

B&B MOTOR AND CONTROL CORPORATION
96 SPRING STREET, NEW YORK, N.Y. 10012
TEL. (212) 966-5777

B&B and BODINE
VARIABLE
SPEED MOTORS

MOTOR
SPEED CONTROLS





ANY TYPE MOTOR SPEED CONTROL...FROM STOCK AT LOW COST

YOUR ONE-STOP SOURCE FOR MOTORS, SPEED CONTROLS, AND ACCESSORIES

B & B Motor & Control has for 43 years been a specialist in all types of motors and motor speed controls for all applications to all industries. From the earliest simple models to today's esoteric and feature filled models, B & B has led the way in stocking the controls of most major manufacturers as well as manufacturing equipment under its own trade name to fill special requirements and with special features that were needed by our customers. Further, our completely staffed and equipped technical department has the knowledge and facilities to modify and rebuild any standard motor speed control to permit its incorporation in a total system or to incorporate specially desired features. All of these motor speed controls are held in stock in large quantities to meet any order no matter how large or small. Any control is available at its lowest factory price and generous quantity discounts are available for large quantity, OEM and industrial applications.

SPECIAL SYSTEMS AND CUSTOM ENGINEERING

B & B Motor and Control Corp. has an intimate knowledge of the manufacturing processes of many industries and many years of experience in selling, applying, and designing motor systems. All this experience, as well as our vast stocks of motors and accessories can provide you with the system that will give you the precise motions that you might require for any product, production line, or research and dev. program.

EXPLOSION PROOF MOTORS

B & B Motor Control Corp's. technical department has the facilities and knowledge to install any motor and any motor speed control — no matter how complicated — in a totally explosion-proof cabinet which enables the use of these multi-speed units in all types of hazardous locations.

SPECIAL MOTOR MODIFICATIONS

B & B's Technical Department is fully experienced in the rewinding and modifying of any motor so that it will operate at other than standard speed or voltage, and will provide any torque, cabinet, mounting, wiring, or other changes that you may desire.

GUARANTEE

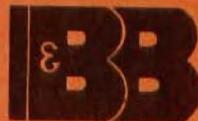
ALL EQUIPMENT IS SOLD WITH A GUARANTEE AGAINST DEFECTS IN MATERIAL OR WORKMANSHIP. WE SHALL REPLACE OR REPAIR ANY PARTS WHICH PROVE DEFECTIVE IN MATERIAL OR WORKMANSHIP WITHIN 12 MONTHS AFTER SHIPMENT FROM OUR PLANT. SUCH RETURNS MUST HAVE

OUR WRITTEN PERMISSION AND BE SHIPPED FREIGHT PREPAID TO OUR SERVICE DEPARTMENT. BODINE MOTORS, DIRECTION PRODUCTS AND A.T.C. TIMERS MUST BE RESHIPED BY US TO THE RESPECTIVE FACTORIES FOR APPRAISAL.

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All prices and specifications are subject to change without notice.



SILICON AUTOTRANSFORMER TYPE CONTROLS—Rugged, non-electronic, industrial duty.

TRANSISTORIZED TYPE CONTROLS — Miniaturized, all electronic. For application where space, weight, and economy are primary considerations.

SPEED REGULATION

NORMAL SPEED REGULATION — suitable for installations where input power line voltage and motor load are fairly constant ($\pm 10\%$) or where close speed regulation is not required.

SUPERIOR REGULATION — (SCR) for installations requiring speed of motor to be held within $\pm 5\%$ or better, with varying line voltage ($\pm 15\%$) and widely varying motor-loading ($\pm 50\%$).

EXCELLENT REGULATION — (Tachometer feed-back) for installations requiring speed of motor to be held within ($\pm 1-2\%$) regardless of varying input voltage ($\pm 15\%$ or widely varying motor loads.

SPEED READ-OUT — Available for ALL motor control combinations with B&B VIS-COUNT Tachometer. Local or remote meter shows motor speed. Some controls show motor speed on self-contained meter. See pages 9, 17, and 24.

VARIABLE TORQUE CONTROL — This feature permits adjusting maximum torque motor will deliver to load. This feature can act as a variable "electronic-clutch" and could (for example) prevent damage to a cutting-tool which had jammed.

DYNAMIC BRAKING — This feature will quickly bring motor and load to a dead stop—electrically—no wearing surfaces. By preventing coasting—production can be speeded and accidents reduced. Braking control will "hold" indefinitely if required.

SOFT-START Controlled gradual acceleration. Permits increasing motor speed to operating speed gradually without starting shock.

REVERSING — All controllers offer provision for reversal of motor direction. Motors should be brought to full stop before reversing.

COMPLETE GLOSSARY OF FHP, MOTOR AND SPEED CONTROL TERMS AVAILABLE ON REQUEST.

SILICON/ AUTOTRANSFORMER

Rugged construction. Will take continuous overloads better than any type of speed control. Not regulated, therefore motor speeds change as line voltage and/or load changes occur. Not recommended where precise speeds are required. Excellent for industrial applications where minimum downtime and minimum care are needed. Not affected by transients. Long trouble-free performance.

SCR/ TRANSISTORIZED

Identified in this catalog by Bodine Numbers 901 through 909 for control of motors up to $\frac{1}{4}$ HP, and by prefix SCR above $\frac{1}{4}$ HP for B&B models. Normally more sensitive and more susceptible to overloads, except for Bodine designs which contain special circuitry which makes them rugged and durable. All SCR controls feature good regulation for machinery that requires very good speed regulation. Very low speeds are attainable with these controls, and some models have torque control (for wire drawing and take-up applications) and other models have a second potentiometer (for providing higher top speeds). Basic features: correction for line voltage and load changes for good speed regulation.

TRIAC

Identified in the catalog by prefix TR. A compromise design combining the quality of SCR designs and the economy of Silicon-Autotransformer types. Regulated but not as good as SCR types, better than SA types. Small size, lighter in weight than SA models. All TR models in this catalog have speed adjusting potentiometers for low and high speed trimming. Priced lower than SA models. Available in open chassis (OEM models) see page 18. All TR models are good for both laboratory and industrial applications, but are best suited to applications where extreme overloads are not anticipated. Open chassis models have gating control. Transients can be tolerated. They are ideal where price is important and for large quantity users.

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The Company is not to be bound by typographical or stenographic errors.



FEATURES OF BODINE MOTOR SPEED CONTROLS

D.C. MOTOR CONTROLS

The new Bodine motor-control system represents advanced technology in a total design concept. Matched perfectly to the characteristics of selected Bodine motors, the controls provide performance, stability, reliability and safety found only in more complex and expensive systems. Long life is inherent in the heavy duty components used throughout.

The unique circuitry employed in the Bodine solid-state controls, combined with filtered, full-wave rectification, converts 115 Volt, 60 Hertz line current to essentially pure direct current. The unity form factor performance of the system permits release of full motor output over a wider speed range, and unusually smooth operation at low speeds. Added advantages are cooler operation and longer brush life.

Bodine motor-control systems are ideally suited for applications requiring precise and wide range control of speed, torque and acceleration. Typical examples are: coil winding machines, conveyors, packaging machines, magnetic tape recorders, machine tools, textile machinery and welding wire feeders.

Now you have available from one reliable source, a complete system (motor and control), with resultant advantages of single vendor responsibility, application service and purchasing economy. Before the Bodine name goes on the control, it is subjected to 100% final inspection and test with the appropriate motor, using both inertial and frictional loads.

CONTROL DATA				TYPICAL MOTOR DATA						
MODEL NUMBER	TYPE	EXTRA FEATURES		MODEL NUMBER	TYPE	RATING AT 1725 R.P.M.		SPEED RANGE		GEAR RATIOS TO 1
		EXTENDED SPEED RANGE	TORQUE CONTROL			H.P.	TORQUE IN OZ. *	BASIC R.P.M. +	EXTENDED R.P.M.	
901	BSH-200			276	NSH-12	1/50	12	60-2650		6-480
902	ASH-201	✓		276	NSH-12	1/50	12	60-2650	3200	6-480
903	ASH-400			277	NSH-33	1/20	29	60-2250		10-40
903	ASH-400			278	NSH-34	1/15	39	60-2250		10-1080
904	ASH-401	✓		277	NSH-33	1/20	29	60-2250	3100	10-40
904	ASH-401	✓		278	NSH-34	1/15	39	60-2250	3100	10-1080
905	ASH-402		✓	277	NSH-33	1/20	29	60-2300		10-40
905	ASH-402		✓	278	NSH-34	1/15	39	60-2300		10-1080
906	ASH-500			280	NSH-54	1/8	72	60-2400		10-40
907	ASH-502		✓	280	NSH-54	1/8	72	60-2400		10-40
908	ASH-600			282	NSH-55	1/4	x146	60-2100		10-48
909	ASH-602		✓	282	NSH-55	1/4	x146	60-2100		10-48

*Torque at extended speeds is half this figure.

xRated torque below 300 R.P.M. is 96 in. oz.

+Minimum speed is based on absence of cogging when used with pure friction loads. When inertia loads are encountered slower speeds are practical, the minimum depending on the amount of inertia.

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SPEED CONTROL—Speed can be controlled over a wider range than with comparable controls, and with greater stability over the entire range. Freedom from cogging at low speeds, and exceptionally good regulation are unique features of the Bodine system. Some types are available with extended speed range. Full rated torque is delivered over the *basic* speed range, and full rated horsepower over the *extended* speed range. See figures 1 & 2. The accompanying chart shows basic speed range for type numbers ending in 00, and extended speed range for type numbers ending in 01.

TORQUE CONTROL—This feature (sometimes referred to as "torque limiting") is available in some controls as shown in figure 3. They will be recognized in the accompanying chart by type numbers ending in 02. The torque selected on the control knob is delivered within close limits, regardless of motor speed selected; provides soft start of regulated acceleration. The torque control can be disengaged from the rest of the circuitry, thus allowing regular speed control without sacrifice in regulation.

DYNAMIC BRAKING—Available in all models. A three-position switch actuates the dynamic braking, as well as forward and reverse direction. The braking position is

midway between forward and reverse positions.

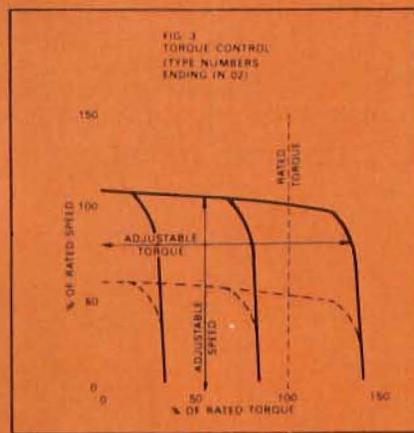
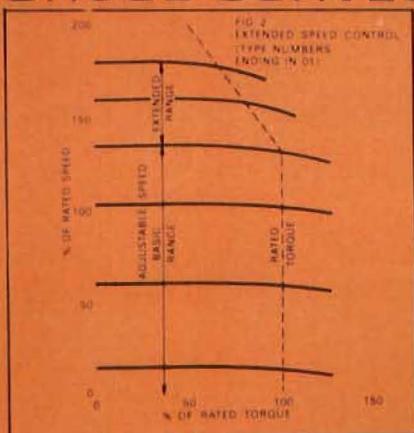
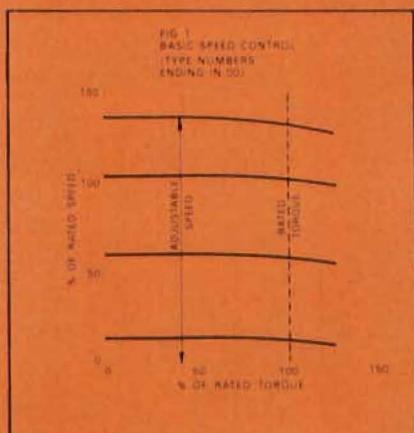
PROTECTION—A thermal type circuit breaker in the control protects the motor from damage caused by overloads. A fuse protects the control from short circuits. Line transient protection is also provided. A separate ground lead connector between control and motor permits detection of and protection from ground potential variance between them; an important safety feature for the protection of the operator.

MOUNTING VERSATILITY—Bodine controls can be mounted wall (right, left or back), ceiling or floor. See dimensional sketch. Design provides generous ventilation for any mounting position.

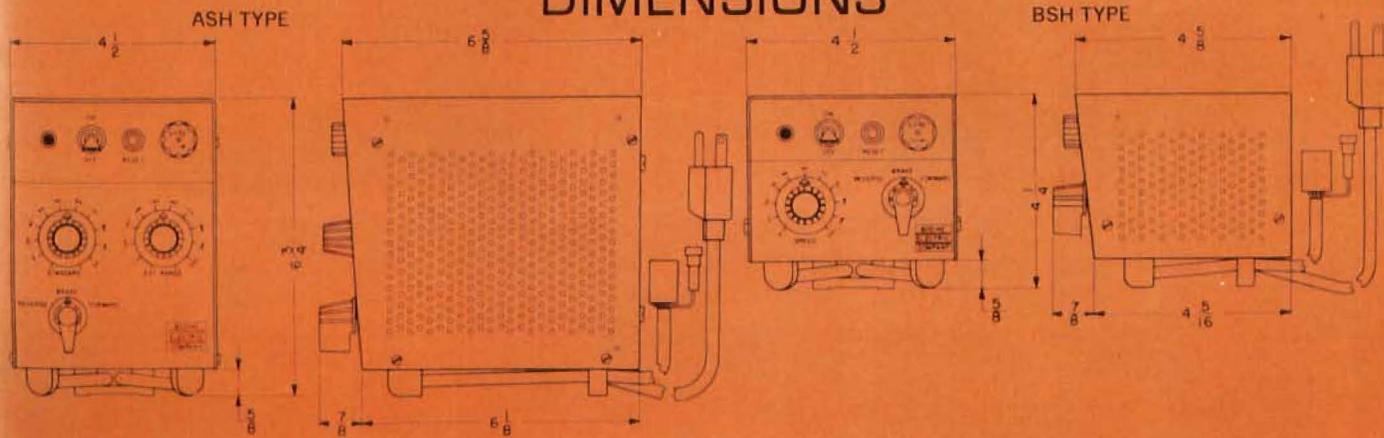
COMPACTNESS—Internal arrangement and mounting of control elements result in a relatively small case, as well as ruggedness. Weights of the different control types range from only 2 lbs. to 3½ lbs.

FUNCTIONAL—ATTRACTIVE—Styled by a leading industrial design firm. Bodine controls present the ultimate in functional operation and attractiveness. Switches and control knobs are conveniently located and simple and easy to operate.

TORQUE CURVES



DIMENSIONS



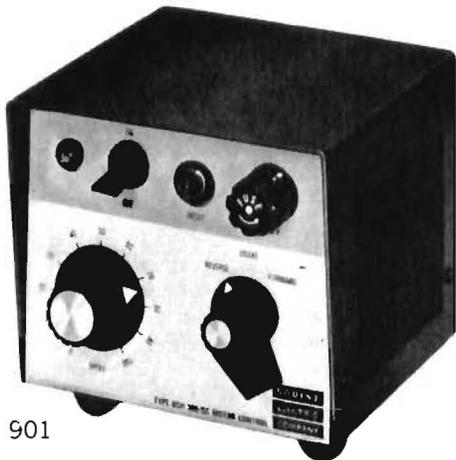


BODINE SERIES 200 MOTOR SPEED CONTROLS

SCR/TRANSISTORIZED TYPES FOR MOTORS UP TO 1/50 HORSEPOWER

Features:

Good regulation • Reversing • Dynamic Braking • Extended Speed Ranges • Thermal Circuit Breaker and Fuse • Closed Loop Motor Feedback • Remote Speed Readout (Optional, by B & B)



901

General Information: Input: 110 Volts A.C. 50-60 cycles. Size: 4 1/4" H, 4 5/8" D, 4 1/2" W. Weight: 2 1/2 lbs. Controls are equipped with a 6 foot long grounding line cord.

MOUNTING

Hardware and templates are supplied with each control unit to facilitate side-wall (right or left) ceiling or back-wall mounting. Assembly automatically allows clearance for proper ventilation. If this hardware is not employed, allow minimum of 1/4" clearance between unit and mounting surface.

All motors are of ball bearing construction, and are equipped with 18 in. long cable with mating plug. All motors are totally enclosed except Type NSH-55 1/4 H.P. is self-ventilated.

Rated torque of 1/4 H.P. motor reduced to 96 in. oz. at speeds below 300 rpm.

* Minimum speed is based on absence of cogging with pure friction load. Motors are provided with skewed armatures to reduce cogging to a minimum. Lower speeds are practical with inertia loads; the minimum depending on the amount of inertia.

■ These units are equipped with extended motor shaft.

● Output torque shown in this column is based on motor output at 1725 rpm. Torque ratings for 1/4 H.P. units reduced by approximately 35% at armature speeds below 300 rpm.

