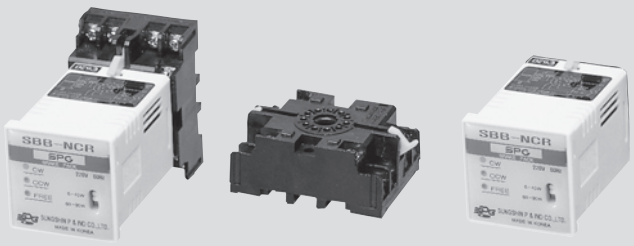
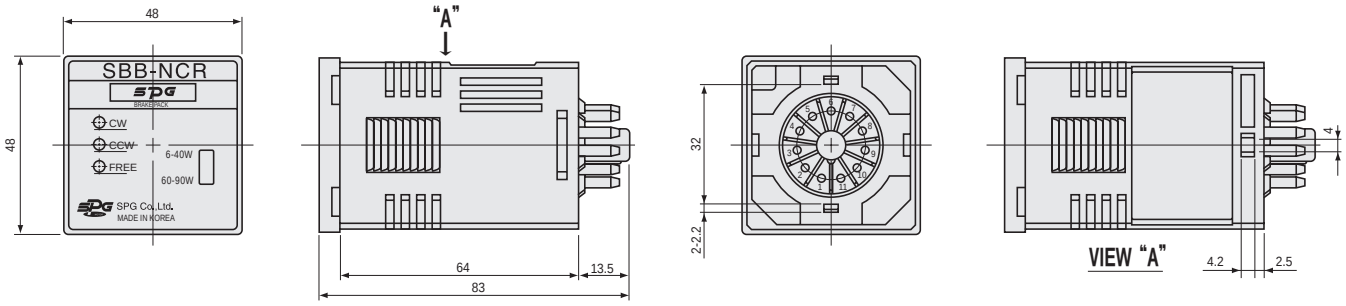
BRAKE PACK
: NON CONTACT TYPE

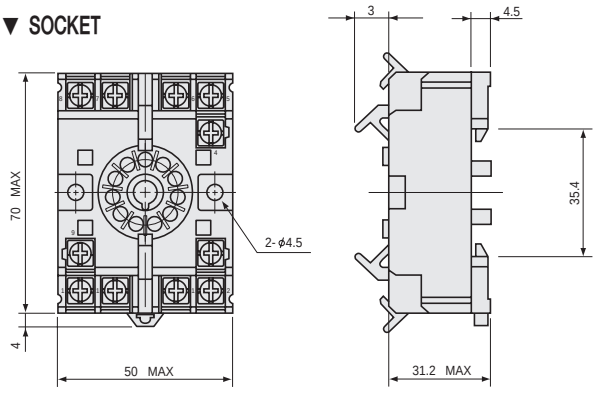


✚ DIMENSIONS

▼ BRAKE PACK



▼ SOCKET



제품의 개요 (Feature)

1.SBA-NCR, SBB-NCR, SBC-NCR, SBD-NCR. SBX-NCR은 INDUCTION MOTOR, REVERSIBLE MOTOR용의 무접점 BRAKE PACK입니다. (SBA-NCR, SBB-NCR, SBC-NCR, SBD-NCR, SBX-NCR are non contact type brake pack for induction motor. For reversible motor, there is a non contact type brake pack.)

2.SBA-ENCR, SBB-ENCR, SBC-ENCR, SBD-ENCR. SBX-ENCR은 전자 BRAKE MOTOR 용의 무접점 BRAKE PACK입니다.

3.MOTOR를 제어하기 위해서는 BRAKE PACK 이외의 신호용 직류전원 (DC12~24V 0.1A이상)과 접속용SOCKET(11PIN용)이 필요 합니다. (To control the motor, connecting socket(11pin) and direct current for signal (12-24V over 0.1A) as well as brake pack is needed.)

