

A large, dark-colored industrial motor, likely a Baldor AC or DC motor, is shown in a three-quarter view. It has a cylindrical body with a flange on the left and a terminal box on the right. The motor is set against a dark, gradient background.

**BALDOR
AC & DC
Motors & Drives**

AC & DC Motors & Drives



BALDOR
MOTORS AND DRIVES

PENTA KB POWER

DC Motors & Controls	Page 3
Subfractional Motors / Gearmotors	Page 4
DC Variable Speed Motors	Page 5
Low Voltage DC Motors	Page 8
DC Gearmotors	Page 9
Variable Speed DC Controls	Page 11
Speed Control Related Products	Page 13
AC Inverter Drives	Page 15

DC MOTORS & CONTROLS



Permanent Magnet DC Motors (PMDC)

- TENV and TEFC
- 1/4 to 5 Hp
- 90 or 180 volt DC

Washdown PMDC

- TENV and TEFC
- 1/2 to 5 Hp
- Epoxy coated or paint-free versions
- Stainless-steel shaft and hardware



PMDC with Integral Tachometer

- TENV and TEFC
- 1/2 to 5 Hp
- Integral 50 VDC per 1000 RPM tach feedback



Subfractional PMDC

- 1/50 Hp thru 1/4 Hp
- Foot and Face Mount
- 90 and 180 Volt DC



DC/SCR Controls

- 1/50 Hp thru 5 Hp
- 90 or 180 VDC
- NEMA K or Regenerative
- Open-Chassis, NEMA 1 or 4X



Power Motors

- For Pure DC Power
- 1/3 to 500 Hp
- IEEE 45 Weatherproof

SUBFRACTIONAL MOTORS / GEARMOTORS



Right Angle

- AC and DC Ratings
- 1/50 to 1/4 Hp
- Up to 175 Lb. In.
- Single Reduction

Parallel Shaft

- AC and DC Ratings
- Up to 484 Lb. In.
- Face Mount
- 1/50 to 1/2 Hp



Double Reduction

- AC and DC Ratings
- Up to 1200:1 Reduction
- Up to 175 Lb. In.



Flange Mount

- Convenient, Compact Mounting
- AC and DC Ratings
- Up to 1/4 Hp



Permanent Magnet DC Motors

- TENV
- 1/50 to 1/4 Hp



Subfractional AC Motors

- Single or three phase
- 1/12 to 1/4 Hp TENV
- C-face with removable base



DC VARIABLE SPEED MOTORS

Thyristor Drive dc Motors

- IEC Frame
- Metric Flange, B5 or *B14
- Permanent Magnet
- TEFC or TENV ➤ IP54
- Continuous Duty
- Class F Insulation
- 20:1 Speed Range with Constant Torque
- Integral Tachometer fitted to motors with 'VPT' prefix



Type VP3xxx



Motor kW	Base rpm	IEC Frame	Arm Vdc	Arm FLAmps	Approx kgs	Catalogue Number	Type Number
0.15	1750	D56-B14	180	1.1	3	*VP1356-14*	135
0.15	1750	D63-B14	180	1.1	4.7	*VP7424-14*	135
0.15	1750	D63D	180	1.1	4.9	VP7424D*	135
0.18	3000	D63D	180	1.2	5.0	VP7428D*	135
0.18	1750	D63D	180	1.25	11.4	VP3312D*	3320P
NEW 0.18	1750	D63-B14	180	1.25	11	*VP3312-14*	3320P
0.18	1750	D71D	180	1.25	11.0	VP3311D*	3320P
0.25	3000	D71D	180	1.7	13.0	VP3318D*	3320P
0.25	1750	D71D	180	1.6	13.0	VP3316D*	3327P
0.37	3000	D63D	180	2.5	12.0	VP3327D^	3327P
0.37	3000	D71D	180	2.5	14.0	VP3328D*	3327P
NEW 0.37	3000	D71-B14	180	2.5	14.0	*VP3428-14①	3416P
0.37	1750	D71D	180	2.5	14.0	VP3326D*	3336P
NEW 0.37	1750	D71-B14	180	2.5	14	*VP3326-14*②	3336P
0.37	1750	D71D	180	2.5	18.0	VPT3326D*	3336P
0.56	3000	D71D	180	3.5	17.0	VP3437D	3420P
0.56	1750	D80-B14	180	3.7	19.0	*VP3436-14	3428P
0.56	1750	D80D	180	3.7	19.1	VP3436D	3428P
0.56	3000	D80D	180	3.6	18.0	VP3439D	3420P
NEW 0.56	3000	D80-B14	180	3.6	18.0	*VP3439-14②	3420P
0.56	1750	D71D	180	3.7	19.0	VP3438D	3428P
0.75	3000	D80D	180	5.1	19.0	VP3458D	3428P
NEW 0.75	3000	D80-B14	180	5.1	19.0	*VP3458-14②	3428P
0.75	1750	D80-B14	180	5.0	20	*VP3455-14②	3435P
0.75	1750	D80D	180	5.0	21.2	VP3455D	3435P
0.75	1750	D80D	180	5.0	25.4	VPT3455D	3435P
1.1	3000	D90D	180	7.7	21.2	VP3468D	3432P
NEW 1.1	3000	D80-B14	180	7.7	21.2	*VP3468-14②	3432P
1.1	1750	D90-B14	180	7.7	33.2	*VP3575-14②	3536P
1.1	1750	D90D	180	7.7	31.5	VP3575D	3536P
1.5	3000	D90D	180	10.0	31.5	VP3588D	3536P
NEW 1.5	3000	D90-B14	180	10	31.5	*VP3588-14②	3536P
1.5	1750	D90D	180	9.6	35.0	VP3585D	3548P
NEW 1.5	1750	D90-B14	180	9.6	35.0	*VP3585-14②	3548P
1.5	1750	D90D	180	9.6	37.0	VPT3585D	3548P
2.2	1750	D112D	180	14.0	58.0	VP3603D	3649P
2.2	1750	D112SD	180	14.0	59.0	VPT3603D	3649P
3.7	1750	D112D	180	24.5	75	VP3605D	3681P

