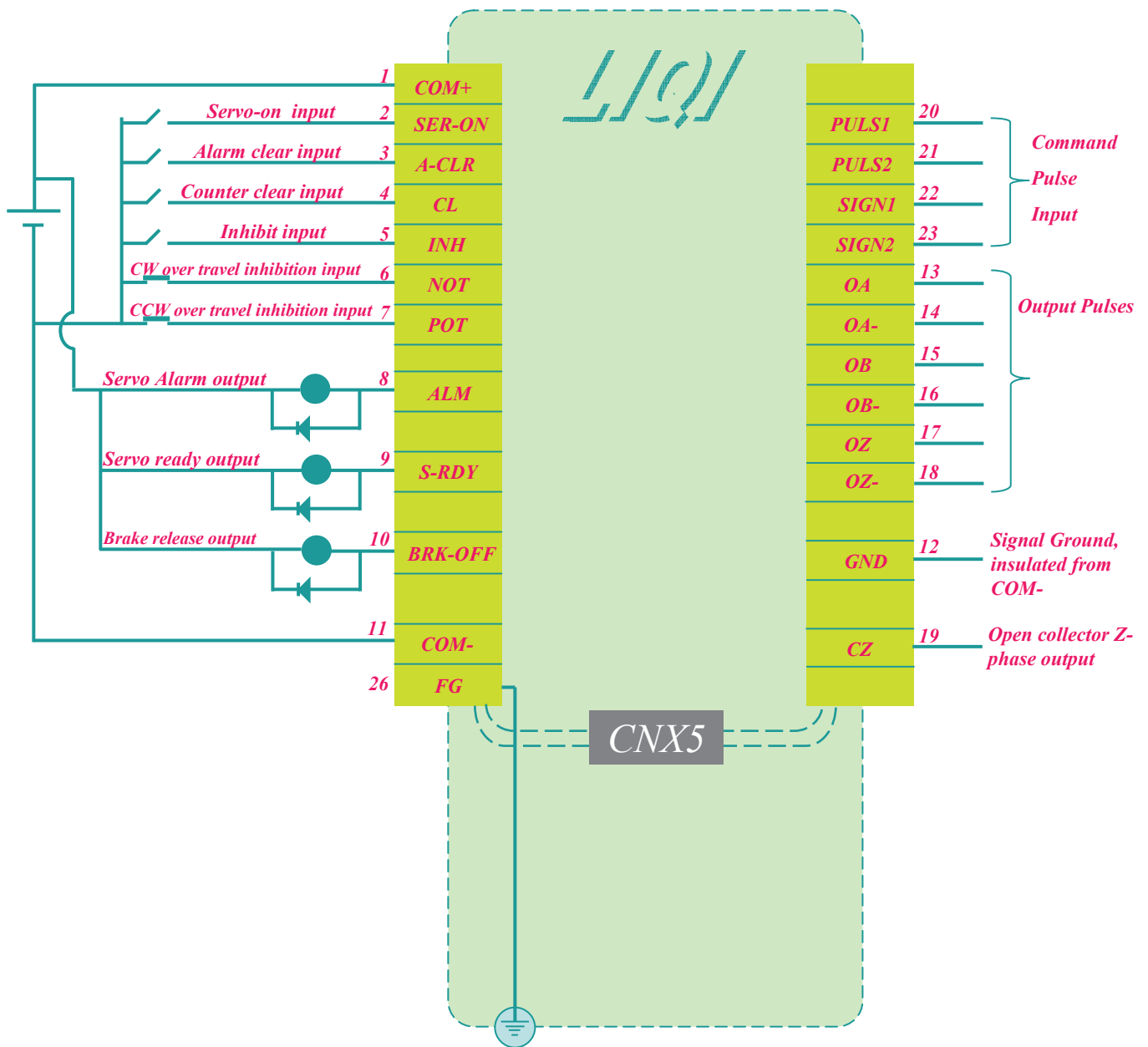


Panasonic *LIQI*

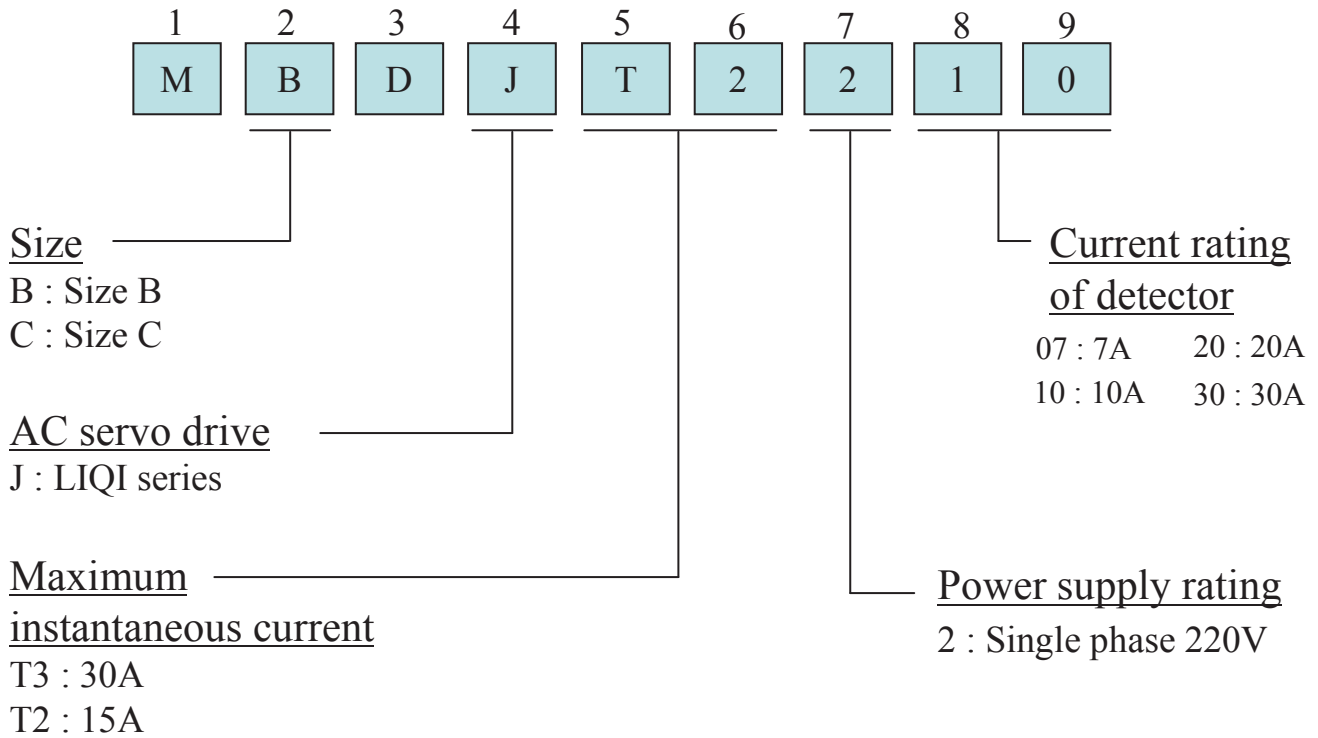




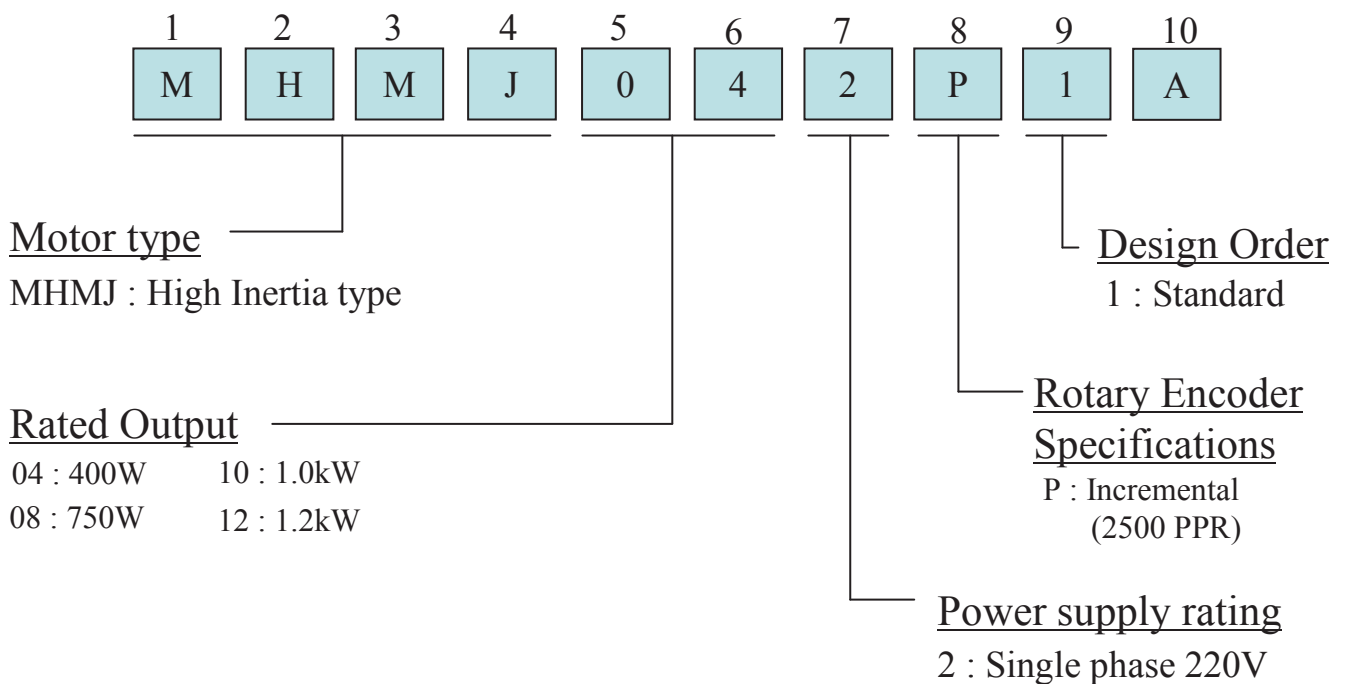
Interface wiring diagram



Model Designation Code (Driver)



Model Designation Code (Motor)

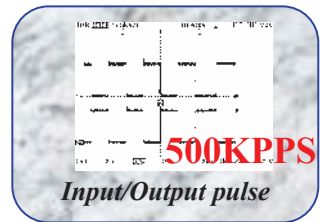
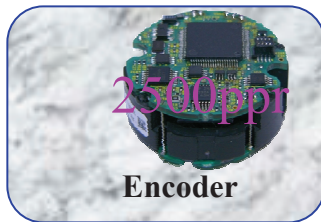
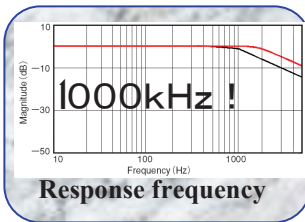


Basic Features

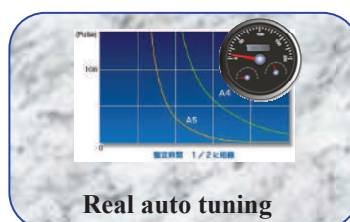
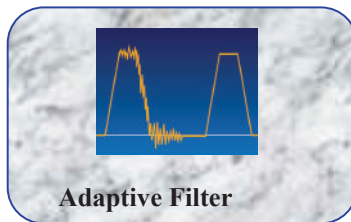
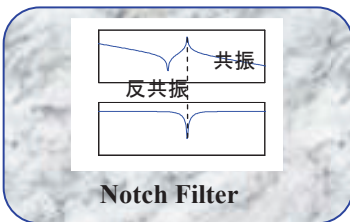
- *Input power range : AC 220V (200V ~ 253V)*
- *Motor rating :*
 - MHMD***J1* : 200W/1.0kW*
 - MHMJ***P1* : 400W/750W/1.0kW / 1.2kW*
- *Control mode : Position command*
- *Response frequency : 1kHz*
- *Pulse command up to 500kHz*
- *Advanced PANATERM software*
- *Real time auto gain tuning*
- *USB interface for PANATERM software*
- *Gain setting through RSW or software*
- *Vibration filters and notch filters for smooth operation*
- *IP65 protection*
- *Ambient temperature : 0° to 50° C*

MINAS-LIQI can

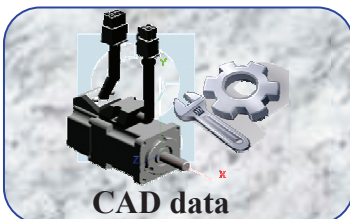
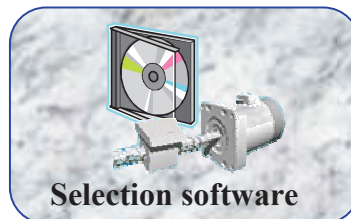
1. Perform quick and stable machine operation



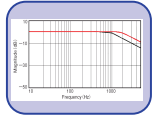
2. Minimize vibration & noise



3 Offer serviceable accessory



1. High Response



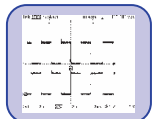
500Hz Response frequency



2500 ppr encoder resolution

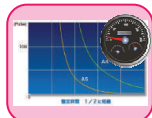


Low cogging torque

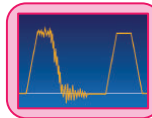


The I/O pulses
500kHz

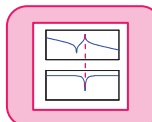
2. Intelligent



Highly functional
Real-time Auto-Gain tuning



Manual/Auto
Damping filters

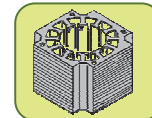


Manual/Auto
Notch filters

3. Compact



New Structure



Innovative Core



Innovation
Encoder

4. Easy



Set up support software
“PANATERM



Motor Selection
Software



RSW on front panel for
Stiffness setting

3. Product Line-up

Rated Voltage	Size	Part Number	Rated Output	Motor
1φ AC220-240V	Type B	MBDJT2207	50W	MSMD5AZJ1*
			100W	MSMD012J1*
			200W	MSMD022J1*
		MBDJT2210	400W	MHMD022J1*
				MSMD042J1*
				MHMJ042P1*
	Type C	MCDJT3220	750W	MSMD082J1*
				MHMJ082P1*
		MCDJT3230	1000W	MHMD102J1*
				MHMJ102P1*
	1200W	MHMJ122P1*		

LIQI SERVO SYSTEM

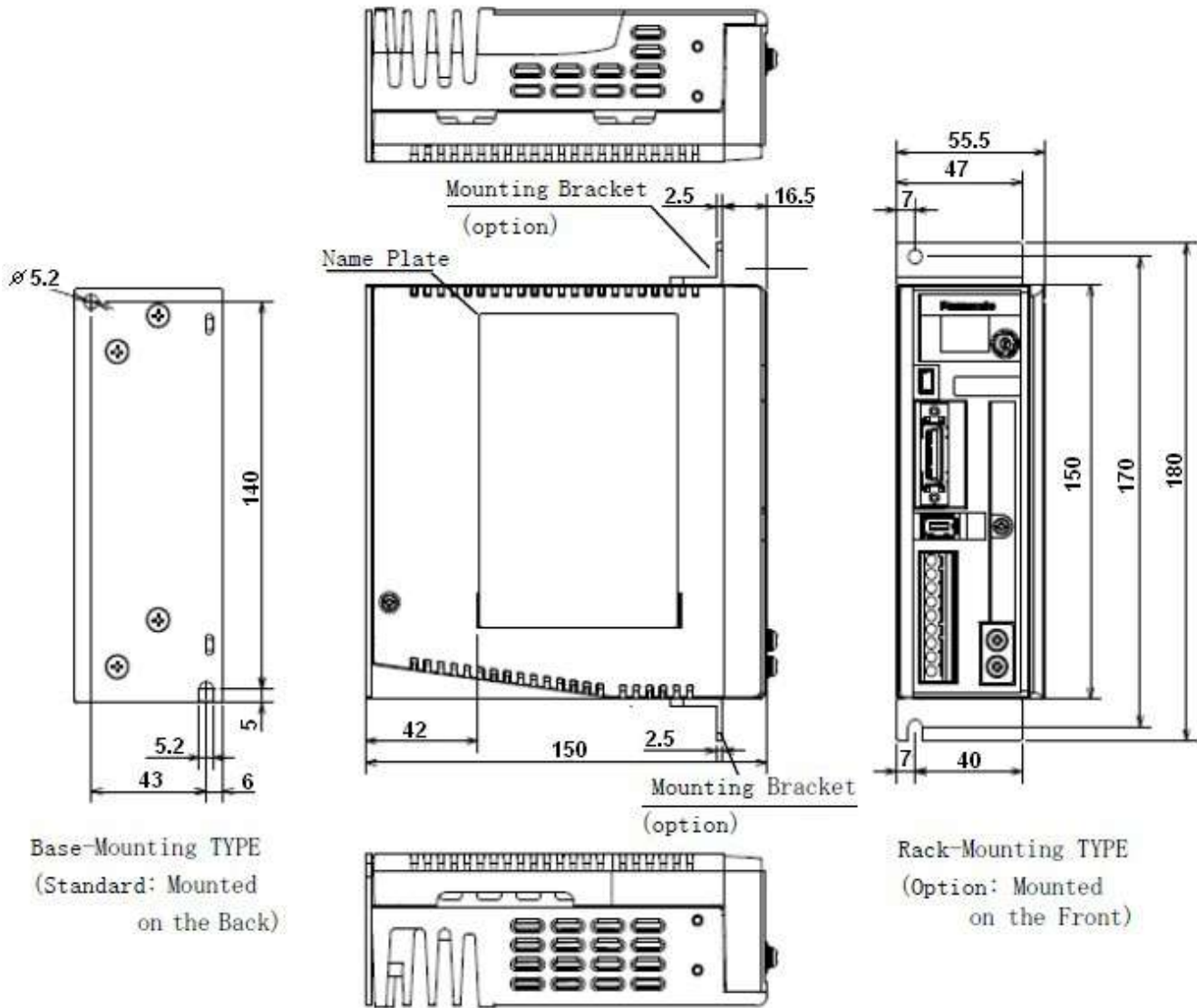
GENERAL SPECIFICATIONS:

Basic Specification	Control method		IGBT PWM method sine wave drive	
	Control mode		Position Control	
	Encoder feedback		2500p/r(resolution: 10,000) 5-wire serial incremental encoder	
	Control signal	Input	6 multi-function inputs Functions of multi-function inputs: parameter-selectable	
		output	3 multi-function outputs Functions of multi-function outputs: parameter-selectable	
	Pulse signal	Input	1 inputs each Both line driver interface and open collector interface supported using optocoupler input	
		output	4 outputs each Encoder pulses (phase A, B and Z signals) or external scale pulses (phase EXA, EXB and EXZ signals) output by line driver. Open collector output is also available for phase Z and EXZ signals.	
	Communication function(USB)		Personal computer, etc. can be connected for parameter setting configuration and status monitoring.	
	Front panel		①7 seg LED 2pcs ②RSW 1pcs	
	Regeneration		External resistor	
Dynamic brake		Provided		
Function	Control input		Deviation counter clear, command pulse input inhibition, electronic gear switching, damping control switching, etc.	
	Control output		In-position, etc.	
	Position control	Maximum command pulse frequency	500 kpps	
		Input pulse train	Differential input; parameter-selectable (1) Positive/Negative 2) Phase A/Phase B 3) Command/Direction)	
		Command scaling (electric gear ratio setting)	1/1000 - thousandfold Encoder resolution (numerator) and command pulse count per motor revolution (denominator) can be arbitrarily specified between 1-2 ²⁰ for numerator and 1-2 ²⁰ for denominator but use within the range above.	
		Smoothing filter	Selectable between first order filter and FIR filter for command input.	
	Damping control		Available	
	Auto tuning		Identifying load inertia real-time and automatically setting gain that meets set stiffness when the motor is driving by a operation command from the host or drive	
	Common	Dividing encoder pulse		Pulse count can be arbitrarily specified (up to encoder pulse count).
		Protective function		Overvoltage, undervoltage, overspeed, overload, overheat, overcurrent, encoder abnormalities Position deviation fault, Command pulse division, EEPROM error, etc.
Alarm data trace back function		Alarm data history can be viewed.		

DIMENSIONS

DRIVER DIMENSION:

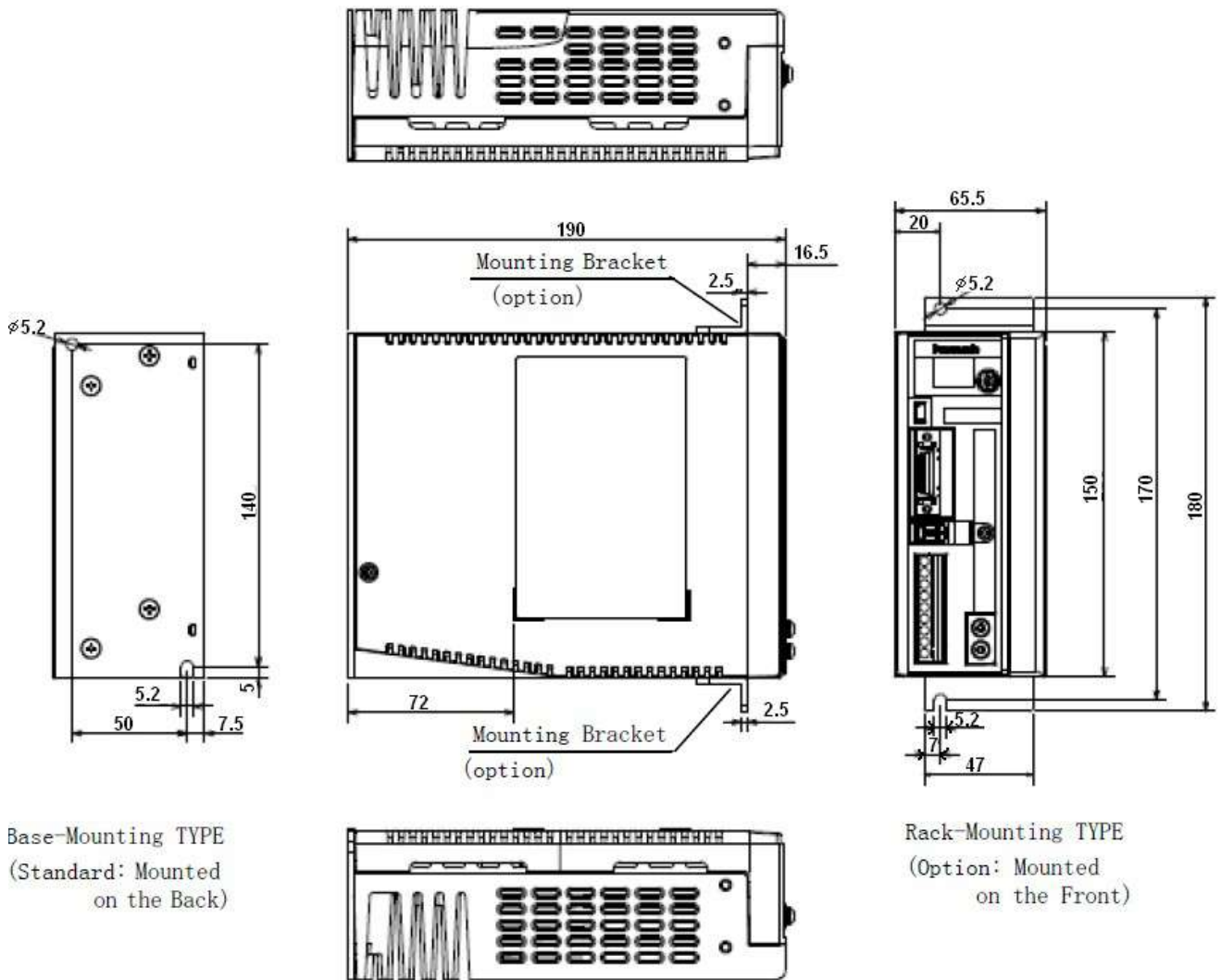
- MBDJT2207---200W
- MBDJT2210---400W



Base-Mounting TYPE
(Standard: Mounted
on the Back)

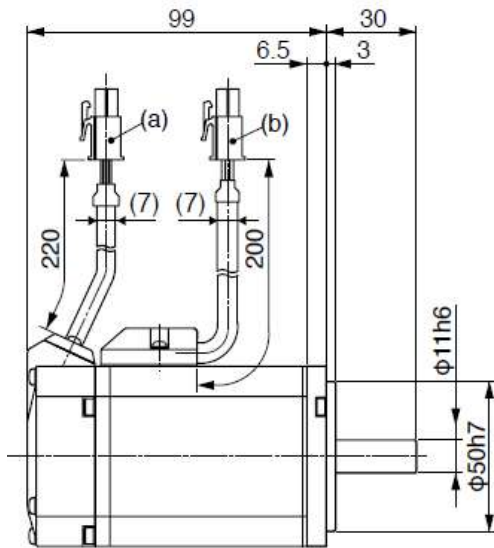
Rack-Mounting TYPE
(Option: Mounted
on the Front)

- MCDJT3220---750W
- MCDJT3230---1.0KW & 1.2KW



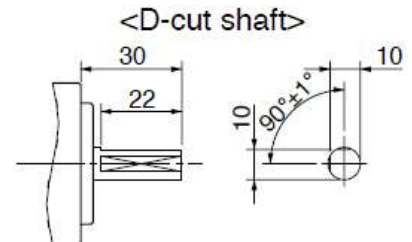
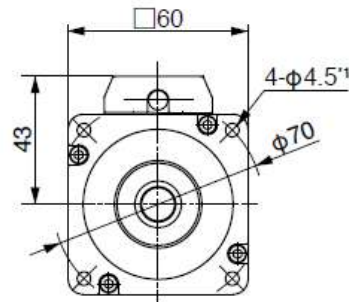
MOTOR DIMENSION:

- MHMD022J1A---200W

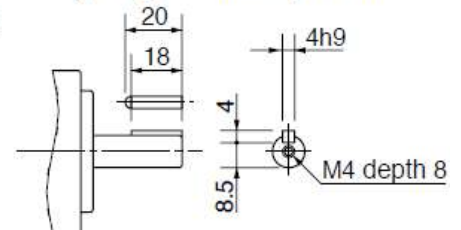


- (a) Encoder connector
- (b) Motor connector

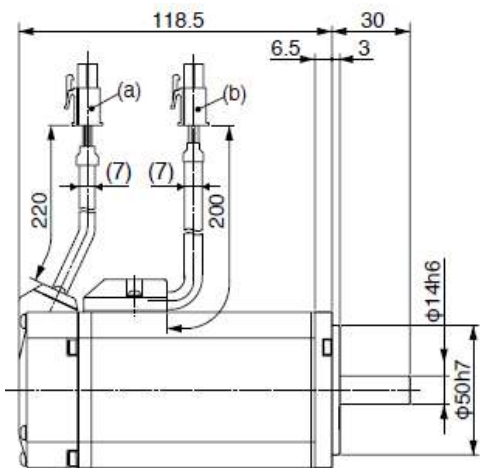
*1 Use hexagon socket head screw for installation.



<Key way, center tap shaft>

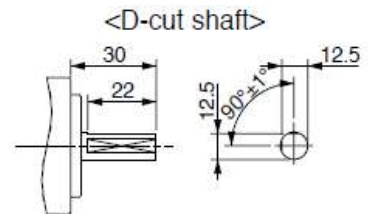
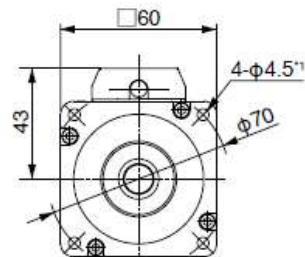


- MHMJ042P1U---400W

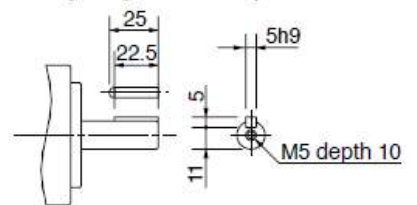


- (a) Encoder connector
- (b) Motor connector

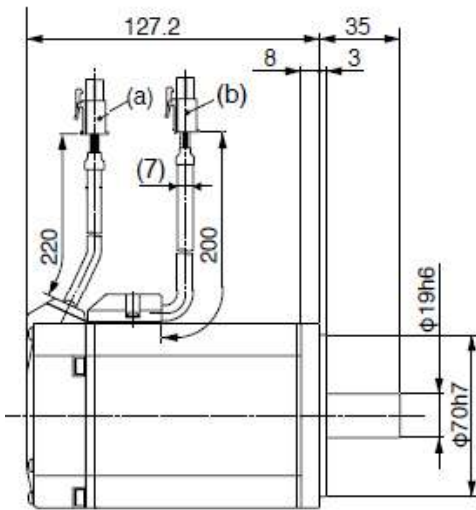
*1 Use hexagon socket head screw for installation.



<Key way, center tap shaft>

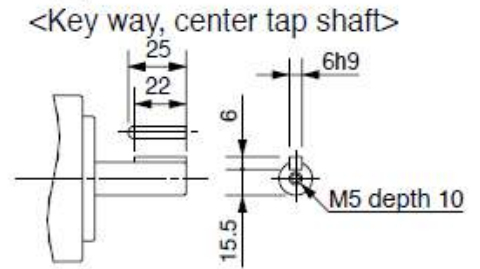
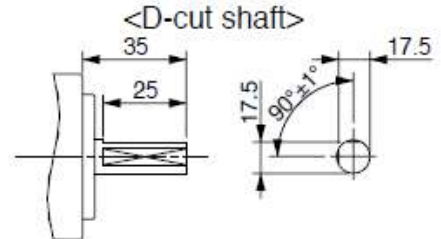
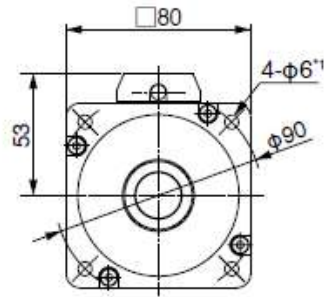


• **MHMJ082P1U---750W**

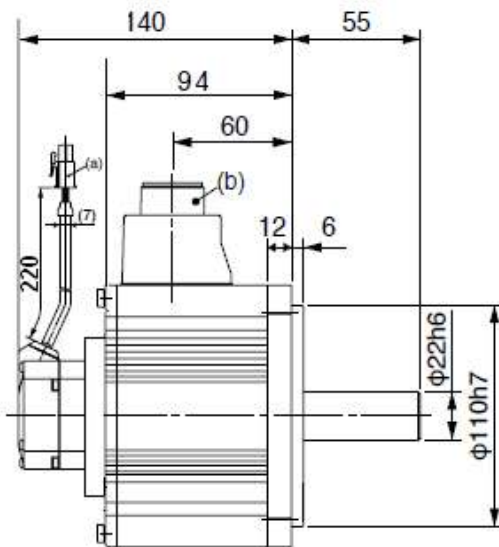


(a) Encoder connector
(b) Motor connector

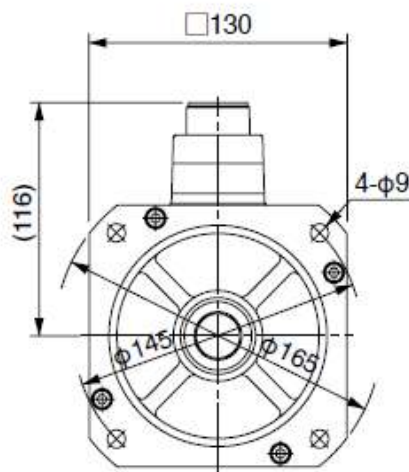
*1 Use hexagon socket head screw for installation.



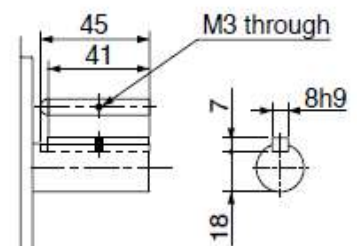
• **MHMJ102P1G---1.0KW**



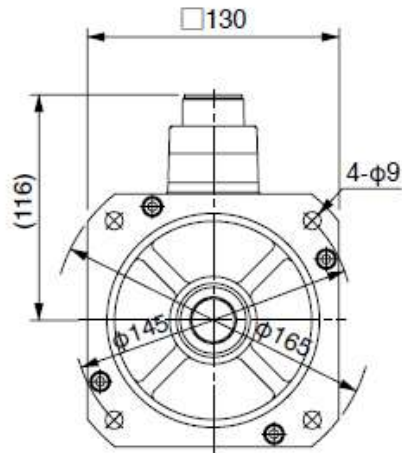
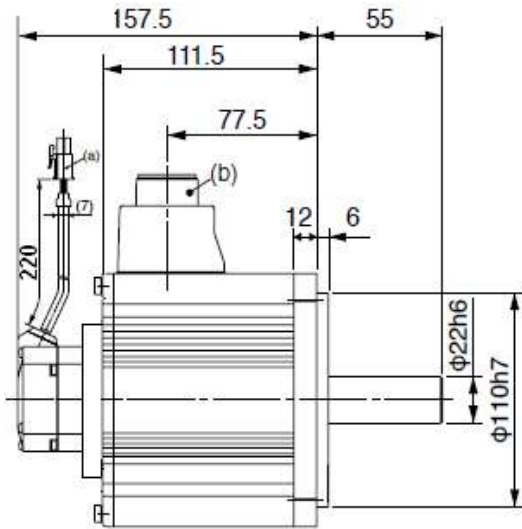
Mass (kg)/ Without brake: 5.3



Key way dimensions



- **MHMJ122P1G---1.2KW**



Key way dimensions

