

Baldor 20H - Line Regenerative DC Digital Controls



Features:

- Precision DC Motor Control for Constant Torque, Variable Speed applications
- Three phase, full wave, four quadrant SCR armature control
- Fully controlled 6 pulse
- Current regulated full wave field power supply, 15 amps standard, 40 amps optional
- Peak overload capacity of 250 – 300% (depending on rating)
- Selectable operating modes: Keypad, Standard Run, 15 Speed, Bipolar, Serial, Bipolar Hoist, 7 Speed Hoist
- Automatic tuning to motor with manual override
- Motor shaft orient to encoder marker or external switch closure
- Process Control – built-in PID controller allowing connection of process feedback and setpoint signals for direct control of user processes including pressure, temperature, load etc
- Process following $\pm 5\text{VDC}$, $0-5\text{VDC}$, $\pm 10\text{VDC}$, $0-10\text{VDC}$, $4-20\text{mA}$, digital via keypad or optional RS232/422/485
- Programmable linear or S-curve acceleration to $0-3600$ seconds
- Free run or programmable linear or S-curve deceleration ($0-3600$ seconds)
- 15 preset speeds (7 in Hoist Mode)
- Field economy, field forcing
- Programmable field weakening
- Min/Max speed
- Analogue meter outputs
- Buffered encoder output
- 9 isolated inputs, 2 assignable analogue inputs, 4 assignable logic outputs
- Chassis mounting

Catalog No.	Mult. Sym.	Armature Current Cont. amps	Armature Peak amps	Field Current amps	Input Voltage Range 3ph/50Hz VAC	Chassis Size Code	Aprx. Wt (kg)
BC20H410-CL	D	20	60	15	340 – 460	A	19
BC20H420-CL	D	40	120	15	340 – 460	A	19
BC20H430-CL	D	60	150	15	340 – 460	A	19
BC20H440-CL	D	75	190	15	340 – 460	B	23
BC20H450-CL	D	100	250	15	340 – 460	B	23
BC20H475-CL	D	140	420	15	340 – 460	C*	34
BC20H4100-CL	D	180	480	15	340 – 460	C*	34
BC20H4125-CL	D	210	530	15	340 – 460	C**	34
BC20H4150-CL	D	270	680	15	340 – 460	C**	34
BC20H4200-CL	D	350	875	15	340 – 460	D	114
BC20H4250-CL	D	420	1050	15	340 – 460	D	114
BC20H4300-CL	D	500	1250	15	340 – 460	D	114

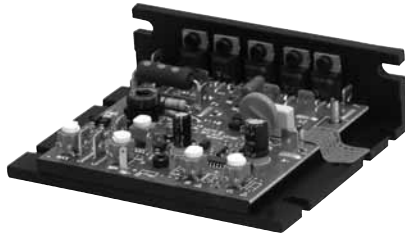
NOTES:

15 amp Field Current standard. Optional Field Current of 40 amps available.

20H Enclosure Dimensions

Cabinet Size Code	Outside			Mounting		Aprx. Wt (kg)
	Height	Width	Depth	Height	Width	
A	523	280	251	457	260	18
B	680	280	283	634	260	32
C*	692	300	270	626	260	38
C**	857	300	270	626	260	44
D	1113	429	316	997	350	124
G Nema 1	2312	813	610	Floor Mount		273

KBIC - Chassis Mount - SCR - 120/240VAC - Upto 1.5kW DC



Applications:

- Applications: Low cost, chassis mount, single direction SCR speed control designed for the OEM

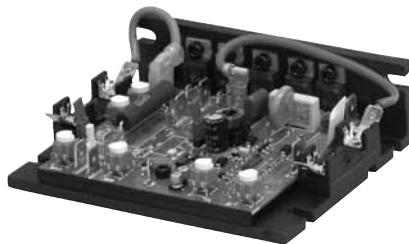
Features:

- Controls PM, Shunt and ac/dc motors over a range of .0075 - 1.5kW
- All models can be used on a wide range of motor ratings by inserting the proper Plug-in Horsepower Resistor™
- Speed range is 50:1 with load regulation of 1%
- Features include Auto Inhibit™
 - Voltage Following
 - MOV transient protection
 - 5K speed pot and trimpot adjustments for MIN, MAX, ACCEL, IR and CL
- Options include
 - Auxiliary Heatsink
 - ac Line and Armature Fuse Kit
 - Barrier Terminal Kit.
- Dimensions: 92 x 109 x 32mm

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor	Notes	
				kW	Amps	kW	Amps			
KBIC-120	D	120	0-100	0.37	6	0.75	12	YES	1	
KBIC-240	D	240	0-200	0.75	6	1.5	12	YES	1	
9884	D	Barrier Terminal Board								1
9443	D	Barrier Terminal Board with Signal Isolator (KBS1-5)								1
9995	D	DIN Rail mount kit								1
9863	D	Barrier Terminal kit								1

KBMM - Chassis Mount SCR

0.56 thru 1.1kW 120 VAC Single phase 50/60Hz.



A low cost chassis mount SCR speed control for single direction operation. Includes increased protection and capabilities, and is recommended for user-built applications

- Full-wave, variable speed, dc Motor Control. Unique, super fast Direct-Fed™ current limit circuit that helps to protect the SCR power bridge against direct shorts at the motor
- Suitable for motors between 0.56kW and 2.2kW, and uses the Plug-in Horsepower Resistor
- Has features such as selectable armature or tacho feedback and adjustment trimpots for min. speed, MAX. speed, IR COMP, CL and linear ACCEL and DECEL
- Also includes Auto Inhibit, which eliminates surging during rapid ac line switching
- Pulse transformer triggering which provides cogless operation at low speed under no load conditions
- Superior noise rejection which eliminates false starts and blown SCR's
- Size 109 x 92 x 32mm

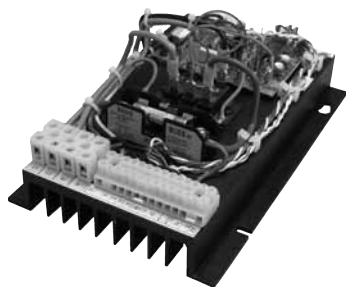
Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor	Notes	
				kW	Amps	kW	Amps			
KBMM-125	D	120	0-100	0.56	8	1.1	16	YES	1	
KBMM-225	D	240	0-200	1.1	8	2.2	16	YES	1	
KBMM-225D	D	120	0-100	0.56	8	1.1	16	YES		
KBMM-225D	D	240	0-200	1.1	8	2.2	16	YES		
9444	D	120/240 Jumper select	Barrier Terminal Board with Signal Isolator (KBS1-6)						-	
9952	D	Run/Brake Module								-
9897	D	Barrier Terminal Board								-
9995	D	DIN Rail mount kit								-
9883	D	Barrier Terminal kit								

NOTES: 1 - indent only.

KBCC-255 - Chassis Mount - SCR

Upto 3.75kW DC

240 VAC Single Phase 50/60Hz



Highest capacity single phase SCR speed control, single direction operation

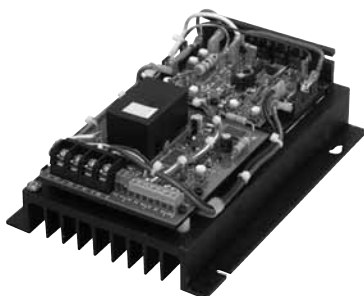
- Designed to control 3.75kW dc Shunt and PM motors
- Rugged aluminium chassis and uses the KBMM™ modular control, which contains Direct-Fed™ CL circuitry, for excellent performance and reliability
- 42 amp power bridge, armature and control fusing, which enhances reliability
- An exclusive feature, found only in KB drives, is Auto Inhibit™, which provides a smooth, safe start during rapid switching of the ac line
- Standard features include: armature or tach feedback and trimpots for MIN, MAX, IR COMP, CL and Linear ACCEL and DECEL
- A 5K speed potentiometer is included
- Patent pending
- Dimensions: 254 x 160 x 101mm