Prefix 'V' = IEC metric flange and non standard foot mount. Prefix '-T' = Tachometer fitted 50 Vdc/kRPM. * Indicates TENV.

*Frame/B14 motors have feet and IEC 'B14 - C' face. Type 3000 and larger will accept Tach mounting kits.

^ = Does not accept Tachometer mounting kits. ① Shaft centre height = 76mm. ② Shaft centre height = 89mm.

Thyristor Drive dc Motors

- IEC Frame, B5 Metric Flange
- Shunt Wound ➤ Class F Insulation
- Continuous Duty ➤ IP54 ➤ TEFC
- 20:1 Speed Range with Constant Torque



Motor kW	Base rpm	IEC Frame	Arm Vdc	Field Vdc	Arm FLAmps	Field FLAmps	Approx kgs	Catalogue Number	Type Number
.37	1750	D71D	180	200/100	2.6	0.25	13.2	VD3451D	3420D
.75	1750	D80D	180	200/100	5.0	0.30	29.0	VD5318D	3535D
1.5	1750	D112D	180	200/100	11.0	0.50	51.0	VD6202D	3646D
2.2	1750	D132D	180	200/100	14.5	0.40	75.0	VD7503D	7544D

Type 3646D motors and larger have a thermostat (normally closed) in the winding. Other Voltages available on request. Prefix "V" = IEC metric flange and foot mount. Type 3400 and larger will accept Tech mounting kits.



Type 3420D

Wash-Down Duty dc Motors

- IEC Frame, B5 Metric Flange
- Permanent Magnet
- Variable Speed
- USDA Approved
- Stainless Steel Shaft and Hardware
- Suitable for constant high pressure wash-down
- High performance JM Clipper seal
- Epoxy paint inside and out



dc Motor kW	Base rpm	IEC Frame	Armature Vdc	Armature FL Amps	Approx. kg	Catalogue Number	Type Number
.18	1750	D63D	180	1.25	12.0	VPWD3312D*	3320P
.37	1750	D71D	180	2.5	16.1	VPWD3326D*	3336P
.75	3000	D80D	180	5.1	18.6	VPWD3458D	3428P
.75	1750	D80D	180	5.0	22.0	VPWD3455D	3435P
1.5	1750	D90D	180	9.6	35.5	VPWD3585D	3548P

* Indicates TENV.



Type 3320P

Thyristor Drive dc Motors

- NEMA Frame with NEMA C Face & Foot Mount
- Permanent Magnet
- Continuous Duty
- TEFC or TENV
- IP54
- 20:1 Speed Range with Constant Torque
- Integral Tachometer fitted to motors with 'CDPT' prefix



Type 3336P



See Page 37



Page 14 to 18



Page 50

Motor kW	Base rpm	NEMA Frame	Arm Vdc	Arm FLAmps	Approx kgs	Catalogue Number	Type Number
.05	1725	—	180	0.39	2.3	AP233021*	2318P-0
.09	1725	—	180	0.65	4.7	AP7421*	2424P
.18	3450	—	180	1.3	5.0	AP7422*	2424P
.18	1750	56C	90	2.5	10.9	CDP3310*	3320P
.18	1750	56C	180	1.25	11.0	CDP3306*	3320P
.25	1750	56C	90	3.2	12.2	CDP3320*	3327P
.25	1750	56C	180	1.6	12.2	CDP3316*	3327P
.37	1750	56C	90	4.8	14.6	CDP3330*	3336P
.37	1750	56C	180	2.5	14.1	CDP3326*	3336P
.56	1750	56C	90	7.0	17.7	CDP3440	3428P
.56	1750	56C	180	3.7	17.4	CDP3436	3428P
.75	1750	56C	90	10.0	20.0	CDP3445	3435P
.75	1750	56C	180	5.0	20.0	CDP3455	3435P
.75	1750	56C	180	5.0	22.8	CDPT3455	3435P
1.1	1750	145TC	180	7.7	30.5	CDP3575	3536P
1.5	1750	145TC	180	9.6	33.7	CDP3585	3548P
2.2	1750	184TC	180	14.0	51	CDP3603	3649P
3.7	1750	184TC	180	24.5	74.1	CDP3605	3688P

Prefix "A" = Feet only, "CD" motors have NEMA "C" face and removable rigid base. Type 3000 and larger will accept Tach mounting kits. "..." = Tachometer fitted 50 Vdc/kRPM. * Indicates TENV motor.

