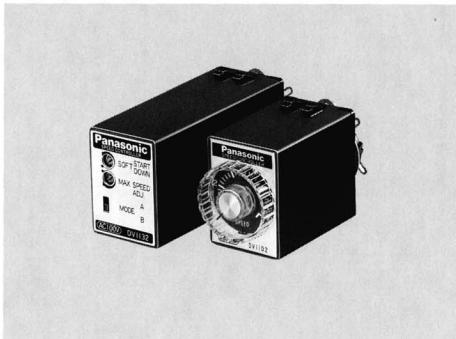


Speed Controller

速度控制器組裝型

스피드 콘트롤러



SD Type

- Speed set device built -in
The speed volume switch enables to adjust the rotation speed.
- Instant stop with electromagetic brake is available :
- 8P compact plug-in type is applied:
- Wide variation in options are available.

F ● 機體內部裝有速度設定器

只要操作前面的設定速度用旋鈕，可以隨時調整馬達的旋轉速度。

無需另外配合速度設定器，更不必特別布線之要。

● 由於電制動器的作用，定將按需瞬時停機。

● 採用小形 8 P(腳)插件方式。

● 可供豐富的配合用另售品

可以按需利用松下電工所製的端子臺、插座等另售的配件。

● 速度設定器是內藏。

케이스前面의 속도 설정용 손잡이에 의해 모터의 회전速度의 調整을 할 수 있습니다.

● 電氣式ブレーキ에 의한 瞬間停止機能이 可能。

● 小形의 8 P 플리그 IN방식을 採用。

● 豐富한 実装用 OPTION의 利用이 可能。

松下電工製의 端子台 소켓 等 配電用 OPTION이 여려모로 利用됩니다.

EX Type

- Soft start, soft down function available :
Excellent in the performance of softly starting and down speed, with a max 5sec speed adjustment.
- High response in switching
High and stable response in switch change.
- Improved the instant stop function
- Parallel operation is possible :
Enable to operate several motors with single controller.
- Able to connect other control systems
Able to control with the voltage signal as well.

● 可能實行緩慢啓動、逐漸減速而停機。

慢速操作的最大調節時間範圍是 5 秒鐘，並且呈出線性的啓動、停機動作，穩定性極可觀。

● 應答性轉換功能

因備有高穩定性、高應答性的轉換開關，按照用途能選最適特性。

● 更提高瞬時停止功能。

● 並聯運轉功能

在一個功率的容量範圍下可控制多數臺的馬達。

● 不妨連接到其他控制系統

如連接順序程序等其他控制系統，則能準確地控制馬達，此外利用電壓信號亦能控制。

● 소프트 스타트·소프트 다운이 可能。

最大 5 秒까지의 時間調整이 可能，또 소프트 스타트·소프트 다운의 直線性에 優秀합니다.

● 應答性切換이 可能。

高安全性，高應答性의 切換S/W가 内蔵되어 있으므로 用途에 適合한 特性을 選択할 수 있습니다.

● 瞬間停止機能을 더욱 向上。

● 並列運転이 可能。

한개의 VOLUME으로 여러대의 모터를 制御할 수가 있음.

● 他이 制御系와의 連結이 可能。

시컨서等 他의 制御系와의 連結에 依해 모터를 制御할 수 있습니다. 또 電圧信号에 있어서도 制御됩니다.



■ Specifications

Model Spec	SD Type												EX Type								
	DV-1101	DV-1102	DV-1104	DV-1201	DV-1202	DV-1204	DV-1101Q	DV-1102Q	DV-1104Q	DV-1201W	DV-1202W	DV-1204W	DV-1131	DV-1132	DV-1134	DV-1231	DV-1234				
Rated Voltage *3	100V		200V		110~115V				220~230V				100V		200V						
Operation Volt Range	±10%					±10%					±10%					±10%					
Power Source Freq	50/60Hz					50/60Hz					50/60Hz					50/60Hz					
Rated Current	0.4A	1A	2.0	0.3A	0.6A	1A	0.4A	1A	2.0	0.3A	0.6A	1A	0.4A	1A	2.0	0.3A	1A				
Applicable Motor Output *1	3~10W	15~40W	60~90W	6~20W	25~40W	60~90W	3~10W	15~40W	60~90W	6~20W	25~40W	60~90W	3~10W	15~40W	60~90W	6~20W	25~90W				
Response													High response		High stability						
Speed Control Range	90~1400rpm/90~1700rpm					90~1400rpm/90~1700rpm					90~1400rpm/90~1700rpm					50~1400rpm/ 50~1700rpm					
Speed Variation	5%					5%					Mix. 5%		Max. 3%								
Speed Set Device	Built in (External speed set device attachable)					Built in (External speed set device attachable)					With external speed set device										
Control *2	Run electric brake for certain period to motor					Run electric brake for certain period to motor					Run electric brake for certain period to motor										
Electric Brake Period	0.5sec					0.5sec					Max. 0.5sec										
Parallel Operation	Not suitable for parallel operation					Not suitable for parallel operation					possible										
Soft Start/Soft Stop	None					None					possible										
Operation Temperature	−10~50°C					−10~50°C					−10~50°C										
Storage temperature	−20~60°C					−20~60°C					−20~60°C										

※ 1. Suitable motors are G-series variable speed types.

※ 2. The electric brake does not have retentiveness.

※ 3. Single phase only.

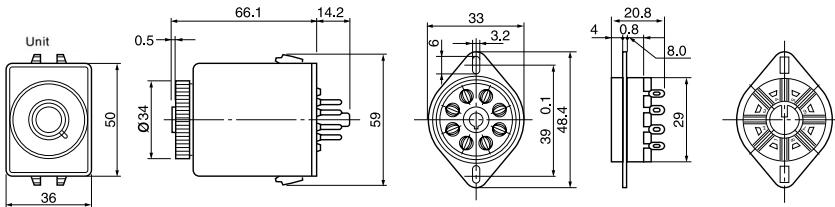
* 1. 適用MOTOR는 当社G시리즈 可变速 MOTOR로 합니다. 또한 모터의 仕様은 카다록 等을 보아 주세요.

* 2. 電気BRAKE에는 保持力이 없습니다. REVERSIBLE MOTOR를 使用하면 항상 搭動形의 簡易

SD Type

DV-1101 DV-1102 DV-1104
DV-1201 DV-1202 DV-1204

■ Dimension



■ Wiring Diagram

① Single Direction + Variable Speed (3~90W)

單向運轉 + 變速

SW₁ AC125V or 250V Min 5A

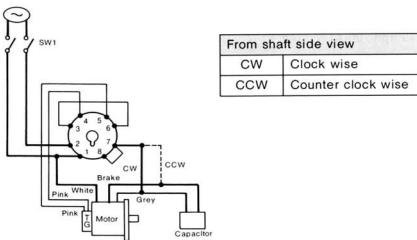


(Caution)

The motor rotate direction is CW when viewed from shaft side for thick wire connections. When adjusting to CCW direction. Connect as per ... Diagram.

(注) 圖中以粗線表示的布線時，就在軸面看馬達向時針方向(CW)旋轉；順着虛線結線就反時針方向(CCW)旋轉。

(주) 금은 실선의 경우, MOTOR의 회전방향은 축면에서 보아, 시계방향(CW)입니다, 반시계방향(CCW)으로 할 때는 흰색의 결선을 해 주세요.



② Single Direction + Variable Speed + Brake (Less than 25W)

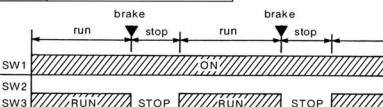
單向運轉 + 變速 + 制動

SW₁/SW₂ AC125V or 250V Min 5A

SW₃ DC10V 10mA

R₁+C₁ DV-OP008 (Option)

R₂ DV-OP003 (Option)



(Caution)

1. The motor rotate direction is CW (clock wise) for thick wiring while it is CCW (counter-clock wise) for ... diagram viewed from motor shaft side.
2. Changing from RUN to STOP, the control brake function for 0.5sec and the motor stops rapidly.

(注) 1. 按圖中粗線結線，就在軸面看馬達向時針方向(CW)旋轉：要使它反時針(CCW)方向旋轉，宜順着虛線結線。

2. 由RUN轉換到STOP，電動制動器立即發出制動作用，馬達約0.5秒鐘停機。

(주) 1. MOTOR의 회전방향은 축면에서 보아 금은 실선이 시계방향(CW)破線이 反時計方向(CCW)의 결선입니다.

2. RUN부터 STOP으로 하면 制動(電氣BRAKE)이 約 0.5 秒間 動作하고 MOTOR가 急速停止합니다.



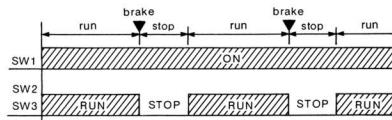
DV-1101 DV-1102 DV-1104
DV-1201 DV-1202 DV-1204

■Wiring Diagram

③ Single Direction + Variable Speed
+ Brake (40~90W)

單向運轉+變速+制動

SW ₁ /SW ₂	AC125V or 250V Min 5A
SW ₃	DC10V 10mA
R ₁ +C ₁	DV-OP008 (Option)
R ₂	DV-OP003 (Option)



(Caution)

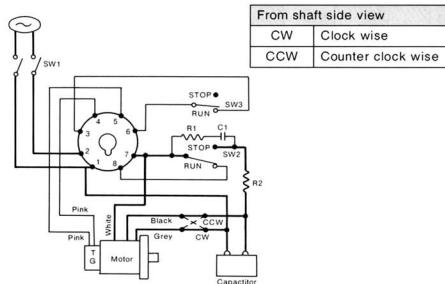
1. The motor rotate direction is CW (clock wise) for thick wiring while it is CCW (counter-clock wise) for ... diagram viewed from motor shaft side.
2. Changing from RUN to STOP, the control brake function for 0.5sec and the motor stops rapidly.

