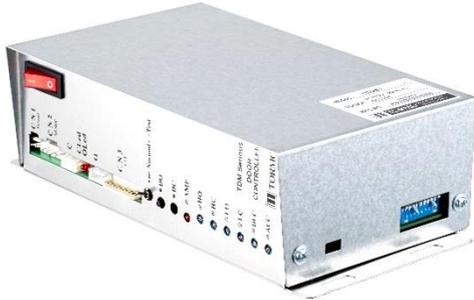


TDM Serious



- ◆ PM motor (DC) - High efficiency and Long life.
- ◆ Protection
 - Impedance protection – Controller and motor will not be damaged when door locked.
 - Over door force detection. – Under HC mode.
- ◆ Continuous stall torque –Motor maintains power at limit position.
- ◆ High-Speed Mode: 8-second 125% torque boost.
- ◆ Three-Speed Opening Mode: Low-High-Low.
- ◆ Quick Controller Setup: Motor direction and parameter switches.
- ◆ Compatible with Mechanical and Electronic (TPE10 Photoelectric Switch) Position Switches.
- ◆ 3 years warranty (Controller and motor are TORMO).

1. DOOR MOTOR ORDERING INFORMATION

1.1. Reduction Mechanism Door Opener (Move Left-Right) – Motor only

Door Motor Model	TP22	TP25	TP50	TP70	TP90	TP100
Usage Reference – Max Door Width (mm) *	1000	1200	1800	3000	4500	6000
Door Controller Model	TDM□□-□				TDM□□-H	

1.2. Direct Drive Door Opener – Motor with Gear Reducer (Home Elevator/Fireproof Elevator)

Gear Motor Model	TP07-06HG10	TP08/125VG101
Usage Reference – Max Door Width (mm) *	1000	1500
Door Controller Model	TDM□□-B	

1.3. Hitachi/Yungtay Arm Door Opener – Motor with Gear Reducer

Gear Motor Model	TP08/100VG201+BK3
Usage Reference – Max Door Width (mm) *	1500 mm
Door Controller Model	TDM□□ – □

1.4. U Type Door Opener (Move Up-Down): Motor with Worm Gear Reducer

Door Motor + Gearbox Model	TP201/600 +WG10	TP251/550 +WG10	TP501/550 +WG10	TP701/550 +WG10	TP902/550 +WG10	TP1002/560 +WG10
Door Motor Model *	TP201/600	TP251/550	TP501/550	TP701/550	TP902/550	TP1002/560
Usage Reference – Max Door Width (mm) *	2000	2500	3000	3500	4000	4500
Door Controller Model	TDM□□ – P				TDM□□-H	

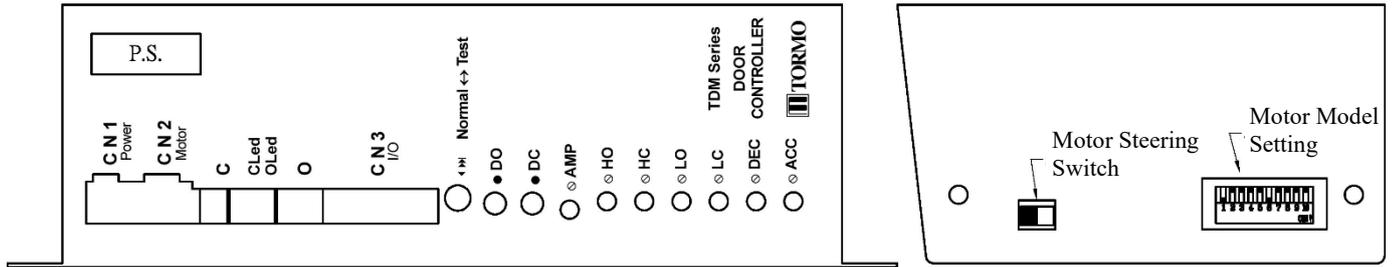
* **Maximum Door Width** is reference only. It depended on the door operator reduce ratio, door operator type and door weight.

2. DOOR CONTROLLER ORDERING INFORMATION

TDM		<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
		1	2		3
1	Door Open/Close Signal	S – Single Contact D – Dual Contacts V – Dual Contacts plus External DC24V			
2	Voltage Input:	1 – AC110V 50/60Hz or DC110V 2 – AC230V 50/60Hz			
3	Option Code	B – TP Series Permanent Magnet Motor - Eliminates Generator Effect, 1 set of O/C connection wires - for photocell or proximity switch use. C – TP Series Permanent Magnet Motor - Eliminates Generator Effect. H –TP Series Permanent Magnet Motor - Eliminates Generator Effect, for U-type doors - Tt=15sec, Motor TP90~TP100 P – TP Series Permanent Magnet Motor - Eliminates Generator Effect, for U-type doors - Tt=15sec, Motor TP201~TP701			

