | G |
| | 5 | 3.75 | 400/460 | 3 | KBVF-48** | 9592 | 11 | 0 – 400/460 | 8.3 | 4.6 | 2.1 | G |

*Models KBVF-21D, 22D, 23D, 24D and 26D are available in single voltage AC line input (115 or 208/230 VAC) and also contain a built-in Motor Filter to eliminate winding and bearing failures.

**Contains SIVFR signal input isolation and Run/Fault output relay.

| NEMA 1, IP20 | HP | KW | AC Line Voltage (50/60 Hz) | | Phase | Model Number | Part No. | Max. AC Line Current (Amps AC) | | Voltage Range (Volts AC) | Max. Load Current (Amps/Phase) | | Net Weight (Lbs./kg) | Dim. Ref. Code |
|--------------|-----|------|----------------------------|---------|-------|--------------|----------|--------------------------------|-----|--------------------------|--------------------------------|-----|----------------------|----------------|
| | | | 115 | 208/230 | | | | 5.2 | 3.8 | | 1.3 | 1.5 | | |
| NEMA 1, IP20 | 1/4 | 0.19 | 115 | 208/230 | 1 | KBWA-22D | 9926 | 5.2 | 3.8 | 0 – 208/230 | 1.3 | 1.5 | 0.72 | H |
| | 1/2 | 0.37 | 115 | 208/230 | 1 | KBWA-23D | 9946 | 8.8 | 6 | 0 – 208/230 | 2.2 | 2.4 | 0.72 | H |

Model KBWA-22D (IP 50), model KBWA-23D (IP 20). Lower horsepower models available (KBWA-21D, 2P3D, 2P6D).

| NEMA 1, IP50 | HP | KW | AC Line Voltage (50/60 Hz) | | Phase | Model Number | Part No. | Max. AC Line Current (Amps AC) | | Voltage Range (Volts AC) | Max. Load Current (Amps/Phase) | Net Weight (Lbs./kg) | Dim. Ref. Code | |
|--------------|----|------|----------------------------|---------|-------|--------------|----------|--------------------------------|-----|--------------------------|--------------------------------|----------------------|----------------|---|
| | | | 115 | 208/230 | | | | 14.4 | 9.5 | | | | | |
| NEMA 1, IP50 | 1 | 0.75 | 115 | 208/230 | 1 | KBMA-24D | 9533 | 14.4 | 9.5 | 0 – 208/230 | 3.6 | 2.42 | 1.09 | I |
| | 1 | 0.75 | 115 | 208/230 | 1 | KBMA-24DF | 9534 | 9.5 | | 0 – 208/230 | 3.6 | 2.48 | 1.12 | I |

| NEMA 4X, IP65 | HP | KW | AC Line Voltage (50/60 Hz) | | Phase | Model Number | Part No. | Max. AC Line Current (Amps AC) | Voltage Range (Volts AC) | Max. Load Current (Amps/Phase) | Net Weight (Lbs./kg) | Dim. Ref. Code | | | |
|---------------|----|------|----------------------------|---------|--------------|--------------|----------|--------------------------------|--------------------------|--------------------------------|----------------------|----------------|------|------|---|
| | | | 115 | 208/230 | | | | | | | | | 14.4 | 8.1 | |
| NEMA 4X, IP65 | 1 | 0.75 | 115 | 208/230 | 1 | KBAC-24D | 9987 | 9988* | 14.4 | 8.1 | 0 – 208/230 | 3.6 | 5.9 | 2.7 | J |
| | 1½ | 1.13 | 115 | | 1 | KBAC-27D | 9520 | 9521* | 22 | 16.7 | 0 – 208/230 | 5.5 | 10.3 | 4.7 | K |
| | 2 | 1.5 | 208/230 | | | | | | | | | | | | |
| | 3 | 2.25 | 208/230 | 1 | KBAC-29 (1P) | 10001 | 10002* | 20.5 | 0 – 208/230 | 9 | 10.3 | 4.7 | K | | |
| | 2 | 1.5 | 208/230 | 1 | KBAC-29 | 9528 | 9529* | 20.5 | 0 – 208/230 | 6.7 | 10.3 | 4.7 | K | | |
| | 3 | 2.25 | | 3 | | | | | | | | | | 11.7 | |
| | 3 | 2.25 | 400/460 | 3 | KBAC-45 | 9530 | 9531* | 7.2 | 0 – 400/460 | 5.5 | 10.3 | 4.7 | K | | |
| | 5 | 3.75 | 400/460 | 3 | KBAC-48 | 9540 | 9541* | 11 | 0 – 400/460 | 8.3 | 10.3 | 4.7 | K | | |
| | 5 | 3.75 | 208/230 | 3 | KBAC-217 | 8868 | 8879* | 22.1 | 0 – 208/230 | 17 | 22 | 10 | L | | |
| | 5 | 3.75 | 208/230 | 3 | KBAC-217S | 8863 | 8855* | 22.1 | 0 – 208/230 | 17 | 22 | 10 | L | | |
| | 5 | 3.75 | 208/230 | 3 | KBAC-217F | 8861 | 8853* | 22.1 | 0 – 208/230 | 17 | 22 | 10 | L | | |
| | 5 | 3.75 | 208/230 | 3 | KBAC-217SF | 8869 | 8880* | 22.1 | 0 – 208/230 | 17 | 22 | 10 | L | | |
| | 10 | 7.5 | 400/460 | 3 | KBAC-416 | 8870 | 8881* | 20.8 | 0 – 400/460 | 16 | 22 | 10 | L | | |
| | 10 | 7.5 | 400/460 | 3 | KBAC-416S | 8864 | 8856* | 20.8 | 0 – 400/460 | 16 | 22 | 10 | L | | |
| | 10 | 7.5 | 400/460 | 3 | KBAC-416F | 8874 | 8883* | 20.8 | 0 – 400/460 | 16 | 22 | 10 | L | | |
| | 10 | 7.5 | 400/460 | 3 | KBAC-416SF | 8871 | 8882* | 20.8 | 0 – 400/460 | 16 | 22 | 10 | L | | |

*FDA approved (white cases only).

Dimensions (W x L x D)

| Ref. Code | Inches | Millimeters |
|-----------|------------------|-----------------|
| A | 3.9 x 4.3 x 2.75 | 99 x 109 x 70 |
| B | 4.7 x 4.3 x 5 | 119 x 109 x 127 |
| C | 3.9 x 4.3 x 2 | 99 x 109 x 51 |
| D | 4.7 x 5.7 x 4.5 | 119 x 145 x 114 |

| Ref. Code | Inches | Millimeters |
|-----------|--------------------|------------------|
| E | 4.7 x 7.5 x 4.45 | 119 x 191 x 113 |
| F | 4.1 x 9.31 x 2.75 | 103 x 236 x 70 |
| G | 4.7 x 8.75 x 4.45 | 119 x 222 x 113 |
| H | 3.92 x 6.06 x 3.65 | 102 x 154 x 92.7 |

| Ref. Code | Inches | Millimeters |
|-----------|--------------------|-----------------|
| I | 4.95 x 7 x 4.15 | 126 x 178 x 105 |
| J | 5.51 x 9.53 x 5.86 | 140 x 242 x 149 |
| K | 7.69 x 9.82 x 7.36 | 195 x 249 x 187 |
| L | 10.3 x 13.83 x 9 | 262 x 351 x 227 |

Represented by:



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