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor	Notes
				kW	Amps	kW	Amps		
KBCC-255	D	240	0-200	3.75	26	-	-	NO	1
9447	D	SI-3 Signal Isolator							

KBCC-R - Chassis Mount - SCR

Upto 2.2kW DC

120/240VAC



Reversing SCR speed control with Dynamic Brake resistors, chassis mount, large heat sink for forward-brake-reverse applications

- Chassis mount control designed for anti-plug "instant" reversing, solid state dynamic braking and rapid cycling
- Combines all of the features of the KBCC control with the features of the KB APRM™
- The APRM™ eliminates contact arcing by allowing armature switching to take place only when current levels are near zero
- Specific functions that can be performed by the KBCC-R are Run-Brake, Forward-Brake-Reverse, Run-Stop and Forward-Brake-Reverse. Run-Stop and Forward Reverse (instant reverse)
- Dimensions: 229 x 159 x 114mm

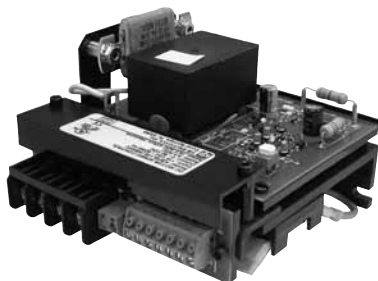
Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor	Notes
				kW	Amps	kW	Amps		
KBCC-125R	D	120	0-100	1.1	16	-	-	YES	
KBCC-225R	D	240	0-200	2.2	16	-	-	YES	1
9447		SI-3 Signal Isolator							

NOTE 1 - indent only.

KBPB - Chassis Mount - SCR

120/240VAC

Upto 2.2kW DC



Reversing SCR speed control, with Dynamic Brake resistor and small heat sink, for "cycling" applications

- A compact version of the KBCC-R control
- The APRM™ is mounted directly to the rear of the KBIC™ speed control
- A built-in barrier terminal block and its small size make the control ideal for installation where space is at a premium
- The KBPB™ is equipped with a built-in 10 ohm, 50W dynamic brake resistor, ACCEL/DECEL trimpots and an ac line fuse
- This control provides functions identical to that of the KBCC™
- A 5K ohm remote potentiometer is included
- Dimensions: 108 x 111 x 125mm

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor	Notes
				kW	Amps	kW	Amps		
KBPB-125	D	120	0-100	0.56	8	1.1	16	YES	1
KBPB-225	D	240	0-200	1.1	8	2.2	16	YES	
9995	D	DIN Rail Mount (converts to DIN rail mounting)						-	
9447		SI-3 Signal Isolator							

KBMG - Chassis Mount - SCR

120/240VAC

Upto 1.5kW DC



Compact line-regenerative, reversing SCR speed control. Ideal for forward-brake-reverse applications requiring compact size

- Ultracompact, full-wave regenerative drive for dc PM or Shunt motors 4-quadrant operation
- Maintains constant speed with overhauling loads and provides rapid reversing and controlled braking
- Can replace servos in many applications
- Features jumper selection for – Speed or Torque control; VAC input; VDC output; tach-gen feedback; amps dc output; analog input VDC; "regenerate to stop" or "coast to stop"
- Trimpots for – Dead band; Response; IR; CL fwd and rev; Speed MAX; FWD ACCEL and REV ACCEL
- LED's – Power On; Overload. Enable function for remote contactor start and stop
- Auto Inhibit® provides safe, smooth starting even during rapid cycling of the AC line
- A 5K remote potentiometer supplied
- Dimensions: 92 x 109 x 45mm

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor
				kW	Amps	kW	Amps	
KBMG-21D	D	120	0 - ±90	0.05	1	-	-	NO
KBMG-21D	D	240	0 - ±180	0.1	1	-	-	NO
KBMG-212D	D	120	0 - ±90	0.5	8	0.75	11	NO
KBMG-212D	D	240	0 - ±180	1	8	1.5	11	NO
8832	D	SIMG Bipolar Signal Isolator (for non-isolated signal source)						-
8833	D	Multi-speed boards						-
9995	D	DIN Rail Mount (converts to DIN rail mounting)						-

NOTES: 1 - indent only.