Thyristor Drive dc Motors

- NEMA Frame ➤ TEFC ➤ IP54
- Shunt Wound
- Continuous Duty
- Class F Insulation
- 20:1 Speed Range with Constant Torque

Type 3420D



See Page 37



Page 14 to 18



Page 50

Motor kW	Base rpm	NEMA Frame	Arm Vdc	Field Vdc	Arm FLAmps	Field FLAmps	Approx kgs	Catalogue Number	Type Number
.18	1750	56C	180	200/100	1.3	0.25	10.4	CD3426	3413D
.25	1750	56C	180	200/100	1.9	0.21	10.9	CD3434	3413D
.37	1750	56C	180	200/100	2.6	0.25	13.2	CD3451	3420D
.56	1750	56C	180	200/100	3.9	0.30	15.5	CD3476	3428D
.75	1750	56C	180	200/100	5.0	0.30	24	CD5318	3535D
1.1	1750	184C	180	200/100	7.8	0.40	38.2	CD6215	3636D
1.5	1750	184C	180	200/100	11.0	0.50	44.6	CD6202	3646D
2.2	1750	215C	180	200/100	14.5	0.40	82	CD7503	7544D
3.7	1750	256UC	180	200/100	23.0	1.00	138.2	CD9105	9154D
3.7	1750	254UC	330	360	13.3	0.60	100	CD9104	9143D
5.5	1750	256U	330	360	20.0	0.60	141	D9176	9154D

Type 3636D motors and larger have a thermostat (normally closed) in the winding. Type 3400 and larger will accept Tach mounting kits. Prefix "D" = Foot mount only, "CD" motors have NEMA "C" face and removable rigid base. 4 — To be discontinued when existing stock is depleted. Price available for existing stock only.

LOW VOLTAGE DC MOTORS

Battery Powered Low Voltage dc Motors

- 20% Compound Wound ➤ 24 Vdc
- Rigid Base or Flange Mount
- TEFC
- Designed for fixed speed/fixed direction applications, eg. compressors, fans or pumps etc



Motor kW	Base rpm	Frame	Full Load Amps	Volts dc	Approx kgs	Catalogue Number	Type Number
0.37	2000	56	25.0	24	20	D3516	3516D
0.56	2000	D80-B5	32.0	24	26	VD3524D	3524D
0.75	2000	56	42.0	24	25.4	D3528	3528D
0.75	2000	D80-B5/D90-B3	42.0	24	26	VD3528D	3528D



Type 3528D

Battery Powered Low Voltage dc Motors

- 36 Vdc ➤ Series Wound
- NEMA 66CZ
- Designed for Personnel Carriers and Electric Golf Cars etc
- One hour duty cycle



Motor kW	Base rpm	Frame	Full Load Amps	Volts dc	Approx kgs	Catalogue Number	Type Number
1.5	2800	—	53	36	27.6	S4527	4527D
NEW 1.5	2800	—	53	36	27.6	S4527-14	4527D
2.6	3400	—	92	36	31.3	S4534	4534D
NEW 2.6	3400	—	92	36	31.3	S4534-14	4534D



Type 4527D

Solar Powered dc Motors

- 29 Vdc & 58 Vdc ➤ PM
- Rigid Base ➤ TEFC ➤ IP54
- Designed to be directly powered from solar cells



Motor kW	Base rpm	Frame	Full Load Amps	Volts dc	Approx kgs	Catalogue Number	Type Number
0.18	1750	56	8.6	29	12.3	SP410	3410P
0.25	1750	56	11	29	12.5	SP413	3413P
0.37	1750	56	7.7	58	16.0	SP420	3420P



TYPE 3410P

DC GEARMOTORS

Parallel Shaft dc Gearmotors

- Permanent Magnet Motor
- Continuous Duty
- TENV
- Hardened Steel Helical Gears
- Diecast Alloy Housing & Flange Mount Face
- Suit Horizontal or Vertical Mounting
- Reversible
- Synthetic Oil Filled Gearbox (MOBIL SHC634)



