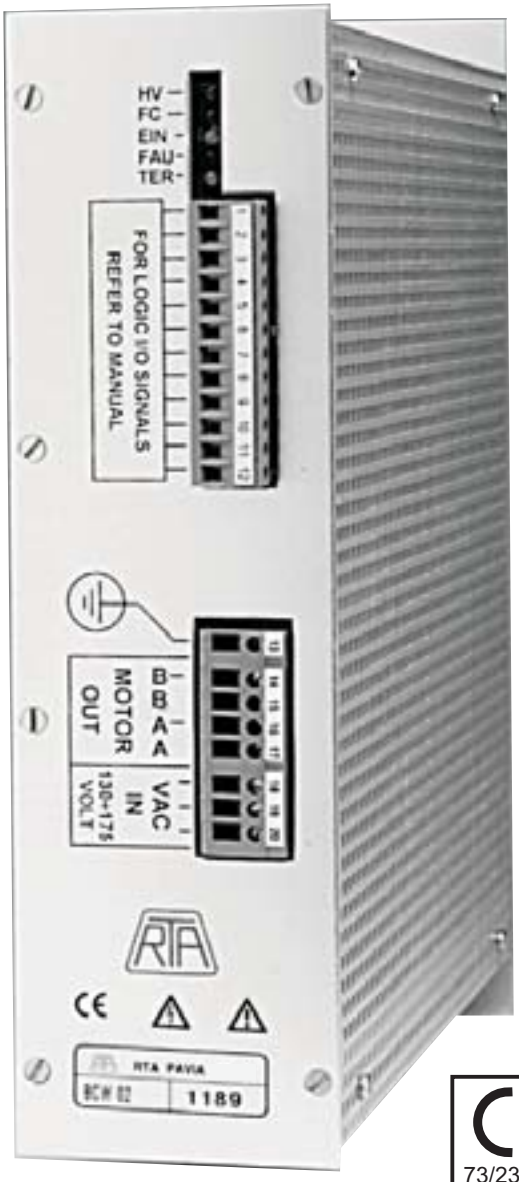
BCW SERIES
STEPPING MOTOR DRIVES

FOR HIGH POWER SYSTEMS



CE
73/23/EEC
89/336/EEC

High power upto 14A @ 250V.
Drives motors 6.5" frame, 3 stack.

Built in power supply components.
Just add mains transformer.

Full, ½ or ¼ stepping for smooth running at low speeds.

Protection from motor short, overtemperature and overvoltage.

High efficiency bipolar chopper.

Suitable for two phase motors, 4, 6 or 8 leads

LEDs for phase, overtemperature, overvoltage and motor short.

Incorporated electronic damping reduces low speed resonance.

Optional plug in ramped oscillator cards available.

Adjustable motor current.

Automatic current reduction at motor standstill.

The BCW series of stepper motor drives is ideal for high power single and dual axis motion control applications. Power supply components are built in so you only need to add a mains transformer, stepping motor and a suitable controller with step and direction output signals. External rectifier and filter capacitors are not required. Ramped oscillator cards for simple manual control and indexing systems can also be attached.

The BCW model is mainly used on large 6.5" frame motors capable of delivering upto 2kW shaft power. Quarter step operation and electronic damping reduce resonance at low speeds. Protection against motor short circuit is also included. The BCW drive is ideally suited to OEMs for motion control applications such as large positioning systems, packaging machines, XY tables, variable speed control and contouring systems.

AUTOMATED MOTION SYSTEMS PTY.LTD. - PERTH - WESTERN AUSTRALIA - PH: (08) 9309 1896 FAX: (08) 9309 5671

RTABCWFT A.C.N.: 009 232 535

SPECIFICATIONS

LOGIC INPUTS (low= 0 - 4V, high= 8 -12V or open)
Step
Direction
Current reduction
De-energise

LOGIC OUTPUTS *(50V @ 25mA sink open collector)*
Drive fault
Step out

STEP ANGLE
1.8°, 0.9°, 0.45°

STANDBY CURRENT
automatic at 65%

MOTOR CURRENT
8 settings by DIP switch

RESONANCE DAMPING
full, half, nil

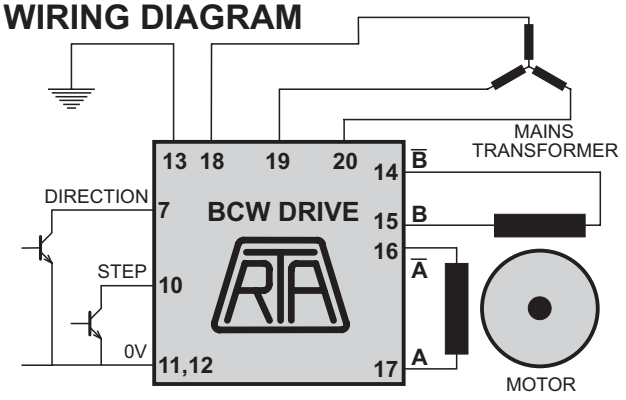
OPERATING TEMPERATURE
0-50°C (built in cooling fans)

MAXIMUM POWER
Peak: 2400 W
Average: 1200 W

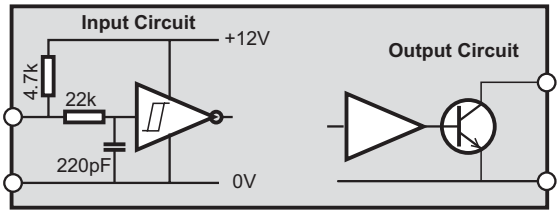
WEIGHT
3.0 kg.

ELECTRICAL CHARACTERISTICS	MODEL BCW02
SUPPLY RANGE (VAC)	**130 - 175**
SUPPLY (VAC) (undervoltage protection)	**85**
SUPPLY (VAC) (overvoltage protection)	**216**
MOTOR CURRENT (A) (maximum)	**14.0**
MOTOR CURRENT (A) (minimum)	**5.8**
MOTOR CURRENT STEPS	**1.2**

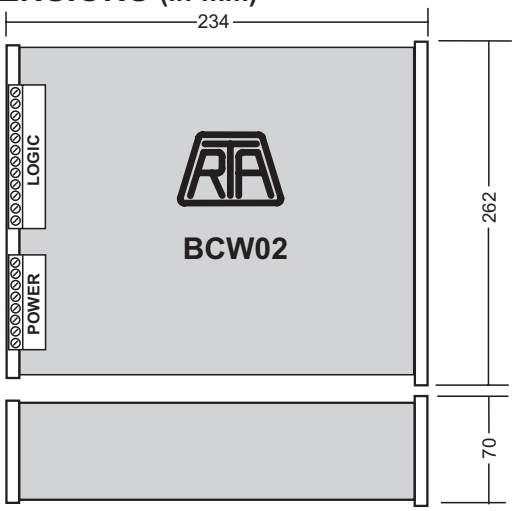
WIRING DIAGRAM



LOGIC SIGNALS



DIMENSIONS (in mm)



CONNECTIONS (power: 13 to 17, logic: 1 to 12)

14	***Motor $\overline{B}$***	Motor winding (2B or B+)
15	***Motor B***	Motor winding (2A or B-)
16	***Motor $\overline{A}$***	Motor winding (1B or A-)
17	***Motor A***	Motor winding (1A or A+)
18	***Supply***	AC Power from three phase isolating transformer
19	***Supply***	AC Power from three phase isolating transformer
20	***Supply***	AC Power from three phase isolating transformer
13	***Earth***	Earth/Ground connection
11	***0V logic***	0V common for all logic signals
5	***Drive Fault***	Normally low (to 0V) but becomes high when drive protection is active.
1	***LVDC+***	+12 VDC @ 25mA auxiliary output
19	***Current Red***	Forcing this signal low sets motor current to standby value when automatic reduction is not used. Can also be used as a current BOOST.
7	***Direction***	Forcing signal low (to 0V) will reverse motor direction. This signal must be on for at least 50 s before STEP input is received and must remain on for at least 50 s after the last step is received.
10	***Step Input***	Forcing low (to 0V) will cause the motor to step once. Signal must be present for at least 30 s and should ideally be 50% duty cycle.
8	***De energise***	Forcing this signal low (0V) switches off motor current. When open (no connection) motor current is on.
12	***0V Logic***	0V common for all logic signals.
3,4,2		For add on ramped oscillator cards only.

Motors, transformers, controllers, motion control software and motor couplings also available on request.
Continuous development may necessitate changes in models and specifications without notice.

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