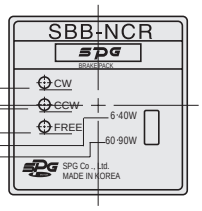
SPECIFICATION

품명 (MODEL)	SBA-NCR SBA-ENCR	SBB-NCR SBB-ENCR	SBC-NCR SBC-ENCR	SBD-NCR SBD-ENCR	SBX-NCR SBX-ENCR
전압, 주파수 (Voltage & Frequency)	단상(Single-phase) 110V±10%	단상(Single-phase) 220V±10%	단상(Single-phase) 100V±10%	단상(Single-phase) 200V±10%	단상(Single-phase) 220V~240V±10%
적용(Applicated)MOTOR	60Hz		50/60Hz		50Hz
허용 제동 전류 (Permissible Braking)	INDUCTION MOTOR & REVERSIBLE MOTOR(6~90W) ELECTROMAGNETIC BRAKE MOTOR(6W~90W)				
제동 전류 계속 시간 (Braking Current Time)	DC 12V~DC 24V(±10%) PHOTO COUPLER INPUT : CW, CCW TRANSITOR INPUT : FREE				
사용주위 온도 (Ambient Temp)	-10℃~+40℃				
사용주위 습도 (Ambient Humidity)	85% 이하(or less) (결로없을것(No condensing))				
절연저항 (Insulation Resistance)	상온 상습에서 BRAKE PACK을 정격으로 운전한 후에 BRAKE PACK의 전원 단자와 신호 입력 단자간의 사이를 DC 500V MEGGER로 측정하여 100MΩ 이상임 (100MΩ or more when 500V DC megger is applied between the power terminal and signal input terminal at ambient temperature and humidity after brake pack)				
절연내압 (Dielectric Strength)	상온 상습에서 BRAKE PACK을 정격으로 운전한 후에 BRAKE PACK의 전원 단자와 신호 입력 단자간의 사이에 1=1500V 50/60Hz 를 1분간 인가하여 이상없음 (100MΩ or more when 500V DC megger is applied between the power terminal and signal input terminal at ambient temperature and humidity after brake pack)				

판넬면의 표시 (LED DISPLAY)

1.입력 신호 표시 (**LED display**)

CW	CW 신호가 입력되어 있을때 점등 (Lights whenCW signals are input)
CCW	CCW 신호가 입력되어 있을때 점등 (Lights when CCW signals are input)
FREE	FREE 신호가 입력되어 있을때 점등 (Lights when FREE signals are input)



2.MOTOR 출력 교체 스위치 (**Switches for changing output of motor**)

6~40W 60~90W	6W ,15W, 25W, 40W MOTOR를 접속하는 경우 6~40W측으로 하십시오. (switch position of 6W~40W motor 6W, 15W, 25W, 40W)
6~40W 60~90W	60W ,90W MOTOR를 접속하는 경우 60~90W측으로 하십시오. (switch position of 60W~90W motor 60W, 90W)

출하시에는 60W~90W측으로 되어 있습니다. (Set to 60W~90W when shipped.)

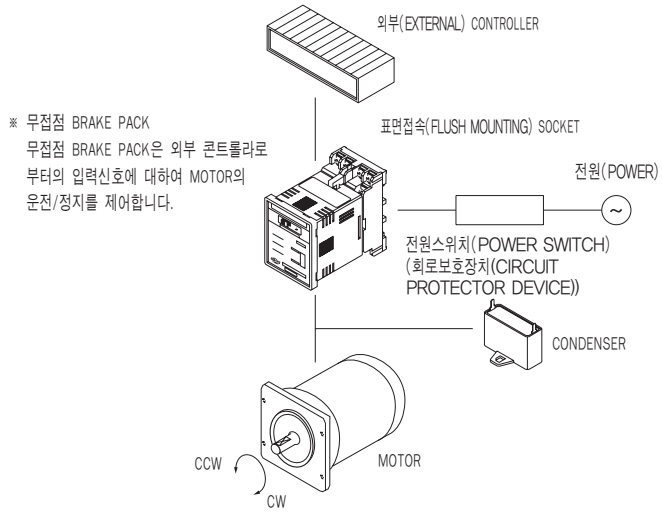
적용 MOTOR

품명 (MODEL)	전원전압 (VOLTAGE)	MOTOR TYPE
SBA-NCR	단상(SINGLE-PHASE) 110V	INDUCTION MOTOR 6W~90W REVERSIBLE MOTOR 6W~90W
SBC-NCR	단상(SINGLE-PHASE) 100V	
SBB-NCR	단상(SINGLE-PHASE) 220V	
SBD-NCR	단상(SINGLE-PHASE) 200V	
SBX-NCR	단상(SINGLE-PHASE) 220V~240V	
SBA-ENCR	단상(SINGLE-PHASE) 110V	전자(ELECTROMAGNETIC) BRAKE MOTOR 6W~90W
SBC-ENCR	단상(SINGLE-PHASE) 100V	
SBB-ENCR	단상(SINGLE-PHASE) 220V	
SBD-ENCR	단상(SINGLE-PHASE) 200V	
SBX-ENCR	단상(SINGLE-PHASE) 220V~240V	