(注) 1. 如欲使馬達在軸面來看向時針方向(CW)旋轉,就按圖中粗線結線;要反時針方向(CCW)的配線입니다.

2. 由 RUN 轉換到 STOP, 電制動器立即發出制動作用, 馬達約0.5秒之間停機。

(주) 1. MOTOR의 회전 방향은 軸側에서 보아 細은 實線이 時計 方向(CW)破線이 反時計 方向(CCW)의 配線입니다.

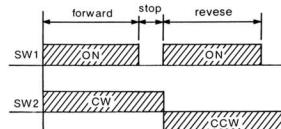
2. RUN부터 STOP으로 하면 制動(電気(BRAKE))이 約 0.5 秒間 動作하고 MOTOR가 急速停止합니다.



④ Reverse + Variable Speed
(3~90W)

正反向運轉+變速

SW ₁ /SW ₂	AC125V or 250V Min 5A
----------------------------------	-----------------------

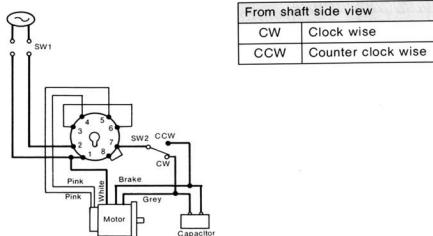


(Caution)

Change to SW₂ with a certain period after STOP

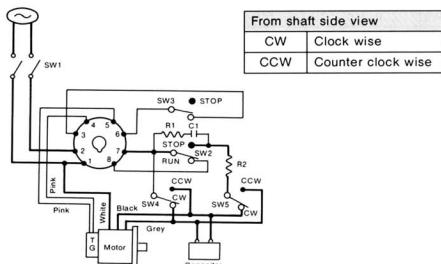
(注) 設定停止時間, 故等到馬達停穩後要轉換開關SW₂.

(주) 停止期間을 設定하여 回転이 停止된 다음, SW2를 切換해 주세요.

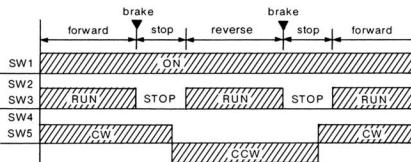


■Wiring Diagram**⑤Reverse + Variable Speed + Brake
(Less than 25W)**

正反向運轉+變速+制動



SW ₁ /SW ₂ SW ₄ /SW ₅	AC125V or 250V Min 5A
SW ₃	DC10V 10mA
R ₁ +C ₁	DV-OP008 (Option)
R ₂	DV-OP003 (Option)



(Caution)

1. Changing from RUN to STOP, the control brake function for 0.5sec and the motor stops rapidly.
2. During this 0.5sec, do not operate SW₄ nor SW₅.
3. The Switching for SW₄ and SW₅ should be earlier than STOP from RUN of SW₂ and SW₃.

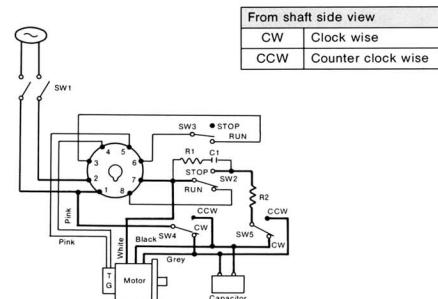
[注] 1. 由 RUN 轉換到 STOP，電制器立即發出制動作用，馬達約0.5秒之間停機。
2. 停機約0.5秒之間不可操作SW₄、SW₅。

3. 將SW₂、SW₃開關由 STOP 轉換到 RUN 之前，應預先轉換SW₄、SW₅開關。

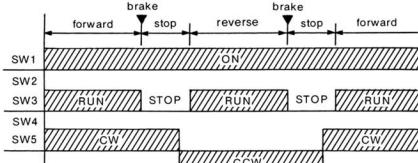
(주) 1. RUN부터 STOP으로 하면 制動(電気BREAK)[0] 約 0.5 秒間 動作하고 MOTOR 가 急速停止합니다.
2. 이러한 約 5 秒間に SW4,SW5를 操作하지 마세요.
3. SW4,SW5의 切換은 SW2,SW3의 STOP부터 RUN의 切換보다 빨리 해 주세요.

**⑥Reverse + Variable Speed + Brake
(40~90W)**

正反向運轉+變速+制動



SW ₁ /SW ₂ SW ₄ /SW ₅	AC125V or 250V Min 5A
SW ₃	DC10V 10mA
R ₁ +C ₁	DV-OP008 (Option)
R ₂	DV-OP003 (Option)



(Caution)

1. Changing from RUN to STOP, the control brake function for 0.5sec and the motor stops rapidly.
2. During this 0.5sec, do not operate SW₄ nor SW₅.

[注] 1. 由 RUN 轉換到 STOP，電制器立即發出制動作用，馬達約0.5秒之間停機。
2. 停機約0.5秒之間不可操作SW₄、SW₅。

3. 將SW₂、SW₃開關由 STOP 轉換到 RUN 之前，應預先轉換SW₄、SW₅開關。

(주) 1. RUN부터 STOP으로 하면 制動(電気BREAK)[0] 約 0.5 秒間 動作하고 MOTOR가 急速停止합니다.
2. 이러한 約 5 秒間に SW4,SW5를 操作하지 마세요.
3. SW4,SW5의 切換은 SW2,SW3의 STOP부터 RUN의 切換보다 빨리 해 주세요.



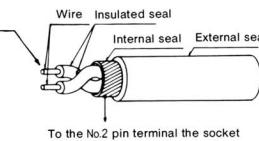
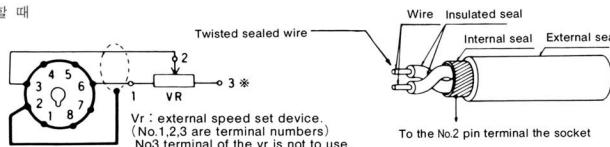
The following is the explanations of external speed set device (DC-OP002)

外部速度設定器(DV-OP002)의 使用方法을 説明합니다.

●When Distance Control is Necessary

需要遙控操作時

遠隔操作이 必要할 때



(Caution)

1. The speed set should be '0'.
2. Adjust the wire connection as short as possible.
In this case, use the twisted sealed wire.
3. It is recommended to use the mountable frame rather than speed set device for distance control.

[注] 1. 主機速度調整器의 刻度を調整到「0」位置。

2. 配線은 되도록 짧게 해 주세요. 이 때에 TWIST의 SILD線으로 2香蕉子로 接続해 주세요.

3. 遠隔操作의 方法으로 外部速度設定器보다도 埋込用 付着栓(들)을 권합니다.

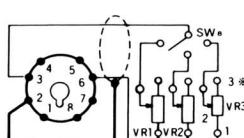


mountable frame

●When Multi-Stage Speed Set is Necessary

需要設定多級速度時:

多段階速度 設定이 必要할 때



VR1 VR2 VR3	DV-OP220
SW*	DC 10V 10mA

VR: external speed set device
*No3 terminal of VR is not used.

(Caution)

1. The speed set should be '0'.
2. Change the speed with external speed set device VR1, VR2 and VR3, and switch with SW*.

[注] 1. 主機速度設定器의 刻度を調整到「0」位置。

2. 操作外部速度設定器VR1, VR2, VR3分別設定速度, 并使用開關SW*來轉換。

3. 不用DV-OP002時, 可用與20kΩ 1/4W,B特性相同者而代替。

[注] 1. 本体의 速度設定器는 目盛(눈금)을 「0」으로 해 주세요.

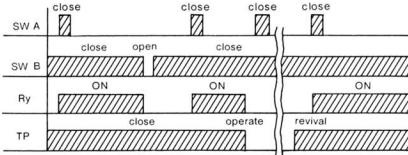
2. 外部速度設定器 VR1 · VR2 · VR3에 依해 각各 速度를 設定하여 SWITCHI SW*에 依해 切換해 주세요.

■Wiring Diagram

⑦With Cooling Fan Motor (F)/Thermal Protector (TP)
Motor Wire Connection (90W)

付帶 { 冷却用風扇馬達(F) } 電動機的布線
過熱防止裝置(TP) }

SW A	Momentary N O Contact
SW B	Momentary N C Contact
RY	AC125V or 220VAC Min 5A, 3a Contact



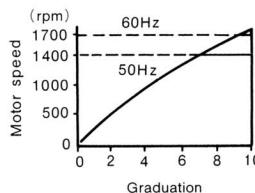
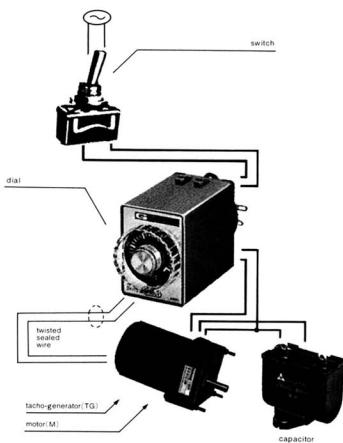
(Caution)

1. The wire connection should follow as per above diagram since thermal protector (TP) automatically revives.
2. When the TP operates, a certain period of cooling time is necessary until revival.
3. The cooling fan motor (F) should be connected between source terminal ① and ②.
4. Motor (M) and tacho-generator (TG) and other wire connections should follow as per its explanations dependent upon its purpose.