SERIES	MODEL NO.	TYPE	EXTRA FEATURES		WT. LBS.	PRICE
			EXTENDED SPEED RANGE	TORQUE CONTROL		
200	901	BSH-200	NO	NO	2 1/2	\$47.76
	902	ASH-201	YES	NO		\$59.70

MOTORS FOR USE WITH MODEL 901 CONTROL

SPEED RANGE *	TORQUE ●	FRAME	MOTOR MODEL NUMBER	PRICE
0.13-5.5	52" lbs.	12RG	557	\$56.18
0.14-6	5.7" lbs.	12R	548 ■	48.66
0.19-8	6.6" lbs.	12R	547 ■	48.66
0.25-11	47" lbs.	12RG	556	56.18
0.33-15	7.0" lbs.	12R	546 ■	48.66
0.50-22	32" lbs.	12RG	553	56.18
0.60-27	5.6" lbs.	12R	545 ■	48.66
0.67-30	26" lbs.	12RG	552	56.18
1.0-44	13" lbs.	12RH	564	52.12
1.0-44	20" lbs.	12RG	551	56.18
1.5-66	11.7" lbs.	12RH	562 ■	52.12
1.7-74	7.1" lbs.	12R	544 ■	48.66
2.0-88	8.8" lbs.	12RH	561	52.12
3.0-113	7.3" lbs.	12RH	560	52.12
3.3-147	5.4" lbs.	12R	543 ■	46.09
6.0-265	4.2" lbs.	12R	542 ■	46.09
10.0-442	3.2" lbs.	12R	541	46.09
60-2650	12" oz.	12	276	32.18

*** MOTORS FOR USE WITH MODEL 902 CONTROL**

0.13-6.5	52" lbs.	12RG	557	\$56.18
0.14-7.5	5.7" lbs.	12R	548 ■	48.66
0.19-10	6.6" lbs.	12R	547 ■	48.66
0.25-13	47" lbs.	12RG	556	56.18
0.33-18	7.0" lbs.	12R	546 ■	48.66
0.50-27	32" lbs.	12RG	553	56.18
0.60-32	5.6" lbs.	12R	545 ■	48.66
0.67-36	26" lbs.	12RG	552	56.18
1.0-53	13" lbs.	12RH	564	52.12
1.0-53	20" lbs.	12RG	551	56.18
1.5-80	11.7" lbs.	12RH	562 ■	52.12
1.7-89	7.1" lbs.	12R	544 ■	48.66
2.0-107	8.8" lbs.	12RH	561	52.12
3.0-160	7.3" lbs.	12RH	560	52.12
3.3-178	5.4" lbs.	12R	543 ■	46.09
6.0-320	4.2" lbs.	12R	542 ■	46.09
10.0-535	3.2" lbs.	12R	541	46.09
60-3200	12" oz.	12	276	32.18

BODINE SERIES 400 MOTOR SPEED CONTROLS



SCR/TRANSISTORIZED TYPE FOR MOTORS UP TO 1/15 HORSEPOWER

Features:

- Good regulation • Reversing • Dynamic Braking
- Extended Speed Ranges • Thermal Circuit Breaker and Fuse • Closed Loop Motor Feedback • Remote Speed Readout (Optional, by B & B)

SERIES 400 BODINE MOTOR SPEED CONTROLS

SERIES	MODEL NO.	TYPE	EXTRA FEATURES		WT. LBS.	PRICE
			EXTENDED SPEED RANGE	TORQUE CONTROL		
400	903	ASH-400	NO	NO	3	\$68.66
	904	ASH-401	YES	NO	3	75.82
	905	ASH-402	NO	YES	3	77.01

MOTORS FOR USE WITH MODEL 903 AND 905

SPEED RANGE *	TORQUE •	FRAME	MOTOR MODEL NUMBER	PRICE
0.06-2	340" lbs.	34RJ	581	\$107.58
0.20-7	219" lbs.	34RJ	580	107.58
0.42-16	140" lbs.	34RJ	579	107.58
0.83-31	88" lbs.	34RJ	578	108.58
1.5-56	20" lbs.	33R	569	61.91
1.5-56	44" lbs.	34RH	577	68.30
2.0-75	21" lbs.	33R	568	61.91
2.0-75	37" lbs.	34RH	576	68.30
3.0-113	18.3" lbs.	33R	567	61.91
3.0-113	29" lbs.	34RH	575	68.30
6.0-225	11.9" lbs.	33R	565	61.91
6.0-225	17" lbs.	34RH	574	68.30
60-2250	29" oz.	-33	277	41.79
60-2250	39" oz.	-34	278	43.64

MOTORS FOR USE WITH MODEL 904 CONTROLS

0.06-2.9	340" lbs.	34RJ	581	\$107.58
0.20-10	219" lbs.	34RJ	580	107.58
0.42-22	140" lbs.	34RJ	579	107.58
0.83-43	88" lbs.	34RJ	578	108.58
1.5-78	20" lbs.	33R	569	61.91
1.5-78	44" lbs.	34RH	577	68.30
2.0-103	21" lbs.	33R	568	61.91
2.0-103	37" lbs.	34RH	576	68.30
3.0-155	18.3" lbs.	33R	567	61.91
3.0-155	29" lbs.	34RH	575	68.30
6.0-310	11.9" lbs.	33R	565	61.91
6.0-310	17" lbs.	34RH	574	68.30
60-3100	29" oz.	-33	277	41.79
60-3100	39" oz.	-34	278	43.64



General Information: Input: 110 volts A.C., 50-60 cycles. Size: 6 $\frac{3}{4}$ " H, 6 $\frac{5}{8}$ " D, 4 $\frac{1}{2}$ " W. Weight: 3 $\frac{1}{2}$ lbs. Controls are equipped with a 6 foot long grounding line cord.

MOUNTING

Hardware and templates are supplied with each control unit to facilitate side-wall (right or left) ceiling or back-wall mounting. Assembly automatically allows clearance for proper ventilation. If this hardware is not employed, allow minimum of $\frac{1}{4}$ " clearance between unit and mounting surface.

All motors are of ball bearing construction, and are equipped with 18 in. long cable with mating plug. All motors are totally enclosed except Type NSH-55 $\frac{1}{4}$ H.P. is self-ventilated.

- * Minimum speed is based on absence of cogging with pure friction load. Motors are provided with skewed armatures to reduce cogging to a minimum. Lower speeds are practical with inertia loads; the minimum depending on the amount of inertia.
- Output torque shown in this column is based on motor output at 1725 rpm. Torque ratings for $\frac{1}{4}$ H.P. units reduced by approximately 35% at armature speeds below 300 rpm.



BODINE 500 SERIES MOTOR SPEED CONTROLS

SCR/TRANSISTORIZED TYPE FOR MOTORS UP TO 1/8 HORSEPOWER

SERIES 500 BODINE MOTOR SPEED CONTROLS

SERIES	MODEL NO.	TYPE	EXTRA FEATURES		WT. LBS.	PRICE
			EXTENDED SPEED RANGE	TORQUE CONTROL		
500	906	ASH-500	NO	NO	3 1/2	\$83.58
	907	ASH-502	NO	YES		91.94

MOTORS FOR USE WITH MODELS 906 & 907 CONTROLS
1/8 HORSEPOWER

SPEED RANGE *	TORQUE •	FRAME	MOTOR MODEL NUMBER	PRICE
1.5-60	73" lbs.	54RL	589	\$80.09
2.0-80	66" lbs.	54RL	588	80.09
3.0-120	54" lbs.	54RL	587	80.09
6.0-240	32" lbs.	54RL	586	80.09
60 -2400	72" oz.	54	280	50.89

SEE PREVIOUS PAGE FOR EXPLANATION * •

Features:

- Dynamic Braking •
- Good regulation • Reversing • Thermal Circuit Breaker and Fuse • Closed Loop Motor Feedback • Remote Speed Readout (Optional, by B & B)



General Information: Input: 110 volts A.C., 50-60 cycles. Size: 6 3/4" H, 6 5/8" D, 4 1/2" W. Weight: 3 3/4 lbs. Controls are equipped with a 6 foot long grounding line cord.



BODINE 600 SERIES MOTOR SPEED CONTROLS

SCR/TRANSISTORIZED TYPES FOR MOTOR SPEED CONTROLS UP TO 1/4 HORSEPOWER

SERIES 600 BODINE MOTOR SPEED CONTROLS

SERIES	MODEL NO.	TYPE	EXTRA FEATURES		WT. LBS.	PRICE
			EXTENDED SPEED RANGE	TORQUE CONTROL		
600	908	ASH-600	NO	NO	3 3/4	\$119.40
	909	ASH-602	NO	YES		127.76

MOTORS FOR USE WITH MODELS 908 & 909 CONTROLS
1/4 HORSEPOWER

SPEED RANGE *	TORQUE •	FRAME	MOTOR MODEL NUMBER	PRICE
1.2-44	286" lbs.	55RH	599	\$108.53
1.7-58	230" lbs.	55RH	598	108.53
3.3-117	124" lbs.	55RH	596	108.53
6.0-210	73" lbs.	55RH	594	108.53
60 -2100	146" oz.	55	282	53.73

SEE PREVIOUS PAGE FOR EXPLANATION * •

Features:

- Dynamic Braking •
- Good regulation • Reversing • Thermal Circuit Breaker and Fuse • Closed Loop Motor Feedback • Remote Speed Readout (Optional, by B & B)



General Information: Input: 110 volts A.C., 50-60 cycles. Size: 6 3/4" H, 6 5/8" D, 4 1/2" W. Weight: 3 3/4 lbs. Controls are equipped with a 6 foot long grounding line cord.

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OPEN CHASSIS SOLID STATE MOTOR SPEED CONTROLS



MODEL TR12C

FOR 115V DC MOTORS UP TO 1/8 H.P.
 INPUT: 115V AC 50/60 HZ
 SIZE: 4 1/8" W x 4 1/8" D x 2" H
 OPTIONS: SPEED INDICATOR (see page 24)

PRICE: \$29. 1-4; \$27. 5-9; \$25. 10-24;
 \$23. 25-99.
 See pages 10 and 11 for motors.

FEATURES

INFINITELY VARIABLE SPEED CONTROL

TRIAC/SOLID STATE CIRCUITRY
 PRINTED CIRCUIT BOARD

FUSED PROTECTION
 SMALL SIZE

LOW SPEED AND HIGH SPEED TRIMMING
 POTENTIOMETERS PERMIT CUSTOM SPEED SETTING BY YOU TO EACH MOTOR OR MACHINE

MINIATURIZED CONSTRUCTION
 TERMINAL STRIP WITH 1 CONNECTION POINT (#10) FOR GATING TRIAC FOR REED RELAY START & STOP

FULL WAVE RECTIFIED D.C.
 0-130 VOLTS ARMATURE VOLTAGE
 115 VOLT CONSTANT FIELD
 FEEDBACK FOR BETTER REGULATION



MODEL TR25C

FOR 115V DC MOTORS UP TO 1/4" H.P.
 INPUT: 115 V AC 50/60 HZ
 SIZE: 4 1/8" W x 4 1/8" D x 2" H
 OPTIONS: SPEED INDICATOR (see page 24)

\$45. 1-4; \$43. 5-9; \$41. 10-24;
 \$39. 25-29.
 See pages 12 and 13 for motors.

MODEL TR75C

FOR 115V DC MOTORS UP TO 3/4 H.P.
 INPUT: 115 V AC 50/60 HZ
 SIZE: 7" W x 4 1/2" D x 2" H.
 OPTIONS: SPEED INDICATOR
 see page 24

PRICE: \$69. 1-4; \$65. 5-9; \$62. 10-24;
 \$60. 25-99.
 See pages 14 and 15 for motors.



MODEL SCR150C

FOR 230V DC MOTORS UP TO 1 1/2 H.P.
 INPUT: 208/230V AC 50/60 HZ. 1 PHASE
 SIZE: 10" W x 8" D x 3" H, weight 24 lbs.
 OPTION: TACH. SPEED INDICATOR, see page 24 or B&B SPEED INDICATOR, page 17.

PRICES: \$165. 1-4. Inquire 5 up
 See pages 16 for motors.

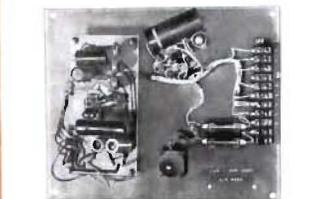
FEATURES

SCR CIRCUITRY. FULL WAVE RECTIFICATION • MINIMUM AND MAXIMUM SPEED TRIMMING POTS.

I.R. COMP. ADJUSTMENT • HEAVY DUTY CONSTRUCTION • 2 . . . not 1 SCR: FOR BETTER FIRING ANGLE (better stability) GOOD REGULATION

"SOFT START" ACCELERATION CONTROL • TERMINAL STRIP CONNECTIONS

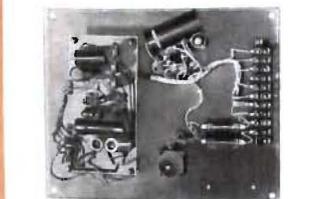
FILTERED ARMATURE VOLTAGE



MODEL SCR75C

FOR 115V DC MOTORS UP TO 3/4 H.P.
 INPUT: 115 VOLT AC 50/60 HZ
 SIZE: 10" W x 8" D x 3" H, weight 24 lbs.
 TACH. SPEED INDICATOR, see page 24 or B&B SPEED INDICATOR, page 17.

PRICES: See page 14 for motors.
 \$165., 1-4. Inquire 5 up





MOTOR SPEED CONTROLS

SA12 MOTOR SPEED CONTROL SILICON/AUTOTRANSFORMER FOR MOTORS UP TO 1/8 H.P.



**GUARANTEED
FOR 1 YEAR**

RUGGED CIRCUITRY • REVERSING • DYNAMIC BRAKING • WIDE SPEED RANGE • THERMAL CIRCUIT BREAKER AND FUSE • REMOTE SPEED READOUT (OPTIONAL) • INFINITELY VARIABLE SPEED • AVALANCHE DIODE CIRCUIT PROVIDES HIGHER EFFICIENCY AND PROTECTION AGAINST TRANSIENTS • FULL WAVE ARMATURE AND FIELD RECTIFICATION.

PRICE \$51.00

OPTIONS
TACHOMETER SPEED READOUT

HAS 6 FOOT GROUNDING LINE CORD AND A FEMALE JONES TYPE SOCKET. MOTOR HAS 6 FOOT CABLE WITH MALE PLUG. ALL PLUG-IN CONNECTIONS. YOU DO NO WIRING. 115 VOLT AC 50/60 HZ. FINISH - ATTRACTIVE BRUSHED HEAVY GAUGE ALUMINUM PANEL WITH EASY TO READ NOMENCLATURE. CABINET IS CONVECTION COOLED AND MADE OF BLACK WRINKLE FINISHED STEEL.

6 1/2" W x 4 1/4" H x 3 1/4" D, weight 5 lbs.

MOTORS FOR THESE CONTROLS

RPM SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
1/8 H.P.				
2.6-52	77" lbs.	54RL●	B2420C-40L	88.00
2.8-68	66" lbs.	54RL●	B2420C-30L	88.00
4.3-104	54" lbs.	54RL●	B2420C-20L	88.00
8.75-210	32" lbs.	54RL●	B2420C-10L	88.00
17-414	16" lbs.	54RL●	B2420XC-05L	125.43
35-828	8" lbs.	54RL●	B2420XC-2 1/2L	142.95
80-1368	73" oz.	56Z★	65118C	39.00
86-2070	73" oz.	54▶	B2420C	60.00
1/12 H.P.				
2.6-52	55" lbs.	53R●	B2418C-40	84.00
4.3-104	37" lbs.	53R●	B2418C-20	84.00
8.75-210	21" lbs.	53R●	B2418C-10	84.00
17-414	11" lbs.	53R●	B2418XC-05	110.00
35-828	5.5" lbs.	53R●	B2418XC-2 1/2	130.00
80-1368	74" oz.	54▶	B2370C	65.00
86-2070	48" oz.	53▶	B2418C	58.00

RPM SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
1/15 H.P.				
.3-7	219" lbs.	34RJ●	B-2410C-300J	125.00
.6-15	140" lbs.	34RJ●	B-2410C-144J	125.00
1.2-29	88" lbs.	34RJ●	B-2410C-72J	125.00
2.6-52	44" lbs.	34RH●	B2410C-40H	79.00
2.8-68	37" lbs.	34RH●	B2410C-30H	79.00
4.3-104	29" lbs.	34RH●	B2410C-20H	79.00
8.75-210	17" lbs.	34RH●	B2410C-10H	79.00
17-414	8.5" lbs.	34RH●	B2410XC-05H	112.00
35-828	4.3" lbs.	34RH●	B2410XC-2 1/2H	132.00
86-2070	39" oz.	34▶	B2410C	50.00
173-4140	18" oz.	34▶	B2460C	75.00
1/20 H.P.				
1.5-34	13" lbs.	33R●	B2408C-60	80.00
2.6-52	20" lbs.	33R●	B2408C-40	76.00
2.8-68	21" lbs.	33R●	B2408C-30	76.00
4.3-104	18.3" lbs.	33R●	B2408C-20	76.00

TABLE CONTINUED ON NEXT PAGE

B & B MOTOR AND CONTROL CORP. 96 SPRING STREET, NEW YORK, N. Y. 10012. (212) 966-5777



TR12 MOTOR SPEED CONTROL TRANSISTORIZED PRINTED CIRCUIT TYPE FOR MOTORS UP TO 1/8 H.P.

REVERSING • REGULATION • WIDE SPEED RANGE • FUSED CIRCUIT • CLOSED LOOP MOTOR FEEDBACK • REMOTE SPEED READ-OUT (OPTIONAL) • SCR TRIAC/TRANSISTORIZED • MINIMUM AND MAXIMUM SPEED TRIMMING POTENTIOMETER • INFINITELY VARIABLE SPEED • FULL WAVE ARMATURE AND FIELD RECTIFICATION.

PRICE \$46.00

OPTIONS
TACHOMETER SPEED READOUT
DYNAMIC BRAKING



GUARANTEED FOR 1 YEAR

HAS 6 FOOT GROUNDING LINE CORD AND A FEMALE JONES TYPE SOCKET. MOTOR HAS 6 FOOT CABLE WITH MALE PLUG. ALL PLUG-IN CONNECTIONS. YOU DO NO WIRING. 115 VOLT AC 50/60 HZ. FINISH — ATTRACTIVE BRUSHED HEAVY GAUGE ALUMINUM PANEL WITH EASY TO READ NOMENCLATURE. CABINET IS CONVECTION COOLED AND MADE OF BLACK WRINKLE FINISHED STEEL.

6 1/2" W x 4 1/4" H x 3 1/4" D, weight 3 lbs.