접속과 조작 (CONNECTION AND SETTING)

1. 6~40W INDUCTION MOTOR, REVERSIBLE MOTOR
   ➔ MOTOR출력 교체 스위치를 6~40W로 설정하십시오. (change output switch to 6~40W)
2. 60~90W INDUCTION MOTOR, REVERSIBLE MOTOR
   ➔ MOTOR출력 교체 스위치를 60~90W로 설정하십시오. (change output switch to 60~90W)

SYSTEM의 구성 (SYSTEM LAYOUT)



● 사용상의 주의 (Notes on Operation)

1. MOTOR 운전(Operation) CYCLE

MOTOR의 운전/순시 정지를 빈번하게 작동시키면 BRAKE PACK과 MOTOR의 온도 상승이 높아집니다. 운전 CYCLE은 가능한 시간을 길게하고 MOTOR CASE 온도가 90℃ 이하에서 사용하십시요.
(If the motor is actually loaded, use the motor while its surface temperature is 90˚C or less. Especially, the frequent repetition of instantaneous stop and start raises the motor temperature.)

MOTOR 출력(OUTPUT)	운전(OPERATION) CYCLE
6~25W	2초 이상 (more 2sec)
40~90W	4초 이상 (more 4sec)

※2초 CYCLE은 1초 운전. 1초 정지
(1sec run / 1sec stop per 2sec cycle.)
※4초 CYCLE은 2초 운전. 2초 정지
(2srun / 2sec stop per 4sec cycle.)

2. 보호 장치의 용량 (Capacity of Protection)

MOTOR를 순시 정지시키면 반파 정류시킨 대전류가 약 0.2~0.4초간 흐릅니다. 이 전기BRAKE 전류가 흐르는 LINE에 보호 소자(회로 보호장치)를 접속하는 경우는 아래 표를 참고로 보호장치 용량을 선정하여 주십시요. (If the motor brakes instantaneously, half-wave current flows about 0.2 ~ 0.4 seconds. Refer to the table below when choosing the capacity of a protection circuit.)

• 전기BRAKE 전류 (Brake Current)(파고치)

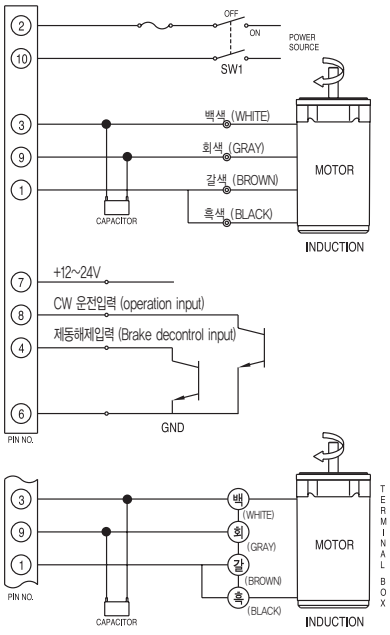
단위(Unit):[A]

MOTOR 출력(OUTPUT)	110V 60Hz	220V 60Hz	100V 50Hz	100V 60Hz	200V 50Hz	200V 60Hz	220/240V 50Hz
6W	1.2	0.4	1.2	1.2	0.5	0.4	0.6
15W	3.1	1.5	3.1	3.1	1.7	1.5	1.7
25W	7.5	3.3	7.4	7.4	3.4	3.2	3.5
40W	12.0	4.2	12.2	12.2	5.4	4.2	6.6
60W	11.8	6.4	14.2	11.6	8.1	6.2	8.4
90W	16.5	7.9	17.4	16.4	10.4	8.0	10.6