(注)

1. 過熱防止裝置(TP) [接点容量125V、5 A或是250V、3 A]는 自動復位型입니다. 그 부線은 接接左回路に配置합니다.
2. 機器過熱TP가 發出功能時, 經過冷卻時間後恢復正常後始能自動復位합니다.
3. 冷却用風扇馬達(F) 必須連接到電源端子 1~2 之間。
4. 馬達(M)、轉速傳感器(TG)等其他布線, 是可以依照目的而參照前述的電氣布線法 實行爲宜。
5. 其他布線宜分別參照有關布線項目。

1. THERMAL PROTECTOR(TP) [接点容量 125V 5 A 또는 250V 3 A]는 自動復帰型이므로 誤리 위 그림의 配線으로 使用해 주세요.
2. TP가 動作하면 復帰할 때까지 冷却时间이 必需합니다.
3. 冷却用 FAN MOTOR(F)는 電源端子 1~2 間に 接続을 해 주세요.
4. MOTOR(M) TACHOGENERATOR(TG) 등의 他配線은 目的에 따라 다음에記述하는 電氣配線에 準하여 配線하여 주세요.

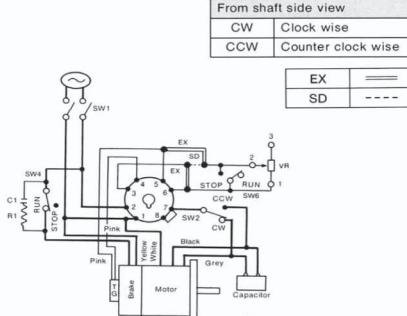
Wire Connection / For Single Direction Operation

- Adjust the motor speed with the speed volume dial.
- The thick wiring shows the main circuit. Use approx 0.75mm² wires.
- When the tachogenerator (TG) wiring becomes longer than 1m. Use a twisted sealed wire of 2 cores.

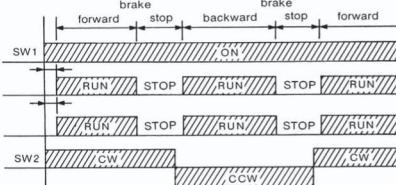
- 本体 上面의 速度 設定器에 의해 MOTOR의 回転速度를 变速할 수 있습니다.
- 금은 實線은 主回路을 表示합니다.
- G0..75mm² 정도의 電線을 使用해 주세요.
- 速度傳感器(T.G)의 配線이 길어질 경우(1 m 이상)는 2芯의 TWISTED의 SEALED선을 使用 配線하고 SEALED부분을 2番端子에 接続해 주세요.

■ Wire Connection for Electro-Magnetic Brake Motor

- ⑧ When Electric Brake of Controller is Not Used at The Same Time
不配用控制器的電制動器時



SW ₁ /SW ₇ /SW ₉	AC125V or 250V Min 5A
SW ₆	DC10V 10mA
R ₁ +C ₁	DV-OP008 (Option)
R ₂	DV-OP002 (Option)



(Caution)

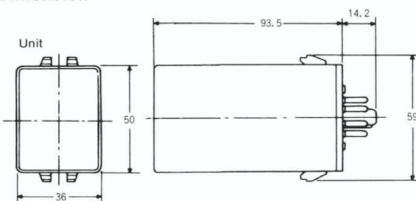
- Leave a certain period until the motor stops, then switch SW₂.
- The power source SW₁ shall be switched 0.5sec faster than the operation start signals of SW₆ and SW₉.
- When operating RUN-STOP, leave the SW₁ 'ON', and control with SW₆ and SW₉.
When leaving non-operated for a long time, turn OFF SW₁.
- Set the external speed set at '0', and adjust the speed with the external speedset device VR.

- [注] 1. 必需設定停止時間。等到旋轉停止後始可轉換SW₉。
2. 電源開關SW₁、要在由開關SW₆、SW₉發出運轉啓動信號的至少0.5秒以前，應預先接通。
3. 反覆進行運轉——停止時，在接通SW₁的狀態下操作SW₆和SW₉，則可用小信號控制馬達。如果較長時間停機時，必須關掉SW₉。
4. 使用SD型控制時，先把主機速度設定器的刻度歸「零」，要用外部的速度設定器VR來調速即可。

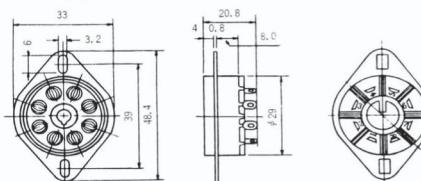
- (주) 1. 정지시간을 설정하고 회전이 정지한 다음 SW₉을 교체해 주세요.
2. 전원 SWITCHI SW₁ 접기의 시간은 SW4, SW9에 의한 운전시작의 신호보다 약 0.5초 이상 빨리 해 주세요.
3. 운전정지할 때는 SW₁을 「ON」그대로 SW6, SW9로서 조작해 주세요. 신호로서 MOTOR를 제어할 수 있습니다. 또한 장시간 정지(쉴때)할 때는 SW₁을 끊어 주세요.
4. 본체의 속도 설정기는 목盛(눈금)을 「0」으로 외부 속도 설정기 VR로서 속도 조정해 주세요.

EX Type

■ Dimension



Socket (Option)



DV-1131 DV-1132 DV-1134
DV-1231 DV-1234

■ Wire Connection for Electro-Magnet Brake Motor

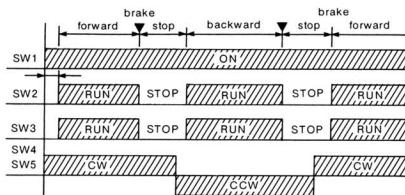
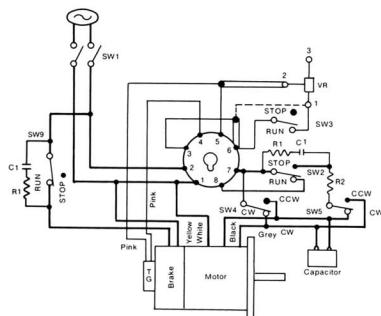
⑨ When Electric Brake of Controller is Not Used at The Same Time

配用控制器的電制動器時

SW ₁ /SW ₃ /SW ₉ SW ₄ /SW ₅	AC125V or 250V Min 5A
SW ₃	DC10V 10mA
R ₂	DV-OP008 (Option)
R ₁ +C ₁	DV-OP003 (Option)
VR	DV-OP002 (Option)

(Less than 25W)

From shaft side view	
CW	Clock side
CCW	Counter clock wise

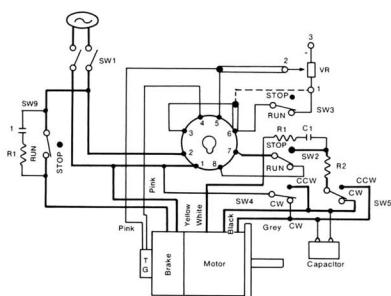


(Caution)

- When changing from RUN to STOP the electric brake operates and the motor suddenly stops.
- Operate SW₄ and SW₅ after motor stops.
- The switching for SW₄ and SW₅ shall be faster than the switching from stop to RUN with SW₂, SW₃ and SW₉.
- The power source SW₁ Should be switched 0.5sec faster than the operation start signal of SW₂, SW₃ and SW₉.
- When operating RUN-STOP, leave the SW₁ on, and operate with SW₂, SW₃ and SW₉.

- (注) 1. 由「RUN」轉換到「STOP」，電動機發出制動作用，馬達立即停止。
2. 等到馬達停頓後，始可操作開關SW₂、SW₃、SW₉。
3. 應先轉換SW₄、SW₅開關，然後才可使SW₂、SW₃、SW₉開關由「STOP」轉換到「RUN」狀態。
4. 先接通電源開關SW₁，即由開關SW₂、SW₃、SW₉發出啓動信號的至少0.5秒以前接通為要。
5. 如欲反覆進行運轉——停止時，應在接通SW₁的狀態下操作SW₂、SW₃、SW₉各開關。可利用小信號控制馬達動作。工作完畢或較長時間不用時，必須關掉SW₁，斷開電源。

(40W)



- (注) 1. RUN에서 STOP으로 하면 電氣 BRAKE(制動)가 动作하여 MOTOR가 急停止합니다.
2. MOTOR가2) 停止한 다음 SW4,SW5를 操作해 주세요.
3. SW4,SW5의 切換은 SW2,SW3,SW9의 STOP부터 RUN의 切換보다 빨리 해 주세요.
4. 電源 SWITCH SW1 输入의 时间은 SW2,SW3,SW9에 依한 转運始動의 信号 모디도 約 0.5秒 以上 要り 80 주세요.

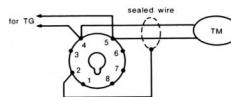
5. 转運停止할 때에는 SW1을 0 [] 모드로 SW2,SW3,SW9에서 操作해 주세요. 小信号로서 MOTOR를 制御할 수 있습니다. 또한 長時間 停止할 때는 SW1을 끊어 주세요.