Type GPP233121



Type 2424P-PSL-0



Type GPP3374

Motor kW	Base rpm	Max Cont Tq Nm	Ratio :1	Arm Vdc.	Arm FLAmps	Approx kgs	Catalogue Number	Type Number
0.009	5.7	10.6	300	180	0.13	3.6	GPP233124	2314P-PSSH-O
0.015	5.7	20.6	300	180	0.17	3.6	GPP233142	2314P-PSM-O
0.015	9.5	10.6	180	180	0.16	3.6	GPP233125	2314P-PSSH-O
0.03	9.5	24.5	180	180	0.3	3.6	GPP233143	2314P-PSM-O
0.03	19	13.3	90	180	0.29	3.6	GPP233120	2314P-PSSH-O
0.03	57.5	5.65	30	180	0.34	3.6	GPP233121	2318P-PSSH-O
0.05	42	8.62	40	180	0.43	3.6	GPP233126	2318P-PSSH-O
0.062	19	25.6	90	180	0.44	6.8	GPP12568	125-PSM-O
0.062	43	12.5	40	180	0.5	5.0	GPP12525	2420P-PSSH-O
0.062	250	2.2	10	180	0.5	5.0	GPP12521	2416P-PSSH-O
0.09	8.3	37.0	300	180	0.38	7.7	GPP7479	2416P-PSL-O
0.09	42	19.7	60	180	0.65	5.0	GPP12567	2416P-PSM-O
0.09	83	9.8	30	180	0.65	5.0	GPP12564	2416P-PSM-O
0.09	114	6.48	15	180	0.65	5.0	GPP12527	2420P-PSSH-O
0.09	175	4.4	10	180	0.65	5.0	GPP12528	2420P-PSSH-O
0.09	250	3.28	10	180	0.65	5.0	GPP12561	2416P-PSM-O
0.09	500	1.69	5	180	0.65	5.0	GPP12560	2416P-PSM-O
0.18	14	38.4	180	180	0.5	7.7	GPP7478	2424P-PSL-O
0.18	21	35.6	120	180	0.62	7.7	GPP7477	2424P-PSL-O
0.18	42	31.6	60	180	1.1	7.7	GPP7476	2424P-PSL-O
0.18	62	24.9	40	180	1.2	7.7	GPP7475	2424P-PSL-O
0.18	83	17.5	30	180	1.1	7.7	GPP7474	2424P-PSL-O
0.18	125	11.3	20	180	1.2	7.7	GPP7473	2424P-PSL-O
0.18	165	7.9	15	180	1.2	7.7	GPP7472	2424P-PSL-O
0.18	250	5.08	10	180	1.1	7.7	GPP7471	2424P-PSL-O
0.18	500	2.82	5	180	1.2	7.7	GPP7470	2424P-PSL-O
0.25	58	36.0	30	180	1.5	16.0	GPP3370	327-PSLH-O
0.25	115	18.5	15	180	1.5	16.0	GPP3374	327-PSLH-O
0.25	345	6.2	5	180	1.6	16.0	GPP3378	327-PSLH-O
0.37	83	38.1	30	180	2.5	16	GPP3380	327-PSLH-O
0.37	167	19.3	15	180	2.5	16	GPP3384	327-PSLH-O
0.37	500	6.4	5	180	2.5	16	GPP3388	327-PSLH-O
*B" Steel Foot Mount. Bolts to bottom of PSM gearbox								B92
*L" Type Mounting Bracket to mount type PSSH								0.45 LB73
*L" Type Mounting Bracket to mount type PSL & PSLH								0.45 LB74
L brackets securely mount to gear face in 90° locations for floor, wall or ceiling mount.								

Right Angle Drive dc Gearmotors

- Permanent Magnet Motor
- Continuous Duty
- TENV ➤ IP54
- Hardened Steel Worm
- Precision Hobbed Bronze Gear
- Internal Expansion Bladder on Type BA, CB and JK gearboxes to accommodate pressure build-up
- Suitable for Horizontal or Vertical Mounting
- Reversible
- Baked Enamel Finish
- Synthetic Oil Filled Gearbox (MOBIL SHC634)



NEW

Motor kW	Base rpm	Max Cont Trq Nm	Ratio :1	Arm Vdc	Arm FLAmps	Approx kgs	Catalogue Number	Type Number
0.015	1.9	8.5	1100	180	0.11	3.2	GP233020	2314P-DA-0
0.015	4.1	8.5	660	180	0.2	3.2	GP233029	2314P-DA-0
0.015	8.5	7.4	310.5	180	0.26	3.2	GP233028	2314P-DA-0
0.03	19	7.2	130	180	0.31	3.2	GP233027	2314P-DA-0
0.038	60	3.7	30	180	0.42	3.2	GP233023	2318P-BA-0
0.05	40	6.4	45	180	0.42	3.6	GP233026	2318P-CB-0
0.05	53	5.4	33	180	0.4	3.6	GP233025	2318P-CB-0
0.05	76	3.7	22.5	180	0.45	3.6	GP233024	2318P-CB-0
0.05	86	3.4	20	180	0.42	3.2	GP233022	2318P-BA-0
0.05	173	2.0	10	180	0.42	3.2	GP233021	2318P-BA-0
0.09	8	17	450	180	0.55	6.0	GP7432	125P-EB-0
0.09	12	17	150	180	0.60	6.0	GP7431	125P-EB-0
0.09	23	14.1	75	180	0.60	6.8	GP7430	2424P-EB-0
0.09	30	8.5	58	180	0.45	6.3	GP7424	2420P-JK-0
0.09	38	11.3	45	180	0.60	6.3	GP7423	2420P-JK-0
0.09	52	8.5	33	180	0.60	6.3	GP7422	2420P-JK-0
0.09	78.2	6.8	22.5	180	0.60	6.3	GP7421	2420P-JK-0
0.09	173	3.61	11	180	0.65	6.3	GP7420	2424P-JK-0
0.09	173	3.61	11	12	10.5	6.0	GP7420-V12	2424P-JK-0
0.15	50	13.6	45	180	1.1	6.3	GP7428	2428P-JK-0
0.18	20	19.8	180	180	1.0	6.8	GP7429	2424P-EB-0
0.18	68	15.3	45	180	1.3	6.4	GP7425	2428P-JK-0
0.18	76	11.3	45	180	1.3	6.3	GP7427	2428P-JK-0
0.18	104	8.5	33	180	1.3	6.3	GP7426	2428P-JK-0
0.18	314	3.61	11	180	1.3	6.3	GP7433	2428P-JK-0