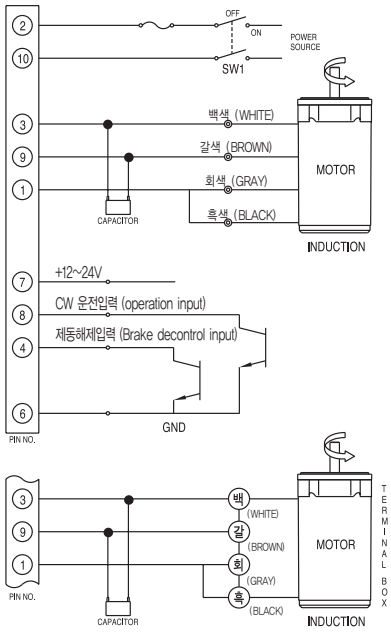
적용(APPLICATION) BRAKE PACK : SBA-NCR, SBB-NCR, SBC-NCR, SBD-NCR

■ 적용(APPLICATION)MOTOR
1ØINDUCTION MOTOR 6W
1ØINDUCTION MOTOR TERMINAL BOX
TYPE 6W~90W

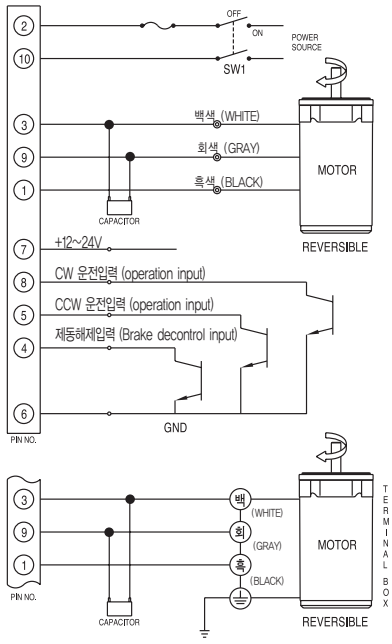
▽ CW운전입력시 (operation input)



▽ CCW운전입력시 (operation input)

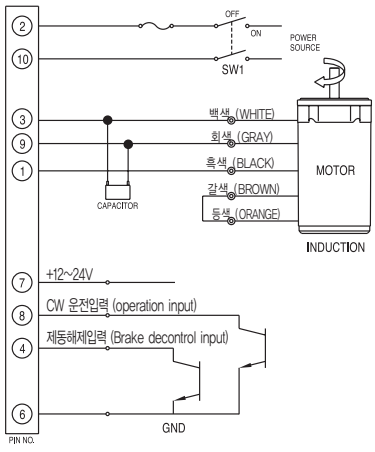


■ 적용(APPLICATION)MOTOR
1ØREVERSIBLE MOTOR 6W
1ØREVERSIBLE MOTOR TERMINAL BOX
TYPE 6W~90W

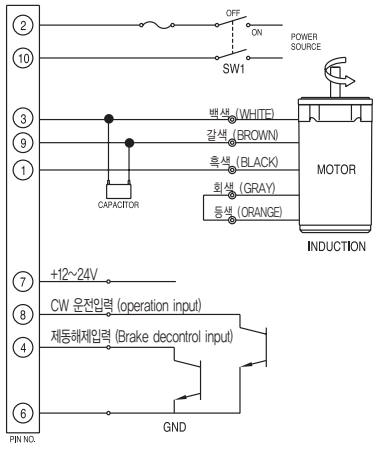


■ 적용(APPLICATION)MOTOR
1ØINDUCTION MOTOR 15W~90W

▽ CW운전입력시 (operation input)



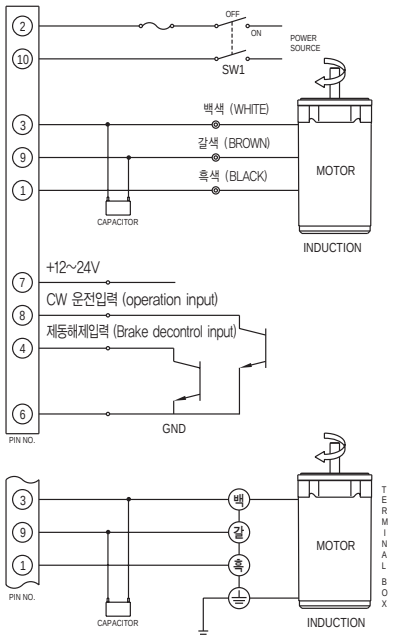
▽ CCW운전입력시 (operation input)