MOTORS FOR THESE CONTROLS

RPM SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
8.75-210	11.9" lbs.	33R●	B2408C-10	76.00
17-414	5.9" lbs.	33R●	B2408XC-05	112.00
35-828	3" lbs.	33R●	B2408XC-2 1/2	112.00
80-1368	45" oz.	53▶	B2368C	63.00
86-2070	29" oz.	33▶	B2408C	49.00
173-4140	15" oz.	13▶	6576C	42.00
1/40 H.P.				
86-2070	14" oz.	13▶	B2152C	42.00
1/50 H.P.				
.36-9	47" lbs.	12RG●	B2150C-240G	70.00
.7-17	32" lbs.	12RG●	B2150C-120G	70.00
.9-23	26" 26" lbs.	12RG●	B2150-90G	70.00
1.5-35	20" lbs.	12RG●	B2150C-60G	70.00
1.5-35	13" lbs.	12RH●	B2150C-60H	60.00
2.6-52	11.7" lbs.	12RH●	B2150C-40H	60.00
2.8-68	8.8" lbs.	12RH●	B2150C-30H	60.00
4.3-104	7.3" lbs.	12RH●	B2150C-20H	60.00
8.75-210	4.8" lbs.	12RH●	B2150XC-10H	60.00
17-414	2.4" lbs.	12RH,	B2150XC-05H	93.00

RPM SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
35-828	1.2" lbs.	12RH●	B2150XC-2 1/2 H	93.00
86-2070	11" oz.	12▶	B2150C	39.00
1/70 H.P.				
.1-2	2.2" lbs.	12R●	B2150EC-1120	57.00
.18-4.3	38" lbs.	12RG●	B7052C-480G	70.00
.2-5	5.7" lbs.	12R●	B2150EC-432	57.00
.28-7	6.6" lbs.	12R●	B2150EC-300	57.00
.48-11.5	7" lbs.	12R,	B2150EC-180	57.00
.85-20	5.6" lbs.	12R●	B2150EC-100	57.00
2.4-57	7.1" lbs.	12R,	B2150EC-36	57.00
2.9-69	3.5" lbs.	12R●	B2150EC-30	54.00
4.8-115	5.4" lbs.	12R●	B2150EC-18	54.00
14-345	2.2" lbs.	12R●	B2150EC-06	54.00
140-3420	4.8" oz.	32★	6469C	41.00
1/100 H.P.				
173-4140	3" oz.	13▶	6457C	30.00
1/150 H.P.				
.1-2	40" lbs.	12RG●	B7096C-1080G	70.00

SEE BOTTOM OF PAGE 27 FOR SYMBOL (▶ ● □ ★) EXPLANATIONS.



MOTOR SPEED CONTROLS

SA25 MOTOR SPEED CONTROL SILICON/AUTOTRANSFORMER TYPE FOR MOTORS UP TO 1/4 H.P.



**GUARANTEED
FOR 1 YEAR**

RUGGED CIRCUITRY • REVERSING • DYNAMIC BRAKING • WIDE SPEED RANGE • THERMAL CIRCUIT BREAKER AND FUSE • REMOTE SPEED READOUT (OPTIONAL) • INFINITELY VARIABLE SPEED • AVALANCHE DIODE CIRCUIT PROVIDES HIGHER EFFICIENCY AND PROTECTION AGAINST TRANSIENTS • FULL WAVE ARMATURE AND FIELD RECTIFICATION.

PRICE \$106.

OPTIONS
TACHOMETER SPEED READOUT

HAS 6 FOOT GROUNDING LINE CORD AND A FEMALE JONES TYPE SOCKET. MOTOR HAS 6 FOOT CABLE WITH MALE PLUG. ALL PLUG-IN CONNECTIONS. YOU DO NO WIRING. 115 VOLT AC 50/60 HZ. FINISH - ATTRACTIVE BRUSHED HEAVY GAUGE ALUMINUM PANEL WITH EASY TO READ NOMENCLATURE. CABINET IS CONVECTION COOLED AND MADE OF BLACK WRINKLE FINISHED STEEL.

7 3/4" W x 5 1/4" x 5" D, weight 7 lbs.

MOTORS FOR THESE CONTROLS

RPM SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE	RPM SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
1/4 H.P.					4.35-104	121" lbs.	WM12A□	D14-87C-1X	187.00
.6-14.5	775" lbs.	CM12A★	D14-12C-1X	228.00	4.35-104	121" lbs.	WM12A□	D14-87C-1E	152.00
.6-14.5	775" lbs.	CM12A★	D14-12C-1E	193.00	4.85-116	115" lbs.	55RH●	B2422ZC-18H	127.00
.8-20	900" lbs.	TM16A★	D14-16.5C-1E	347.00	4.85-116	65" lbs.	WM12A□	D14-97C-1E	152.00
.8-20	900" lbs.	TM16A★	D14-16.5C-1X	382.00	4.85-116	65" lbs.	WM12A□	D14-97C-1X	187.00
1.25-30	302" lbs.	WM16A□	D14-25C-1X	205.00	6.25-150	121" lbs.	DM16A★	D14-125C-1E	254.00
1.25-30	302" lbs.	WM16A□	D14-25C-1E	170.00	6.25-150	121" lbs.	DM16A★	D14-125C-1X	289.00
1.45-34	282" lbs.	WM16A□	D14-29C-1E	170.00	8.75-210	64" lbs.	WM12A□	D14-175C-1X	187.00
1.45-34	282" lbs.	WM16A□	D14-29C-1X	205.00	8.75-210	64" lbs.	WM12A□	D14-175C-1E	152.00
1.8-43	254" lbs.	55RH●	B2422ZC-48H	127.00	8.75-210	75" lbs.	55RH●	B2422ZC-10H	127.00
2.2-53	206" lbs.	WM12A□	D14-44C-1E	152.00	9.5-228	81" lbs.	DM16A★	D14-190C-1X	274.00
2.2-53	206" lbs.	WM12A□	D14-44C-1X	187.00	9.5-228	81" lbs.	DM16A□	D14-190C-1E	239.00
2.4-58	240" lbs.	55RH●	B2422ZC-36H	127.00	17.5-410	33" lbs.	WM12A□	D14-350C-1X	187.00
2.25-54	336" lbs.	TM16A★	D14-45C-1E	316.00	17.5-410	33" lbs.	WM12A□	D14-350C-1E	152.00
2.25-54	336" lbs.	TM16A★	D14-45C-1X	351.00	19-336	55" lbs.	SM16A□	D14-280C-1E	178.00
2.8-67	270" lbs.	DM16A★	D14-56C-1E	254.00	19-336	55" lbs.	SM16A□	D14-280C-1X	213.00
2.8-67	270" lbs.	DM16A★	D14-56C-1X	289.00	21-504	37" lbs.	SM16A□	D14-420C-1X	213.00
2.9-69	164" lbs.	WM16A□	D14-658C-1X	205.00	21-504	37" lbs.	SM16A□	D14-420C-1E	178.00
2.9-69	164" lbs.	WM16A□	D14-58C-1E	170.00	32-768	24" lbs.	SM16A□	D14-640C-1E	178.00
3.6-86	177" lbs.	55RH●	B2422ZC-24H	127.00					

TABLE CONTINUED ON NEXT PAGE

B & B MOTOR AND CONTROL CORP. 96 SPRING STREET, NEW YORK, N. Y. 10012, (212) 966-5777

TR25 MOTOR SPEED CONTROL TRANSISTORIZED PRINTED CIRCUIT TYPE FOR MOTORS UP TO 1/4 H.P.

REVERSING • REGULATION • WIDE SPEED RANGE • FUSED CIRCUIT • CLOSED LOOP MOTOR FEEDBACK • REMOTE SPEED READ-OUT (OPTIONAL) • SCR TRIAC/TRANSISTORIZED • MINIMUM AND MAXIMUM SPEED TRIMMING POTENTIOMETER • INFINITELY VARIABLE SPEED • FULL WAVE ARMATURE AND FIELD RECTIFICATION.

PRICE \$65.

OPTIONS
TACHOMETER SPEED READOUT
DYNAMIC BRAKING



HAS 6 FOOT GROUNDING LINE CORD AND A FEMALE JONES TYPE SOCKET. MOTOR HAS 6 FOOT CABLE WITH MALE PLUG. ALL PLUG-IN CONNECTIONS. YOU DO NO WIRING 115 VOLT AC 50/60 HZ. FINISH - ATTRACTIVE BRUSHED HEAVY GAUGE ALUMINUM PANEL WITH EASY TO READ NOMENCLATURE. CABINET IS CONVECTION COOLED AND MADE OF BLACK WRINKLE FINISHED STEEL.

6 1/2" W x 4 1/4" H. x 3 1/4" D, weight 2 1/2 lbs.

MOTORS FOR THESE CONTROLS

RPM SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE	RPM SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
32-768	24" lbs.	SM16A□	D14-640C-1X	213.00	1/8 H.P.				
39-333	20" lbs.	SM16A□	D14-780C-1X	213.00	2.6-52	77" lbs.	54RL●	B2420C-40L	88.00
39-333	20" lbs.	SM16A□	D14-780C-1E	178.00	2.8-68	66" lbs.	54RL●	B2420C-30L	88.00
80-1368	224" oz.	H56C□	D14-1140C-1X	140.00	4.3-104	54" lbs.	54RL●	B2420C-20L	88.00
80-1368	224" oz.	P56HC□	D14-1140C-1E	105.00	8.75-210	32" lbs.	54RL●	B2420C-10L	88.00
86-2070	146" oz.	G56C□	D14-1725C-1X	120.00	17-414	16" lbs.	54RL●	B2420XC-05L	125.43
86-2070	146" oz.	P56HC□	D14-1725C-1E	85.00	35-828	8" lbs.	54RL●	B2420XC-2 1/2L	142.95
86-2070	139" oz.	55▶	B2422ZC	75.00	80-1368	73" oz.	56Z★	65118C	39.00
100-780	26" oz.	66★	65219-2C	95.00	86-2070	73" oz.	54▶	B2420C	60.00
173-4140	69" oz.	RE-316★	65199C	70.00	1/12 H.P.				
173-4140	69" oz.	RE-316★	65199C-1E	80.00	2.6-52	55" lbs.	53R●	B2418C-40	84.00
173-4140	73" oz.	P56HC□	D14-3450C-1E	97.00	4.3-104	37" lbs.	53R●	B2418C-20	84.00
173-4140	73" oz.	G56C□	D14-3450C-1X	130.00	8.75-210	21" lbs.	53R●	B2418C-10	84.00
1/6 H.P.					17-414	11" lbs.	53R●	B2418XC-05	110.00
.25-6	960" lbs.	CM16A★	D16-5.21C-1E	246.00	35-828	5.5" lbs.	53R●	B2418XC-2 1/2	130.00
.25-6	960" lbs.	CM16A★	D16-5.21C-1E	281.00	80-1368	74" oz.	54▶	B2370C	65.00
173-4140	49" oz.	RE316★	65199-2C	65.00	86-2070	48" oz.	53▶	B2418C	58.00

SEE BOTTOM OF PAGE 27 FOR SYMBOL (▶ ● □ ★) EXPLANATIONS.



MOTOR SPEED CONTROLS

SA 50 MOTOR SPEED CONTROL SILICON/AUTOTRANSFORMER TYPE FOR MOTORS UP TO 1/2 H.P. 115V



PRICE \$130.

RUGGED CIRCUITRY • REVERSING • DYNAMIC BRAKING • WIDE SPEED RANGE • THERMAL CIRCUIT BREAKER AND FUSE • REMOTE SPEED READOUT (OPTIONAL) • INFINITELY VARIABLE SPEED • AVALANCHE DIODE CIRCUIT PROVIDES HIGHER EFFICIENCY AND PROTECTION AGAINST TRANSIENTS • FULL WAVE ARMATURE AND FIELD RECTIFICATION.

OPTIONS TACHOMETER SPEED READOUT

HAS 6 FOOT GROUNDING LINE CORD AND A FEMALE JONES TYPE SOCKET. MOTOR HAS 6 FOOT CABLE WITH MALE PLUG. ALL PLUG-IN CONNECTIONS. YOU DO NO WIRING. 115 VOLT AC 50/60 HZ. FINISH - ATTRACTIVE BRUSHED HEAVY GAUGE ALUMINUM PANEL WITH EASY TO READ NOMENCLATURE. CABINET IS CONVECTION COOLED AND MADE OF BLACK WRINKLE FINISHED STEEL.
9 1/2" W x 6 1/4" H x 6" D, weight 11 lbs.

TR75 MOTOR SPEED CONTROL SCR TRANSISTORIZED TYPE FOR MOTORS UP TO 3/4 H.P.



PRICE \$95.

REVERSING • REGULATION • WIDE SPEED RANGE • FUSED CIRCUIT • CLOSED LOOP MOTOR FEEDBACK • REMOTE SPEED READOUT (OPTIONAL) • SCR TRIAC/TRANSISTORIZED • MINIMUM AND MAXIMUM SPEED TRIMMING POTENTIOMETER • INFINITELY VARIABLE SPEED • FULL WAVE ARMATURE AND FIELD RECTIFICATION.

OPTIONS TACHOMETER SPEED READOUT DYNAMIC BRAKING

HAS 6 FOOT GROUNDING LINE CORD AND A FEMALE JONES TYPE SOCKET. MOTOR HAS 6 FOOT CABLE WITH MALE PLUG. ALL PLUG-IN CONNECTIONS. YOU DO NO WIRING. 115 VOLT AC 50/60 HZ. FINISH - ATTRACTIVE BRUSHED HEAVY GAUGE ALUMINUM PANEL WITH EASY TO READ NOMENCLATURE. CABINET IS CONVECTION COOLED AND MADE OF BLACK WRINKLE FINISHED STEEL.
7 1/2" W x 5 1/2" H x 4 1/4" D, weight 3 lbs.

MOTORS FOR THESE CONTROLS

RPM SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
3/4 H.P.				
.8-20	2600" lbs.	TM16A★	D34-16.5C-1E	422.00
.8-20	2600" lbs.	TM16A★	D34-16.5C-1X	452.00
2.8-67	810" lbs.	Dm16A★	D34-56C-1E	329.00
2.8-67	810" lbs.	Dm16A★	D34-56C-1X	359.00
2.25-54	1008" lbs.	TM16A★	D34-45C-1E	391.00
2.25-54	1008" lbs.	TM16A★	D34-45C-1X	421.00
2.9-69	570" lbs.	WM16A□	D34-58C-1E	245.00
2.9-69	570" lbs.	WM16A□	D34-58C-1X	275.00
6.5-150	363" lbs.	DM16A★	D34-125C-1E	329.00
6.5-150	363" lbs.	DM16A★	D34-125C-1X	359.00
8.75-210	214" lbs.	WM12A□	D34-175C-1E	227.00
8.75-210	214" lbs.	WM12A□	D34-175C-1X	257.00
9.5-288	244" lbs.	DM16A★	D34-190C-1E	314.00
9.5-288	244" lbs.	DM16A★	D34-190C-1X	344.00
14-336	165" lbs.	SM16A□	D34-280C-1E	253.00
14-336	165" lbs.	SM16A□	D34-280C-1X	283.00
17.5-420	111" lbs.	WM12A□	D34-350C-1E	227.00
17.5-420	111" lbs.	WM12A□	D34-350C-1X	257.00
21-504	110" lbs.	SM16A□	D34-420C-1E	253.00
21-504	110" lbs.	SM16A□	D34-420C-1X	283.00
32-768	72" lbs.	SM16A□	D34-640C-1E	283.00
32-768	72" lbs.	SM16A□	D34-640C-1X	283.00
39-930	59" lbs.	SM16A□	D34-780C-1E	253.00
39-930	59" lbs.	SM16A□	D34-780C-1X	283.00
80-1368	39" lbs.	Inquire	D34-1140C-1E	Inquire
80-1368	39" lbs.	Inquire	D34-1140C-1X	Inquire
87-2070	26" lbs.	U56HC□	D34-1725C-1E	160.00
87-2070	26" lbs.	J56C★	D34-1725C-1X	190.00
173-4140	13" lbs.	R56HC□	D34-3450C-1E	160.00
173-4140	13" lbs.	G56C★	D34-3450C-1X	195.00
1/2 H.P.				
.8-20	1800" lbs.	TM16A★	D12-16.5C-1E	380.00
.8-20	1800" lbs.	TM16A★	D12-16.5C-1X	412.00
2.2-52.8	463" lbs.	WM16A□	D12-44C-1E	203.00
2.2-52.8	463" lbs.	WM16A□	D12-44C-1X	235.00
2.25-54	672" lbs.	TM16A★	D12-45C-1E	349.00
2.25-54	672" lbs.	TM16A★	D12-45C-1X	381.00
2.8-67	540" lbs.	DM16A★	D12-56C-1E	287.00
2.8-67	540" lbs.	DM16A★	D12-56C-1X	319.00
2.9-69	380" lbs.	WM16A□	D12-58C-1E	203.00
2.9-69	380" lbs.	WM16A□	D12-58C-1X	235.00
4.35-104	267" lbs.	WM12A□	D12-87C-1E	185.00
4.35-104	267" lbs.	WM12A□	D12-87C-1X	217.00
4.85-116.4	243" lbs.	WM12A□	D12-97C-1E	185.00
4.85-116.4	243" lbs.	WM12A□	D12-97C-1X	217.00
6.5-150	242" lbs.	DM16A★	D12-125C-1E	287.00
6.5-150	242" lbs.	DM16A★	D12-125C-1X	319.00
8.75-210	143" lbs.	WM12A□	D12-175C-1E	185.00
8.75-210	143" lbs.	WM12A□	D12-175C-1X	217.00
9.5-288	159" lbs.	DM16A★	D12-190C-1E	287.00
9.5-288	159" lbs.	DM16A★	D12-190C-1X	319.00
14-336	110" lbs.	SM16A□	D12-280C-1E	211.00
14-336	110" lbs.	SM16A□	D12-280C-1X	243.00
17.5-420	74" lbs.	WM12A□	D12-350C-1E	185.00
17.5-420	74" lbs.	WM12A□	D12-350C-1X	217.00
21-504	74" lbs.	SM16A□	D12-420C-1E	211.00
21-504	74" lbs.	SM16A□	D12-420C-1X	243.00
32-768	48" lbs.	SM16A□	D12-640C-1E	211.00
32-768	48" lbs.	SM16A□	D12-640C-1X	243.00
39-930	40" lbs.	SM16A□	D12-780C-1E	211.00
39-930	40" lbs.	SM16A□	D12-780C-1X	243.00
80-1368	26.2" lbs.	U56HC□	D12-1140C-1E	160.00
80-1368	26.2" lbs.	J56C★	D12-1140C-1X	195.00
87-2070	17.5" lbs.	R56HC□	D12-1725C-1E	118.00
87-2070	17.5" lbs.	H56C★	D12-1725C-1X	150.00
173-4140	8.7" lbs.	P56HC□	D12-3450C-1E	120.00
173-4140	8.7" lbs.	G56C★	D12-3450C-1X	155.00
1/3 H.P.				
.8-20	1200" lbs.	TM16A★	D13-16.5C-1E	359.00
.8-20	1200" lbs.	TM16A★	D13-16.5C-1X	392.00
1.95-34.8	423" lbs.	WM16A□	D13-29C-1E	182.00
1.95-34.8	413" lbs.	WM16A□	D13-29C-1X	215.00
2.2-52.8	269" lbs.	WM16A□	D13-44C-1E	182.00
2.2-52.8	269" lbs.	WM16A□	D13-44C-1X	215.00
2.25-54	448" lbs.	TM16A★	D13-45C-1E	328.00
2.25-54	448" lbs.	TM16A★	D13-45C-1X	361.00
2.8-67	389" lbs.	DM16A★	D13-56C-1E	266.00
2.8-67	389" lbs.	DM16A★	D13-56C-1X	299.00
2.9-69	229" lbs.	WM16A□	D13-58C-1E	182.00
2.9-69	229" lbs.	WM16A□	D13-58C-1X	215.00
4.35-104	168" lbs.	WM12A□	D13-87C-1E	164.00
4.35-104	168" lbs.	WM12A□	D13-87C-1X	197.00
4.85-116	153" lbs.	WM12A□	D13-97-1E	164.00
4.85-116	153" lbs.	WM12A□	D13-97-1X	197.00
6.25-150	161" lbs.	DM16A★	D13-125-1E	251.00
6.25-150	161" lbs.	DM16A★	D12-125-1X	284.00
8.75-210	90" lbs.	WM12A□	D13-175C-1E	164.00
8.75-210	90" lbs.	WM12A□	D13-175C-1X	197.00
9.5-228	103" lbs.	DM16A★	D13-190C-1E	251.00
9.5-228	103" lbs.	DM16A★	D13-190C-1X	284.00