■ Operation Speed Meter

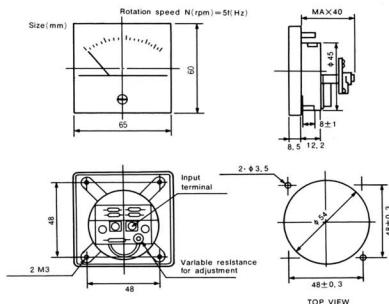
● Model DVOP001

The motor speed can be easily indicated. This model especially designed for Panasonic controllers only.
TMW Motor Speed Meter
TGW Tache-generator



TM : Motor Speed Meter
TG : Tache-generator

MOTOR의 회전速度의 表示가 簡単히 됩니다. 또한 이 METER는 当社의 콘트롤用으로 専用設計된 것입니다.



(Caution)

1. Connect parallel with the speed generator (TG)
 2. When the wires for the rotation speed meter (TM) becomes too long, use a twisted sealed wire in place.
 3. Adjust the meter with the volume in the back of TM.
- How to adjust W
1. Measure the motor speed with the rotate measurement.
 2. Measure the frequency F of the voltage from TG. Rotation speed N (RPM) = 5F (Hz)

(주)

1. 速度発電機(TG)와並列로(나란히)配線해 주세요.
2. 回転速度 METER(TM)의 配線이 길어질 때에는 썬이스트 실드 線을 利用해 주세요.
3. TM의 뒷면의 半固定 VOLUME으로서 “눈금”을 校正해 주세요.
校正方法
 1. 回転計에 依해 MOTOR의 回転速度를 测定한다.
 2. TG의 發生하는 電圧의 周波數를 测定한다.

■ External Speed Set

● Model DVOP002 20kΩ 1/4WB equivalent 20kΩ 1/4WB (m/m)

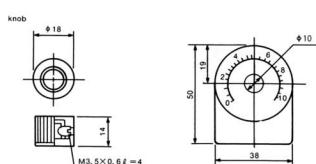
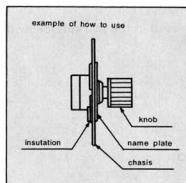
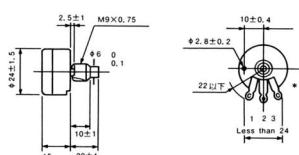
(Packaged in EX type only)

Use a insulation paper between the mounting chassis and the terminal in order to keep certain insulation.

(Caution)

In case the terminal accidentally grounds, the speed controller will damage.

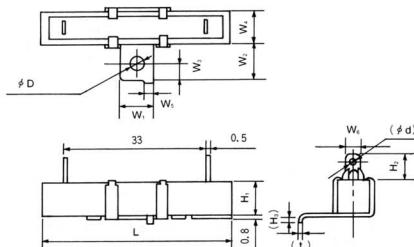
端子와 付着하시의 绝縁을 確保하기 为해 绝縁紙를 使用해 주세요.



Speed Controller Options

External Resistance for Brake Use

- Model: DVOP003
5.6Ω 10W



Dimensions (mm)												
L ₃ ±2.0	W ₁ ±0.5	W ₂ ±1.0	W ₃ ±0.5	W ₄	W ₅ ±0.3	W ₆ ±0.5	H ₁ ±0.5	H ₃₊₃ ¹	(H ₃)	(D)	(d)	(t)
48.0	12.0	14.0	6.0	10.5±1.5	3.0	4.8	10.5	9.0	2.2	2.8	2.5	0.6

(Caution)

DV-OP003 is 5.6Ω

When purchasing from generally in the market, select A4.7Ω ~ 5.8Ω
(more than 10W) type.



(주) DV-OP003은 5.6Ω입니다.

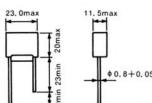
시판의 저항��를 사용하실 때는 10W이상 4.7Ω ~ 5.8Ω를 선택해 주세요.

Spark Killer

- Model: DVOP008

Use a spark killer in order to protect the main speed controller and the switches.

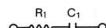
SPEED CONTROLLER의 회로와 SWITCH를 보호하기 위해 스파크 킬러를 사용해 주세요.



(Caution)

When using spark killer generally purchased in the market, follow the instructions shown below:

(주) 시판품을 사용하실 때는 다음仕様으로 해주세요.



R₁=10~100Ω (More than 1/4W)
C₁=0.1~0.33μF (AC125WV 100V or 250WV 200V)
(Matsushita Electric Works Ltd.)



■Mounting Frame (Mathushita Electric Works)

	Shape	Color	Model No.	Picture of the front face	Size of mount hole (mm)
					Recommended hole
H Type		grey	◎AT7851		
		brack	◎AT7852		
		silver gray	◎AT7853		
K Type		grey	◎AT7811		
		brack	◎AT7812		
		silver gray	◎AT7813		
MHP Type		grey	◎AT7821		
		brack	◎AT7822		
		silver gray	◎AT7823		
MHP-M Type		grey	◎AT7831		
S Type		grey	◎AT7841		

(Caution 1) All thickness of adapted panel is between 1.0~3.5mm

(Caution 2) * : The distance between holes when mounting the controllers parallelly.

주 1) 적용파넬 두께는 모두 1.0~3.5mm입니다.

주 2) *並列(나란히)파넬갓트할 때의 구멍의 간격

■Ultra Compact Timer/Option

● (Exposed Type)

Model	Internal Wiring	Mounted Condition	Mounting Hole
 DIN terminal stand ATT803	 Main body No.is same as terminal no.	 The DIN rail height should be added to A	1) Easy mounting for DIN rail
 Socket AW 68102 Comes to each speed controller			
 Holding spring AT7808 (50pcs/lot)		 Use a M3 screw nut.	 Mounting pitchW When mounting horizontally, keep the pitch More than 78mm

(Caution 1)

In case of crimp-type terminal lugs, a crimp-type terminal lugs which is already connected is fixed by UP terminal (For M3.5 screw).

(Caution 2)

Without DIN rail, recommend to use a small round terminal stand AT7802.

주 1) 压着端子의 경우

미리 線路된 压着端子 up端子(M3.5 나사못)으로 固定한다.

適合压着端子

①裸丸形端子

②絶縁紙付裸丸形端子

③先開形端子

주 2) DIN 레일을 사용하지 않는 때는 小型九 端子台 AT 7802를 사용해 주세요.

Speed Controller Options

● How to Mount

- ① Insert the mounting frame from front of the panel out.

付着枠(들)을 패널킷 전면에서 빌려 주세요.



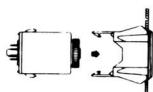
(Caution)

The panel cannot be inserted when the controller body is attached to the mounting frame.

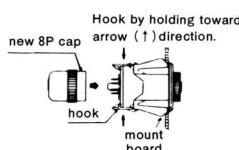
주) 본체를埋込枠(들)에 装着한 狀態로의 帕拂插入은 不可能합니다.
(BS TYPE 원터치埋込用 独立枠의 경우 順序의 制約은 받지 않습니다.)

- ② After Attaching the panel, insert the controller body from the back.

하드부를 베스에 걸쳐埋込枠(들)에 固定해 주세요. 화살쪽



- ③ Hook and fix the mounting.



(Caution)

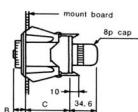
When the controller contacts to the edge of the frame, move the hook towards the arrow direction shown in the picture. for wire connection, use NEW-8PCAP (AD-8013)

주) 본체가 独立枠(들)접점에 닿았을 때 “↑”방향으로箭 러서 멈추어 주세요. 接続配線에는 NEW 8P캡 (AD 8013)을 사용해 주세요.

● How to Remove

Follow the opposite way of the mounting instructions.

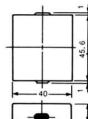
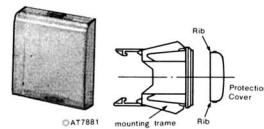
조립方法의 逆顺序로 해제가 됩니다.



● Size of Band CC nn

frame type	B	C
H type	13.1	52.8
K type		
MHP type	14.8	51.3
MHP-M type		
S type		

■ Protection Cover



付着枠(들)전면으로부터 保護カバ의 화살→부분 높이서 리프를 서서히 独立枠(들)에 리프를 겁니다. 이때 付着枠(들)에 本体가 捕入되어 있어도 保護カバ의 付着에는 支障이 없습니다.

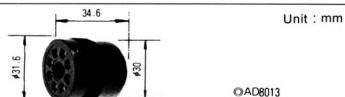
FeaturesW

- Prevents mal-operation after speed set, and prevents dust invasion.
- Can be applied to all easy mounting attach types.

- 速度設定後의 誤動作을 防止하고 簡易防止カバー 됩니다.
- 원터치埋込용의 全 TYPE에 適用됩니다.

■ New 8P Cap

● Shape



Unit : mm

Maintenance

The following maintenance is required for longer life and reliability:

- To check smooth operation
- To check no unusual noise
- To check over heat

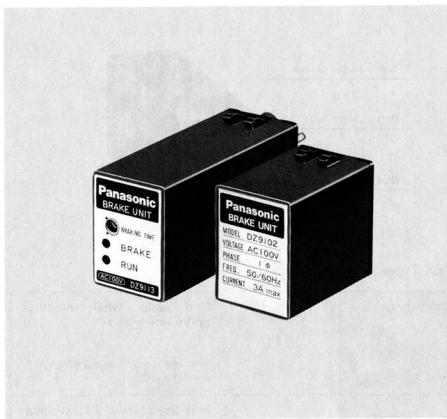
작업의 能率을 올려 本機械의 寿命을 길게 하기 위해서는 다음과 같은 平素의 补修가 重要합니다.