DC Motors

DC Controls

AC Motors

AC Controls

Spare Parts

Info.

KBRG - Chassis Mount - SCR

120/240VAC



Line-regenerative, reversing, SCR speed control with large heat sink for forward-brake-reverse applications

- Full-wave Regenerative Control
- Capable of operating a dc motor (PM or Shunt) in a bi-directional mode.
- It provides 4-quadrant operation which allows forward and reverse torque in both speed directions

Standard features include:

- Built-in heatsink and motor kilowatt selection, armature and tach feedback (212D volt following)
- Trimpots for FWD CL, REV CL, IR COMP, Response, MAX SPD, Offset, Deadband, FWD ACCEL, REV ACCEL and Timed Current Limit
- LED indicators for: Power On, Current Limit, Fwd Enable and Rev Enable.
- 5K speed pot included

Dimensions:

- 225D/240D = 196 x 254 x 85mm
- 212D = 213 x 121 x 43.2

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor	Notes
				kW	Amps	kW	Amps		
KBRG-212D	D	120/240	0 - ±90	0.5	7.5	-	-	NO	1
KBRG-212D	D	240	0 - ±180	1	7.5	-	-	NO	1
KBRG-225D	D	120	0-100	1.1	16	-	-	NO	
KBRG-225D	D	240	0-200	2.2	16	-	-	NO	
KBRG-240D	D	120	0-100	0.75	11	-	-	NO	1
KBRG-240D	D	240	0-200	1.5	11	-	-	NO	1
KBRG-255	D	240	0-200	3.7	26	-	-	NO	
KBSI-4X	D	Isolator						-	
SC8820	D	Mounting Bracket for KBSI-4X for use with KBRG-212D						-	1
8803	D	4 Quadrant						-	
8804	D	PID Control						-	

KBWD-15 - Chassis Mount - PWM

120VAC

Upto 0.56kW DC



PWM dc motor speed control, single direction, for low noise and increased motor performance

- Significantly lowers audible motor noise and provide longer brush life
- Less motor heating allows a smaller, less costly motor to be used for most applications
- Another advantage of PWM is higher output voltage which provides increased output speed
- Includes armature and tachometer feedback
- I x t overload protection
- Diagnostic LED's for "Power On" and "Overload (CL)" indication
- RFI filtering and barrier terminals standard

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor	Notes
				kW	Amps	kW	Amps		
KBWD-15	D	120	0-130	0.56	5	-	-	YES	1

NOTE 1 - indent only

KBWT - Chassis Mount - PWM



240VAC

Upto 1.5kW DC

PWM dc motor speed control, single direction with circuitry to prevent runaway in case of short circuit, ideal for the Tread Mill applications

- Designed for high current applications
- Form factor <1.05
- Active bridge circuitry limits inrush current during ac line startup and prevents control runaway in the event of shorted output transistors
- Includes (l x t) overload protection and instantaneous short circuit protection

Dimensions:

- KBWT-26 = 127 x 178 x 50.8mm
- KBWT-210 = 172 x 178 x 50.8mm

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor	Notes
				kW	Amps	kW	Amps		
KBWT-26	D	240	0-260	1.1	6	-	-	NO	1
KBWT-210	D	240	0-260	1.5	8.5	-	-	NO	

KBWS-25D - Chassis Mount - PWM



120/208/230VAC

Upto 1.0kW DC

PWM dc motor speed control, single direction, compact for lower power applications and high performance