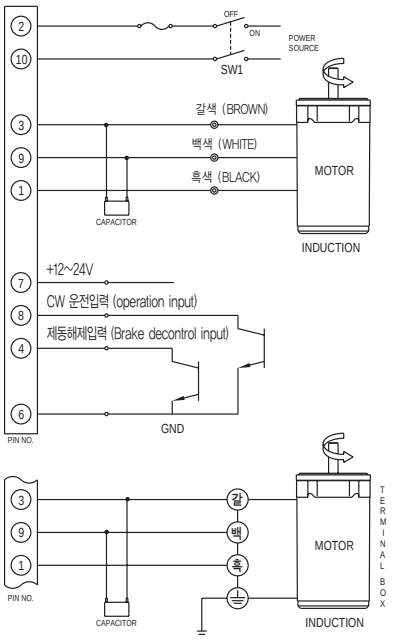
적용(APPLICATION0 BRAKE PACK : SBX-NCR

■ 적용(APPLICATION)MOTOR
1ØINDUCTION MOTOR 6W~90W
1ØINDUCTION MOTOR TERMINAL BOX TYPE 6W~90W

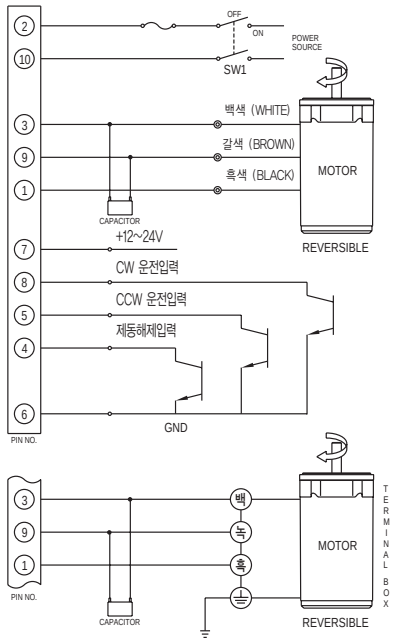
▽ CW운전입력시 (operation input)



▽ CCW운전입력시 (operation input)

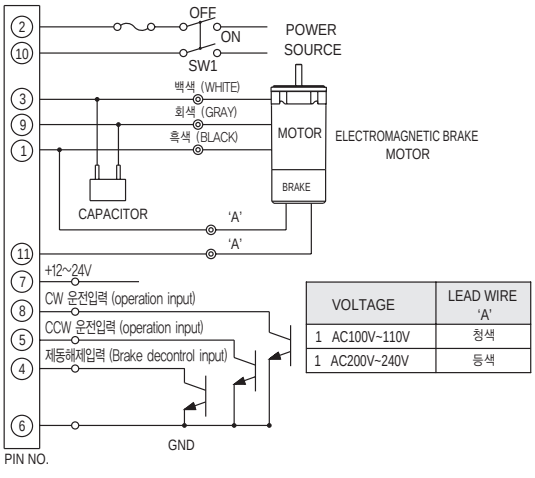


■ 적용(APPLICATION)MOTOR
1ØREVERSIBLE MOTOR 6W~90W
1ØREVERSIBLE MOTOR TERMINAL BOX TYPE 6W~90W



적용(APPLICATION) BRAKE PACK : SBA-ENCR, SBB-ENCR, SBC-ENCR, SBD-ENCR

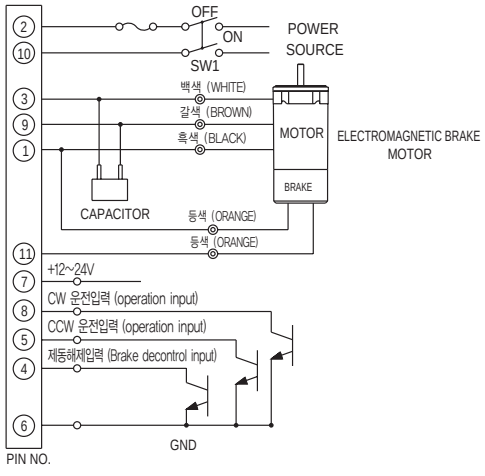
■ 적용(APPLICATION)MOTOR
1ØELECTROMAGNETIC BRAKE MOTOR 6W~90W



VOLTAGE	LEAD WIRE 'A'
1 AC100V~110V	청색
1 AC200V~240V	등색

적용(APPLICATION) BRAKE PACK : SBX-ENCR

■ 적용(APPLICATION)MOTOR
1ØELECTROMAGNETIC BRAKE MOTOR 6W~90W



신호 입력과 MOTOR의 작동 (INPUT OF SIGNAL AND OPERATION)