- 運転이円満하게 行해지고 있는가
- 運転中에 異常한 소리가 나지 않는가
- 異常 発熱은 나지 않는가.

Damage and Counter Measures

[故障의 原因과 其措置]

Phenomenon	Where to check	Contents to Check	Judge the Cause	Countermeasures
How motor does Not rotate:	Wire Connection	If it is proper	Check the connection	Re-connect properly
	Terminal No. (1~7)	Change the speed set volt and check the volt change.	Controller damaged if voltage does not change.	
			If the volt change from 0 to power source V:	
			1. Motor defect	
			2. Overload	Reduce the load
			3. Condensor defect	
Motor rotates but speed does Note change:	Wire connection	If it is proper	Check the wire connections	
	Speed Generator terminal (4~5)	To Have approx AC6V/1700RPM ACSV/1400RPM of voltage.	If not, it is speed generator defect.	
			If such volt is Measured, it is speed controller defect.	



■SD·EX Type

Brake unit enables to instantly stop the motor electrically. The electrical brake helps a longer life and reliability, as well as making inching operation possible. Our unique thchinal development realized a compact, light weight, and high reliability design.

本制動组件是為瞬時停止馬達的電制動裝置。既採用電氣制動器，耐用性可觀，並能進行寸動操作。

驅使本廠獨創的控制技術，具有小形、輕量、可靠性優異等良好特長。

브레이크 유닛은 모터를瞬間停止 시키기 위한 電氣브레이크 裝置입니다. 電氣브레이크 때문에 IN CHING動作도 可能합니다.

当社独自의 制御技術에 依해 小形, 輕量, 高信賴性을 実現하고 있습니다.

■Features

- 8 plug in type
- Inching operation possible
- Contact type (SD) and non-contact type (EX) as standard options.
- Wide variations in

- 採用 8 P(脚)挿入方式。
- 可能進行寸動操作。
- 帶觸點方式(SD型)、無觸點方式(EX型)的標準化。
- 準備多種另售配件，按需可供。

松下電工的終端臺、插座等配電盤用另售品，按需選用。

- 8P 플리그 IN方式의 採用。
- IN CHING動作이 可能。
- 有接點 方式(SD TYPE)無接點 方式(EX TYPE)을 標準化
- 豐富한 實裝用 OPTION의 利用이 可能。

松下電工製의 端子台 소켓 等 配電盤用 OPTION이 多く 利用될 수 있습.

Brake Unit

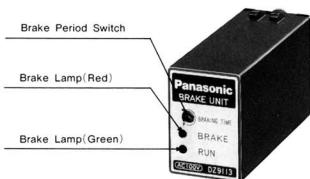
制動器组件

브레이크 유닛

SD Type

- a. Compact 8P plug type
- b. Connect with the SSR(non-contact relay), which the electrical signal enables to "run" and "instant stop".
- c. Electrical brake period is 0.5 sec as standard.

- a. 小形 8 脚挿入方式。
- b. 可以配合市售的SSR(無接点继电器)使用。
如與SSR併用，則能經過電氣信號控制「運轉」「瞬時停止」。
- c. 電制動器的標準動作時間為0.5秒。



EX Type

- a. 小形, 8P プラグ IN 方式
- b. 市販の SSR(無接点リレー)との併用も可能。
SSR 併用時、電気信号により「運転」「瞬間停止」を制御可能になります。
- c. 電気ブレーキ動作時間は標準値(約)0.5秒입니다.

Brake lamp		Red lamp: when electrical brake energized 赤色 電気ブレーキ 電流通電時 点灯됩니다.
Brake period volume switch		Max 2sec (standard) available to adjust to avoid heat rise, shorter adjustment is recommended. 最大 2 秒(標準値)까지 可変。長時間 通電하면 모터의 温度가 상승되므로 停止可能な範囲로 되도록 調べて 調整해 주세요。
Operation lamp		Green lamp: At run 緑色 運転時(RUN)点灯。

EX Type

- a. Control with electrical signal.
- b. Able to adjust electrical brake perio is Within the range 0.1~2 sec.
- c. Equips a indication lamp for "run" and "instant stop".

- a. 可利用電氣信號進行控制，即以電氣信號控制「運轉」「瞬時停止」「滑行停止」。
- b. 可能調整電制動器的動作時間。
- 在0.1~2秒的範圍內任意選擇制動動作時間。
- c. 備有顯示「運轉」「瞬時停止」的表示燈。

- a. 電氣信號에 의해 제어가 가능합니다.
電氣信號에 의해 「運転」「瞬間停止」「惰走停止」가 제어됩니다。
- b. 電気ブレーキ動作時間의 調整이 가능합니다.
0.1~2秒의範囲로 最適한動作時間を選択할 수 있습니다.
- c. 「運転」「時間停止」의 表示 "LAMP"를 装備합니다.



■ Model and Specification

● SD Type

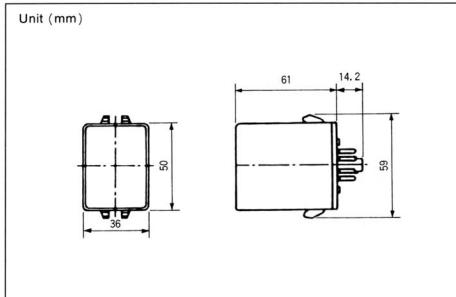
Performance	DZ9102	DZ9202	DZ9302
rated voltage	Single phase 100V	Single phase 200V	Three phase 200V
Frequency	50/60Hz		
Allowable current	Operation current		
Applicable motor	3~90W		
Brake method			
Brake time	0.5sec (standard)		
Operation temperature	-10~50C		
Storage temperature	-10~-60C		

(Caution)

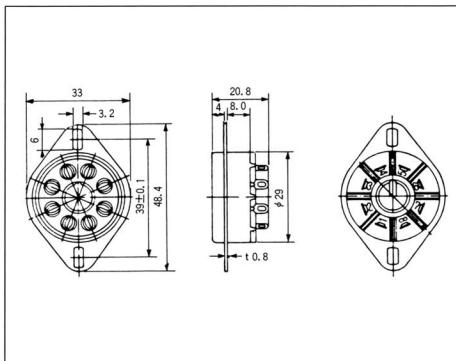
Electrical brake does not have holding strength. For those applications that require a holding strength, electromagnetic brake motor or clutch and brake motor is recommended.

■ Dimension

● SD Type



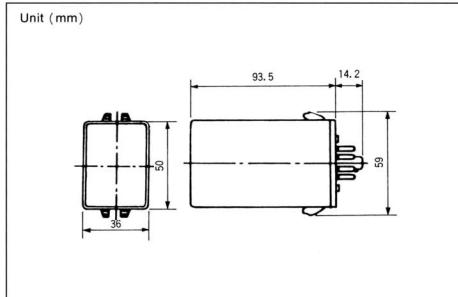
● SD-EX Type Options (Enclosed)



● EX Type

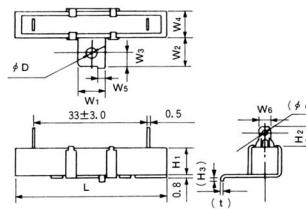
Performance	DZ9113	DZ9213
rated voltage	Single phase 100V	Single phase 200V
Frequency	50/60Hz	
Allowable current	Operation current	
Applicable motor	3~90W	
Brake method	Energize the motor with a constant period of electrical brake.	
Brake time	0.5sec (standard)	
Operation temperature	-10~50C	
Storage temperature	-10~-60C	

● EX Type



● External Resistor For Brake Control

(Enclosed only in SD type DZ9302)
● Model : DV-OP003 5.6Ω 10W

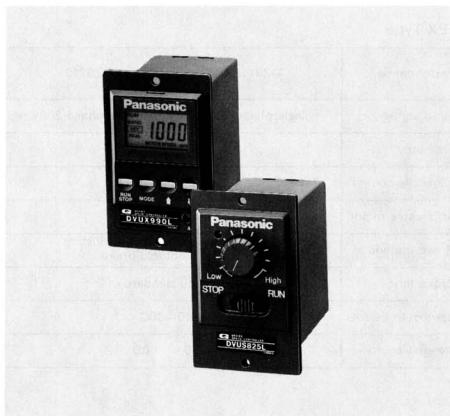


Measurement (mm)									
L±20	W ₁ ±0.5	W ₂ ±1.0	W ₃ ±0.5	W ₄	W ₅ ±0.3	W ₆ ±0.5	H ₁ ±1.5	H ₂ ±3	(H ₃) (d) (t)
48.0	12.0	14.0	6.0	10.5±1.5	3.0	5.2	10.5	9.0	2.2 3.8 2.5 0.6

Unit Type / Variable Speed Controller

组件型 速度控制器

스피드 콘트롤러 유닛 타입



The new unit type motor, having award the G-mark (good design) from the ministry of trade and industry of Japan, carries the most attractive design and easy-to-use features first introduced into the market.



