

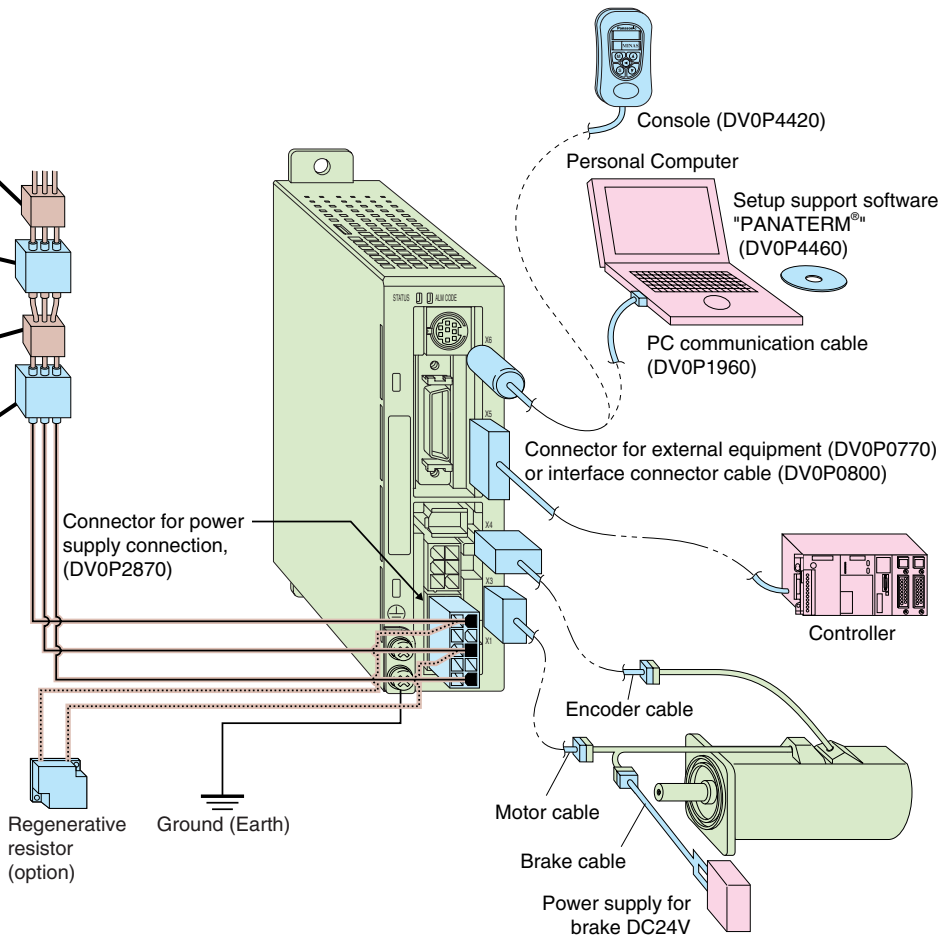
# Wiring example For details, refer to the Instruction Manual.

## • Wiring of main circuit

- Circuit Breaker (NFB)**  
Protects the power lines.  
Shuts off the circuit when overcurrent passes.
- Noise Filter (NF)**  
Prevents external noise from the power lines.  
And reduces an effect of the noise generated by the servo driver.
- Magnetic Contactor (MC)**  
Turns on/off the main power of the servo driver.  
Surge absorber to be used together with this.
- Reactor (L)**  
Reduces harmonic current of the main power.

**Pin-5 and Pin-3 of CN POWER**  
· Connect an external regenerative resistor (option) between Pin-5 and B (Pin-3) of connector, CN X5, when regenerative energy is large. (Refer to page, E31 for regenerative resistor.)

- Motor to page E11
- Driver to page E20
- Option to page E24
- Recommended equipments
- Parts customer to prepare



## Table of Part Numbers and Options

Power supply	Output (W)	2500P/r, Incremental				Encoder cable (Note) 2	Motor cable (Note) 2
		Motor (Note) 1	Rating/Spec. (page)	Driver	Dimensions (Frame symbol)		
Single phase 100V	50	MUMA5AZP1□	E11	MKDET1105P	E23(K)	MFECA0**0EAM	MFMCA0**0AEB
	100	MUMA011P1□	E11	MKDET1110P	E23(K)		
	200	MUMA021P1□	E11	MLDET2110P	E23(L)		
Single phase 200V	50	MUMA5AZP1□	E13	MKDET1505P	E23(K)		
	100	MUMA012P1□	E13	MKDET1505P	E23(K)		
	200	MUMA022P1□	E13	MLDET2210P	E23(L)		
	400	MUMA042P1□	E13	MLDET2510P	E23(L)		
3-phase 200V	50	MUMA5AZP1□	E13	MKDET1505P	E23(K)		
	100	MUMA012P1□	E13	MKDET1505P	E23(K)		
	200	MUMA022P1□	E13	MKDET1310P	E23(K)		
	400	MUMA042P1□	E13	MLDET2510P	E23(L)		
				MLDET2310P			

Note) 1. Motor model number suffix  
 S : Key way with center tap, without brake  
 T : Key way with center tap, with brake  
 2. \*\* represents cable length. For details, refer to page, E24

## • List of recommended peripheral equipments

Power supply	Motor		Power capacity (at rated output)	Circuit breaker (Rated current)	Noise filter	Magnetic Contactor (Contact Composition)	Wire diameter (L1, L2, L3, U, V and W)
	Series	Output					
Single phase, 100V	MUMA	50W	0.3kVA	BBW25 (5A)	DV0P4160	BMFT61041N (3P+1a)	0.75mm <sup>2</sup> - 0.85mm <sup>2</sup> AWG18
		100W	0.4kVA				
		200W	0.5kVA				
Single phase, 200V		50W	0.3kVA	BBW25 (5A)			
		100W					
		200W	0.5kVA	BBW2102 (10A)			
3-phase 200V		400W	0.9kVA	BBW2102 (10A)			
		50W	0.3kVA	BBW35 (5A)			
		100W					
	200W	0.5kVA					
400W	0.9kVA	BBW3102 (10A)					

- Select the single and 3-phase common specifications corresponding to the power supplies.
- Circuit breaker and magnetic contactor listed are manufactured by Matsushita Electric Works.
- To conform to EC Directives, install a circuit breaker which conforms to IEC and UL Standards (Listed, Ⓢ marked) between noise filter and power supply.
- For details of the noise filters, refer to page E10.

### <Remarks>

- Use a copper conductor cables with temperature rating of 60°C or higher for main power connector and ground terminal wiring.
- Use a cable for ground with diameter of 2.0mm<sup>2</sup> (AWG14) or larger.

## • Carrying page

Options		Part No.	Carrying page
Instruction manual	Japanese	DV0P3680	–
	English	DV0P3700	–
Console		DV0P4420	E25
Setup support software, PANATERM®	Japanese	DV0P4460	E28
	English		
RS232 communication cable (for connection with PC)		DV0P1960	E28
Interface cable		DV0P0800	E28
Connector kit for motor and encoder		DV0P0770	E27
Connector kit for external equipment		DV0P3670	E26
Connector kit for driver power supply		DV0P2870	E26
Encoder cable		MFECA0**0EAM	E25
Motor cable		MFMCA0**0AEB	E25
Brake cable		MFMCB0**0GET	E25
Cable set (3m) (Note 3)		DV0P37300	E25
Cable set (5m) (Note 3)		DV0P39200	E25
DIN-rail unit		DV0P3811	E30
Regenerative resistor	100V	50 Ω 10W	E29
	200V	100 Ω 10W	
Reactor	100V	DV0P227	E29
		DV0P228	
	200V	DV0P220	
Noise filter		DV0P4160	E10
Surge absorber	Single phase 100V,200V	DV0P4190	E10
	3-phase 200V	DV0P1450	
Noise filter for signal wire		DV0P1460	E10

Note) 3. Cable set (3m) contains,

- 1) Interface cable: DV0P0800
  - 2) Encoder cable (3m) : MFECA0030EAM
  - 3) Motor cable (3m) : MFMCA0030AEB
  - 4) Connector kit for driver power supply connection : DV0P2870
- Cable set (5m) contains,
- 1) Interface cable: DV0P0800
  - 2) Encoder cable (5m) : MFECA0050EAM
  - 3) Motor cable (5m) : MFMCA0050AEB
  - 4) Connector kit for driver power supply connection : DV0P2870

Option				
	Brake cable (Note) 2	Regenerative resistor	Reactor	Noise filter
MFMCB0**0GET		DV0P2890	DV0P227	DV0P4160
			DV0P228	
		DV0P2891	DV0P220	