Type 2420P-JK-0



Type GP233025

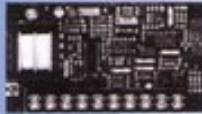
VARIABLE SPEED DC CONTROLS

PENTA KB POWER™

PHOTO	DESCRIPTION	CATALOGUE NUMBER	INPUT VOLTAGE 50/60Hz Vac	OUTPUT VOLTAGE Vdc	MAXIMUM RATINGS WITHOUT AUXILIARY HEATSINK		MAXIMUM RATINGS WITH AUXILIARY HEATSINK		REQUIRES PLUG-IN RESISTOR		
					kW	dc amps	kW	dc amps			
	KBRG™ 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. 225D/240D = 196 x 254 x 85mm. 212D = 213 x 121 x 43.2. Options: SI-4X bi-polar signal isolator: 8803 4-quadrant Accel/Decel Board provides independent adjustment in both directions: 8804 PID increases dynamic response.	KBRG-212D	120/240	0±90	0.5	7.5			NO		
			240	0±180	1.0	7.5					
		KBRG-225D	120	0-100	1.1	16.0			NO		
			240	0-200	2.2	16.0					
		KBRG-240D	120	0-100	0.75	11.0			NO		
			240	0-200	1.5	11.0					
		KBRG-255	240	0-200	3.7	26.0			NO		
		KBSI-4X Isolator							—		
		SC8820	Mounting Bracket for KBSI-4X for use with KBRG-212D						—		
	KBWD-15 Pulse Width Modulated (PWM) dc motor speed control. 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, 1 x 1 overload protection and diagnostic LED's for "Power On" and "Overload (CL)" indication. RFI filtering and barrier terminals standard.	KBWD-15	120	0-130	0.56	5.0	—	—	YES		
	KBWT Pulse Width Modulated (PWM) dc motor speed control. Designed for high current applications. Form factor <1.0S. Active bridge circuitry limits inrush current during ac line startup and prevents control runaway in the event of shorted output transistors. Includes (1 x 1) overload protection and instantaneous short circuit protection. KBWT-26 = 127 x 178 x 50.8mm. KBWT-210 = 172 x 178 x 50.8mm.	KBWT-26	240	0-260	1.1	6.0	—	—	NO		
		KBWT-210	240	0-260	1.5	8.5	—	—	NO		
	KBWS-25D Pulse Width Modulated (PWM) Whisper-Drive™ with built-in input signal isolation. Designed for PWM and SCR rated Permanent Magnet motors. Switching frequency greater than 16kHz for high motor efficiency and quiet operation. High max. 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. Trimpots for Max. and Min. Speed, Accel and Decel, Current Limit, IR Comp. Dimensions: 110 x 92 x 81mm. Accessories: 8611 Product Safety Module protects operator from runaway and uncontrolled acceleration.	SCR Motor	120	0-90	0.37	5.0	—	—	YES		
			208/230	0-180	0.75	5.0	—	—			
			208/230	0-90	0.37	5.0	—	—			
		PWM Motor	KBWS-25D								
			120	0-90	0.5	5.0	—	—			
			208/230	0-180	1.0	5.0	—	—			
			208/230	0-90	0.5	5.0	—	—			
8611	Product Safety Module						—				

PHOTO	DESCRIPTION	CATALOGUE NUMBER	INPUT VOLTAGE 50/60Hz Vac	OUTPUT VOLTAGE Vdc	MAXIMUM RATINGS WITHOUT AUXILIARY HEATSINK		MAXIMUM RATINGS WITH AUXILIARY HEATSINK		REQUIRES PLUG-IN RESISTOR	
					kW	dc amps	kW	dc amps		
	KBWM-240 Compact Packaged SCR Drive in NEMA 1 Enclosure. Specifically designed for SCR rated permanent magnet dc motors up to 0.56kw. Suitable for 240Vac single phase input. It 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.	KBWM-240	240	0-90 or 180 Jumper select	0.56	3.5	—	—	YES	
	KBMD-240D Packaged SCR Drive in a NEMA-1 Enclosure. Also called Multi-Drive™. It utilises the KBMM™ speed control for its electronics. The Multi-Drive™ is rugged and compact in size. It handles both 120 and 240V ac line inputs by setting the built-in Dual Voltage Switch. In addition, the single model can be used on a wide range of motor ratings by inserting the appropriate Plug-in Horsepower Resistor™. The Auxiliary Heatsink (optional) doubles the rating of the basic unit. An optional Forward-Brake-Reverse Switch Kit is also available. Dimensions: 129 x 136 x 181mm. Requires Armature and Line Fuses.	KBMD-240D	120	0-100	0.56	8.0	0.76	11.0	YES	
			240	0-200	1.1	8.0	1.5	11.0		
	KBPC Multi-Featured packaged SCR drive. Wash-Down duty (IP65/NEMA-4) diecast enclosure. Has 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. Accessories: 9339 Forward/Brake/Reverse Switch. 9340 Run/Stop/Jog Switch. 9341 On/Off ac Line Switch. 9377 Auto/Manual Switch Kit. 9378 Electronic Fwd/Brake/Rev module can be mounted inside and internally connected.	9860	Forward/brake/reverse switch						—	
		9861	Auxiliary Heat Sink						—	
		KBPC-240D	120	0-100	0.75	10.2	—	—	NO	
			240	0-200	1.5	10.2	—	—		
		KBPC-225	240	0-200	2.2	15.0	—	—	NO	
		9339	Forward/Brake/Reverse Switch (for KBPC-240D only)						—	
		9340	Run/Stop/Jog Switch						—	
		9341	On/Off ac Line Switch (for KBPC-240D only)						—	
		9377	Auto/Manual Switch Kit						—	
9378A	Electronic Fwd/Brake/Rev Module (for KBPC-240D only)						—			
9510	Spare pot kit for KBPC						—			
	KBRC-240D Full-Wave 4-Quadrant Regenerative Drive. Wash-Down duty (IP65/NEMA-4) diecast enclosure. 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), a Start/Stop Switch and a Main Speed Potentiometer. Other features include Barrier Terminal Blocks, adjustable trimpots, selectable jumpers and LEDs for easy setup. Accessories: 9485 Forward/Stop/Reverse Switch and regenerative braking. 9486 Power On/Off Switch: Disconnects ac line. 9487 Auto/Manual Switch: Selects signal from either the SIRC or main speed pot. 8842 Signal Isolator (SIRC): Isolates controller from a non-isolated signal source	KBRC-240D	115	0±90	0.75	11	—	—	NO	
			208/230	0±180	1.5	11	—	—		
			208/230	0±90	0.75	11	—	—		
		9485	Forward/Stop/Reverse Switch and regenerative braking						—	
		9486	Power On/Off Switch: Disconnects ac line						—	
		9487	Auto/Manual Switch						—	
		8842	Signal Isolator (SIRC)						—	
	KBPW-240D PWM dc Motor Speed Control. Wash-Down duty (IP65/NEMA-4) diecast enclosure. 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 max. 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. Accessories: 9339 Provides reversing and dynamic braking. 9340 Selects speed from main pot or JOG trimpot. 9341 Disconnects ac line. 9377 Selects signal from either the KBSI or main speed pot. 9378A Provides electronic braking and instant reversing. KBSI-240D Isolates controller from signal source.	SCR Motor	115	0-130	0.5	7.5	—	—	NO	
		PWM Motor	115	0-120	0.75	7.5	—	—		
		KBPW-240D	SCR Motor	230	0-220	1.0	7.5	—		—
			PWM Motor	230	0-220	1.5	7.5	—		—
		9339	Forward/Brake/Reverse Switch (with dynamic braking)						—	
		9340	Run/Stop/Jog Switch						—	
		9341	On/Off ac Line Switch						—	
		9377	Auto/Manual Switch Kit						—	
		9378A	Electronic Fwd/Brake/Rev Module						—	
		KBSI-240D	Signal isolator						—	