■Digital display (UX series)

- Quick and easy connection system
- Max 5m of extension cable(optional)
- Multi-function with built-in micro-processor
- 1. Digital speed setting/read out
- 2. Instant conversion of gearhead and machine speed
- 3. Soft start/soft down functions
- 4. Memory function of set condition
- 5. Set-lock function

●用连接器一動作連接方式的速度控制器。

●如用零售的配件，則能延長到最大 5 米長。

●因採用微電腦，大有增多功能。

1.可用數字設定旋轉速度。

2.瞬時快速地換算齒輪頭速度、輸送機速度。

3.以數字顯示出實際工作速度。

4.具有緩慢啓動、逐漸停止功能。

5.具有設定條件的後備、保存功能。

6.設定後可以門鎖。

●콘넥타로 원 텁치 接続의 스피드 콘트롤.

●OPTION을 사용하여 最大 5 M까지 延長 可能.

●마이크로의 採用으로 多機能.

1. 回転速度를 디지털 설정합니다.

2. 기어헤드速度나 품베어 速度를 순간換算합니다.

3. 実際의 速度를 디지털 表示합니다.

4. 소프트 스타트 다운機能.

5. 設定條件의 뒤 업 機能.

6. 세트 루 機能.

■US Series

- Quick and easy connection system
- Max 5m extension cable(optional)

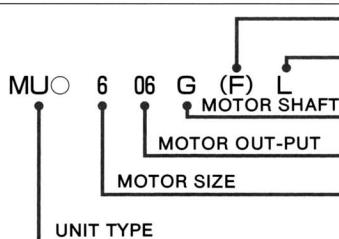
●用连接器一動作連接方式的速度控制器。

●如用零售的配件，則能延長到最大 5 米長。

●콘넥타로 원 텁치 接続의 스피드 콘트롤라.

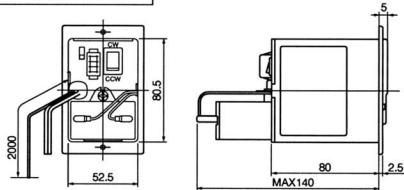
●OPTION을 사용하여 最大 5 M까지 延長 可能.

■Coding

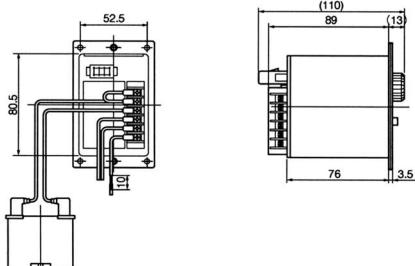


■Dimensions

UX Series

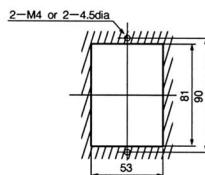


US Series

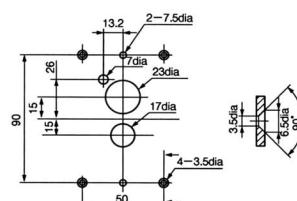


■Mounting Hole

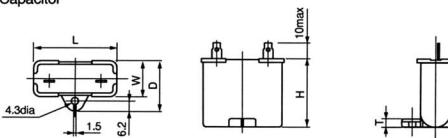
1. Square Hole (for UX and US)



2. Circle Hole (for US)



●Capacitor



MODEL	CAPACITOR	L	W	D	H	T	(mm)
DVUS960L 100V	MOPC20M20	50.2	26.7	37	36	5	
DVUS960Y 200V	MOPC5M40	50	30.5	41	41.5	4	
DVUS990L 100V	MOPC25M20	50.2	31	41	42	5	
DVUS990Y 200V	MOPC6.2M37	50	30.5	41	41.5	4	

■MODEL TYPES

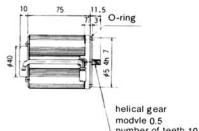
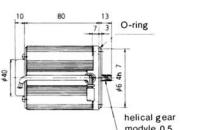
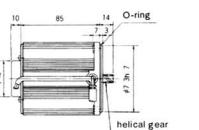
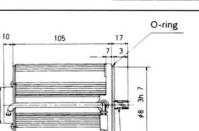
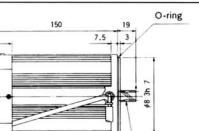
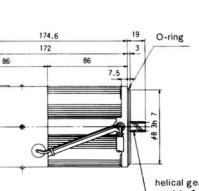
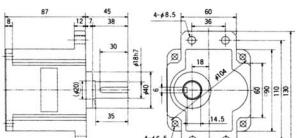
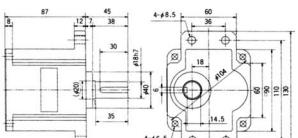
MOTOR OUT-PUT	UNIT MODEL	MOTOR MODEL	CONTROLLER MODEL	APPLICABLE GEARHEAD MODEL		
				BALL BEARING	METAL BEARING	DECIMAL GEARHEAD
6W	MU○606G○	M6IA6GD4○	DVU○606○	M6GA□B	M6GA□M	M6GA10XM
15W	MU○715G○	M7IA15GD4○	DVU○715○	M7GA□B	M7GA□M	M7GA10XM
25W	MU○825G○	M8IA25GD4○	DVU○825○	M8GA□B	M8GA□M	M8GA10XM
40W	MU○940G○	M9IA40GD4○	DVU○940○	M9GA□B	M9GA□M	M9GA10XM
60W	MU○960G○	M9IC60GD4○	DVU○960○	M9GC□B M9GS□B	—	M9GC10XB
60W (with fan)	MU○960GFO○	M9IC60GFD4○	DVU○960○	M9GC□B M9GS□B	—	M9GC10XB
90W	MU○990G○	M9IC90GD4○	DVU○990○	M9GC□B M9GS□B	—	M9GC10XB

Unit Type / Variable Speed Controller

组件型 速度控制器

스피드 콘트롤러 유닛 타이프

■ Body Dimension

60 mm ² SQ	W	● Unit model No. MU□606G	 	M6GA□M (Metal bearing type) weight 0.34kg M6GA□B (ball bearing type)
		● Unit model No. MU□715G	 	M7GA□M (Metal bearing type) weight 0.54kg M7GA□B (ball bearing type)
		● Unit model No. MU□825G	 	M8GA□M (Metal bearing type) weight 0.68kg M8GA□B (ball bearing type)
		● Unit model No. MU□940G	 	M9GA□M (Metal bearing type) weight 1.2kg M9GA□B (ball bearing type)
60 mm ² SQ	W	● Unit model No. MU□960G	 	M9GC□B (ball bearing type) weight 1.5kg
		● Unit model No. MU□960GF MU□990G	 	M9GS□B (ball bearing type) weight 1.9kg
				 
				C type 200kg·cm / max. permissible torque S type 300kg·cm / max. permissible torque



■Torque-Speed Performance (50Hz/60Hz)

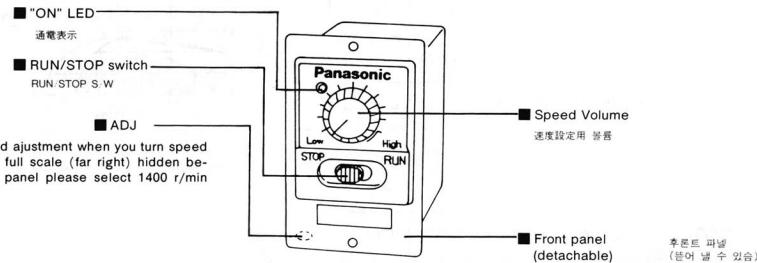
Type	Maximin permissible torque (kg·cm)		Starting current (A)	Starting torque (kg·cm)		
	1200 speed (rpm)	90 speed (rpm)				
MU□606GL	0.33/0.33	0.25/0.25	0.24/0.24	0.38/0.38		
MU□606GY	0.33/0.33	0.25/0.25	0.12/0.12	0.38/0.38		
Type	Maximin permissible torque (kg·cm)		Starting current (A)	Starting torque (kg·cm)		
	1200 speed (rpm)	90 speed (rpm)				
MU□715GL	0.91/0.91	0.3/0.3	0.60/0.56	0.75/0.75		
MU□715GY	0.91/0.91	0.3/0.3	0.30/0.28	0.75/0.75		
Maximin permissible torque (kg·cm)		Starting current (A)	Starting torque (kg·cm)			
1200 speed (rpm)	90 speed (rpm)					
MU□825GL	1.4/1.4	0.45/0.45	1.0/1.0	1.3/1.3		
MU□825GY	1.4/1.4	0.45/0.45	0.5/0.5	1.3/1.3		
Maximin permissible torque (kg·cm)		Starting current (A)	Starting torque (kg·cm)			
1200 speed (rpm)	90 speed (rpm)					
MU□940GL	3.1/2.5	0.6/0.6	1.6/1.5	2.3/2.3		
MU□940GY	3.1/2.5	0.6/0.6	0.8/0.8	2.3/2.3		
Type	Maximin permissible torque (kg·cm)		Starting current (A)	Starting torque (kg·cm)		
	1200 speed (rpm)	90 speed (rpm)				
MU□960GL	4.4/3.7	1.2/1.2	2.5/2.4	4.2/4.2		
MU□960GY	4.4/3.7	1.2/1.2	1.3/1.2	4.2/4.2		
Maximin permissible torque (kg·cm)		Starting current (A)	Starting torque (kg·cm)			
1200 speed (rpm)	90 speed (rpm)					
MU□960GFL	4.4/3.7	1.9/1.9	2.5/2.4	4.2/4.2		
MU□960GFY	4.4/3.7	1.9/1.9	1.3/1.2	4.2/4.2		
Type	Maximin permissible torque (kg·cm)		Starting current (A)	Starting torque (kg·cm)		
	1200 speed (rpm)	90 speed (rpm)				
MU□990GL	6.0/5.5	2.5/2.5	2.9/2.9	5.5/5.5		
MU□990GY	6.0/5.5	2.5/2.5	1.5/1.5	5.5/5.5		
Maximin permissible torque (kg·cm)		Starting current (A)	Starting torque (kg·cm)			
1200 speed (rpm)	90 speed (rpm)					