TABLE CONTINUED ON TOP OF NEXT PAGE

MOTORS FOR THESE CONTROLS

RPM SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
14-336	73" lbs.	SM16A□	D13-280C-1E	190.00
14-336	73" lbs.	SM16A□	D12-280C-1X	223.00
17.5-420	46" lbs.	WM12A□	D13-350C-1E	164.00
17.5-420	46" lbs.	WM12A□	D12-350C-1X	197.00
21-504	49" lbs.	SM16A□	D13-420C-1E	190.00
21-504	49" lbs.	SM16A□	D13-420C-1X	223.00
32-768	32" lbs.	SM16A□	D13-640C-1E	190.00
32-768	32" lbs.	SM16A□	D13-640C-1X	223.00
39-930	26" lbs.	SM16A□	D13-780C-1E	190.00
39-930	26" lbs.	SM16A□	D13-780C-1X	223.00
57-1368	299" oz.	R56HC□	D13-1140C-1E	130.00
57-1368	299" oz.	H56C□	D13-1140C-1X	170.00
86-2070	195" oz.	P56HC□	D13-1725C-1E	97.00
86-2070	195" oz.	H56C□	D13-1725C-1X	130.00
173-4140	98" oz.	P56HC□	D13-3450C-1E	100.00
173-4140	98" oz.	G56C□	D13-3460C-1X	130.00
1/4 H.P.				
6-14.5	775" lbs.	CM12A★	D14-12C-1X	228.00
6-14.5	775" lbs.	CM12A★	D14-12C-1E	193.00
8-20	900" lbs.	TM16A★	D14-16.5C-1E	347.00
8-20	900" lbs.	TM16A★	D14-16.5C-1X	382.00
1.25-30	302" lbs.	WM16A□	D14-25C-1X	205.00
1.25-30	302" lbs.	WM16A□	D14-25C-1E	170.00
1.45-34	282" lbs.	WM16A□	D14-29C-1E	170.00
1.45-34	282" lbs.	WM16A□	D14-29C-1X	205.00
1.8-43	254" lbs.	55RH●	B24222C-48H	127.00
2.2-53	206" lbs.	WM12A□	D14-44C-1E	152.00
2.2-53	206" lbs.	WM12A□	D14-44C-1X	187.00
2.4-58	240" lbs.	55RH●	B24222C-36H	127.00
2.25-54	336" lbs.	TM16A★	D14-45C-1E	316.00
2.25-54	336" lbs.	TM16A★	D14-45C-1X	351.00
2.8-67	270" lbs.	DM16A★	D14-56C-1E	254.00
2.8-67	270" lbs.	DM16A★	D14-56C-1X	289.00
2.9-69	164" lbs.	WM16A□	D14-658C-1X	205.00
2.9-69	164" lbs.	WM16A□	D14-58C-1E	170.00
3.6-86	177" lbs.	55RH●	B24222C-24H	127.00
4.35-104	121" lbs.	WM12A□	D14-87C-1X	187.00
4.35-104	121" lbs.	WM12A□	D14-87C-1E	152.00
4.85-116	115" lbs.	55RH●	B24222C-18H	127.00
4.85-116	65" lbs.	WM12A□	D14-97C-1E	152.00
4.85-116	65" lbs.	WM12A□	D14-97C-1X	187.00
6.25-150	121" lbs.	DM16A★	D14-125C-1E	254.00
6.25-150	121" lbs.	DM16A★	D14-125C-1X	289.00
8.75-210	64" lbs.	WM12A□	D14-175C-1X	187.00
8.75-210	64" lbs.	WM12A□	D14-175C-1E	152.00
8.75-210	75" lbs.	55RH●	B24222C-10H	127.00
9.5-228	81" lbs.	DM16A★	D14-190C-1X	274.00
9.5-228	81" lbs.	DM16A★	D14-190C-1E	239.00
17.5-410	33" lbs.	WM12A□	D14-350C-1X	187.00
17.5-410	33" lbs.	WM12A□	D14-350C-1E	152.00
19-336	55" lbs.	SM16A□	D14-280C-1E	178.00
19-336	55" lbs.	SM16A□	D14-280C-1X	213.00
21-504	37" lbs.	SM16A□	D14-420C-1X	213.00
21-504	37" lbs.	SM16A□	D14-420C-1E	178.00
32-768	24" lbs.	SM16A□	D14-640C-1E	178.00
32-768	24" lbs.	SM16A□	D14-640C-1X	213.00
39-333	20" lbs.	SM16A□	D14-780C-1X	213.00
39-333	20" lbs.	SM16A□	D14-780C-1E	178.00
80-1368	224" oz.	H56C□	D14-1140C-1X	140.00
80-1368	224" oz.	P56HC□	D14-1140C-1E	105.00
86-2070	146" oz.	G56C□	D14-1725C-1X	120.00
86-2070	146" oz.	P56HC□	D14-1725C-1E	85.00
86-2070	139" oz.	55▶	B24222C	75.00
100-780	26" oz.	66★	65219-2C	95.00
173-4140	69" oz.	RE-316★	65199C	70.00
173-4140	69" oz.	RE-316★	65199C-1E	80.00
173-4140	73" oz.	P56HC□	D14-3450C-1E	97.00
173-4140	73" oz.	G56C□	D14-3450C-1X	130.00
1/6 H.P.				
.25-6	960" lbs.	CM16A★	D16-5.21C-1E	246.00
.25-6	960" lbs.	CM16A★	D16-5.21C-1E	281.00
173-4140	49" oz.	RE316★	65199-2C	65.00
1/8 H.P.				
2.6-52	77" lbs.	54RL●	B2420C-40L	88.00
2.8-68	66" lbs.	54RL●	B2420C-30L	88.00
4.3-104	54" lbs.	54RL●	B2420C-20L	88.00
8.75-210	32" lbs.	54RL●	B2420C-10L	88.00
17-414	16" lbs.	54RL●	B2420XC-05L	125.43
35-828	8" lbs.	54RL●	B2420XC-24L	142.95
80-1368	73" oz.	56Z★	65118C	39.00
86-2070	73" oz.	54▶	B2420C	60.00

SEE BOTTOM OF PAGE 27 FOR SYMBOL
(▶ ● □ ★) EXPLANATIONS.

SCR75 MOTOR SPEED CONTROL SCR TRANSISTORIZED TYPE FOR MOTORS UP TO 3/4 H.P.



PRICE \$185.

OPTIONS
TACHOMETER SPEED REGULATION TACHOMETER SPEED READOUT
DYNAMIC BRAKING MANUAL OR AUTOMATIC REVERSING
ADJUSTABLE CONTROLLED ACCELERATION ADJUSTABLE TORQUE CONTROL

GOOD REGULATION • SCR CIRCUITRY • FULL WAVE RECTIFICATION • MINIMUM AND MAXIMUM SPEED (TRIMMING POTS I.R. COMP. ADJUSTMENT • HEAVY DUTY CONSTRUCTION • 2...NOT 1 SCR FOR BETTER FIRING ANGLE (BETTER STABILITY • "NEMA 1" ENCLOSURE • THERMAL CIRCUIT BREAKER AND FUSE • ARMATURE CURRENT METER A.C. OFF SWITCH ON UNIT

HAS 6 FOOT GROUNDING LINE CORD AND A FEMALE JONES TYPE SOCKET. MOTOR HAS 6 FOOT CABLE WITH MALE PLUG. ALL PLUG-IN CONNECTIONS. YOU DO NO WIRING. 115 VOLT AC 50/60 HZ. FINISH - ATTRACTIVE BRUSHED HEAVY GAUGE ALUMINUM PANEL WITH EASY TO READ NOMENCLATURE. CABINET IS CONVECTION COOLED AND MADE OF BLACK WRINKLE FINISHED STEEL.
10 1/2" W x 12" H x 4" D,

SA100 MOTOR SPEED CONTROL SILICON/AUTOTRANSFORMER TYPE FOR MOTORS UP TO 1 H.P. 115V



PRICE \$200.

RUGGED CIRCUITRY • REVERSING • DYNAMIC BRAKING • WIDE SPEED RANGE • THERMAL CIRCUIT BREAKER AND FUSE • REMOTE SPEED READOUT (OPTIONAL) • INFINITELY VARIABLE SPEED • AVALANCHE DIODE CIRCUIT PROVIDES HIGHER EFFICIENCY AND PROTECTION AGAINST TRANSIENTS • FULL WAVE ARMATURE AND FIELD RECTIFICATION.

OPTIONS
TACHOMETER SPEED READOUT

HAS 6 FOOT GROUNDING LINE CORD AND A FEMALE JONES TYPE SOCKET. MOTOR HAS 6 FOOT CABLE WITH MALE PLUG. ALL PLUG-IN CONNECTIONS. YOU DO NO WIRING. 115 VOLT AC 50/60 HZ. FINISH - ATTRACTIVE BRUSHED HEAVY GAUGE ALUMINUM PANEL WITH EASY TO READ NOMENCLATURE. CABINET IS CONVECTION COOLED AND MADE OF BLACK WRINKLE FINISHED STEEL
11 1/2" W x 7" H x 7 1/2" D, weight 18 lbs.



MOTOR SPEED CONTROLS

SCR150 MOTOR SPEED CONTROL SCR TRANSISTORIZED TYPE FOR MOTORS UP TO 1 1/2 H.P. 230 V



**GUARANTEED
FOR 1 YEAR**

PRICE \$198.

OPTIONS
TACHOMETER SPEED REGULATION TACHOMETER SPEED READOUT
DYNAMIC BRAKING MANUAL OR AUTOMATIC REVERSING
ADJUSTABLE CONTROLLED ACCELERATION ADJUSTABLE TORQUE CONTROL

GOOD REGULATION • SCR CIRCUITRY • FULL WAVE RECTIFICATION • MINIMUM AND MAXIMUM SPEED (TRIMMING POTS I.R. COMP. ADJUSTMENT • HEAVY DUTY CONSTRUCTION • 2... NOT 1 SCR FOR BETTER FIRING ANGLE (BETTER STABILITY • "NEMA 1" ENCLOSURE • THERMAL CIRCUIT BREAKER AND FUSE • ARMATURE CURRENT METER A.C. OFF SWITCH ON UNIT

HAS 6 FOOT GROUNDING LINE CORD AND A FEMALE JONES TYPE SOCKET. MOTOR HAS 6 FOOT CABLE WITH MALE PLUG. ALL PLUG-IN CONNECTIONS. YOU DO NO WIRING. 115 VOLT AC 50/60 HZ. FINISH — ATTRACTIVE BRUSHED HEAVY GAUGE ALUMINUM PANEL WITH EASY TO READ NOMENCLATURE. CABINET IS CONVECTION COOLED AND MADE OF BLACK WRINKLE FINISHED STEEL.
SIZE: 8 1/4" Wx12" Hx6" D. WEIGHT: 6 lbs.

SA200 MOTOR SPEED CONTROL SILICON/AUTOTRANSFORMER TYPE FOR MOTORS UP TO 2 H.P. 230 V



**GUARANTEED
FOR 1 YEAR**

PRICE \$300.

RUGGED CIRCUITRY • REVERSING • DYNAMIC BRAKING • WIDE SPEED RANGE • THERMAL CIRCUIT BREAKER AND FUSE • REMOTE SPEED READOUT (OPTIONAL) • INFINITELY VARIABLE SPEED • AVALANCHE DIODE CIRCUIT PROVIDES HIGHER EFFICIENCY AND PROTECTION AGAINST TRANSIENTS • FULL WAVE ARMATURE AND FIELD RECTIFICATION.

HAS 6 FOOT GROUNDING LINE CORD AND A FEMALE JONES TYPE SOCKET. MOTOR HAS 6 FOOT CABLE WITH MALE PLUG. ALL PLUG-IN CONNECTIONS. YOU DO NO WIRING. 230 VOLT AC 50/60 HZ. FINISH — ATTRACTIVE BRUSHED HEAVY GAUGE ALUMINUM PANEL WITH EASY TO READ NOMENCLATURE. CABINET IS CONVECTION COOLED AND MADE OF BLACK WRINKLE FINISHED STEEL.
SIZE: 8 1/4" Wx12" Hx6" D. WEIGHT: 9 1/2 lbs.