SPEED CONTROL RELATED PRODUCTS

PHOTO	DESCRIPTION	CATALOGUE NUMBER	MODELS WHERE USED							
			KBMM	KBIC	KBCC	KBPB	KBMD	KBPC	KBRG KBMG	KBWD
	KBSI-2400 Signal Isolator. 120/240Vac input. Provides an isolated interface between non-isolated signals and KB motor speed controls. Signal sources include process controllers, transducers, micro-processors and programmable controllers. The maximum output voltage of the KBSI is 10 volts, which is a linear function of the input. The unit is versatile since a single model accepts a wide range of voltage (0-25, 0-120 and 0-550Vdc) and current (1-5, 4-20 and 10-50ma) signals. Multi-turn trim pots are provided for "MIN", "MAX", and "RATIO". 120/240Vac input. 50/60Hz. Dimensions: 36 x 86 x 135mm.	KBSI-2400	✓	✓	✓	✓	✓	✓		✓
	KBET-2400 Frequency to Analogue Tachometer and Follower. Designed to accept a pulse input, which is produced by Hall or inductive pickups, and to create two independent isolated output signals. The Tachometer Output is normally used for tachometer feedback. The Follower Output is used to drive a second control in a master/slave system. Two LED's, "Power On" indicates the unit has ac power, and "Pulse" is used to verify the presence of an encoder input. Jumper selections for ac input voltage (120/240 Vac) and the sensor type. Multiturn trim pots are provided for tachometer Output and Follower Outputs setting. Dimensions: 68 x 122 x 28mm.	KBET-2400	✓		✓			✓	✓	✓
						Unidirectional Only				
	KBAP-2400 Current Sensing Relay/Overload. 120/240Vac input. An electronic dc Current Sensing Relay and Overload Protector for use with motors from .09 – 2.2kW. It can accommodate larger motors with the use of an external shunt. The KBAP contains five preset current trip points which can be further adjusted with a trimpot. The unit also contains adjustments for time delay and hysteresis. An LED indicates when the preset current trip point has been reached. External contacts are provided which can be used to sound an alarm or shut the system down if an overload occurs. Dimensions are 69 x 122 x 28mm.	KBAP-2400	✓	✓	✓	✓		Overload Protection Built-in		
	KBEP-2400 Electronic Potentiometer. Designed to provide digital type motor speed control. It replaces a standard potentiometer with a set of momentary pushbuttons or membrane switches (customer-supplied) – one to increase speed ("up") and the other to decrease speed ("down"). Separate meter output that can be used to operate a digital or analog meter. The meter scale can be calibrated to desired units with the built-in meter scale trimpot. The Min and Max trim pots are used to set the range of motor output speed. Can be used as a master potentiometer. Connects to F+ and F– an control for power input. Dimensions: 68 x 122 x 28mm.	KBEP-2400	✓	✓	✓	✓		✓	✓	✓
	Auxiliary Heatsink. Used to double the rating of several KB control models. It is constructed of black anodised aluminium and has keyhole slots to facilitate mounting. When used with the KBIC™ models, the Auxiliary Heatsink has provision for mounting the Barrier Terminal Accessory Kit. Dimensions: 178H x 159W x 35Dmm.	9861	✓	✓		✓	✓			
	KBIC™ and KBMM™ Barrier Terminal Boards. Easily convert a standard control with quick-connect terminals to barrier terminals. Provision is made for ac line and armature fusing. The Barrier Terminal Board installs directly over the control by mating the Q-D terminals. A separate .110" jumper wire can be used to connect the I1 inhibit terminal or, on the KBMM™, to the T or B terminals which are used for tack feedback. (Refer to KBMM Instruction Manual.) Fuses supplied separately. 9443 is a Barrier Terminal Board for the KBIC™ with SI-5 built-in 0–10V signal isolator with min. and max. trimpot adjustment. 9444 with SI-6 provides the same features for the KBMM™.	9884		✓						
		9897	✓							
		9443 (KBIS-5)		✓						
		9444 (KBIS-6)	✓							
	Barrier Terminal Accessory Kit. Converts a KBIC™ from 1/4" Q-D to barrier terminals. It installs easily with its preformed wiring harness and is compatible with the auxiliary heat sink. The Kit also contains built-in ac line and armature fuse blocks with fuses. The 9883 Kit is designed to adapt to the KBMM controller and does not include the fuse blocks as these are built onto the KBMM board.	9863		✓						
		9883	✓							
	Potentiometer Kit. Main speed control potentiometer. Potentiometer Kit consists of a rugged wire wound linear ohm potentiometer with mounting hardware and front panel insulator.	9831	✓	✓	✓	✓			✓	✓
		9111	✓	✓	✓	✓			✓	✓