Unit Type / US Series

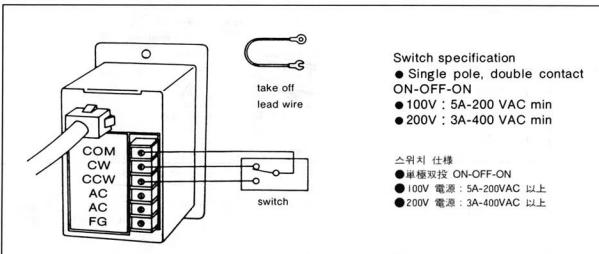
組裝型US系統

UNIT TYPE US SERIES

■Function



■Direction change



▶單向運轉：

只要換裝速度控制器背後終端臺的結線，可以變更旋轉方向。選擇“CW”(時針)、“CCW”(反時針)某一方向，按其連接到所要的接線柱。

▶正反向運轉：

在“CW”“CCW”的端子處增設開關，則能進行正反兩方向運轉。

注意事項未有馬達停穩，請勿操作轉換開關。

Direction from motor opinion	
모터 피니온으로 부터 본 회전방향	
CW 時計方向	Connect "CW" and "COM" "CW"와 "COM"을 接続함
CCW 反時計方向	Connect "CCW" and "COM" "CCW"와 "COM"을 接続함

Caution

The rotation direction of the gearhead output shaft maybe opposite, due to the combinations of the gear-ratio.

Caution

Change the switch when motor stops.

When mounting the motor and controller at a distance.

■Option/Extension code

CORD의 길이

model No.	length
DVOP0321	1m
DVOP0322	2m
DVOP0323	3m
DVOP0324	4m
DVOP0325	5m

▶一方向運転

스피드 콘트롤 뒷면에 있는 단자에 회전 방향을 바꿈으로 해서 회전 방향의 변경입니다. 단자는 “CW” “CCW” 어느 한쪽을 연결하여 주십시오.

▶正逆運転

“CW” “CCW”의 단자에 S/W를 증설하면 정역 운전이 가능합니다.

注意事項

모터를 정지시킨 다음 S/W를 교체해 주세요.

注意事項它與齒輪頭組裝時，由於減速比的關係，齒輪頭的輸出軸會有時向馬達的逆方向轉動。

注意事項

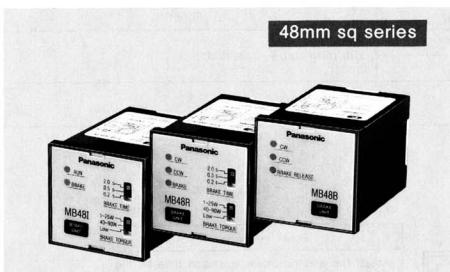
기어헤드와 조합시켜면 기어헤드의 출력축의 회전 방향은減速比에 의해 모터의 회전 방향과 반대로 되는 경우가 있습니다.

48mm方型系統

無接点 BRAKE UNIT 48m/m SERIES

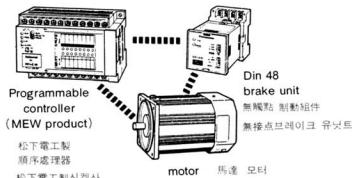


48mm sq series



■System build-up

(Able to connect the programmable controller directly without any power relay, resistor nor thyristors)

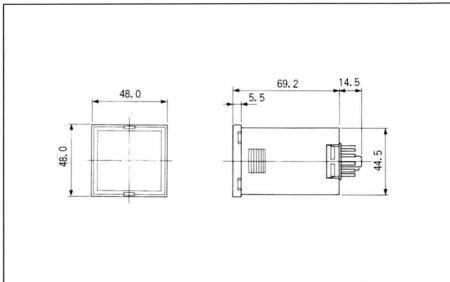


■Model

Applicable motor	Model No.	Voltage
Induction motor	DVMB48IL	100V
	DVMB48IY	200V
Reversible motor	DVMB48RL	100V
	DVMB48RY	200V
Electromagnetic brake motor	DVMB48BL	100V
	DVMB48BY	200V

주) 1. 3相모터에는 적용이 안됨. 2. DVMB48B는 常磁 BRAKE가 작동되지 않음.

■Body Dimension



■Features

- Maintenance free/easy to maintain.
This new din 48 square-size brake unit, getting rid of those complicated wiring connection, has realized an easy mounting and maintenance.
- Wide variety of motor capacity to select ready to apply from 1W to 90W, while the brake torque switch enables to select motors more than 40W. Brake resistor is unnecessary for easy connection.
- Din 48 square size standard design
Easily fits to the din size standard control panel, which gets rid of extra work.
- Soft brake function.

- 無需維修保養。
不必進行繼電器控制盤等所需的布線工作。
- 無觸點制動機組48毫米方型系列
因採用無觸點方式，實現無需進行維修保養。
- 馬達容量的調整範圍較寬。
可以在1W~90W範圍內任意選擇所需容量，對40W以上的馬達，經過制動力矩開關的操作也能隨意選擇。不必用制動阻力，在線工作也極其簡便。
- 控制面盤的標準化。
- 可供豐富種類的另售配件。
- 有軟式制動功能。

■Options (to prepare other than the brake unit)

■Terminal stand (11pin) Model ATA4822 端子台(11pin) 品名 ATA4822	
■11cap Model ATA4822 11 端子	
■Mounting frame Model ATA4811 取付枠(脇)	
■Protection cover Model AOM4801 保護 COVER(DIN 48用) 品名 AOM 4801	



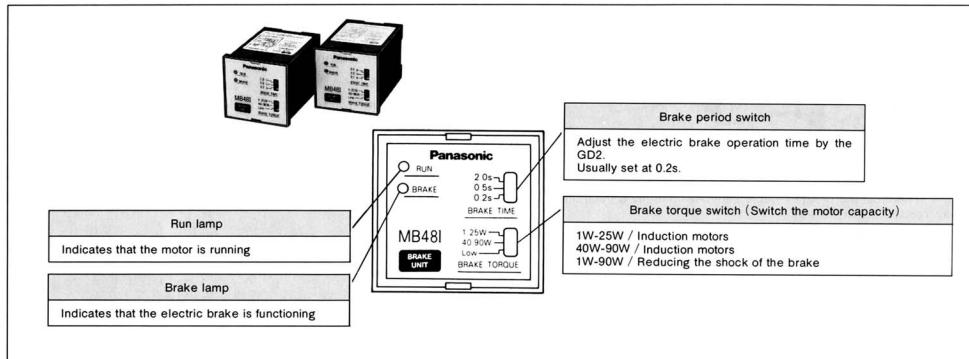
Din 48 Brake Unit (For Induction Motor)

48mm方型系統

無接点 BRAKE UNIT 48m/m SERIES

Induction motor type	Model no	Voltage	Function
	DVMB48IL	100V	
	DVMB48IY	200V	Uni-direction + instant stop

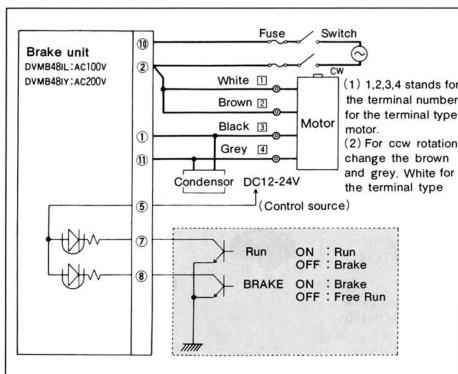
■ Outline and Function



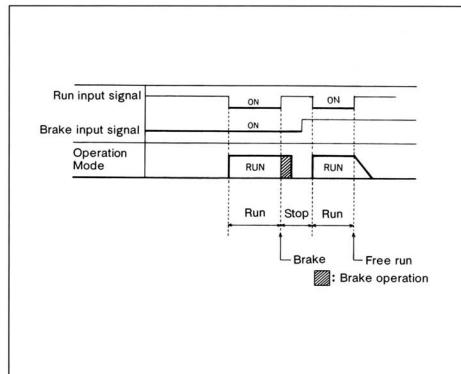
■ Specifications

Model	DVMB48IL/Y
Rated voltage	Single phase 100/200 ±10%
Frequency	50/60Hz
Brake torque switch	Change by switch ● 1W~25W ● 40W~90W ● Soft Brake
Brake time	Change by switch
Control input voltage	DC12~24V
Operation temperature	-10°C ~ +40°C

■ Wiring diagram



■ Operation



Caution

- 1.Use one brake unit for one motor.
- 2.The thick lines shows the main circuit. Use a 0.75mm² wire.
- 3.Avoid to input a operation signal during electrical brake.