① CW 운전 입력 (Input of CW)

CW 운전 입력을 ON으로하면 MOTOR의 출력축은 시계방향으로 회전하고 OFF로 하면 순시 정지 합니다. INDUCTION MOTOR는 「CW운전입력」단자를 사용하여 운전합니다. CCW운전시는 MOTOR의 결선이 변경되어 운전됩니다.REVERSIBLE MOTOR는 「CW운전입력」과 「CCW운전입력」단자를 이용하여 회전방향이 결정됩니다. 「CW운전입력」과 「CCW운전입력」이 동시에 입력되는 경우에는 CW가 우선입니다.
(When CW operation input is turned on, rotating direction is CW and when turned off, it will instantaneous stop. When connected as per diagram, it will turn CW and to turn CCW, change white and brown wire. (for terminal box type motors change ② and ③). (However, for 220V~240V, 50Hz motor, change white and brown wire.)

② 제동 해제 입력 (Input of anti-braking)

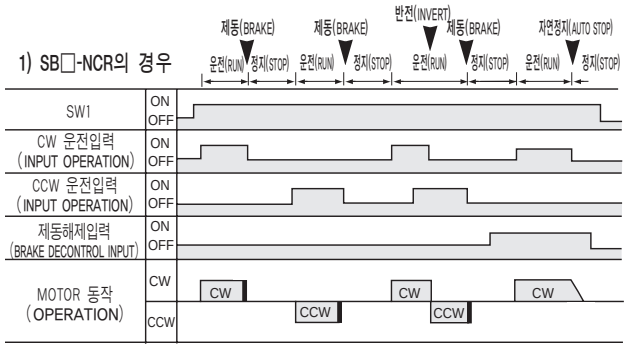
제동해제 입력을 ON으로 하면 전기BRAKE는 작동하지 않고 CW입력, CCW입력을 OFF로하면 관성으로 회전한 후 정지합니다. 제동해제 입력을 OFF로하면 전기BRAKE가 작동하고 CW입력, CCW입력을 OFF로 하면 MOTOR는 순시정지합니다. 정지후 전기BRAKE는 자동적으로 해제됩니다. (When anti-braking input is turned on, electromagnetic brake will not function, and if CW and CCW signal input is turn off, it will come to natural stop due to inertia force. If anti-braking input is off, electromagnetic brake will function and CW, CCW are off as well, motor will come to instantaneous stop. Electromagnetic brake will automatically terminate its function after stopping)

결선시의 주의 (CAUTION)

1. MOTOR와 BRAKE PACK, BRAKE PACK과 외부 CONTROLLER는 최단 거리로 배선하십시요. (When connecting brake pack and external controller, shortest distance connection is highly recommended.)
2. MOTOR용 배선, AC 전원용 배선은 0.75㎟이상의 전선을 사용하십시요. (Wire with thickness of 0.75mm or more recommended.)
3. MOTOR용 배선, AC 전원용배선(단자번호 ①②③⑨⑩⑪)과 신호용 배선(④⑤⑥⑦⑧)과는 선을 같이 묶지 말고 10㎝이상 간격을 두고 배선하십시요. (AC lead wire(Terminal NO ①②③⑨⑩) and signal lead wire(④⑤⑥⑦⑧) have at least 10cm distance.)
4. BRAKE PACK의 단자 PIN에 직접 납땜하지 마십시요. (Be careful not to solder the brake pack's terminal pin directly.)
5. 단자대에 결선 할 때에는 단자 번호를 꼭 확인 하십시요. 잘못 결선하면 고장의 원인이 됩니다. (When brake is to be connected, be sure to check the terminal number.)
6. BRAKE PACK을 SOCKET에 삽입 할 때에는 전원을 OFF하고 확실하게 삽입 하십시요. (The power switch must be turned off when inserting the brake to a socket.)
7. CW또는 CCW 운전입력에 의한 순시정지 기능을 사용시⑥번 단자의 접지를 반드시 행하여 주십시오. (To prevent malfunctions, earth pin No.6 terminal when instant brake is required for CW or CCW operations.)
(고장의 원인이 됩니다)

8. 운전조작 예 (Example of Operation)

1) SB□-NCR의 경우



2) SB□-ENCR의 경우