3. SPECIFICATION and CHARACTERTICS

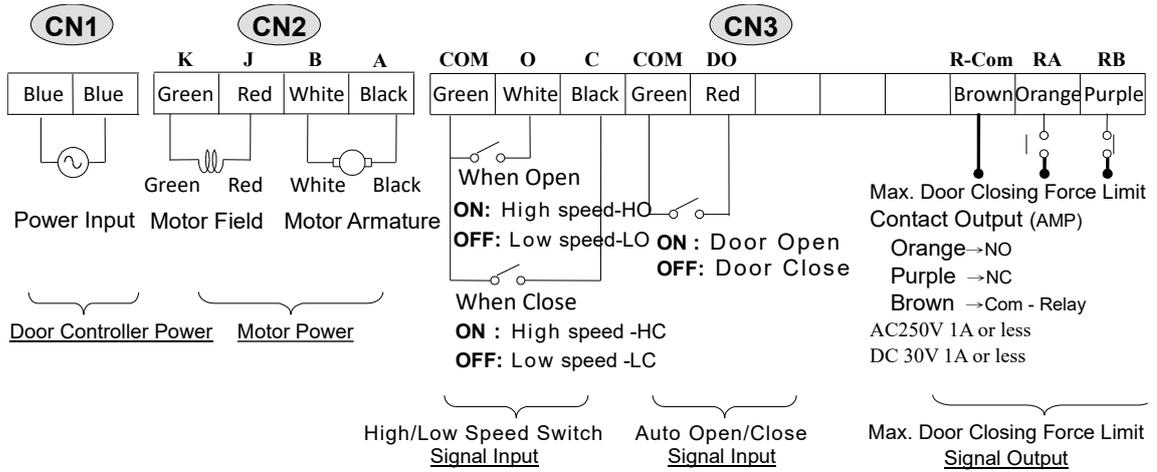
● Panel function



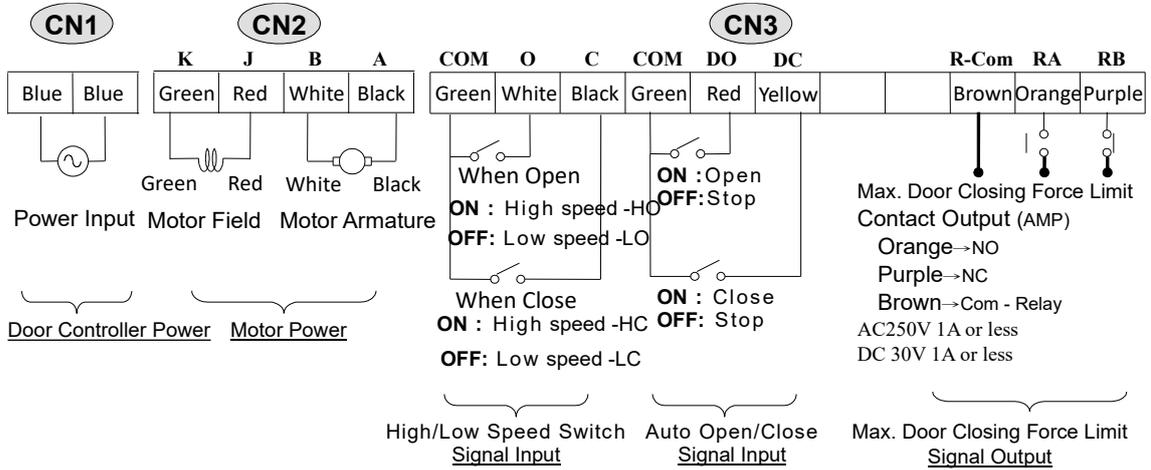
Wiring Installation	CN1	Door Controller Power Input	
	CN2	Motor Power	
	CN3	Control Signal Input/Output	
Operating Modes	Auto↔Manual	Elevator Normal Operation Mode ↔ Manual Testing Mode	
	DO	Manual Open/Close Buttons (TDM <u>S</u> □ Series)	
	DC	Manual Close Button (TDM <u>D</u> □ and TDM <u>V</u> □ Series)	
Adjusting Action Characteristics	HO	High-Speed Door Opening	
	HC	High-Speed Door Closing	
	LO	Low-Speed Door Opening	
	LC	Low-Speed Door Closing	
	ACC	Door Open/Close Acceleration Time	
	DEC	Door Open/Close Deceleration Time	
Motor Model Setup		TP07-06HG10, TP20, TP201/600 TM20, TM201, TM202	1,6 ON All Others Off
		TP22, TP22-1Z011, TP22-TU011, TP08/125VG101, TP08/100VG201, TM28, TM40	2,7 ON All Others Off
		TP25, TP251/550, TP50, TP501/550 TM402, TM50	3,8 ON All Others Off
		TP201/1500, TP70 TM502, TM70	4,9 ON All Others Off
		-	-
Indicators	P.S.	Power Switch	
	AMP	Foreign Object Detection	
	CLed	Door Closing Speed – Bright/Dark: High Speed/Low Speed	
	OLed	Door Opening Speed – Bright/Dark: High Speed/Low Speed	

● Door controller wiring - CN1, CN2, CN3

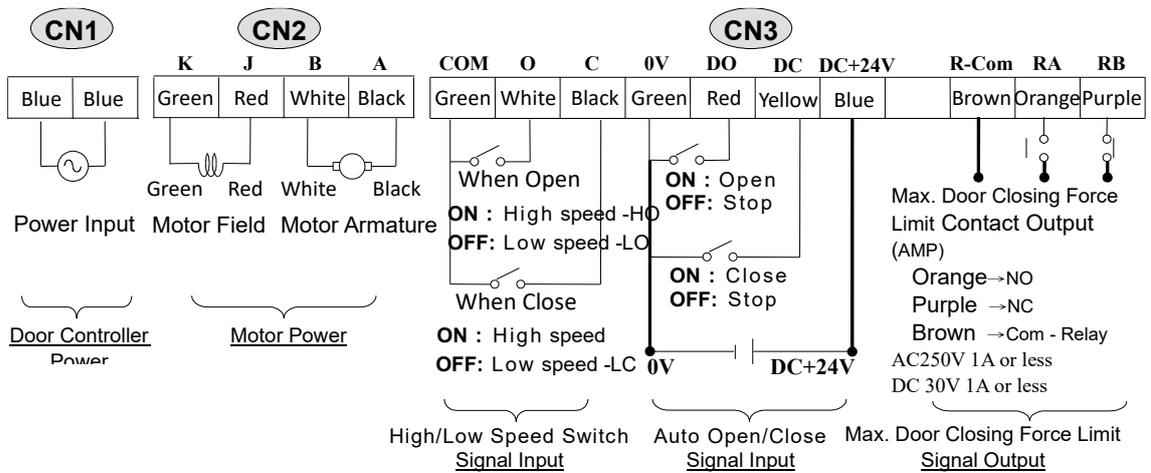
1). TDMS Series Wiring Diagram



2). TDMD Series Wiring Diagram



3). TDMV Series Wiring Diagram

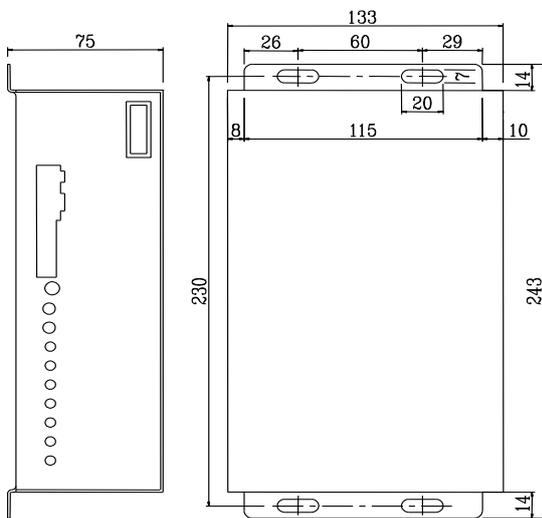


● Door Controller Specifications

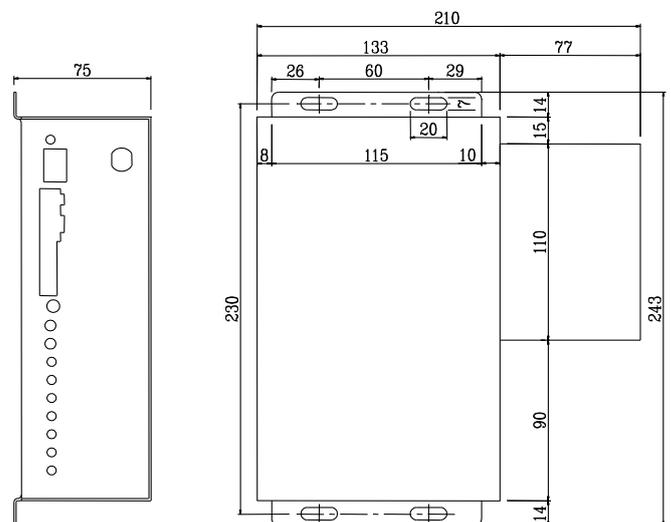
Specification	Unit					
Voltage Input Range	Volts	AC110V Series: AC90V~AC110V or DC110V~DC150V				
Output Voltage	Volts	V _{ab} : DC 0~120V V _{jk} : DC150V				
Control Method		Power Transistor				
Dial Switch Settings		1,6 ON	2,7 ON	3,8 ON	4,9 ON	5,10 ON
Continuous Holding Current (I _L)	Amps	0.35	0.5	0.6	0.75	0.95
Continuous Rated Current (I _R)	Amps	0.85	1.15	1.5	1.9	2.3
Maximum Current (I _T)	Amps	1.1	1.5	1.95	2.45	2.9
Maximum Ambient Temperature	°C	40				
Protection Features		<ul style="list-style-type: none"> ● Overcurrent Protection ● Foreign Object Detection 				

● Door Controller Dimensions

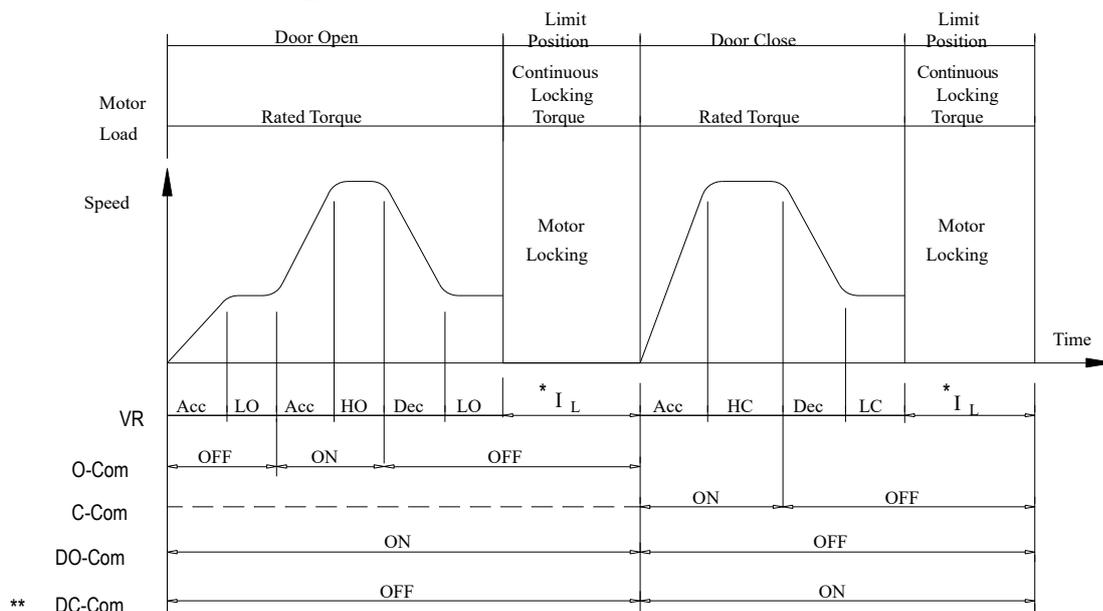
◆ TDM□1 Series (AC110V)



◆ TDM□2 Series (AC230V)



● WORKING CURVE



* I_L : Continuous Locking Current - Constant
 ** DC-Com: Model TDM□ and TDMV□ are available

4. TECHNICAL DATA

- Reduction Mechanism Door Opener (Move Left-Right) – Motor only

Parameter	Unit	TP22	TP25	TP50	TP70	TP90	TP100	
Max. Voltage	Volts	DC90V			DC110V			
Output - Continuous Rating	Watt	70	90	150	200	250	300	
Voltage Gradient No Load	V/100rpm	17	16	20	20	20	20	
Max. Speed	* rpm	490	550	550	550	550	560	
Continuous Locking Torque (TL) *	Kg-cm	8.3	10	13.8	18.7	19.5	25.6	
Continuous Locking Current (IL) *	Amps	0.47	0.63	0.63	0.75	0.9	1.4	
Rating Torque - Continuous (TR) *	Kg-cm	20	25	33	45	51	67	
Rating Current - Continuous (IR) *	Amps	1.15	1.5	1.5	1.8	2.35	3.4	
Max. Torque (Tp) **	Kg-cm	53	76	110	170	170	200	
Max. Current (Ip) **	Amps	3.1	4.7	5.1	7	7.8	9	
Torque Constant (KT) *	Kg-cm/A	17	16	22	25	21	19	
Temperature Rise (ΔT)	$^{\circ}C$	15	15	15	15	15	15	
Armature Resistance (A, B) - Carbon Brushless	*** Ω	29	19	19	14	12	10	
Weight	Kg	7	9	12	15	16	21	
Carbon Brush warranty	Year	20						
Insulation Class		B						
Max. Ambient Temperature	$^{\circ}C$	40						
Motor Protection		IP44 (TENV)						
Voltage Resistance		AC1000V-1min						
Insulation Resistance	M Ω	50						

- Direct Drive Door Opener – Motor with Gear Reducer (Home Elevator/Fireproof Elevator)

Parameter	Unit	TP07-06HG10	TP08/125VG101
Max. Voltage	Volts	DC72V	DC90V
Output - Continuous Rating	Watt	45	75
Voltage Gradient No Load	V/10rpm	6	6
Max. Speed	* rpm	110	125
Continuous Locking Torque (TL) *	Kg-cm	15	25
Continuous Locking Current (IL) *	Amps	0.35	0.48
Rating Torque - Continuous (TR) *	Kg-cm	40	65
Rating Current - Continuous (IR) *	Amps	0.9	1.2
Max. Torque (Tp) **	Kg-cm	200	325
Max. Current (Ip) **	Amps	4.5	6
Torque Constant (KT) *	Kg-cm/A	44	54
Temperature Rise (ΔT)	$^{\circ}C$	15	15
Armature Resistance (A, B) - Carbon Brushless	*** Ω	16	12
Weight	Kg	6	8
Carbon Brush warranty	GR	Gear Reducer / 10	
Insulation Class	Year	10	
Max. Ambient Temperature	Class	B	
Motor Protection	$^{\circ}C$	40	
Voltage Resistance		IP44 (TENV)	
Insulation Resistance		AC1000V-1min	
Weight	M Ω	50	

● Hitachi/Yungtay Arm Door Opener – Motor with Gear Reducer

Parameter	Unit	TP08/100VG201+BK3
Max. Voltage	Volts	DC110V
Output - Continuous Rating	Watt	75
Voltage Gradient No Load	V/10rpm	11
Max. Speed	* rpm	100
Continuous Locking Torque (TL) *	Kg-cm	50
Continuous Locking Current (IL) *	Amps	0.48
Rating Torque - Continuous (TR) *	Kg-cm	130
Rating Current - Continuous (IR) *	Amps	1.2
Max. Torque (Tp) **	Kg-cm	650
Max. Current (Ip) **	Amps	6
Torque Constant (KT) *	Kg-cm/A	108
Temperature Rise (ΔT)	$^{\circ}C$	15
Armature Resistance (A, B) - Carbon Brushless	*** Ω	12
Weight		Gear Reducer / 20
Carbon Brush warranty	Kg	8
Insulation Class	Year	10
Max. Ambient Temperature	Class	B
Motor Protection	$^{\circ}C$	40
Voltage Resistance		IP44 (TENV)
Insulation Resistance		AC1000V-1min
Max. Torque (Tp)	M Ω	50

● U Type Door Opener (Move Up-Down): Motor with Worm Gear Reducer

Parameter	Unit	TP201/600 +WG10	TP251/550 +WG10	TP501/550 +WG10	TP701/550 +WG10	TP902/550 +WG10	TP1002/560 +WG10
Gearbox Type / Gear Ratio		Worm Gear Reducer / 10					
Motor Specifications							
Motor Model		TP201/600	TP251/550	TP501/550	TP701/550	TP902/550	TP1002/560
Max. Voltage	Volts	DC90V		DC110V			
Output - Continuous Rating	Watt	60	90	150	200	250	300
Voltage Gradient No Load	V/100rpm	15	16	20	20	20	20
Max. Speed *	rpm	600	550	550	550	550	560
Continuous Locking Torque (TL) *	Kg-cm	4.7	10	13.8	18.7	19.5	25.6
Continuous Locking Current (IL) *	Amps	0.35	0.63	0.63	0.75	0.9	1.4
Rating Torque - Continuous (TR) *	Kg-cm	12	25	33	45	51	67
Rating Current - Continuous (IR) *	Amps	0.85	1.5	1.5	1.9	2.35	3.4
Max. Torque (Tp) **	Kg-cm	34	76	110	170	170	200
Max. Current (Ip) **	Amps	3.2	4.7	5.1	7	7.8	9
Torque Constant (KT) *	Kg-cm/A	11	16	22	24	21	19
Temperature Rise (ΔT)	$^{\circ}C$	15	15	15	15	15	15
Armature Resistance (A, B) - Carbon Brushless ***	Ω	10	19	19	14	12	10
Weight (Including Packaging)	Kg	6	9	12	15	16	21
Carbon Brush warranty	Year	20					
Insulation Class	Class	B					
Max. Ambient Temperature	$^{\circ}C$	40					
Motor Protection		IP44 (TENV)					
Voltage Resistance		AC1000V-1min					
Insulation Resistance	M Ω	50					

1). * Motor characteristics data measured at an ambient temperature of 25 $^{\circ}C$ with the door controller under power supply.

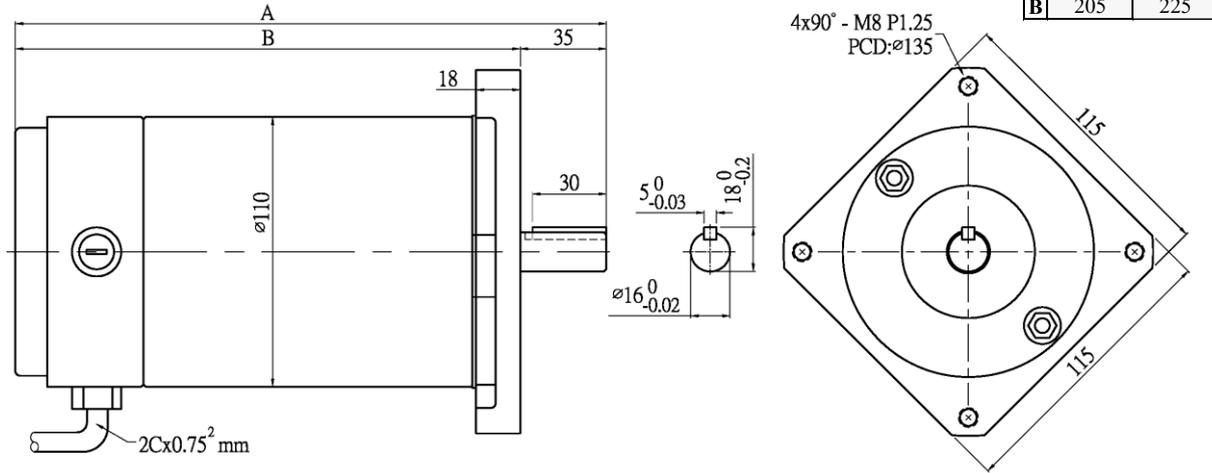
2). ** Motor characteristics data measured under no current limiting conditions.

*** Ambient temperature of 25 $^{\circ}C$

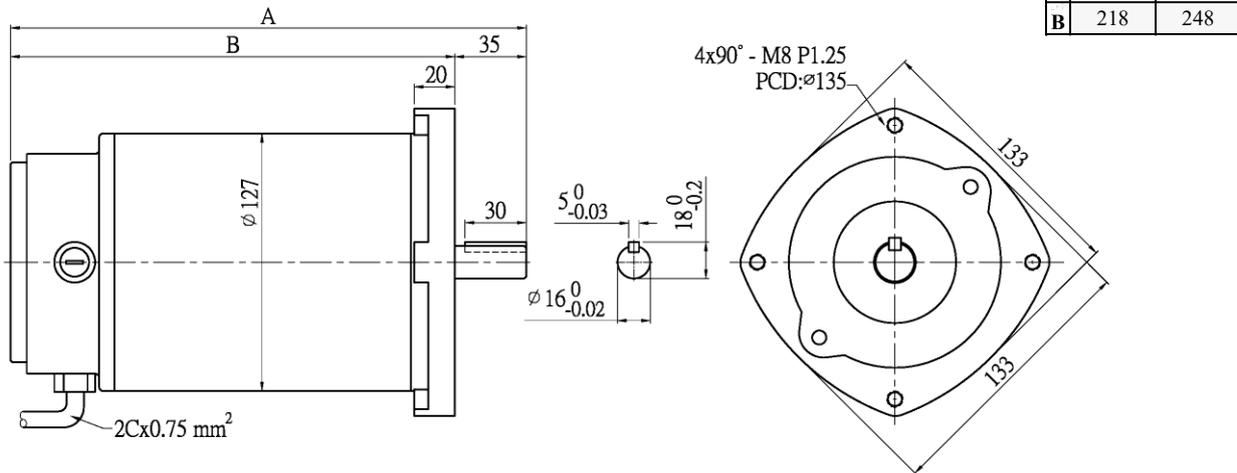
5. Door Motor Dimension

● Motor

◆ TP22 / TP25

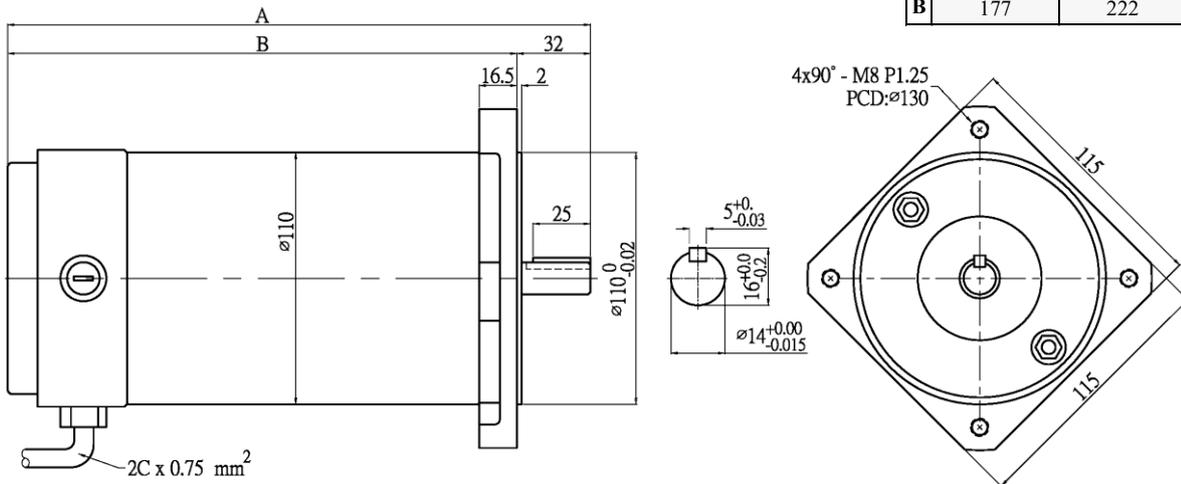


◆ TP50 / TP70



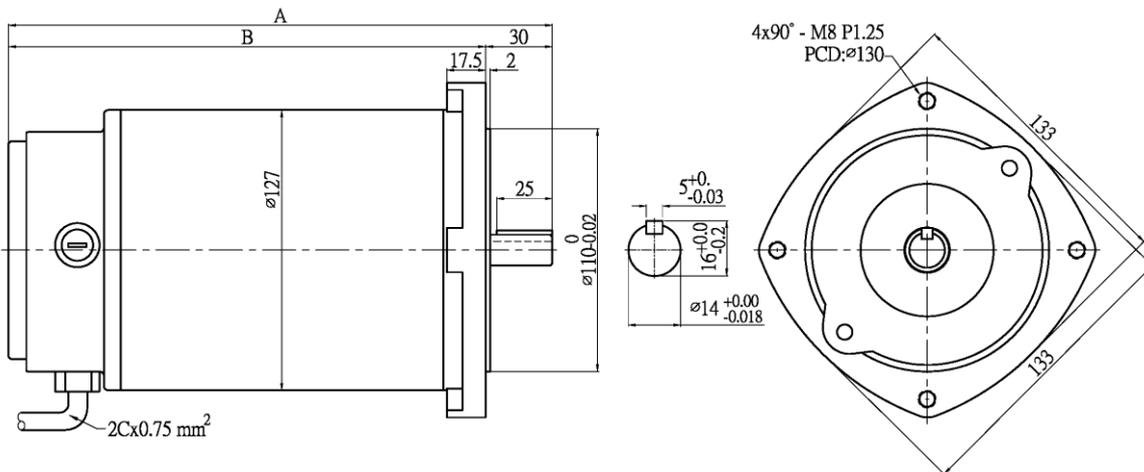
◆ **TP201/600 / TP251/550**

	TP201/600	TP251/550
A	209	254
B	177	222



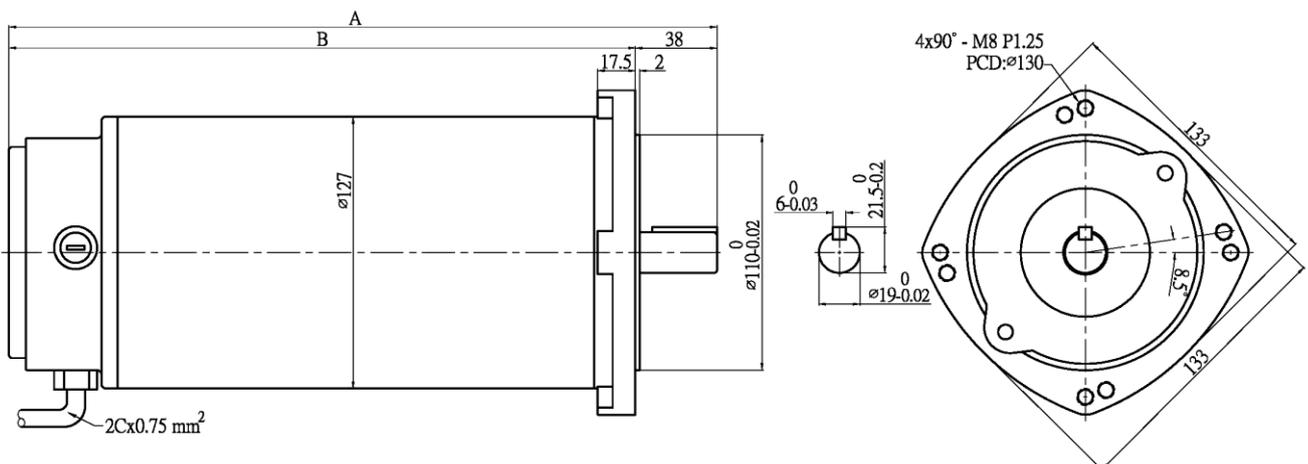
◆ **TP501/550 / TP701/550**

	TP501/550	TP701/550
A	245	275
B	215	245



◆ **TP902/550 / TP1002/560**

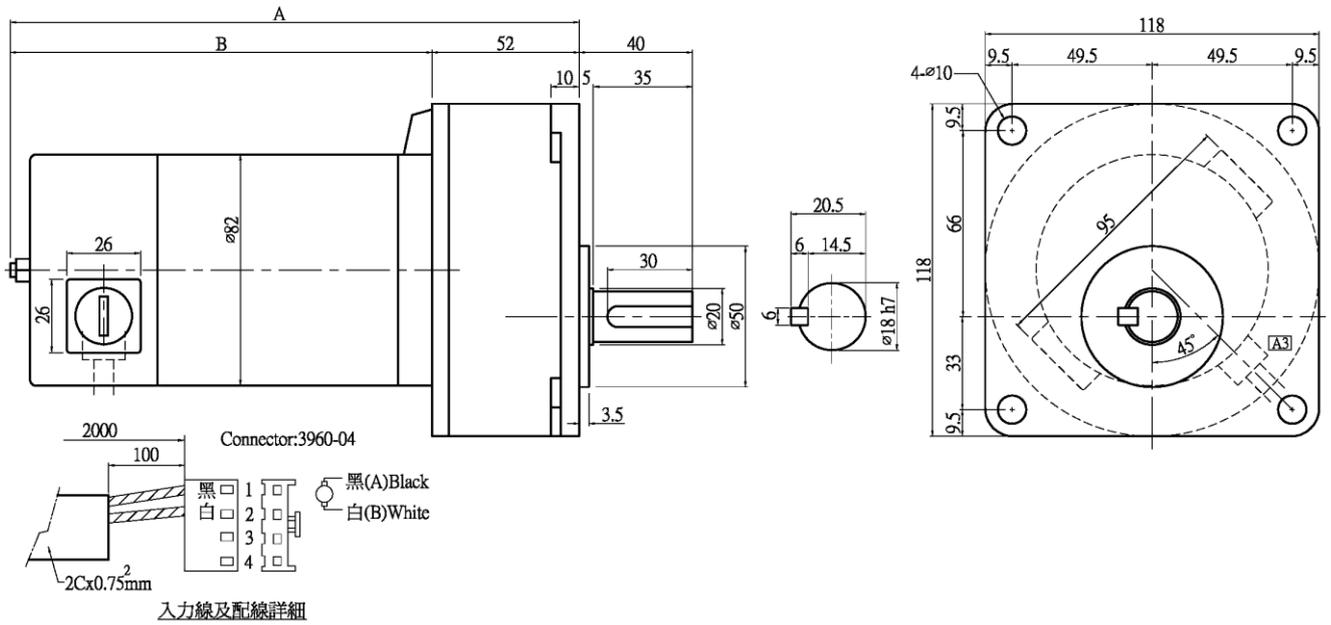
	TP902/550	TP1002/560
A	351	401
B	313	363



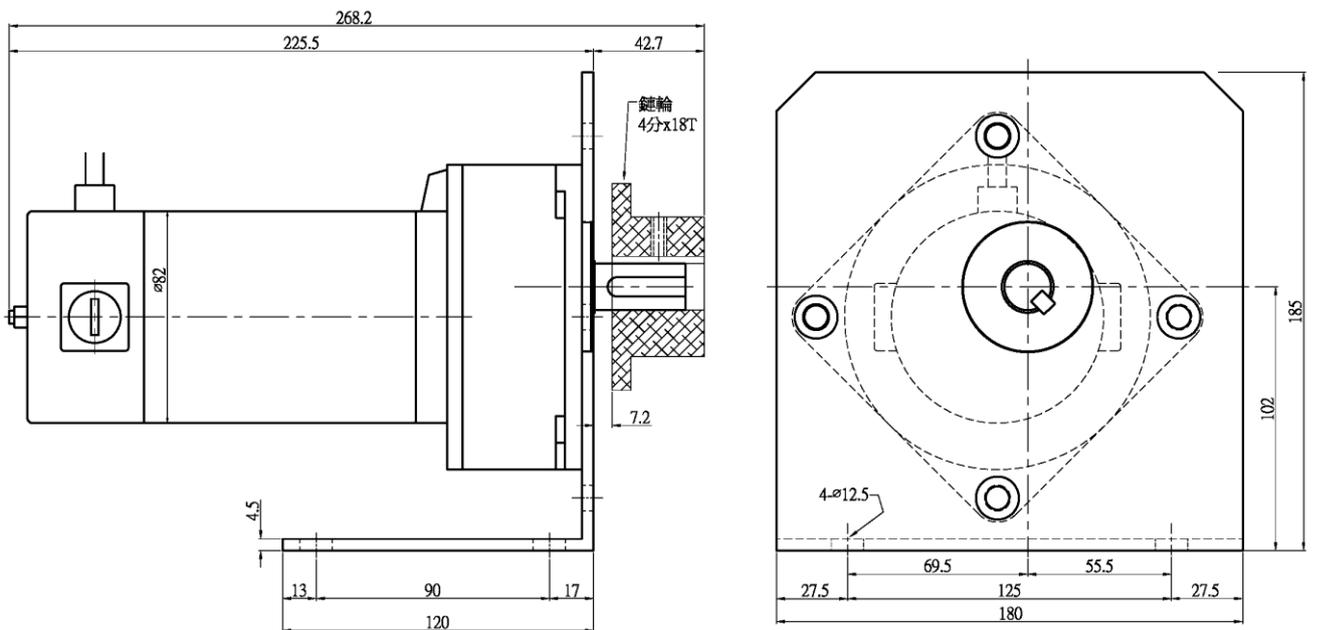
● Gear Motor

◆ TP07-06HG10 / TP08/125VG101

	TP07-06HG10	TP08/125VG101
A	201	221
B	149	169

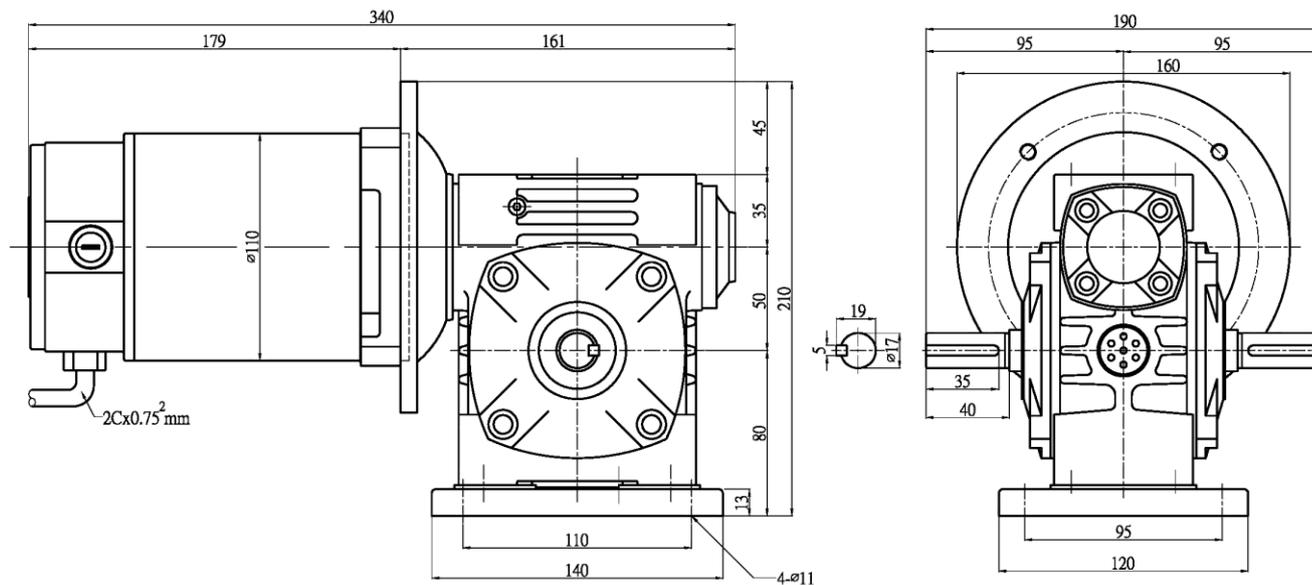


◆ TP08/100VG201+BK3

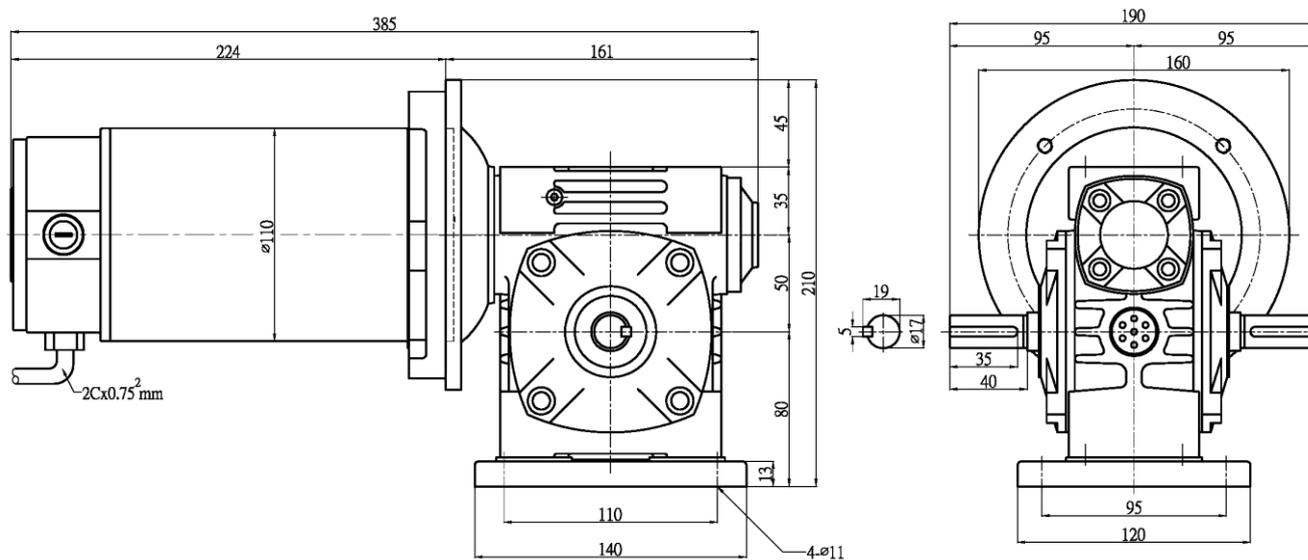


● Worm Gear Motor

◆ TP201/600+WG10

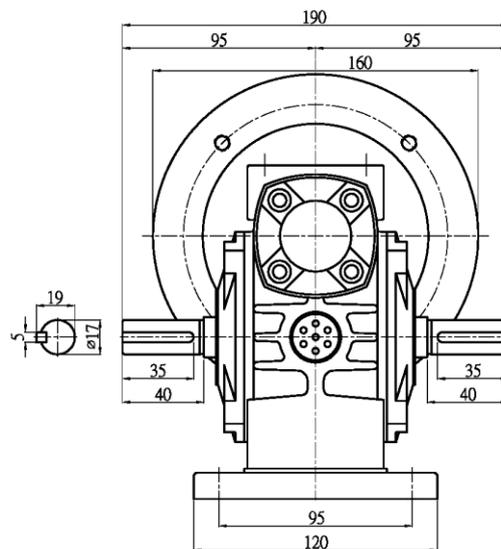
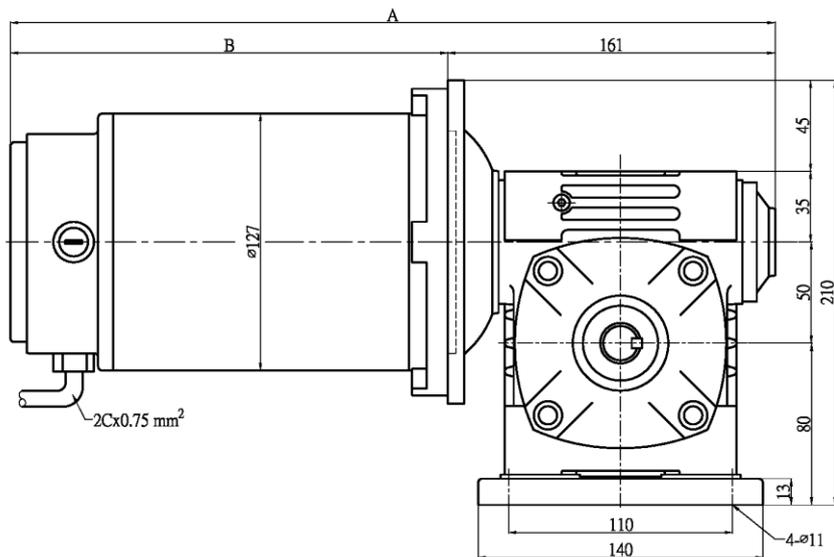


◆ TP251/550+WG10



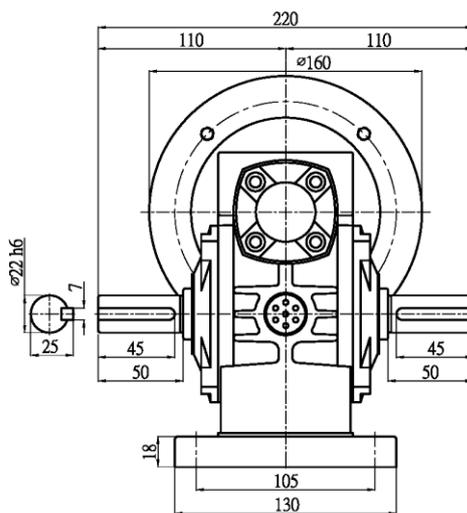
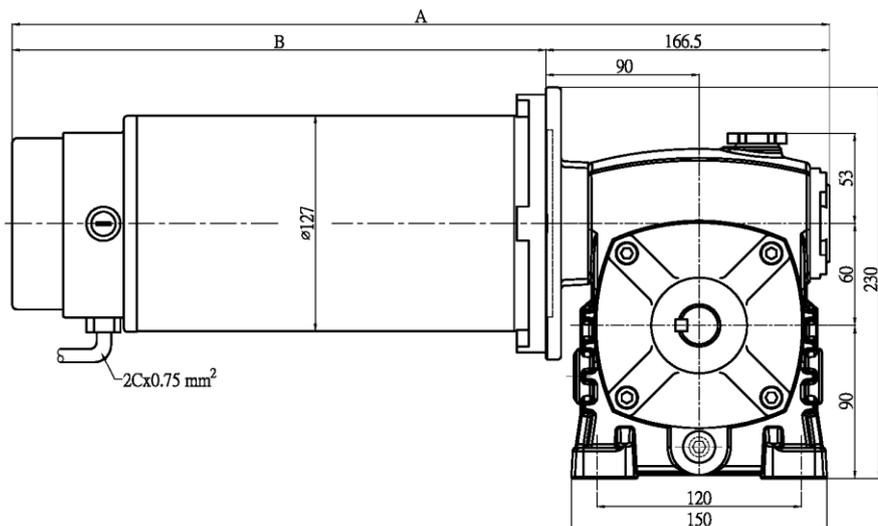
◆ TP501/550+WG10 / TP701/550+WG10

	TP501/550+WG10	TP701/550+WG10
A	376	406
B	215	245



◆ TP902/550+WG10 / TP1002/560+WG10

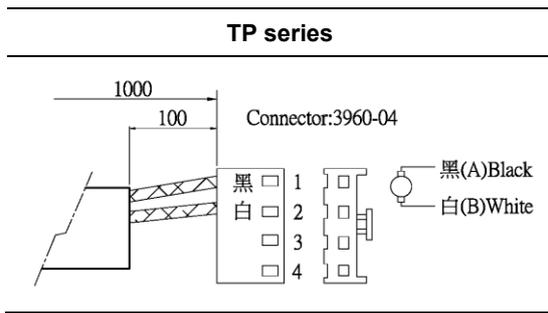
	TP902/550+WG10	TP1002/560+WG10
A	376	406
B	215	245



Black
White

(A)Black
(B)White

◆ Motor Wiring

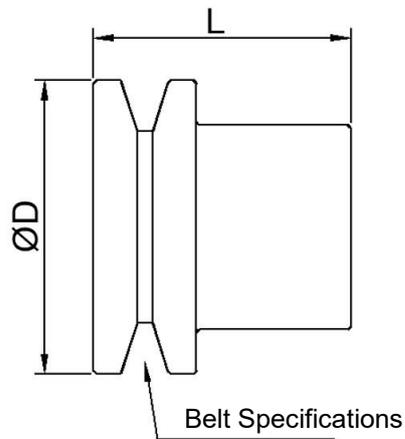


● Motor Accessories - Belt Pulley

V-belt pulley model description

P M 28 19 11
 1 2 3 4 5

- 1: Belt Pulley
- 2: Belt Specifications
 - A
 - K
 - M
 - H: Wide-angle Belt (5M/11M)
- 3: Length- L
- 4: Shaft Hole
 - Empty: Ø16 key 5x5
 - 19: Ø19 key 6x6
- 5: Wide-angle Belt (H) Width



Belt Pulley Model	Belt Specification	A	B
PA28	A	28	50
PA35	A	35	50
PH28-5	H (5M Wide-angle)	28	45
PH34-5	H (5M Wide-angle)	34	45
PH28-11	H (11M Wide-angle)	28	50
PH35-11	H (11M Wide-angle)	35	50
PH3519-11	H (11M Wide-angle)	35	50
PK34	K	34	45
PM28	M	28	50
PM2819	M	28	50
PM35	M	35	50
PM40	M	40	50
PM4019	M	40	50

◆ NOTES

● **TM – TP – Motor Comparison Table**

Door Motor Model	TP22		TP25	TP50	TP70	TP90	TP100
Door Motor Model	TM20	TM28	TM40	TM50	TM70		
Max. Door Width *	1000 mm		1200 mm	1800 mm	3000 mm	4500 mm	7000 mm
Door Controller Model	TDM□□ – □					TDMS1-H	