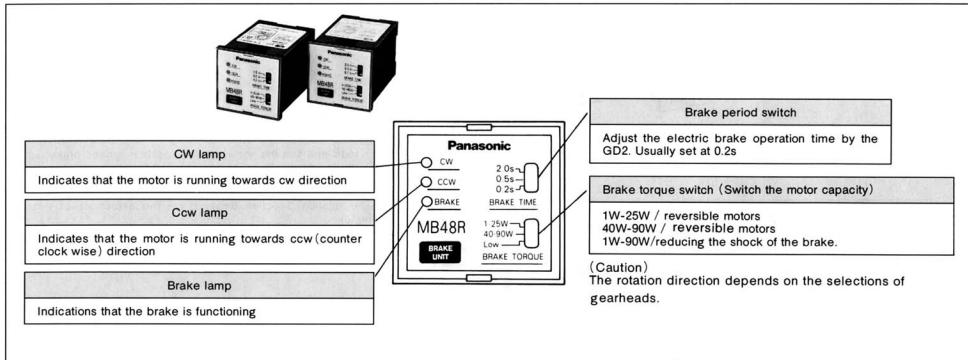
48mm方型系統

無接点 BRAKE UNIT 48m/m SERIES



Reversible motor type	Model no	Voltage	Function
	DVMB48RL	100V	Reverse + instant stop
	DVMB48RY	200V	

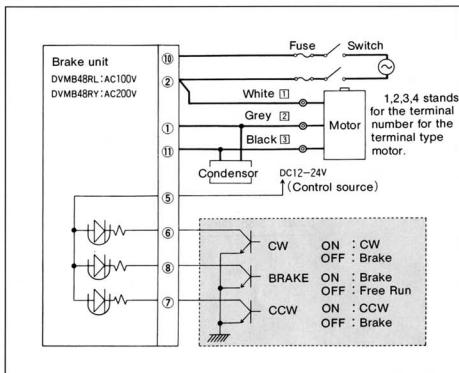
■ Outline and Function



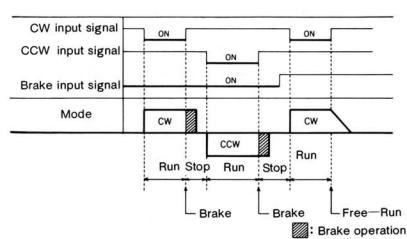
■ Specifications

Model	DVMB48RL/Y
Rated voltage	Single phase 100/200V ±10%
Frequency	50/60Hz
Brake torque switch	Change by switch ● 1W~25W ● 40W~90W ● Soft Brake
Brake time	Change by switch
Control input voltage	DC12~24V
Operation temperature	-10°C ~ +40°C

■ Wiring diagram



■ Operation



● Caution

1. Use one brake unit for one motor.
2. The thick lines shows the main circuit. Use a 0.75mm² wire.
3. Avoid to input a operation signal during electrical brake.

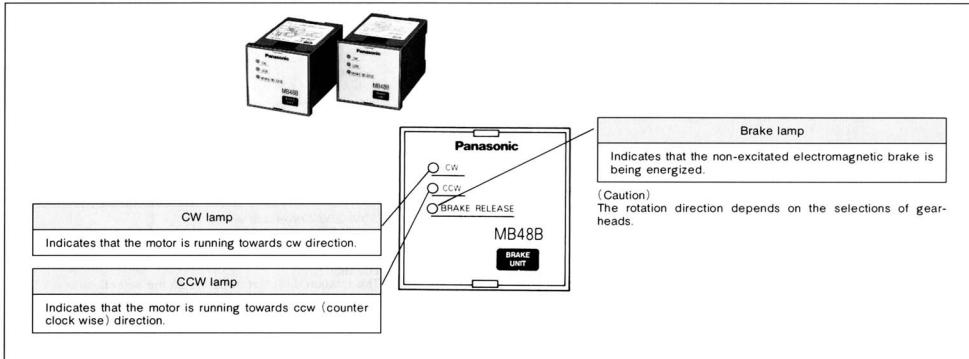
Din 48 Brake Unit (For Electro-Magnetic Brake Motor)

48mm方型系統

無接点 BRAKE UNIT 48m/m SERIES

Electro-magnetic brake motor type	Model no	Voltage	Function
	DVMB48BL	100V	
	DVMB48BY	200V	Reverse + instant stop

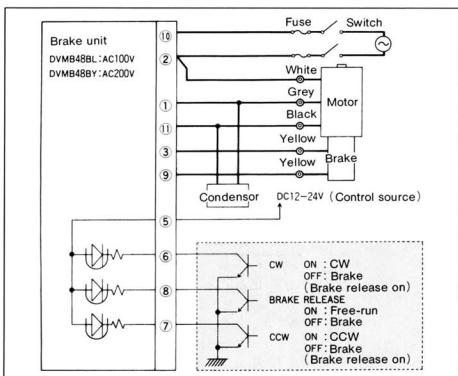
■Outline and Function



■Specifications

Model	DVMB48BL/Y
Rated voltage	Single phase 100/200V ±10%
Frequency	50/60Hz
Brake torque switch	—
Brake time	—
Control input voltage	DC12~24V
Operation temperature	-10°C ~ +40°C

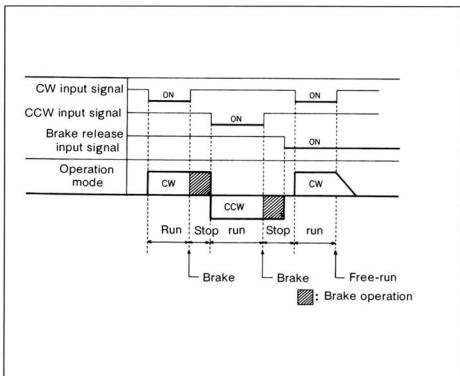
■Wiring diagram



● Caution

1. Use one brake unit for one motor.
2. The thick lines shows the main circuit. Use a 0.75mm² wire.
3. Avoid to input a operation signal during electrical brake.

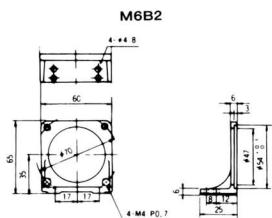
■Operation



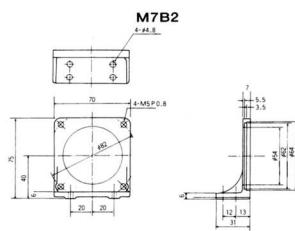


■ Mounting Frame and Dimensions

60mmSQ,

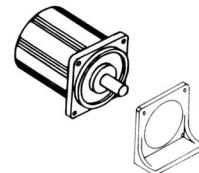


70mmSQ,

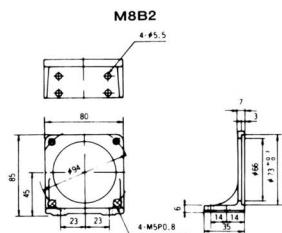


How to Mount

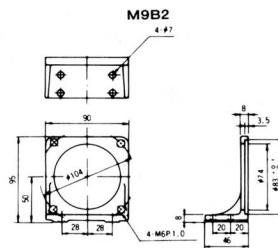
1. Motor + Frame



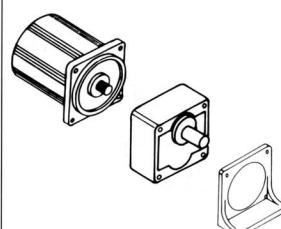
80mmSQ,



90mmSQ,



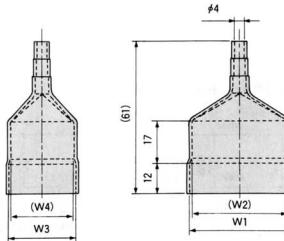
2. Motor + Geared + Frame

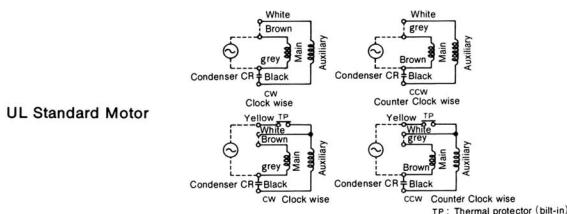
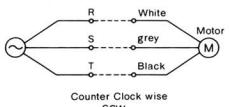


■ Capacitor Cap

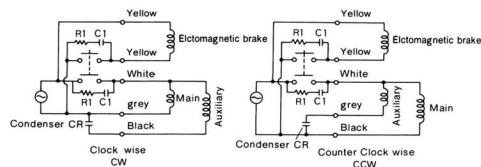
This part is designed to prevent capacitor terminals from coming into contact with other metal parts and to prevent accidents when the equipment is touched by human operators. Please order as required for your particular system.

Type	w1	w2	w3	w4
MOPC3917	39.5	37.5	17	15
MOPC3922	39.5	37.5	22	20
MOPC3926	39.5	37.5	26	25
MOPC5026	50	48	26	22
MOPC5032	50	48	32.5	29.5



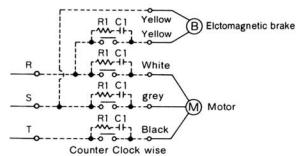
**Connecting Diagram****Single Phase Induction Motor****Three Phase Induction Motor**

As for CW rotation, change the 2 leads among R. S. T. shown above.

Electro-Magnetic Brake Motor / Single Phase Induction

(Caution 1) The brake operates to a holding condition when the electromagnetic brake is 'off'.
(Caution 2) Use R + C inbetween the contacts.

Also DV-OPOO8 is available as an option.

Electro-Magnetic Brake Motor / Three Phase Induction

As for CW rotation, change the 2 leads among R. S. T. shown above.

(Caution 1) The brake operates to a holding condition when the electromagnetic brake is 'off'.
(Caution 2) Use R + C inbetween the contacts.

Also DV-OPOO8 is available as an option.

Single Phase Reversible Motor