



Jang Yih Electrical
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DC Motor Stepless Speed Regulation Controller



A Type Controller
(FWD/REV)



Tension Coiling
Controller



AB Type
(FWD/REV)



1HP
(AB Type)



1/2 HP
(B Type)



VS III
Controller



Inverter



1HP
(Digital panel meter)



A Type
Controller



Mainframe



Assistant

5HP+3HP Coordinated
Controller



Mainframe



Assistant

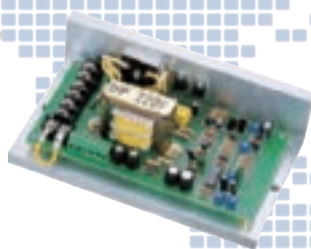
3HP+2HP Coordinated
Controller



C Type



VS Controller
III Board



AB Type Board



A Type Board



BC Type Board



Low Voltage Motor
Controller



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DC Motor vs Motor vs Three Phase Motor

	Item	Price Under 5HP	Torque	Volage	Speed Control	Failure Rate	Output Power	Power consumption	Size
1	DC Motor+speed controller	Reasonable	High Torque	±15%	Easy	Low	90%	Low	Medium
2	vs Motor+speed controller	Expensive	Medium torque	±10%	Easy	Medium	60%	High	Big
3	Inverter+three phase motor	Reasonable	Medium torque	±8%	Complexity	Medium	70%	Medium	Medium

Feature:

- Easy to use
- Small Size
- Complete Models
- Reliable
- Stable Speed
- High Efficiency.Low abrasion
- Control panel independently
- Buffer can be installed
- Brake can be installed
- Easy control

Applicable models:

- Plastic
- Fiber Dyeing
- Other
- Cement
- Cable
- Transportation

Applicable:

DM Single operate control



Conveyor:
Adjust the speed to improve the efficiency.

DM Single operate control



Packing:
Adjust the speed to reduce the defective products.

Grinding Machine



Adjust the speed to Match the of goods.

Paper or Plastic Materials

DC Motor & Dancine Roller
constant the speed & tension



Planing Machine

Brake, Forward & Reverse



cable coating machine



Cable coating extrusion machines and machinery which contains coiler machine and take the lead for the joint operation, The other advantage of Dancing Roller winder for fixed line speed, given the tension control

Plastic Rolling wave machine



Including Strainer.Conveyer,Calender, Embossing, Cooling & winder.

Polished machine





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DC Motor Stepless Controller Specification Table

HP		Horsepower	1/8	1/4	1/2	1	2	3	5	7.5	10
		Phase	Single Phase								
		Voltage	100/110V			200/220V					
Rated Frequency			50/60Hz		50/60Hz						
Output Voltage		A 1	H 2	0-80 V D C		DC0-195V					
		J 3	K 4	100V D C		DC200V					
Variation Rate	Speed	Load speed changes			Less Than 0.2 %						
		Power supply voltage variation (±15%)			Less Than 0.2 %						
		Surrounding temperature variation (-10C-40C)			Less Than 0.05 %						
		Power cycle changes(±3HZ)			Less Than 0.1 %						
Start Buffer Device			0.8 sec		0~30 sec SET at 0 Start at 0.8 sec						
Limited Load Protection			A Protection: The Speed is Reduced Automatically Whenever Overload occurs and it stops running 3 sec After its Occurrence								
Anti-jamming devices			C Type Not applicable								
Weight			A Type 3.16Kg AB 1.6Kg B Type 1.265Kg C Type 0.4Kg								
Conditions			Thmperature: Avoid direct sunlight Thmperature: Less than 80% and with good ventilation Dust: Avoid places that have too much dusts or metal articles.								
Appearance											
	A Type >		AB Type >		B Type >		C Type >				

Auxiliary Control System With Related Drive



Mainframe



Assistant

5HP+3HP Coordinated
Controller

Speed Controller



Mainframe



Assistant

3HP+2HP Coordinated
Controller

Linkage deputy controller

Advantage: It works with PLC and adjust the Speed

Function

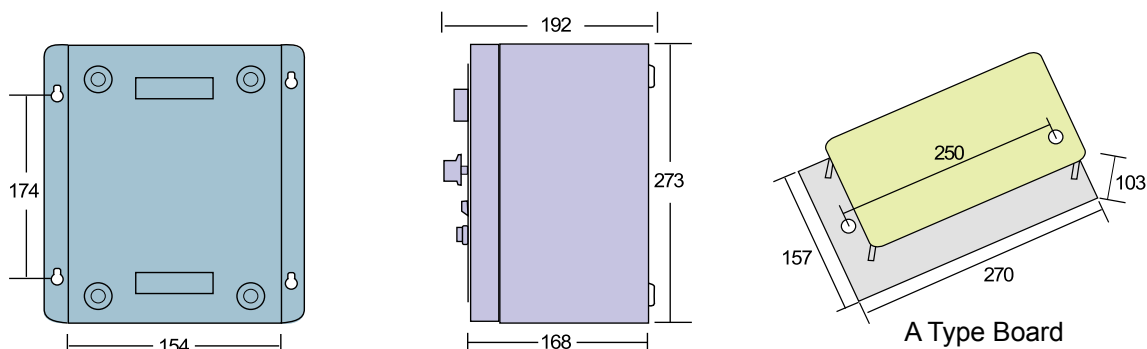
In more than one motor reflexes, can make changes to recover from the main command together several fast starts, stops to reduce mechanical lifting speed buffer travels smoothly.