MOTORS FOR THESE CONTROLS

RPM SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
2 H.P.				
80-1368	108" lbs.	215★	D2-1140C-2E	740.00
80-1368	108" lbs.	215★	D2-1140C-2D	693.00
87-2070	72" lbs.	184★	D2-1725C-2E	640.00
87-2070	72" lbs.	184★	D2-1725C-2D	555.00
173-4140	36" lbs.	184★	D2-3450C-2E	650.00
173-4140	36" lbs.	184★	D2-3450C-2D	482.00
1 1/2 H.P.				
80-1368	81" lbs.	213★	D1-1/2-1140C-2E	690.00
80-1368	81" lbs.	213★	D1-1/2-1140C-2D	594.00
87-2070	54" lbs.	184★	D1-1/2-1725C-2E	600.00
87-2070	54" lbs.	184★	D1-1/2-1725C-2D	498.00
173-4140	27" lbs.	182★	D1-1/2-3450C-2E	540.00
173-4140	27" lbs.	182★	D1-1/2-3450C-2D	438.00
1 H.P.				
2.8-67	1080" lbs.	DM16A★	D1-56C-2E	359.00
2.8-67	1080" lbs.	DM16A★	D1-56C-2X	396.00
2.25-54	1345" lbs.	TM16A★	D1-46C-2E	421.00
2.25-54	1345" lbs.	TM16A★	D1-45C-2X	458.00
6.5-150	484" lbs.	DM16A★	D1-125C-2E	359.00
6.5-150	484" lbs.	DM16A★	D1-125C-2X	396.00
9.5-288	316" lbs.	DM16A★	D1-190C-2E	344.00
14-336	221" lbs.	SM16A□	D1-280C-2E	283.00
14-336	221" lbs.	SM16A□	D1-280C-2X	320.00
17.5-420	152" lbs.	WM12A□	D1-350C-2E	257.00
17.5-420	152" lbs.	WM12A□	D1-350C-2X	294.00
21-504	147" lbs.	SM16A□	D1-420C-2E	283.00
21-504	147" lbs.	SM16A□	D1-420C-2X	320.00
32-768	96.5" lbs.	SM16A□	D1-640C-2E	283.00
32-768	96.5" lbs.	SM16A□	D1-640C-2X	320.00
39-930	79" lbs.	SM16A□	D1-780C-2E	283.00
39-930	79" lbs.	SM16A□	D1-780C-2X	320.00
80-1368	54" lbs.	W56AL□	D1-1140C-2D	Inquire
87-2070	36" lbs.	Inquire	D1-1725C-2E	227.00
87-2070	36" lbs.	W56HC□	D1-1725C-2X	190.00
87-2070	36" lbs.	W56HC	D1-1725C-2E	190.00
87-2070	36" lbs.	Inquire	D1-1725C-2X	227.00
173-4140	18" lbs.	T56HC□	D1-3450C-2E	200.00
173-4140	18" lbs.	H56C★	D1-3450C-2X	235.00
173-4140	18" lbs.	T56HC	D1-3450C-2E	200.00
173-4140	18" lbs.	H56C★	D1-3450C-2X	235.00
3/4 H.P.				
8-20	2600" lbs.	TM16A★	D34-16.5C-2E	424.00
8-20	2600" lbs.	TM16A★	D34-16.5C-2X	454.00
2.8-67	810" lbs.	DM16A★	D34-56C-2E	331.00
2.8-67	810" lbs.	DM16A★	D34-56C-2X	361.00
2.25-54	1008" lbs.	TM16A★	D34-45C-2E	393.00
2.25-54	1008" lbs.	TM16A★	D34-45C-2X	423.00
2.9-69	570" lbs.	WM16A□	D34-58C-2E	247.00
2.9-69	570" lbs.	WM16A□	D34-58C-2X	277.00
6.5-150	363" lbs.	DM16A★	D34-125C-2E	331.00
6.5-150	363" lbs.	DM16A★	D34-125C-2X	361.00
8.75-210	214" lbs.	WM12A□	D34-175C-2E	229.00
8.75-210	214" lbs.	WM12A□	D34-175C-2X	259.00
9.5-288	244" lbs.	DM16A★	D34-190C-2E	316.00
9.5-288	244" lbs.	DM16A★	D34-190C-2X	346.00
14-336	165" lbs.	SM16A□	D34-280C-2E	255.00
14-336	165" lbs.	SM16A□	D34-280C-2X	285.00
17.5-420	111" lbs.	WM12A□	D34-350C-2E	229.00
17.5-420	111" lbs.	WM12A□	D34-350C-2X	259.00
21-504	110" lbs.	SM16A□	D34-420C-2E	255.00
21-504	110" lbs.	SM16A□	D34-420C-2X	285.00
80-1368	39" lbs.	Inquire	D34-1140C-2E	Inquire
87-2070	26" lbs.	J56C★	D34-1750C-2E	152.00
87-2070	26" lbs.	U56HC□	D34-1750C-2X	197.00
173-4140	13" lbs.	G56C★	D34-3450C-2E	197.00
173-4140	13" lbs.	R56HC□	D34-3450C-2X	162.00
1/2 H.P.				
80-1368	26.2" lbs.	J56C★	D12-1140C-2X	197.00
80-1368	26.2" lbs.	J56HC□	D12-1140C-2E	162.00
87-2070	17.5" lbs.	H56C★	D12-1725C-2E	152.00
87-2070	17.5" lbs.	R56HC□	D12-1725C-2E	120.00
173-4140	8.7" lbs.	P56HC★	D12-3450C-2E	157.00
173-4140	8.7" lbs.	P56HC□	D12-3450C-2E	122.00
1/3 H.P.				
80-1368	299" oz.	H56C★	D13-1140C-2X	170.00
80-1368	299" oz.	R56HC□	D13-1140C-2E	130.00
86-2070	195" oz.	H56C★	D13-1725C-2E	132.00
86-2070	195" oz.	P56HC□	D13-1725C-2E	99.00
173-4140	97.7" oz.	G56C★	D12-3450C-2E	132.00
173-4140	97.7" oz.	P56HC□	D13-3450C-2E	102.00
1/4 H.P.				
80-1368	224" oz.	H56C★	D14-1140C-2X	142.00
80-1368	224" oz.	P56HC□	D14-1140C-2E	107.00
86-2070	146" oz.	G56C★	D14-1725C-2E	122.00
86-2070	146" oz.	P56HC□	D14-1725C-2X	87.00
173-4140	73" oz.	G56C★	D14-3460C-2X	143.00
173-4140	73" oz.	P56HC□	D14-3460C-2E	99.00

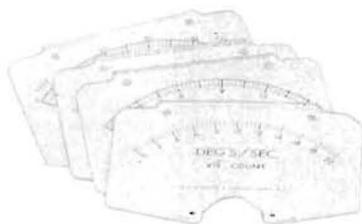
SEE BOTTOM OF PAGE 27 FOR SYMBOL
(▶ ● □ ★) EXPLANATIONS.

B & B MOTOR AND CONTROL CORP. 96 SPRING STREET, NEW YORK, N. Y. 10012, (212) 966-5777



B & B IMPROVED VIS-COUNT TACHOMETER SPEED INDICATING SYSTEM

For simple and accurate remote measurement of units, strokes, R.P.M. and surface speed



B & B VIS-COUNT SPEED INDICATING SYSTEM

A high quality rugged $\pm 1\%$ accuracy system for continuous visual indication of speeds.

Briefly:

The Vis-Count speed indicator is a factory calibrated system consisting of a precision-built tachometer-generator, and a $4\frac{1}{2}$ " meter. This tachometer-generator is connected to the rotating shaft whose speed is to be measured. The meter then indicates the speed. A shaft coupling and a tachometer mounting clamp are included.

Specifications:

The tachometer generator, since it is the heart of the system, is most important. The Vis-count tach-generator is a ball bearing precision instrument. Its stabilized ceramic magnets can't be damaged by short circuits or overloads. Silver graphite brushes assure accurate signal. The voltage output is linear within $\pm 0.05\%$.

Speed Indicator:

The precision $4\frac{1}{2}$ " meter is custom made to our specifications. D'Arsonval movement is standard. All meters are damped and are accurate to within $\pm 1\%$ of full scale reading. A calibrating potentiometer is located at rear of meter so that re-calibration can be made in the field if necessary.

Connections:

The tach-generator is connected to a two-conductor, 20-foot cable which is wired to the indicating meter. No connections are made by you.

Mounting:

A cadmium plated beryllium copper mounting bracket is supplied for mounting the tach-generator to any surface. The $4\frac{1}{2}$ " meter is supplied in a steel meter box for use on a bench. For use in a panel, please state so on order.

INSTRUCTIONS FOR DETERMINING WHICH TACHOMETER GENERATOR TO SELECT

A. Determine the maximum speed in R.P.M. of the rotating shaft to which tachometer sender is to be coupled and which

you want indicated on meter scaleplate. If this speed is in the range of: 3000-8000 rpm (higher with modification) select: T-5 (maximum permissible shaft speed: 10,000 rpm); 1200-3000 rpm: select T-1, (maximum permissible shaft speed: 7500 rpm); 800-1200 rpm: select T-2, (maximum permissible shaft speed: 2000 rpm); 350-800 rpm: select T-3, (maximum permissible shaft speed: 1000 rpm).

For lower speeds, consult our sales department.

Meters available:

0-5, 0-10, 0-50, 0-100, 0-250, 0-500, 0-1000, 0-1500, 0-2000, 0-2500, 0-5000, 0-10000, RPM. Any meter can be made to your specifications within 48 hours; such as inches/minute, feet-hour, pieces/hour, 0-100% etc. Consult our sales department.

Prices:

The complete system including a M176 tachometer generator with 20 feet of conductor cable, $4\frac{1}{2}$ " indicating meter housed in meter box, beryllium copper mounting plate and coupling:

with M176T1	\$90.00 each system
M176T2	\$95.00 each system
M176T3	\$95.00 each system
M176T5	\$90.00 each system

For reversible rotation add "R" to tach-generator model and add \$5.00 to price of system. Cable lengths up to 500 feet can be supplied; add 5c per foot. Deduct the following prices if you wish to delete any of the following:

Coupling—deduct \$2.00	Mounting plate—deduct \$2.50
	Meter box—deduct \$3.50

Important:

Before ordering.—The coupling is supplied with one side to fit the tach-generator. Please specify if the other side is to be $3/16$ ", $1/4$ ", $5/16$ ", or $3/8$ " bore. Do you want reversing? What is speed of your driver shaft to compare to on indicating meter?



S-50T MOTOR SPEED CONTROL SYSTEMS

HIGH ACCURACY TACHOMETER FEEDBACK SYSTEM WITH METER READOUT

FOR LOWER COST NON-TACHOMETER FEEDBACK SYSTEMS SEE PAGE 17



Rating: The S50T-10 tachometer-generator feedback system is a closed-loop, precision system for controlling the speed of 115 volt, DC shunt motors rated up to 1/3 H.P., from 115 VAC.

Speed Range: A 25 to 1 speed range is easily obtained with $\pm 1\frac{1}{2}\%$ regulation. Full torque is available at all speeds.

Specifications: A transistor amplifier and stabilization circuit controls the silicon controlled rectifier so that full wave filtered DC voltage is supplied to the motor armature in the amount required by the particular load in order to hold the speed at the pre-set R.P.M. The precision B & B Tachometer Generator furnishes a signal which is compared to the command signal set on the coarse and fine speed 10 turn calibrated adjusting potentiometer in the Zener Diode reference circuit. Voltage changes in the A.C. supply lines, as well as load changes, have negligible effect on the system. An accuracy of $\pm 1\frac{1}{2}\%$ is to be expected. A sensitivity control is provided to match the load characteristics to the system.

Tachometer-Generator: A precision tachometer-generator is used to assure accurate readings and regulation.

The Vis-count tach-generator is a ball bearing precision instrument. The stabilized ceramic magnets can't be damaged by short circuits or overloads. Silver graphite brushes assure accurate signal. The voltage output is linear within $\pm 0.05\%$.

Life tests on M176 tach-generators at various speeds up to 10,000 RPM with 5 milliampere load have consistently resulted in brush life equivalent to 100,000 hours at 3000 RPM. For most applications an average brush life of 10^{10} revolutions may be expected. If a gearmotor is ordered, we calibrate the indicating

meter to the proper gear shaft output speed.

Features: A six-foot vinyl covered cord and a three prong grounding plug accept the AC input. The motor is connected to the control unit by means of a four conductor, vinyl covered cable with a Cinch Jones plug. The control has a female connector. In addition, 20 feet of wire is supplied for remote location of the indicating meter which is a standard $4\frac{1}{2}$ " instrument furnished in a black wrinkle finished meter cabinet. A four pin Amphenol connector is provided for the tachometer-generator and meter leads. **You do no wiring.**

Reversing is provided for by means of a three-pole, center off switch. Dynamic braking is applied to the motor in the "off" position. No warm-up time is required because of solid state circuitry. Pilot light and fuses for both armature circuit and AC lines are standard features. Power on/off switch is also located on front panel.

The S50T control measures $6\frac{1}{4}$ " wide, 7" high, 5" deep. A fan cools the interior of the control. Net weight of control only is $6\frac{1}{2}$ lbs. The steel drip proof cabinet is a blue green hammer-tone finish with an etched aluminum front panel.

Speed Indicator: The precision $4\frac{1}{2}$ " meter is custom made to our specifications. D'Arsonval movement is standard. All meters are damped and are accurate to within $\pm 1\frac{1}{2}\%$ of full scale reading. A calibrating potentiometer is located at rear of meter so that re-calibration can be made in the field if necessary.

Complete system, less motor \$370.00

FOR FURTHER INFORMATION ON TACHOMETER AND METER READOUT SEE PAGE 24.

FOR COMPLETE LIST OF MOTORS FOR USE WITH THIS CONTROL SEE PAGES 11,12 and 13.

B & B MOTOR AND CONTROL CORP. 96 SPRING STREET, NEW YORK, N. Y. 10012, (212) 966-5777

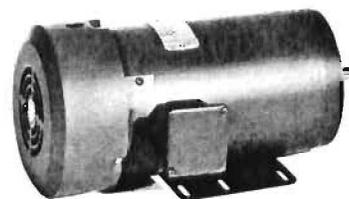
BASIC DRIVE DESCRIPTIONS & LIST PRICES

1 ϕ SOLID STATE D-C • COMPAK DRIVE
SERIES 1000

COMPAK V*S DRIVE (1/8-1 HP.)



OPERATOR'S CONTROL/POWER UNIT



FRACTIONAL D-C DRIVE MOTOR

A. INTRODUCTION

The Reliance Power Matched Compak V*S Drives are adjustable speed D-c drives available in sizes from 1/8 through 1 Hp. These drives utilize 120 volts 50/60 cycle A-c. power through 1/2 hp. and 240 volts 50/60 cycle A-c. power for 3/4 and 1 Hp. The drives provide 20:1 speed range for the D-c. motors. The specifically designed motors are power matched to the A-c. to D-c. conversion unit and to the load.

The Reliance Power Matched Compak V*S System consists of the following drive elements:

1. **Operator's Control/Power Unit** converts A-c. to controlled D-c. power and houses all the necessary operator's control to start, stop and control the speed of a D-c. motor.
2. **RPM Heavy-Duty Fractional D-c. Drive Motor**, available in a variety of base speeds and enclosures, is power matched to the output characteristics of the operator's control/power unit and the load duty cycle requirements. It's specifically designed for cool, long lasting operation on rectified power.

B. STANDARD DRIVE FUNCTIONS AND FEATURES

1. **Operator's Control/Power Unit**
 - a. Drive start-stop rocker switch
 - b. Speed selection—(20:1 Speed Range)
 - c. Compact pushbutton type enclosure
 - d. Conveniently located circuit breaker
 - e. Smooth timed acceleration
 - f. Modern styling
2. **Heavy-Duty Fractional D-c Drive Motor**
 - a. Heavy gauge rolled steel 56 frame
 - b. Heavy gauge NEMA H base
 - c. Brush inspection openings
 - d. Double-shielded ball bearings (lubricated for life)

BASIC DRIVE PRICES AND MODEL NUMBERS

120 Volts (1/8-1/2 Hp.) and 240 Volts (3/4-1 Hp.) 50/60 Cycle A-c

Hp.	Type	Controlled Speed Range Rpm. ① Min-Base	Basic Drive List Price		Drive Less Motor		Power Matched D-c Motor					
			Drip Proof Motor	TENV Motor	List Price	Model Number	Drip Proof		TENV			
							Frame	M/N	Frame	M/N		
1/8-1/6	1C	172-3450	180	184	\$80	*8C1D	P56H	T56G763	P56H	T56G1763		
	1C	125-2500	153	157			P56H		T56G756		P56H	*T56G1784
	1C	88-1750	163	*170			P56H				T56HC	
1/4	1C	172-3450	182	192	80	*8C1D	P56H	T56G762	R56H	T56G1762		
	1C	125-2500	163	172			P56H		T56G755		T56H	*T56G1783
	1C	88-1750	177	*185			R56H				U56HC	
1/3	1C	172-3450	192	203 ②	80	*8C1D	P56H	T56G761	R56H ②	T56G1761		
	1C	125-2500	171	180			R56H		T56G754		U56H	T56G1754
	1C	88-1750	187	198			T56H				U56H	
1/2	1C	172-3450	218	232 ②	80	*8C1D	R56H	T56G760	T56H ②	T56G1760		
	1C	125-2500	192	203 ②			T56H		*T56G781		T56H ②	*T56G1781
	1C	88-1750	*212	*225 ②			W56HC				W56HC ②	
3/4	1C	172-3450	286	299 ②	150	*8C2D	T56H	T56G634	U56H ②	T56G1634		
	1C	125-2500	265	276 ②			U56H		T56G627		U56H ②	T56G1627
	1C	88-1750	280	294 ②			U56H				W56H ②	
1	1C	172-3450	318	334 ②	150	*8C2D	T56H	T56G633	U56H ②	T56G1633		
	1C	125-2500	292	305 ②			U56H		*T56G654		W56H ②	*T56G1654
	1C	88-1750	*312	*328 ②			WT56HC				WT56HC ② ③	

①When used with solid state Power Matched drives, D-c. motors can operate continuously at full load torque at all speeds down to 60% base speed. If torques at lower speeds do not exceed 60% of rated torque, continuous operation at any speed over the complete 20:1 speed range can be obtained.

②Motor is TEFC.

③Class F insulation 40° C ambient.

*Stock Rating—These motors are stocked and priced as "C" face motors with removable feet. If the "C" face with removable feet is not desired deduct \$2.00 from the basic drive list price for a standard foot mounted motor.



RELIANCE
ELECTRIC COMPANY

POWER MATCHED V*S DRIVES

COMPAK 1/8-1 HP.

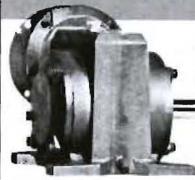
**SERIES 1000
SINGLE PHASE
SOLID STATE D-C.**



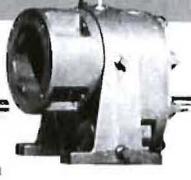
RPM
D-c Motor



CONTROL
UNIT



Right Angle
MASTERReducer



Parallel
MASTERReducer

DESIGN FEATURES

The trim, compact MASTERReducer houses a smooth running gear system ready to give you low rpm., full torque power to complete your V*S Compak Drive System.

CLEANABLE—The cast iron frame is free from dirt-catching pockets, grooves, slots and can be cleaned quickly with ordinary cleaning compounds.

LEAK-PROOF LUBRICATION—All horizontally mounted MASTERReducers are splash lubricated with oil seals at both input and output shafts, riding on accurately machined, ground and polished sleeves. In vertical downshaft applications, exclusive optional "Dri-Seal" construction prevents oil leakage along output shaft.

RIGHT ANGLE DESIGN FEATURES

Choose either vertical or horizontal output shafts in left, right or double extended assemblies.

- Symmetrical gearcase design permits easy conversion from right hand to left hand assembly.
- For perfect shaft alignment and gear mesh, the worm is straddle mounted in bearings, maintaining rigid support at both ends.
- Oil seals at input and output shafts ride on accurately machined, ground and polished sleeves.
- Input shaft lip seals are self-contained in cartridges complete with sleeves and dynamic oil slinger.

PARALLEL DESIGN FEATURES

QUIET, HELICAL GEARING—Helical gears transmit power smoothly, efficiently, and quietly. Gears for Parallel MASTERReducers are cut from steel, shaved, hardened and then finish honed to close tolerances for high torque capacity and low power losses. The first stage driving gear is straddle mounted and gears and shafts are rigidly supported.

VERSATILE—may be furnished with conventional mounting feet, flange mountings in both horizontal and vertical designs, and exclusive optional MULTIMOUNT* on single reduction Parallel Reducers. All AGMA output speeds from 780 rpm. to 9 rpm. are available as well as gear ratios from 2.25:1 to 129.7:1.

*Available from Master Production only.