- Designed for PWM and SCR rated Permanent Magnet motors
- Switching frequency greater than 16kHz for high motor efficiency and quiet operation
- High maximum output voltage for increased motor speed
- Auto input voltage sensing
- Accepts Plug-in Resistor for auto IR compensation and current limit
- LEDs for power on and current limit
- Protection includes motor short circuit, undervoltage, MOV input transient, ac-line inrush current limit
- Trim pots for MAX. and MIN. SPEED, ACCEL and DECEL, Current Limit, IR COMP
- Dimensions: 110 x 92 x 81mm

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor
				kW	Amps	kW	Amps	
SCR Motor	D	120	0-90	0.37	5	-	-	-
		208/230	0-180	0.75	5	-	-	-
		208/230	0-90	0.37	5	-	-	-
KBWS-25D							YES	
PWM Motor		120	0-90	0.5	5	-	-	-
		208/230	0-180	1	5	-	-	-
		208/230	0-90	0.5	5	-	-	-

NOTES: 1 - indent only.

DC Motors

DC Controls

AC Motors

AC Controls

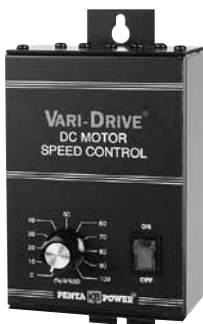
Spare Parts

Info.

KBWM-240 - NEMA 1 Enclosure - SCR

240VAC

Upto 0.56kW DC



- Low cost "Packaged" SCR speed control, single direction
- Specifically designed for SCR rated permanent magnet dc motors up to 0.56kw
 - Suitable for 240VAC single phase input
 - Utilises the KBMM™ speed control for its electronics, preventing motor demagnetisation
 - Rugged all-metal NEMA 1 enclosure
 - Built-in speed control potentiometer/dial and ON/OFF ac line switch with indicator lamp
 - Includes ac line fuse and has facilities to accept armature fuse
 - Accepts KB Plug-in Horsepower Resistor™ for motor size selection, eliminating the need to calibrate IR compensation and CL

Dimensions: 59 x 94 x 134mm

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor
				kW	Amps	kW	Amps	
KBWM-240	D	240	0-90 or 180	0.5	7.5	-	-	YES

KBMD-240D - NEMA 1 Enclosure - SCR

120/240VAC

Upto 1.5kW DC



- Low cost "Packaged" SCR speed control with options to reverse
- Also called Multi-Drive™ it utilises the KBMM™ speed control for its electronics
 - The Multi-Drive™ is rugged and compact in size.
 - Handles both 120 and 240V ac line inputs by setting the built-in Dual Voltage Switch
 - Single model can be used on a wide range of motor ratings by inserting the appropriate Plug-in Horsepower Resistor™
 - Auxiliary Heatsink (optional) doubles the rating of the basic unit
 - An optional Forward-Brake-Reverse Switch Kit is also available
 - Requires Armature and Line Fuses

Dimensions: 129 x 136 x 181mm

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor	Notes
				kW	Amps	kW	Amps		
KBMD-240D	D	120	0-100	0.56	8	0.76	11	YES	1
KBMD-240D	D	240	0-200	1.1	8	1.5	11	YES	1
KBMD-240DFBR	D	120	0-100	0.56	8	0.76	11	YES	
KBMD-240DFBR	D	240	0-200	1.1	8	1.5	11	YES	
9860	D	Forward/brake/reverse switch						-	
9861	D	Auxiliary Heat Sink						-	

NOTE 1 - indent only.

KBPC - NEMA 4 Enclosure - SCR

120/240VAC

Upto 2.2kW DC



IP65/NEMA 4 "Packaged" SCR speed control with options to reverse, ideal for applications in dusty and wet areas

- Rugged die-cast enclosure
- Acrylic coating and shaft seals for wash-down and wet area applications
- Includes short circuit and transient protection, electronic overload protection, armature fusing, LED indicators for Power On, Stop and Current Limit
- Trimpot adjustments for, MIN/MAX SPEEDS, ACCEL/DECEL, Current Limit, IR COMP and Timed Current Limit

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor	Notes
				kW	Amps	kW	Amps		
KBPC-240D	D	120	0-100	0.75	10.2	-	-	NO	1
KBPC-240D	D	240	0-200	1.5	10.2	-	-	NO	1
KBPC-225	D	240	0-200	2.2	15	-	-	NO	
9339	D	Forward/Brake/Reverse Switch (for KBPC-240D only)						-	1
9340	D	Run/Stop/Jog Switch						-	
9341	D	On/Off ac Line Switch (for KBPC-240D only)						-	1
9377	D	Auto/Manual Switch Kit						-	
9378A	D	Electronic Fwd/Brake/Rev Module (for KBPC-240D only)						-	1
9510	D	Spare pot kit for KBPC						-	

KBRC-240D - NEMA 4 - SCR KBRC-240D - NEMA 4 -

115/208/230VAC

Upto 1.5kW DC



IP65/NEMA 4 "Packaged" Line Regenerative, SCR speed control, for reversing applications in wash-down or dusty conditions

- For speed or torque control of PM or Shunt wound motors in both directions
- Maintains constant speed with overhauling loads and provides instant reversing and controlled braking
- Can replace servo drives in many applications
- Includes diagnostic LEDs (for Power On, Stop and Overload)
- External Start/Stop Switch and a Main Speed Potentiometer
- Barrier Terminal Blocks
- Adjustable trimpots
- Selectable jumpers
- LEDs for easy setup

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor	
				kW	Amps	kW	Amps		
KBRC-240D	D	115	0±90	0.75	11	-	-	NO	
KBRC-240D	D	208/230	0±180	1.5	11	-	-	NO	
KBRC-240D	D	208/230	0±90	0.75	11	-	-	NO	
9485	D	Forward/Stop/Reverse Switch and regenerative braking						-	
9486	D	Power On/Off Switch: Disconnects ac line						-	
9487	D	Auto/Manual Switch						-	
8842	D	Signal Isolator (SIRC)						-	

NOTES: 1 - indent only.

KBPW-240D - NEMA 4 - PWM

115/208/230VAC

Upto 1.5kW DC



IP65/NEMA 4 "Packaged" PWM speed control, single direction with options to reverse, ideal for quiet motor operation and increased motor performance in wash-down or dusty applications

- Speed control for Permanent Magnet and Shunt Wound motors to 7.5amps
- Switching frequency greater than 16kHz for high motor efficiency and quiet operation
- High maximum output voltage for increased motor speed
- Auto input voltage sensing

- Start/Stop switch and front LEDs for Power/Stop/Overload
- Protection includes motor and power transistor short circuit, ac-line inrush current limit
- Trimpots for MAX. and MIN. SPEED, ACCEL and DECEL, Timed Current Limit, IR COMP, JOG
- Jumper selectable Tacho feedback voltage, motor voltage, current range, timed and non-timed current limits, NC/NO run relay contacts
- Field Voltage = 100VDC for 115VAC input
- Field Voltage = 200VDC for 230VAC input

DC Motors

DC Controls

AC Motors

AC Controls

Spare Parts

Info.

Catalog No.	Mult. Sym.	Input Voltage 50/60Hz VAC	Output Voltage VDC	Maximum Ratings Without Auxiliary Heatsink		Maximum Ratings With Auxiliary Heatsink		Requires Plug-in Resistor
				kW	Amps	kW	Amps	
SCR Motor	D	115	0-130	0.5	7.5	-	-	NO
PWM Motor		115	0-120	0.75	7.5	-	-	
KBPW-240D								
SCR Motor		230	0-220	1	7.5	-	-	
PWM Motor		230	0-220	1.5	7.5	-	-	
9339	D	Forward/Brake/Reverse Switch (for KBPC-240D only)						-
9340	D	Run/Stop/Jog Switch						-
9341	D	On/Off ac Line Switch (for KBPC-240D only)						-
9377	D	Auto/Manual Switch Kit						-
9378A	D	Electronic Fwd/Brake/Rev Module (for KBPC-240D only)						-
KBSI-240D	D	Signal isolator						-