AC & DC Motors & Drives

PHOTO	DESCRIPTION	CATALOGUE NUMBER	MODELS WHERE USED							
			KBMM	KBIC	KBCC	KBPD	KBMD	KBPC	KBRG	KBWD
	Knob/Dial Kit. Knob is black with aluminium insert and pointer. Contains double setscrews for secure attachment to all KB potentiometers with 1/4" (6mm) shafts. Dial Plate is black anodised .040" aluminium with 3/8" (9.5mm) mounting hole. Dimensions: Knob: 29D x 17.5Hmm Dial Plate: 57W x 52mmH.	9832	✓	✓	✓	✓			✓	✓
	Forward-Brake-Reverse Switch Kit. This completely wired assembly consists of a heavy-duty reversing switch and a 10 ohm-50W braking resistor. The switch contains an additional set of contacts used for Inhibit™ and dynamic brake.	9860					✓			
	SI-3 Signal Isolator The SI-3 converts contact reversing on KBPB and KBCC-R models to 5-10 Vdc switching.	9447			✓	✓				
	Armature Choke (18amps) For SCR and PWM dc drives. Wired in series with motor armature to provide EMI protection. Also effective in series with ac input.	9993	✓	✓	✓	✓	✓	✓	✓	✓
	KBRF-200A EMC/EMI Filter	9945C	For use with 'CE' rated ac or dc Controls.							
	KBRF-300 EMC/EMI Filter	9484	For use with ac Variable Frequency Controls.							
	KBRF-250 EMC/EMI Filter		Class A Industrial							
Used to suppress electronic interference caused by motor speed controls. Most speed controls utilise SCR's or IGBT's that switch rapidly causing high frequency interference pulses. KBRF-200A is an EMC/EMI filter designed for use with 'CE' rated KB motor speed controls. When installed in accordance with manufacturers instructions the motor speed control will comply with 'CE' 89/336/EEC relating to EMC. Rating 24 amps ac max, 120/240Vdc 50/60Hz. Frequency range 9kHz - 30MHz. Earth Leakage 2.0mA @ 250Vdc/50Hz. KBRF-300 is an EMC/EMI filter designed for ac variable frequency drives. Complies with C✓.										
 Plug-in Horsepower Resistor® required on all Speed Controls except KBCC-255, KBRG, KBMG and KBPC	ARMATURE 90 - 130 Vdc MOTOR kW	ARMATURE 180 Vdc MOTOR kW	RESISTOR VALUE OHMS		CATALOGUE NUMBER					
	.0075 — .015	.015 — .03	1.0		9833					
	.015 — .025	.03 — .05	.51		9834					
	.025 — .037	.05 — .075	.35		9835					
	.037 — .063	.075 — .13	.25		9836					
	.063 — .094	.13 — .19	.18		9837					
	.094 — .15	.19 — .25	.10		9838					
	.19	.37	.05		9839					
	.25	.56	.035		9840					
	.37	.75	.025		9841					
	.56	1.1	.015		9842					
	.75	1.5	.01		9843					
	1.1	2.2	.006		9850					
	 A fuse is required on all KB Speed Controllers except KBCC-255	ARMATURE 90 Vdc MOTOR kW	ARMATURE 180 Vdc MOTOR kW	APPROXIMATE MOTOR dc AMPS	FUSE RATING ac AMPS	INDIVIDUAL CATALOGUE NUMBER				
.025		.05	.33	.5	9736					
.037		.075	.5	.75	9737					
.05		.094	.65	1.0	9738					
.063		.125	.85	1.25	9739					
.094		.19	1.3	2.0	9740					
.125		.25	1.7	2.5	9741					
.19		.37	2.5	4.0	9742					
.25		.56	3.3	5.0	9743					
.37		.75	5.0	8.0	9744					
.56		1.1	7.5	12.0	9745					
.75		1.5	10.0	15.0	9746					
1.1		2.2	15.0	25.0	9747					
700 Piece Master Fuse Kit.				9870						
An assortment of 12 different fuse ratings which have been selected to offer protection for dc motors and controls from .025kW to 2.2kW. The Kit contains 50 each of .5, .75, 1, 1.25, 2, 2.5, 4, 5, 8, and 15 amp fuses plus 100 each of 12 and 25 amp fuses, totalling 700 pieces. The fuses are presented in a convenient, high impact plastic parts box with separate compartments. All fuses are available in 100 quantity reorder bulk packs as shown above.										

AC INVERTER DRIVES

GENESIS 'KBAC' ac Inverter Drives

- Variable Speed Control for ac 3 Phase Motors of 0.18kW to 3.7kW
- 'KBAC' has IP65 (NEMA-4X) Washdown and Watertight Enclosure with front panel mounted control switches and speed potentiometer
- The KBAC-24D Adjustable Frequency Drive is a variable speed control in a NEMA-4X/IP-65 washdown and watertight enclosure.
- Several models are available to operate on an input of 115 or 230Vac for 230Vac 3ph output of 230Vac for Delta connection of induction motors up to 1.5kW. The KBAC-48 has a 460Vac/3ph input and 460Vac
- The sine wave coded Pulse Width Modulated (PWM) output operates at a frequency of 16kHz which provides high motor torque, high efficiency, and low noise.
- Due to its user friendly design, the KBAC is easy to install and operate. Tailoring to specific applications is accomplished via selectable jumpers and trimpot adjustments, which eliminate the computer-like programming required on other drives. However, for most applications no adjustments are necessary.

Features

- Adjustable RMS Current Limit:
- 12t Motor Overload Protection: Prevents motor burnout and eliminates nuisance tripping.
- Adjustable Slip Compensation with Boost: Provides excellent load regulation over a wide speed range.
- Speed Range of 60:1: With full motor torque (depending on motor performance).
- Power Start™: Delivers over 200% motor torque to ensure startup of high frictional loads.
- Electronic Inrush Current Limit (EICL™): Eliminates harmful ac line inrush.
- Adjustable Linear Acceleration and Deceleration: Make the drive suitable for soft-start applications.
- CE and UL (US) compliant: An external signal isolator is also available.
- Start/Stop Switch: On front panel, provides electronic start/stop functions.
- Short Circuit Protection: Shuts the control down should a short circuit occur at the motor (phase-to-phase).
- Regeneration Protection: Eliminates tripping due to bus overvoltage.
- Diagnostic LEDs: Power On and Control Status.
- Other Protection Features: Undervoltage,

overvoltage, MOV input transient protection, micro-controller self-monitoring and auto-reboot.

- Barrier Terminal Block: Facilitates connection of motor and ac line wiring.
- Trimpot Adjustments: Minimum speed, maximum speed, acceleration, deceleration, slip compensation, boost, current limit.

- Jumper Selectable Features: Line input ac voltage 115/230; motor power 0.18, 0.37, 0.56, 0.75kW; auto or manual restart; motor frequency 50/60Hz; fixed or adjustable boost.
- Optional Accessories: See table

Dimensions KBAC-24D approx: 242H x 140W x 149Dmm.
Dimensions KBAC-27D approx: 249H x 192W x 184Dmm.
Dimensions KBAC-48 approx: 249H x 192W x 184Dmm.



Maximum Motor kW	Input Voltage 1 Ph-50/60Hz Vac	Nominal Output Voltage Vac/3ph	Max. Cont. Output A/ Phase (RMS)	Max. Input Amps	KB Part N°	Catalogue N°
0.75	115/230	0 – 230	3.6/6.7	16/10	9987	KBAC-24D
1.1	115	0 – 230	5.5	22	9520	KBAC-27D
1.5	230	0 – 230	6.7	15	9520	KBAC-27D
3.7	460/3ph	0 – 460	8.3	9.6	9540	KBAC-48
Options for KBAC-24D						
Switch	Forward/stop/reverse switch					9480
Switch	Run/stop/jog switch					9340
Switch	Auto/manual switch kit					9481
Switch	KBAC-24D Power On/Off switch					9482
SIVF	Bipolar signal isolator 2G, installs inside of all KBACs					9600
9507	RFI line filter, installs inside KBAC-24D					RFAC-24
Options for KBAC-27D						
Switch	Forward/stop/reverse switch					9480
Switch	Run/stop/jog switch					9340
Switch	Auto/manual switch kit					9481
Switch	Power On/Off switch					9523
SIVF	Bipolar signal isolator 2G, installs inside of all KBACs					9600
9512	RFI filter, installs inside KBAC-27D, (for use with ON/OFF switch 9523)					RFAC-27DS
Options for all KBAC-48						
9515	RFI filter, installs inside KBAC-48 (for use without switch 9532)					RFAC-48NS
9479	RFI filter, installs inside KBAC-48, (for use with ON/OFF switch 9532)					RFAC-48S
Switch	Power On/Off switch					9532
Options for all KBAC Models						
DIVF	Digital interface Module, ModBUS, RS485					9568
COM Kit	Kit w/DLM, Drive Link, USB Adaptor, PC-DLM & DLM-Drive cables					9582
DLM	Download module					9549
	DriveLink Programming software					9583
	Cable for DLM to PC serial					9663
	USB Adaptor for DLM to PC serial cable					9665
	Cable for DLM to KBVF/KBAC					9584



Email: flowandindustrial@hmagrp.com

Tel: +61 (0)3 8720 6770

Fax: +61 (0)3 8720 6779

HMA GROUP

MATERIALS HANDLING

WEAR SOLUTIONS

FLOW & INDUSTRIAL

INSTRUMENTATION

POWER GENERATION

GEOTECHNICAL

FLO-DS-0055. NOV 2018

AUSTRALIA - NEW ZEALAND - INDONESIA - SOUTH AFRICA

www.hmagrp.com