PRICING PROCEDURE

- ① Price C-Face Motor and Control
- ② Price Reducer Right Angle (listed below) or Parallel (listed below)

RE-2w1
RE-2f
RE2-g
Drive Net

EXAMPLE:

1/4 HP. Drip proof Compak drive with C-Face 44 Rpm. output Right Angle MASTERReducer to user in lot size of 1 unit

	List Price	Symbol	Mult.	Net Price
Drive	\$177	RE-2w1	1.0 =	\$177.00
MASTERReducer	67	RE-2f	1.0 =	67.00

Total net \$244.00

NOTE: When ordering, specify motor and reducer output speed and gearcase size.

REDUCER LIST PRICES

RIGHT ANGLE ②

Output Speed ②	1/8-1/6 HP Compak 56 Fr. 1725 Rpm.			1/4 HP Compak 56 Fr. 1725 Rpm.			1/2 HP Compak 56 Fr. 1725 Rpm.			1 HP Compak 56 Fr. 1725 Rpm.		
	Max. Output Torq. ①	Reducer Size	List Price ③	Max. Output Torq. ①	Reducer Size	List Price ③	Max. Output Torq. ①	Reducer Size	List Price ③	Max. Output Torq. ①	Reducer Size	List Price ③
350	20	WM12A	\$ 67	33	WM12A	\$ 67	74	WM12A	\$ 67	152	WM16A	\$ 85
175	38			64			143			293		
87	71			121			267			559		
58	96			164			364	WM16A	85	782	CM12A	108
44	121			206			463			997	WM21A	115
35	149			256			558			1405	CM16A	161

PARALLEL ②

420	24	SM16A	\$ 93	37	SM16A	\$ 93	72	SM16A	\$ 93	145	SM16A	\$ 93
280	36			55			109			218	SM21A	179
190	53	DM16A	154	78	DM16A	154	161	DM16A	154	322	DM16A	154
155	63		154	98		154	191		154	382		154
84	117	DM16A	169	180	DM16A	169	353	DM16A	169	706	DM16A	169
68	145		169	222		169	435		169	873		169

① Torque in (in-lb).

② NOTE: Output speeds shown are stocked. Other ratios are also available, see C-Face reducer section of this catalog.

③ C-Face reducer prices do not include motor mounting. Reliance will mount NEMA C-Face motors, add \$5.00 List: Size 12-16; \$10.00 List Size 21 and 28.

B & B MOTOR AND CONTROL CORP. 96 SPRING STREET, NEW YORK, N. Y. 10012, (212) 966-5777

SINGLE PHASE INTEGRAL SOLID STATIC DRIVES (1-5 HP.)

Reliance Integral Hp. Power Matched V*S Drives are adjustable speed D-c drives available in sizes from 1 through 5 Hp. they utilize 230 volts, 50/60 cycle A-c power and provide a 20:1 regulated speed range for the D-c drive motor. The specifically designed D-c motors are power matched to the A-c to D-c conversion unit and to the load. Armature voltage can be controlled from zero to rated armature voltage for smooth acceleration from zero rpm. to motor base speed.

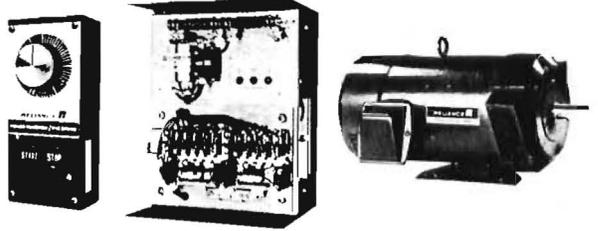
The Reliance Integral Hp. Power Matched V*S system consists of the following drive elements:

1. **The Rectified Power Module** or A-c to D-c silicon power conversion unit is the heart of the drive. This power module and its associated magnetic control are housed in a wall mounted enclosure and provides variable D-c voltage to achieve adjustable speed control of the D-c motor.
2. **RPM Heavy-Duty Industrial D-c. Motor**, available in a variety of base speeds and enclosures, is power matched to the output characteristics of the rectified power module and the load duty cycle requirements. It's specifically designed for long lasting operation on rectified power.
3. **The Operator's Control Station** contains the speed adjustment potentiometer and pushbutton control devices to operate the drive. All the controls are housed in this compact pushbutton enclosure for convenient mounting at any location.

B. BASIC DRIVE FUNCTIONS

1. Drive start-stop and speed selection
2. Jog by selector switch
3. Unidirectional operation, coast to rest
4. Fixed time acceleration (4 seconds)
5. 5% speed regulation with adjustable IR drop compensation.
6. 20:1 controlled speed range by armature voltage control
7. Adjustable current limit (100-150%)

8. Adjustable maximum speed potentiometer
9. Drive under voltage protection
10. Fast acting fuse protection
11. Surge protection from A-c line and D-c load transients



OPERATOR'S CONTROL STATION RECTIFIED POWER MODULE INTEGRAL D-C DRIVE MOTOR

C. OPTIONAL DRIVE FUNCTIONS

1. Armature Reversing
2. Dynamic Braking
3. Improved performance—1% speed regulation
4. Transformers—Auto and Isolation
5. Speed indicators

D. DRIVE FEATURES

1. **Rectified Power Module**
 - a. Compact wall mounted enclosure
 - b. Solid state reliability
 - c. Motor thermal overload protection
 - d. Rectifier power unit thermostat protection
2. **Industrial Duty D-c Motor**
 - a. Heavy-duty industrial construction
 - b. Designed for rectified power operation
 - c. Improved response

BASIC DRIVE PRICES—230 VOLTS 50/60 CYCLE A-C

Hp.	Type	Controlled Speed Range Rpm. (1) (Min-Base)	Basic Drive List Price		Motor Frame Size		Options List Price Addition				Basic Drive Cabinet Size
			Drip Proof Motor	TENV Motor	Drip Proof Motor	TENV Motor	Dynamic Braking	Reversing and DB.	1% Speed Regulation (3)	Follower Drive	
1	1F	125-2500	\$631	\$718 (2)	U56H	W56H (2)	\$44	\$165	\$537	\$50	2EW2 (4)
	1F	88-1750	654*	744 (2)	W56H	W56H (2) (5)					
	1F	55-1150	704	839	187A	216A					
1 1/2	1F	125-2500	735*	909	186A	215A	44	165	537	50	2EW2 (4)
	1F	88-1750	780	923	187A	216A					
	1F	55-1150	856	1019	215A	218A					
2	1F	125-2500	840*	1031	187A	216A	44	165	537	50	2EW2 (4)
	1F	88-1750	895	1046 (2)	215A	216A (2)					
	1F	55-1150	1006	1194 (2)	216A	218A (2)					
3	1F	125-2500	995*	1255 (2)	215A	216A (2)	44	165	537	50	2EW2 (4)
	1F	88-1750	1088	1274 (2)	216A	218A (2)					
	1F	55-1150	1383	1711 (2)	218A	284A (2)					
5	1F	125-2500	1293*	1605 (2)	218A	256A (2)	44	165	537	50	2EW2 (4)
	1F	88-1750	1536	1878 (2)	256A	284A (2)					
	1F	55-1150	1740	2160 (2)	286A	286A (2)					

(1) When used with solid state Power Matched drives, D-c. motors can operate continuously at full load torque at all speeds down to 60% base speed without supplementary ventilation. If torques at lower speeds do not exceed 60% of rated torque, continuous operation at any speed over the complete 20:1 speed range can be obtained without supplementary ventilation.

(2) Motor is TEFC.

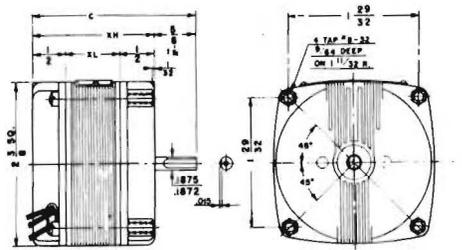
(3) Price includes motor mounted 5PY tachometer.

(4) When both reversing and 1% speed regulation are required the cabinet size will be 2.5EW.

(5) Class F insulation, 40°C ambient

*Stock rating.

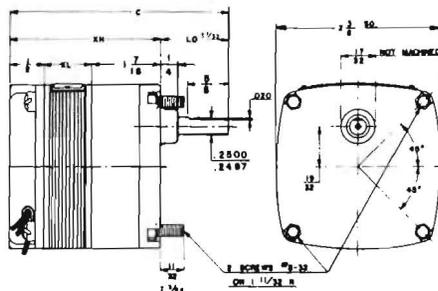
B & B BODINE DIMENSIONS



Frame	C	XH	XL	Shipping Wt. Oz.
K-23	2 1/16	1 1/16	1 3/16	32
K-26	3 1/32	2 1/32	1 1/32	44

FRAMES 23, 26

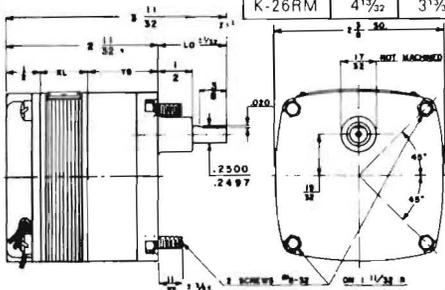
DIMENSIONS ARE FOR ESTIMATING PURPOSES ONLY



Frame	XL	YB	Shipping Wt. Oz.
K-23RB	1 3/16	1 1/32	38
K-22RC	1 1/16	1 1/32	38

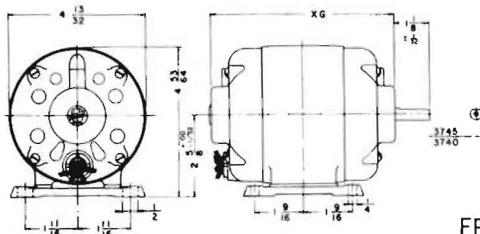
FRAMES 23RB, 22RC,

Frame	C	XH	XL	Shipping Wt. Oz.
K-22RM	3%	2%	1 1/16	42
K-23RM	3%	2%	1 3/16	42
K-26RM	4 1/32	3 1/32	1 1/32	54

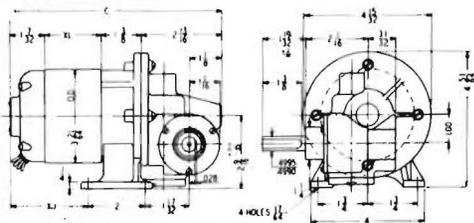


22RM,
23RM, 26RM

Frame	XG Sleeve Bearing	XG Ball Bearing	Shipping Weight lbs.
33	5 1/2	5%	10%
34	6	5%	12%

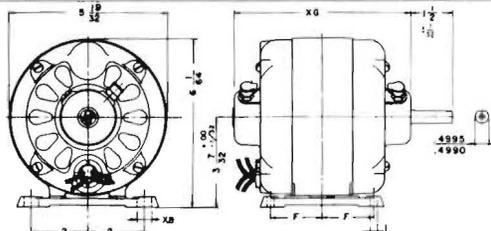


FRAMES 33, 34



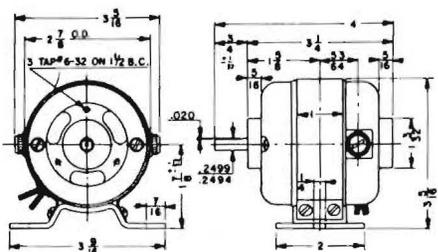
Frame	C	XJ	XL	Shipping Wt. lbs.
11RG	7 1/32	2 1/2	1%	7 1/2
12RG	7 1/32	2%	2	8 1/2

FRAMES 11RG, 12RG

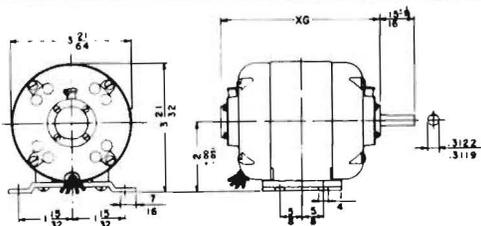


Frame	F	XB	XG Sleeve Bearing	XG Ball Bearing	Shipping Weight lbs.
54	1 13/16	1/32	6 13/16	6 1/2	19%
55	2 1/32	9/16	7%	6 3/32	22%

FRAMES 53, 54, 55



FRAME 10



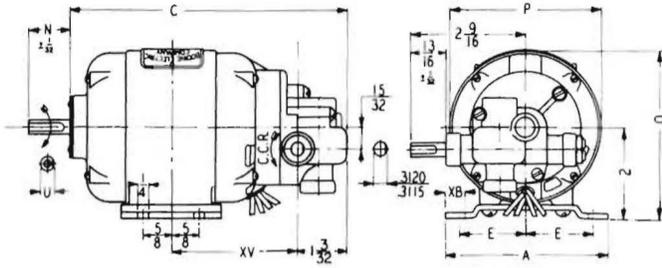
Frame	XG Sleeve Bearing	XG Ball Bearing	Shipping Weight lbs.
11	4 1/2	4%	3%
12	4%	4 1/2	4%
13	5%	4%	5%

FRAMES 11, 12, 13

BODINE DIMENSIONS

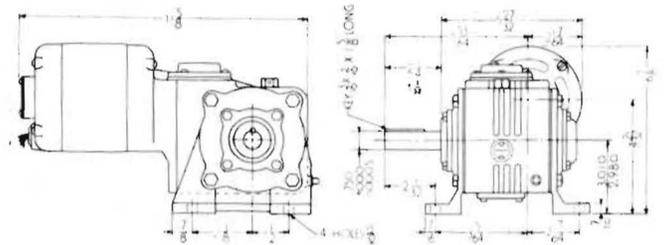


Double reduction — group I



Frame	A	C	E	N	O	P	U	XB	XV	Shipping Wt. lbs.
V-10R	3 ¹ / ₁₆	5 ¹ / ₁₆	1 ¹ / ₃₂	...	3 ¹ / ₃₂	2 ¹ / ₁₆	...	3 ¹ / ₁₆	1 ¹ / ₂	3 ³ / ₄
N-11R	3 ¹ / ₃₂	5 ² / ₃₂	1 ¹ / ₃₂	1 ¹ / ₁₆	3 ² / ₃₂	3 ² / ₆₄	.3122	7 ¹ / ₁₆	2 ¹ / ₁₆	4 ¹ / ₄
N-12R	3 ¹ / ₃₂	6 ¹ / ₃₂	1 ¹ / ₃₂	1 ¹ / ₁₆	3 ² / ₃₂	3 ² / ₆₄	.3122	7 ¹ / ₁₆	2 ¹ / ₁₆	5

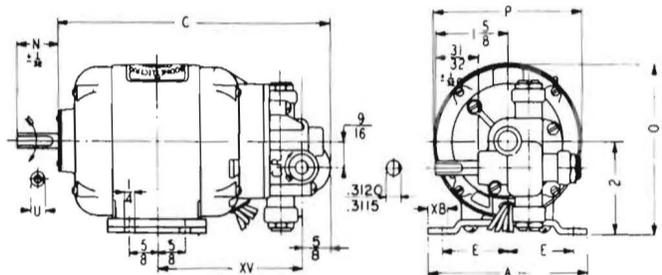
FRAMES 10R, 11R, 12R



Shipping Wt.—32¹/₂ lbs.

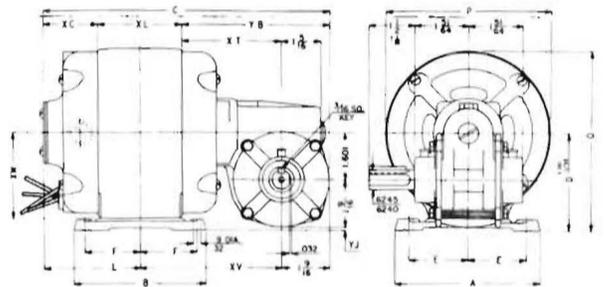
FRAME 34RJ

Single reduction — group I



Frame	A	C	E	N	O	P	U	XB	XV	Shipping Wt. lbs.
V-10R	3 ¹ / ₁₆	5 ¹ / ₁₆	1 ¹ / ₃₂	...	3 ¹ / ₃₂	2 ¹ / ₁₆	...	3 ¹ / ₁₆	1 ¹ / ₂	3 ³ / ₄
N-11R	3 ¹ / ₃₂	5 ² / ₃₂	1 ¹ / ₃₂	1 ¹ / ₁₆	3 ² / ₃₂	3 ² / ₆₄	.3122	7 ¹ / ₁₆	3 ³ / ₃₂	4 ¹ / ₄
N-12R	3 ¹ / ₃₂	6 ¹ / ₃₂	1 ¹ / ₃₂	1 ¹ / ₁₆	3 ² / ₃₂	3 ² / ₆₄	.3122	7 ¹ / ₁₆	3 ³ / ₃₂	5

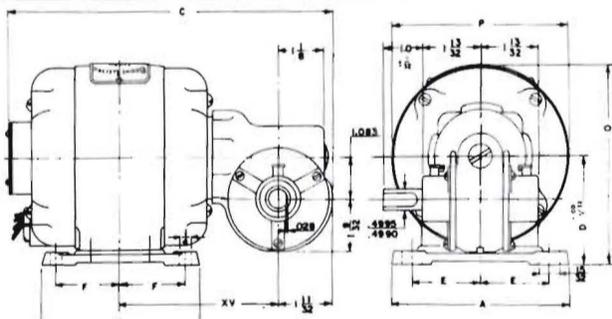
FRAMES 10R, 11R, 12R



Frame	A	B	C	D	E	F	L	O	Shipping Wt. lbs.
34RH	4 ³ / ₁₆	3 ³ / ₁₆	9 ¹ / ₁₆	3 ³ / ₄	1 ¹ / ₁₆	1 ¹ / ₁₆	2 ¹ / ₁₆	5 ² / ₁₆	17 ¹ / ₂
53R	5 ¹ / ₃₂	4 ³ / ₁₆	8 ² / ₃₂	3 ³ / ₃₂	2	1 ¹ / ₁₆	2 ² / ₁₆	6 ¹ / ₁₆	20 ¹ / ₂
54RL	5 ¹ / ₃₂	4 ³ / ₁₆	8 ¹ / ₃₂	3 ³ / ₃₂	2	1 ¹ / ₁₆	3 ¹ / ₁₆	6 ¹ / ₁₆	23 ¹ / ₂