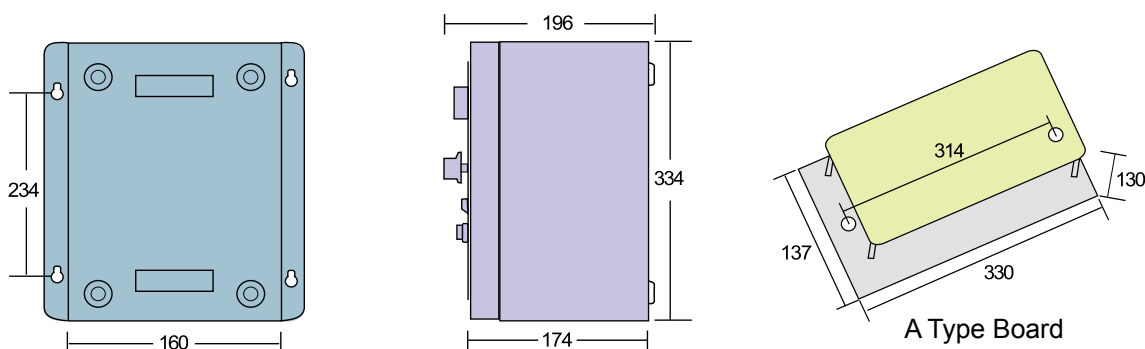
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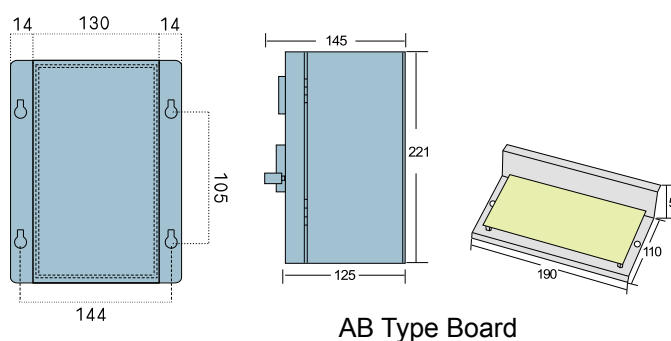
Outward of A Type Controller (Outward of 1HP-3HP)



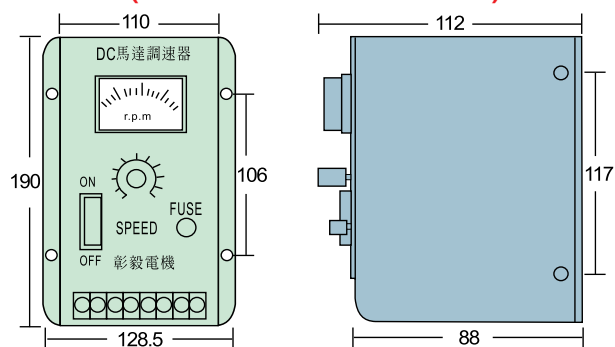
Outward of A Type Controller (Outward of 5HP-7.5HP)



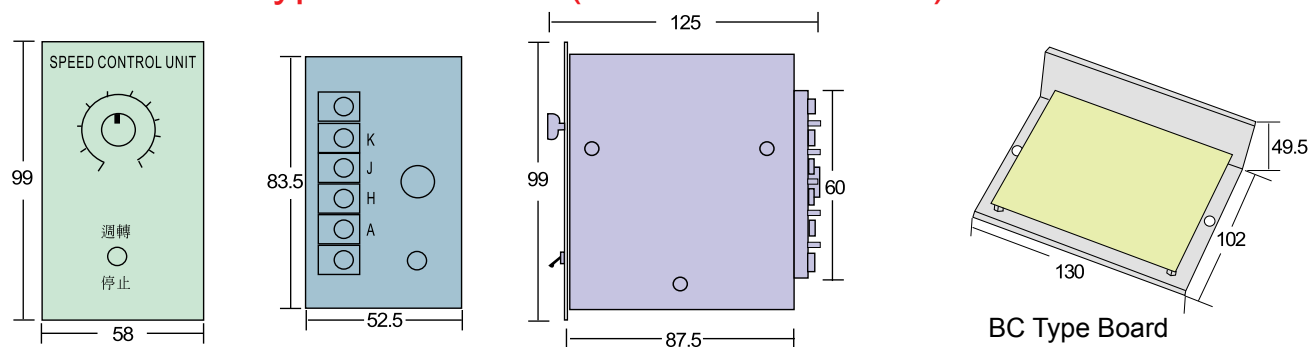
Outward of AB Type Controller (Less Than 1HP)



Outward of B Type Controller (Less Than 1/2HP)



Outward of C Type Controller (Less Than 1/8HP)





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DC motor : 1/8HP-5HP in stock More then 7.5HP by order

DC motor feature & appliaction

Type	Feature	Application	Universal models
Separately excited	1. Good torque. 2. Good constant speed. 3. Easy rpm control. 4. Self control. 5. Low speed change.	Commonly used to set output, constant torque, acceleration and deceleration of industrial machinery or constant speed drive square torque loads.	Fiber / Wooden / Packing / Conveyor / Blower / Polish / Printing / Dyeing / Embossing machines
Core coiling series connected	1. Good torque. 2. RPM change by load. 3. Off speed when no load	For coiling machines RPM reduced when high load RPM increased when low load	Cloth / Paper rolling machines
Compound excited	1. Good torque. 2. Good constant speed. 3. Easy RPM control. 4. On speed when no load.	For high torque machines with wide range of load.	Punch / