Driver Card

Standard driver card **CB-016N6 · BN6**







RoHS

Conformity

CE

Conformity

- P: For standard motor
- PNP signal input and output BN: For built-in brake motor
- NPN signal input and output BP: For built-in brake motor
- PNP signal input and output

Standard Accessories -

- Power connector(CN 1)-
- Control connector(CN 2) -
- Mounting screws and nuts Screw M4×15 2pcs
- Nut M4 2pcs

Acceleration and deceleration time is adjustable.

Speed can be set for 0~2.5 sec with the VR on the driver card.

This reduces impact at starting/stopping Power Moller.

Speed can be set in 20 steps

Digital setting method makes easy speed adjustment for each driver card

[Dimensions]



Stable speed function

1 pce

1pce

Transfer speed is kept stable regardless of the load variation. It helps improve transfer accuracy.

Error types and history can be checked LED can display thermal error / lock error / low voltage error, as well as error generation history.

Dip switch (SW1)

-	()					
SW1#1	Selection of manual or automatic thermal device recovery					
SW1#2	Selection of internal or external speed change					
SW1#3	Selection of motor turning direction; CW or CCW					
SW1#4	Selection of error signal discharge mode					
SW1#5	Speed range setting					
• Connector (CN)						
CN 1	Power connector (2P)					
CN 2	Control connector (5P)					
CN 3	Motorr connector (9P)<10P for brake motor>					
Potentiometer (VR)						
VR1	Acceleration from Run signal					
VR2	Deceleration from Stop signal					
• LED						
1	Powered and functions normally					
2	Indicates type of error					
3	Indicates number of error occurrence from thermister reaction, motor stall or under voltage					

Rotary switch(SW5)

Speed change in 20 steps by combining with SW1#5.



[Wiring diagram]



Wiring should be made while the product is not powered.
Switch for Run/stop or CW/CCW is an option and is not supplied.

Relay contact or PLC output can be used instead of the above switch.

24V DC±10%

[Specitications]

Power voltage

[Error History]

If thermister, motor stall or under voltage error arises while the power Moller is running, the error status and frequency of error occurrence are identified by LED 2 and LED 3.

		blinks at 1Hz	stall error			
1		blinks at 6Hz	under voltage error			
]	Illuminates	thermister error			
		off	Error occurred at first time			
		blinks at 1Hz	Error occurred at second time (same error as the first one)			
		blinks at 6Hz	Error occurred at second time (different error as from the first one) Error occurred at third time (same error as the first or second one)			
		Illuminates	Error occurred at third time (same error in series)			

Direction Setting

Reverse direction by external DIR signal can be permitted even while motor is running. Power Moller turning direction can be set or changed either internally by integral dip switch or externally by optional switch.

Rated vol	tage	24V DC	S	witch or e	externally by option	al switch.						
Static cur	rrent	0.03A	Setting for Turning Direction In case of use of CB-016N6/BN6					-016N6/BN6				
Starting current		4.0A					SW	1 # 3				
Wiring P	ower connector	0.5~1.5mm ² (AWG:20~14)					ON BBB 12345	OFF				
diameter C	Control connector	0.08~0.5mm ² (AWG:28~20)				5						
Motor starts running from RUN signal		≦15msec		FF		CW/CCW	cw •	ccw (Q)				
Protections		Integral 6.3A fuse (+ side) Diode against miss-wiring		tvpe		·						
Thermister		95℃ on PCB or 105℃ in motor		-71		Cw/ccw	ccw ,	cw 🔊				
Current limiting		4 A				Close contact	I CER	TUS				
Ambient temperature		0 to +40°C *1				5	ccw	cw t				
Relative humidity		\leq 90%RH(no condensation)		FP	RUN CW/CCW	Open contact						
Atmosphere		No corrosive gas		type		CW/CCW Close contact	cw (Q)	ccw				
Vibration		≦0.5G										
Installation		Indoor ON										
Turning drection		Can be set with DIP SW1#3.										
Error signal		Generated by thermal cutoff / Power Moller stall / low power supply voltage / connector disconnection / fuse blow-off. SW1-4 allows the selection of the error signal discharge timing: discharge on normal status or dilscharge when error arises. Error signal is NPN open collector in cace of CB-016N6/BN6. Wrecovery from thermal cutoff error and low voltage error can be selected by DIP SW1#1 for manual recovery (ON) or auto recovery (OFF).										
		• Enabled by setting DIP SW1#2 to OFF. • Up to 20-step setting is possible by DIP SW1#5 and SW5.										
	Internal	$ \begin{array}{c} ON \\ \hline \Box \Box \Box \Box \\ 1 \\ 2 \\ 3 \\ 4 \\ 5 \end{array} \begin{array}{c} ON \\ \downarrow \\ 0 \\ OFF \end{array} (Internal speed change) \\ \hline OFF (Internal speed change) \\ \hline \end{array} $										
		Enabled by setting DIP SW1#2 ON	۰U	p to 20-st	tep setting is poss	ible by supplyi	ng voltage input (0~	10V DC to CN2-3)				
Speed Variation	External	ON (External speed change) 1 2 3 4 5 OFF (Internal speed change)			0V 234/ 0V 234/ 234/ 234/ 234/ 234/ 234/ 234/ 245/ 25/ 245/	<u>CN2</u> 0~10V D0	C IN OUT OV 24V DC					
	Acceleration	Integral potentiometer VR 1 allows the acceleration adjustment from 0 to 2.5 seconds.										
	Deceleration	Integral potentiometer VR 2 allows the deceleration adjustment from 0 to 2.5 seconds.										
Motor pulse signal output		2 pulses/motor rotation										
LED		Power (green) Error (red) Frequency (red/orange)										
Type of brake		Dynamic brake ^{*3}										
Brake current ^{*2}		0.2A (CB-016BN6)										

*1 CB-016 driver card having LT option is used in the ambient temperature range between-30 *2 Built in brake

*3 No holding effect. In case holding effect is required, use Power Moller with built-in brake option (BR) together with CB-016[BN6] [BP6]