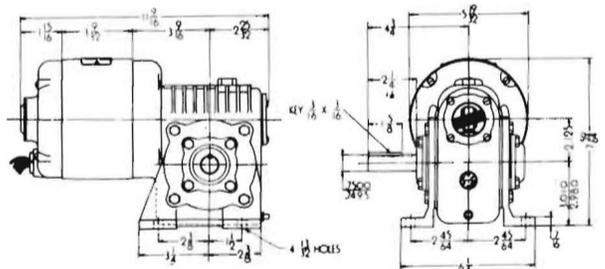
Frame	P	XC	XL	XT	XV	XW	YB	YJ	Shipping Wt. lbs.
34RH	4 ¹ / ₃₂	1 ¹ / ₁₆	2 ¹ / ₁₆	3 ³ / ₄	4 ³ / ₁₆	2 ¹ / ₃₂	4 ¹ / ₁₆	3 ¹ / ₁₆	17 ¹ / ₂
53R	5 ¹ / ₃₂	1 ¹ / ₁₆	2 ¹ / ₃₂	3 ³ / ₁₆	4 ² / ₁₆	2 ¹ / ₁₆	4 ¹ / ₁₆	3 ¹ / ₁₆	20 ¹ / ₂
54RL	5 ¹ / ₃₂	1 ¹ / ₁₆	2 ² / ₃₂	3 ¹ / ₁₆	4 ² / ₁₆	2 ¹ / ₁₆	4 ¹ / ₁₆	3 ¹ / ₁₆	23 ¹ / ₂

FRAMES 34RH, 53R, 54RL



Frame	A	B	C	D	E	F	O	P	XV	Shipping Wt. lbs.
N-12RH	3 ³ / ₁₆	2 ¹ / ₂	7 ² / ₆₄	2 ¹ / ₁₆	1 ¹ / ₃₂	3 ¹ / ₁₆	4 ⁷ / ₆₄	3 ² / ₆₄	3 ⁹ / ₆₄	6 ¹ / ₄
N-33R	4 ³ / ₁₆	3 ¹ / ₂	7 ¹ / ₃₂	2 ¹ / ₁₆	1 ¹ / ₁₆	1 ¹ / ₁₆	4 ² / ₆₄	4 ¹ / ₃₂	3 ¹ / ₁₆	12 ³ / ₄

FRAMES 12RH, 33R



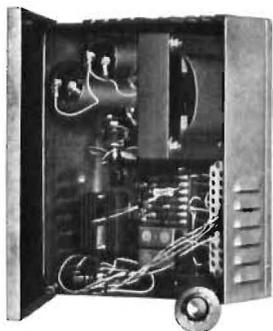
FRAME 55RH

B & B MOTOR AND CONTROL CORP. 96 SPRING STREET, NEW YORK, N. Y. 10012. (212) 966-5777

MOTOR SPEED CONTROL



PRINTED MOTOR SPEED CONTROL SYSTEM FOR PRINTED MOTORS UP TO 3/8 HORSEPOWER



Now, for the first time, a unique motor control system adds precise speed control to the versatility of the compact PMI Printed Motor. In a single B&B/Printed Motor System, you are afforded a controlled speed range wide enough for virtually every application.

The precision-built printed motor eliminates the iron rotor and coils found in ordinary motors. Instead, the printed motor features a thin, disc-type armature made of sturdy epoxy-glass on which conductors are printed. This unique design makes the armature inductance negligible, thereby greatly extending motor life under star-stop conditions by elimination of sparking damage to the commutator and brushes. The motor is reversible up to several hundred times a second.

The uninsulated conductor pattern of the thin, flat armature produces broad cooling surfaces which allow for high current pulses and, in turn, extremely high pulse torque values.

The epoxy-glass armature contains about 100 commutator segments, eliminating cogging even at extremely low speeds. This unique Controller-Printed Motor System provides a stepless full range of speeds from 10 to 3300 RPM.

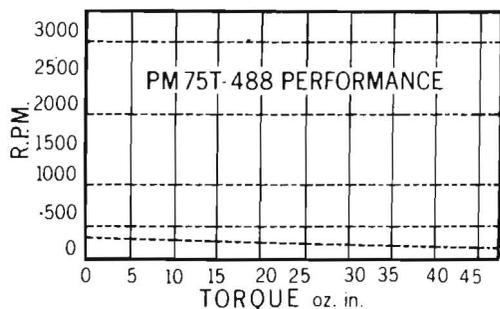
Characteristics:

Basically the addition of a Vis-count M176T5 tachometer-generator allows better than 1% regulation through a 1000 to 1 speed range, with line voltage correction. Overall speed range is 3300 to 3.3 RPM.

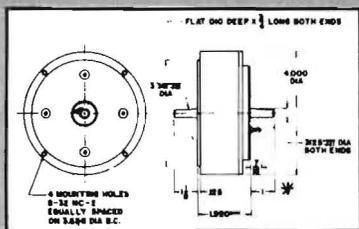
Rotation:

Standard one direction rotation. Please specify direction desired, facing shaft. For bi-directional operation contact B&B sales staff.

10 TURN POTENTIOMETER WITH CALIBRATED DIAL IS STANDARD EQUIPMENT

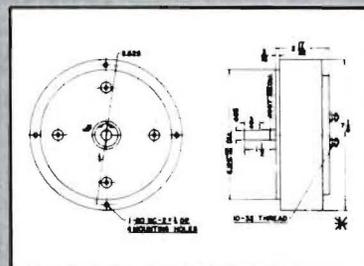
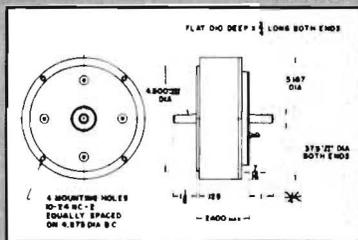


9 MOTOR



★Add 4" to length for Tachometer

12 MOTOR



668 MOTOR

PMI TACHOMETER FEEDBACK SYSTEMS

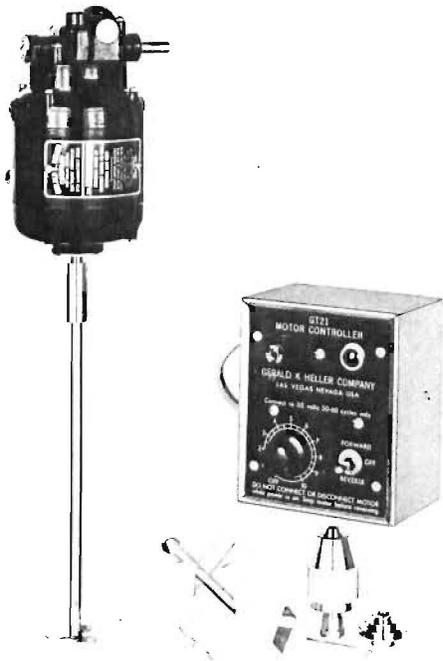
- PM-9T TACHOMETER SYSTEM, MOTOR, AND CONTROL \$534.00
- PM-12T TACHOMETER SYSTEM, MOTOR, AND CONTROL \$549.00
- PM-75T-668 TACHOMETER SYSTEM, MOTOR, AND CONTROL \$789.00

PMI NON-TACHOMETER FEEDBACK SYSTEMS

- PM-9-MC MOTOR AND CONTROL \$300.00
- PM-12-MC MOTOR AND CONTROL \$350.00
- PM-16-MC MOTOR AND CONTROL \$475.00

B & B MOTOR AND CONTROL CORP. 96 SPRING STREET, NEW YORK, N. Y. 10012, (212) 966-5777

GT 21 UTILITY AND LAB STIRRER



Motor: Quiet running, special series wound motor, enclosed, ball bearing, 1/40th horsepower, 0-6000 rpm armature shaft speed, right angle gear shaft speed 0-333 rpm at 6" lbs. torque, reversible. With regular motor base and support stand mounting bracket with 1/2" rod, 5 ft. vinyl jacketed cable with attachment plug Jones P304CCT. Both motor shafts are 5/16" diameter with milled flats.

Controller: Solid state type on printed circuit board, mounted on an aluminum panel, enclosed in a steel box 4" wide x 5" high x 3" deep finished with silver hammertone enamel. Line cord gray vinyl 6' long with standard grounding plug. The GT21 controller circuit corrects for line voltage variation from 95 to 145 volts A.C., that is, if the input line voltage varies from 95 to 145 the motor speed does not change. The motor regulation (from no load to full load) is about 10%. No warm-up time is required—motor will operate when switch is actuated and the motor may be started at any pre-selected speed setting, in either forward or reverse rotation. The front panel also has a pilot light to show that the line voltage is on.

Attachments supplied: Motor mounting bracket with 1/2" x 8" aluminum rod, regular motor mounting base made of pressed steel, chuck with adjustment from 0 to 3/8" mounted on arbor that fits either shaft, one 8" stainless steel shaft with coupling to fit shaft and 1/2" diameter three-bladed propeller, one stainless steel shaft same as above except with 2 1/2" paddle for use on gear shaft to stir heavy paste, polishes, etc., and one three-step brass nickel plated pulley to fit either shaft. Net weight of motor 5 pounds, controller 4 pounds, and attachments 1 pound. Shipping weight complete 12 pounds. Packed one to a carton. List price of complete motor, controller and attachments **\$117.00**
Control Only \$54.00 Motor Only \$54.00

NEW HEAVY-DUTY 6T60 MIXER

Similar to the famous GT21 mixer, the new 6T60 mixer is rated 1/20 hp. The complete package includes:

- Totally enclosed 1/20 hp ball bearing shunt wound motor with two shafts; one 3/8" diameter rated 1.8 in.-lbs torque at 0-1800 rpm; one 1/2" diameter output from integral 10/1 gearhead with forged bronze gear giving speed 0-180 rpm at 12 in.-lbs torque (other gearheads) available: 40/1 at 20 in.-lbs; 20/1 at 18.3 in.-lbs). Speeds can be doubled at reduced torque. Motor dimensions 9 3/32" x 4 13/32" x 4 3/4"; weight 12 lbs
- Solid state controller, 5" x 6" x 4" with magnetic circuit breaker, speed control knob, three position forward-off-reverse switch. Automatic dynamic braking in "off" position. High-low speed ranges selected by pull-push speed knob switch.
- Accessories included:
 - Three-jaw chuck and arbor, 1/2" capacity
 - Heavy-duty stainless steel three blade 6" diameter paddle with 12" shaft and coupling
 - Laboratory stand motor mounting bracket; 8" long x 1/2" diameter with motor base plate attached
 - Standard motor base for shelf or wall mounting
 - Bushing for using 1/2" accessories on 3/8" motor shaft
 - Motor mounting screws, set screw wrench

6T60 COMPLETE Adjustable-speed laboratory mixer motor with electronic solid-state controller: 1/20 HP 0-3600 rpm with 10:1 gearhead; reversible ball-bearing double-shaft shunt-wound motor; complete with accessories: 1/2" chuck, paddle, lab-mounting bracket, motor base, screws and wrench.
AC Input 100-130 v, 50-60 Hz, 200 watts; Net weight 20 lbs; shipping weight 23 lbs.

\$177.00

* MANUFACTURED BY **G. K. HELLER CORP.**

B & B MOTOR AND CONTROL CORP. 96 SPRING STREET, NEW YORK, N. Y. 10012, (212) 966-5777



MINIATURE VARIABLE SPEED MOTORS



SPEED FROM 5.5 TO 10,000 RPM
WITH TORQUE UP TO 40" LBS.
HIGH TORQUE IN SMALL FRAME •
INSTANTLY REVERSIBLE • (2-LEAD) •
LOW VOLTAGE • TOTALLY ENCLOSED
FLANGED MOUNTED MOTORS



BASE SPEED	SPEED RANGE	CONTIN. TORQUE	CATALOG NO.	SHAFT DIA.	GEARED	STALL TORQUE*
10,000	10,000 to 1,000	5" oz	BB104SS	1/200	NO	
275	27 to 270	10" oz	BB110SS	5/16	YES	45" oz.
154	15 to 155	10" oz	BB135SS	5/16	YES	12" lbs.
55	5.5 to 55	10" oz	BB136SS	5/16	YES	35" lb.
27	2.7 to 27	10" oz	BB108SS	5/16	YES	40" lb.
10	1 to 10	10" oz	BB113SS	5/16	YES	20" lb.
5.5	5 to 5.5	10" oz	BB114SS	5/16	YES	20" lb.

MANY OF THESE MOTORS ARE AVAILABLE FOR 220 VOLTS

** Miniature, parallel drive variable motor and motor speed control package. Excellent for use where space and weight limitations demand small size and high torque. Ideal for remote positioning of valves, screws, etc. Also particularly suited for servo system drive; because it provides highly accurate positioning with a servo amplifier.

** TYPICAL MOTOR SIZE: 1 3/8" SQ. x 3 1/2" LONG.

PRICE \$125 FOR GEARMOTOR AND V28-1.5 CONTROL
\$110 FOR NON-GEARMOTOR AND V28-1.5 CONTROL

NOTE: STANDARD ROTATION IS CLOCKWISE. Viewed facing shaft. Specify counter-clockwise if desired. Otherwise clockwise will be sent.

For intermittent duty applications. Certain of the above motors can be designed with integral brake, clutch or clutch/brake. Consult Al Simon.

LIST OF MOTORS FOR USE WITH B&B CONTROLS

SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
1 H.P.				
86-2070	17" lbs.	W56HC□	D1-1725C-1E	192.00
173-4140	17" lbs.	T56HC□	D1-3450C-1E	201.00

3/4 H.P.

.8-20	2600" lbs.	TM16A★	D34-16.5C-1E	422.00
.8-20	2600" lbs.	TM16A★	D34-16.5C-1X	452.00
2.8-67	810" lbs.	Dm16A★	D34-56C-1E	329.00
2.8-67	810" lbs.	Dm16A★	D34-56C-1X	359.00
2.25-54	1008" lbs.	TM16A★	D34-45C-1E	391.00
2.25-54	1008" lbs.	TM16A★	D34-45C-1X	421.00
2.9-69	570" lbs.	WM16A□	D34-58C-1E	245.00
2.9-69	570" lbs.	WM16A□	D34-58C-1X	275.00
6.5-150	363" lbs.	DM16A★	D34-125C-1E	329.00
6.5-150	363" lbs.	DM16A★	D34-125C-1X	359.00

SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
8.75-210	214" lbs.	WM12A□	D34-175C-1E	227.00
8.75-210	214" lbs.	WM12A□	D34-175C-1X	257.00
9.5-288	244" lbs.	DM16A★	D34-190C-1E	314.00
9.5-288	244" lbs.	DM16A★	D34-190C-1X	344.00
14-336	165" lbs.	SM16A□	D34-280C-1E	253.00
14-336	165" lbs.	SM16A□	D34-280C-1X	283.00
17.5-420	111" lbs.	WM12A□	D34-350C-1E	227.00
17.5-420	111" lbs.	WM12A□	D34-350C-1X	257.00
21-504	110" lbs.	SM16A□	D34-428C-1E	253.00
21-504	110" lbs.	SM16A□	D34-428C-1X	283.00
32-768	72" lbs.	SM16A□	D34-640C-1E	253.00
32-768	72" lbs.	SM16A□	D34-640C-1X	283.00
39-930	59" lbs.	SM16A□	D34-780C-1E	253.00
39-930	59" lbs.	SM16A□	D34-780C-1X	283.00
80-1368	39" lbs.	Inquire	D34-1140C-1E	Inquire
80-1368	39" lbs.	Inquire	D34-1140C-1X	Inquire
87-2070	26" lbs.	U56HC□	D34-1725C-1E	160.00
87-2070	26" lbs.	J56C★	D34-1725C-1X	190.00

SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
173-4140	13" lbs.	R56HC□	D34-3450C-1E	160.00
173-4140	13" lbs.	G56C★	D34-3450C-1X	195.00

1/2 H.P.

.8-20	1800" lbs.	TM16A★	D12-16.5C-1E	380.00
.8-20	1800" lbs.	TM16A★	D12-16.5C-1X	412.00
2.2-52.8	463" lbs.	WM16A□	D12-44C-1E	203.00
2.2-52.8	463" lbs.	WM16A□	D12-44C-1X	235.00
2.25-54	672" lbs.	TM16A★	D12-45C-1E	349.00
2.25-54	672" lbs.	TM16A★	D12-45C-1X	381.00
2.8-67	540" lbs.	DM16A★	D12-56C-1E	287.00
2.8-67	540" lbs.	DM16A★	D12-56C-1X	319.00
2.9-69	380" lbs.	WM16A□	D12-58C-1E	203.00
2.9-69	380" lbs.	WM16A□	D12-58C-1X	235.00
4.35-104	267" lbs.	WM12A□	D12-87C-1E	185.00
4.35-104	267" lbs.	WM12A□	D12-87C-1X	217.00
4.85-116.4	243" lbs.	WM12A□	D12-97C-1E	185.00

B & B MOTOR AND CONTROL CORP. 96 SPRING STREET, NEW YORK, N. Y. 10012, (212) 966-5777

COMPLETE LIST OF VARIABLE SPEED MOTORS FOR USE WITH B&B CONTROLS



SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
4.85-116.4	243" lbs.	WM12A□	D12-97C-1X	217.00
6.5-150	242" lbs.	DM16A★	D12-125C-1E	287.00
6.5-150	242" lbs.	DM16A★	D12-125C-1X	319.00
8.75-210	143" lbs.	WM12A□	D12-175C-1E	185.00
8.75-210	143" lbs.	WM12A□	D12-175C-1X	217.00
9.5-288	159" lbs.	DM16A★	D12-190C-1E	287.00
9.5-288	159" lbs.	DM16A★	D12-190C-1X	319.00
14-336	110" lbs.	SM16A□	D12-280C-1E	211.00
14-336	110" lbs.	SM16A□	D12-280C-1X	243.00
17.5-420	74" lbs.	WM12A□	D12-350C-1E	185.00
17.5-420	74" lbs.	WM12A□	D12-350C-1X	217.00
21-504	74" lbs.	SM16A□	D12-420C-1E	211.00
21-504	74" lbs.	SM16A□	D12-420C-1X	243.00
32-768	48" lbs.	SM16A□	D12-640C-1E	211.00
32-768	48" lbs.	SM16A□	D12-640C-1X	243.00
39-930	40" lbs.	SM16A□	D12-780C-1E	211.00
39-930	40" lbs.	SM16A□	D12-780C-1X	243.00
80-1368	26.2" lbs.	U56HC□	D12-1140C-1E	160.00
80-1368	26.2" lbs.	J56C★	D12-1140C-1X	195.00
87-2070	17.5" lbs.	R56HC□	D12-1725C-1E	118.00
87-2070	17.5" lbs.	H56C★	D12-1725C-1X	150.00
173-4140	8.7" lbs.	P56HC□	D12-3450C-1E	120.00
173-4140	8.7" lbs.	G56C★	D12-3450C-1X	155.00

1/3 H.P.