DC CONTROLS - OPTIONS

	Catalog No.	Mult. Sym.	KBMM	KBIC	KBCC	KBPB	KBMD	KBPC	KBRG KBMG	KBWD	Notes
KBSI Signal Isolator	KBSI-240D	D	✓	✓	✓	✓	✓	✓		✓	
KBET-240D Frequency to Analogue Tachometer and Follower	KBET-240D	D	✓		✓			✓	✓	✓	
KBAP-240 D Current Sensing Relay/Overload	KBAP-240D	D	✓	✓	✓	✓					
KBEP-240D Electronic Potentiometer	KBEP-240D	D	✓	✓	✓	✓		✓	✓	✓	
Auxiliary Sink	9861	D	✓	✓		✓	✓				
	9884	D		✓							
	9897	D	✓								
	9443	D		✓							1
KBIC & KBMM Barrier Terminal Boards	9444	D	✓								
	9863	D		✓							
	9883	D	✓								
Barrier Terminal Accessory Kit	9831	D	✓	✓	✓	✓			✓	✓	
	9111	D	✓	✓	✓	✓			✓	✓	
Potentiometer Kit	9832	D	✓	✓	✓	✓			✓	✓	
Knob/ Dial kit	9832	D	✓	✓	✓	✓			✓	✓	
Forward-Brake-Reverse Kit	9860	D					✓				
SI-3 Signal Isolator	9447	D			✓	✓					
Armature Choke (18amps)	9993	D	✓	✓	✓	✓	✓	✓	✓	✓	
KBRF-200A EMC/EMI Filter	9945C	D	For use with 'CE' rated ac or dc controls								
KBRF-300 EMC/EMI Filter	9484	D	For use with ac Variable Frequency Controls								
KBRF-250 EMC/EMI Filter	KBRF-250	D	Class A Industrial								

NOTES: 1 - indent only

Plug-in Horse Power Resistor

Required on all Speed controllers except KBCC-255, KBRG, KBMG & KBPC



Catalog No.	Mult. Sym.	Armature 90-130VDC Motor kW	Armature 180VDC Motor kW	Resistor Value OMHS
9833	D	0.0075 - 0.015	0.015 - 0.03	1
9834	D	0.015 - 0.025	0.03 - 0.05	0.51
9835	D	0.025 - 0.037	0.05 - 0.075	0.35
9836	D	0.037 - 0.063	0.075 - 0.13	0.25
9837	D	0.063 - 0.094	0.13 - 0.19	0.18
9838	D	0.094 - 0.15	0.19 - 0.25	0.1
9839	D	0.19	0.37	0.05
9840	D	0.25	0.56	0.035
9841	D	0.37	0.75	0.025
9842	D	0.56	1.1	0.015
9843	D	0.75	1.5	0.01
9850	D	1.1	2.2	0.006

Fuse

A fuse is required on all KB Speed Controllers except KBCC-255



Catalog No.	Mult. Sym.	Armature 90 VDC Motor kW	Armature 180VDC Motor kW	Approximate Motor DC Amps	Fuse Ratings AC Amps
9736	D	0.025	0.05	0.33	0.5
9737	D	0.037	0.075	0.5	0.75
9738	D	0.05	0.094	0.65	1
9739	D	0.063	0.125	0.85	1.25
9740	D	0.094	0.19	1.3	2
9741	D	0.125	0.25	1.7	2.5
9742	D	0.19	0.37	2.5	4
9743	D	0.25	0.56	3.3	5
9744	D	0.37	0.75	5	8
9745	D	0.56	1.1	7.5	12
9746	D	0.75	1.5	10	15
9747	D	1.1	2.2	15	25
9870	D	700 Piece Master Fuse Kit			