8-20	1200" lbs.	TM16A★	D13-16-5C-1E	359.00
8-20	1200" lbs.	TM16A★	D13-16-5C-1X	392.00
1.95-34.8	423" lbs.	WM16A□	D12-29C-1E	182.00
1.95-34.8	413" lbs.	WM16A□	D13-29C-1X	215.00
2.2-52.8	269" lbs.	WM16A□	D13-44C-1E	182.00
2.2-52.8	269" lbs.	WM16A□	D13-44C-1X	215.00
2.25-54	448" lbs.	TM16A★	D13-45C-1E	328.00
2.25-54	448" lbs.	TM16A★	D13-45C-1X	361.00
2.8-67	389" lbs.	DM16A★	D13-56C-1E	266.00
2.8-67	389" lbs.	DM16A★	D13-56C-1X	299.00
2.9-69	229" lbs.	WM16A□	D13-58C-1E	182.00
2.9-69	229" lbs.	WM16A□	D13-58C-1X	215.00
4.35-104	168" lbs.	WM12A□	D13-87C-1E	164.00
4.35-104	168" lbs.	WM12A□	D13-87C-1X	197.00
4.85-116	153" lbs.	WM12A□	D13-97-1E	164.00
4.85-116	153" lbs.	WM12A□	D13-97-1X	197.00
6.25-150	161" lbs.	DM16A★	D13-125-1E	251.00
6.25-150	161" lbs.	DM16A★	D13-125-1X	284.00
8.75-210	90" lbs.	WM12A□	D13-175C-1E	154.00
8.75-210	90" lbs.	WM12A□	D13-175C-1X	197.00
9.5-228	103" lbs.	DM16A★	D13-190C-1E	251.00
9.5-228	103" lbs.	DM16A★	D13-190C-1X	284.00
14-336	73" lbs.	SM16A□	D13-280C-1E	190.00
14-336	73" lbs.	SM16A□	D12-280C-1X	223.00
17.5-420	46" lbs.	WM12A□	D13-350C-1E	164.00
17.5-420	46" lbs.	WM12A□	D12-350C-1X	197.00
21-504	49" lbs.	SM16A□	D13-420C-1E	190.00
21-504	49" lbs.	SM16A□	D13-420C-1X	223.00
32-768	32" lbs.	SM16A□	D13-640C-1E	190.00
32-768	32" lbs.	SM16A□	D13-640C-1X	223.00
39-930	26" lbs.	SM16A□	D13-780C-1E	190.00
39-930	26" lbs.	SM16A□	D13-780C-1X	223.00
57-1368	299" oz.	R56HC□	D13-1140C-1E	130.00
57-1368	299" oz.	H56C★	D13-1140C-1X	170.00
86-2070	195" oz.	P56HC□	D13-1725C-1E	97.00
86-2070	195" oz.	H56C★	D13-1725C-1X	130.00
173-4140	98" oz.	P56HC□	D13-3450C-1E	100.00
173-4140	98" oz.	G56C★	D13-3460C-1X	130.00

1/4 H.P.

6-14.5	775" lbs.	CM12A★	D14-12C-1X	228.00
6-14.5	775" lbs.	CM12A★	D14-12C-1E	193.00
8-20	900" lbs.	TM16A★	D14-16.5C-1E	347.00
8-20	900" lbs.	TM16A★	D14-16.5C-1X	382.00
1.25-30	302" lbs.	WM16A□	D14-25C-1X	295.00
1.25-30	302" lbs.	WM16A□	D14-25C-1E	170.00

SPEED RANGE	TORQUE	FRAME	CATALOG NO.	PRICE
1.45-34	282" lbs.	WM16A□	D14-29C-1E	170.00
1.45-34	282" lbs.	WM16A□	D14-29C-1X	205.00
1.8-43	254" lbs.	55RH●	B24222C-48H	127.00
2.2-53	206" lbs.	WM12A□	D14-44C-1E	152.00
2.2-53	206" lbs.	WM12A□	D14-44C-1X	187.00
2.4-58	240" lbs.	55RH●	B24222C-36H	127.00
2.25-54	336" lbs.	TM16A★	D14-45C-1E	316.00
2.25-54	336" lbs.	TM16A★	D14-45C-1X	351.00
2.8-67	270" lbs.	DM16A★	D14-56C-1E	254.00
2.8-67	270" lbs.	DM16A★	D14-56C-1X	289.00
2.9-69	164" lbs.	WM16A□	D14-658C-1X	205.00
2.9-69	164" lbs.	WM16A□	D14-58C-1E	170.00
3.6-86	177" lbs.	55RH●	B24222C-24H	127.00
4.35-104	121" lbs.	WM12A□	D14-87C-1X	187.00
4.35-104	121" lbs.	WM12A□	D14-87C-1E	152.00
4.85-116	115" lbs.	55RH●	B24222C-18H	127.00
4.85-116	65" lbs.	WM12A□	D14-97C-1E	152.00
4.85-116	65" lbs.	WM12A□	D14-97C-1X	187.00
6.25-150	121" lbs.	DM16A★	D14-125C-1E	254.00
6.25-150	121" lbs.	DM16A★	D14-125C-1X	289.00
8.75-210	64" lbs.	WM12A□	D14-175C-1X	187.00
8.75-210	64" lbs.	WM12A□	D14-175C-1E	152.00
8.75-210	75" lbs.	55RH●	B24222C-10H	127.00
9.5-228	81" lbs.	DM16A★	D14-190C-1X	274.00
9.5-228	81" lbs.	DM16A★	D14-190C-1E	239.00
17.5-410	33" lbs.	WM12A□	D14-350C-1X	187.00
17.5-410	33" lbs.	WM12A□	D14-350C-1E	152.00
19-336	55" lbs.	SM16A□	D14-280C-1E	178.00
19-336	55" lbs.	SM16A□	D14-280C-1X	213.00
21-504	37" lbs.	SM16A□	D14-420C-1X	213.00
21-504	37" lbs.	SM16A□	D14-420C-1E	178.00
32-768	24" lbs.	SM16A□	D14-640C-1E	178.00
32-768	24" lbs.	SM16A□	D14-640C-1X	213.00
39-333	20" lbs.	SM16A□	D14-780C-1X	213.00
39-333	20" lbs.	SM16A□	D14-780C-1E	178.00
80-1368	224" oz.	H56C□	D14-1140C-1X	140.00
80-1368	224" oz.	P56HC□	D14-1140C-1E	105.00
86-2070	146" oz.	G56C□	D14-1725C-1E	120.00
86-2070	146" oz.	P56HC□	D14-1725C-1X	85.00
86-2070	139" oz.	55▶	B24222C	75.00
100-780	26" oz.	66▶	65219-2C	95.00
173-4140	69" oz.	RE-316★	65199C	70.00
173-4140	69" oz.	RE-316★	65199C-1E	80.00
173-4140	73" oz.	P56HC□	D14-3450C-1E	97.00
173-4140	73" oz.	G56C□	D14-3450C-1X	130.00

1/6 H.P.

25-6	960" lbs.	CM16A★	D16-5.21C-1E	246.00
25-6	960" lbs.	CM16A★	D16-5.21C-1X	281.00
173-4140	49" oz.	RE316★	65199-2C	65.00

1/8 H.P.

2.6-52	77" lbs.	54RL●	B2420C-40L	88.00
2.8-68	66" lbs.	54RL●	B2420C-30L	88.00
4.3-104	54" lbs.	54RL●	B2420C-20L	88.00
8.75-210	32" lbs.	54RL●	B2420C-10L	88.00
17-414	16" lbs.	54RL●	B2420XC-05L	125.43
35-828	8" lbs.	54RL●	B2420XC-2½L	142.95
80-1368	73" oz.	56Z★	65118C	39.00
86-2070	73" oz.	54▶	B2420C	60.00

1/12 H.P.

2.6-52	55" lbs.	53R●	B2418C-40	84.00
4.3-104	37" lbs.	53R●	B2418C-20	84.00
8.75-210	21" lbs.	53R●	B2418C-10	84.00
17-414	11" lbs.	53R●	B2418XC-05	110.00
35-828	5.5" lbs.	53R●	B2418XC-2½	130.00
80-1368	74" oz.	54▶	B2370C	65.00
86-2070	48" oz.	53▶	B2418C	58.00

1/15 H.P.

.3-7	219" lbs.	34RJ●	B-2410C-300J	125.00
.6-15	140" lbs.	34RJ●	B-2410C-144J	125.00
1.2-29	88" lbs.	34RJ●	B-2410C-72J	125.00
2.6-52	44" lbs.	34RH●	B2410C-40H	79.00
2.8-68	37" lbs.	34RH●	B2410C-30H	79.00
4.3-104	29" lbs.	34RH●	B2410C-20H	79.00
8.75-210	17" lbs.	34RH●	B2410C-10H	79.00
17-414	8.5" lbs.	34RH●	B2410XC-05H	112.00
35-828	4.3" lbs.	34RH●	B2410XC-2½H	132.00
86-2070	39" oz.	34▶	B2410C	50.00
173-4140	18" oz.	34▶	B2460C	75.00

1/20 H.P.

1.5-34	13" lbs.	33R●	B2408C-60	80.00
2.6-52	20" lbs.	33R●	B2408C-40	76.00
2.8-68	21" lbs.	33R●	B2408C-30	76.00
4.3-104	18.3" lbs.	33R●	B2408C-20	76.00
8.75-210	11.9" lbs.	33R●	B2408C-10	76.00
17-414	5.9" lbs.	33R●	B2408XC-05	112.00
35-828	3" lbs.	33R●	B2408XC-2½	112.00
80-1368	45" oz.	53▶	B2368C	63.00
86-2070	29" oz.	33▶	B2408C	49.00
173-4140	15" oz.	13▶	6576C	42.00

1/40 H.P.

86-2070	14" oz.	13▶	B2152C	42.00
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1/50 H.P.

.36-9	47" lbs.	12RG●	B2150C-240G	70.00
.7-17	32" lbs.	12RG●	B2150C-120G	70.00
.9-23	26" lbs.	12RG●	B2150C-90G	70.00
1.5-35	20" lbs.	12RG●	B2150C-60G	70.00
1.5-35	13" lbs.	12RH●	B2150C-60H	60.00
2.6-52	11.7" lbs.	12RH●	B2150C-40H	60.00
2.8-68	8.8" lbs.	12RH●	B2150C-30H	60.00
4.3-104	7.3" lbs.	12RH●	B2150C-20H	60.00
8.75-210	4.8" lbs.	12RH●	B2150XC-10H	60.00
17-414	2.4" lbs.	12RH●	B2150XC-05H	93.00
35-828	1.2" lbs.	12RH●	B2150XC-2½H	93.00
86-2070	11" oz.	12▶	B2150C	39.00

1/70 H.P.

1-2	2.2" lbs.	12R●	B2150EC-1120	57.00
18-4.3	38" lbs.	12RG●	B7052C-480G	70.00
2-5	5.7" lbs.	12R●	B2150EC-432	57.00
28-7	6.6" lbs.	12R●	B2150EC-300	57.00
48-11.5	7" lbs.	12R●	B2150EC-180	57.00
85-20	5.6" lbs.	12R●	B2150EC-100	57.00
2.4-57	7.1" lbs.	12R●	B2150EC-36	57.00
2.9-69	3.5" lbs.	12R●	B2150EC-30	54.00
4.8-115	5.4" lbs.	12R●	B2150EC-18	54.00
14-345	2.2" lbs.	12R●	B2150EC-06	54.00
140-3420	4.8" oz.	32★	6469C	41.00

1/100 H.P.

173-4140	3" oz.	13▶	6457C	30.00
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1/150 H.P.

1-2	40" lbs.	12RG●	B7096C-1080G	70.00
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- ▶ For Dimensions, see page 22
- For Dimensions, see page 23
- ★ Not enough room for dimensions in this brochure. Contact B&B Sales Dept. for information and dimensions.

The final letter in the catalog number indicates: D = Drip Proof; X = Explosion Proof; E = Enclosed. Motors without X or E are drip-proof, self ventilated but may be available enclosed. Consult Sales Dept.

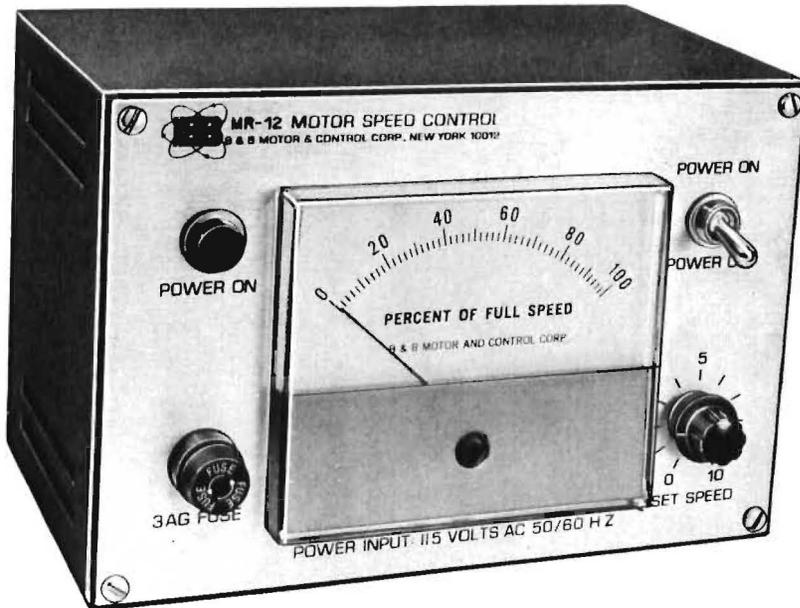


MOTOR SPEED CONTROLS

FROM B & B A NEW BREAKTHROUGH IN MOTOR SPEED CONTROL DESIGN!

GUARANTEED
FOR 1 YEAR

UNIQUE! SPEED INDICATION WITHOUT TACHOMETER!



EXCELLENT REGULATION!

B & B'S METER READOUT SPEED CONTROLS FEATURE HIGH ACCURACY, LOW COST, WIDE SPEED RANGE, AND ELIMINATES TACHOMETER PROBLEMS

NEW DESIGN

Here's a completely new innovation in motor speed controls . . . and it's brought to you by B & B Motor & Control Corporation. These B & B meter readout units provide both meter speed indication and precision feedback speed control with precise repeatability and stability without using the usual tachometer type sender on the motor.

NO TACHOMETER PROBLEMS

The Elimination of the tachometer sender avoids the problems of complicated tach mounting, brush wear, noise, and higher costs. These all-electronic B & B Meter readout controls operate using unique circuitry that accurately senses the back E.M.F. (voltage) generated by the motor. This voltage is used in the place of the usual tachometer signal to measure the speed of the motor. The control also uses this signal to automatically sense any variation in speed due to load changes and to compensate accordingly. In addition, a special acceleration control circuit limits the motor current to provide smooth start up and limit motor heating and possible damage.

HIGH ACCURACY

The motor speed regulation of the new B & B control meets or exceeds the specifications of competitive controls. Laboratory and field tests under widely varying conditions have shown regulation accuracy ranging from 0.5% to 2% depending on the speed range being used and the severity of load changes.

SEE PAGE 27 FOR MOTORS RECOMMENDED WITH ABOVE CONTROLS

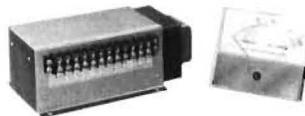
MORE FEATURES

These B & B meter readout controls are designed to operate Bodine motors because these motors are designed with special features that make them particularly well suited to variable speed usage. They have skewed armatures to resist cogging at low speeds and have extra quality to handle the stresses found when motor speeds and loads are changed. The controls, however, will operate any d.c. motor of the proper horsepower.

The 4½" meter is calibrated from 0 to 100% (0 to full motor speed). The front of the meter face can be easily removed to permit custom calibration by the user.

Model MR-12 for motors up to ⅛ hp, weight 9 lbs., size 7⅝" w x 5⅜" h x 5" d — \$175.00

Model MR-25 for motors up to ¼ hp, weight 10 lbs., size 7⅝" w x 5⅜" h x 5" d — \$200.00



AVAILABLE IN OPEN CHASSIS AND PANEL MOUNT MODELS FOR OEM APPLICATIONS.

Model MRO-12 — \$135.00; Model MRO-25 — \$165.00; Meter \$25.00 additional (on open chassis only).

B & B MOTOR AND CONTROL CORP. 96 SPRING STREET, NEW YORK, N. Y. 10012, (212) 966-5777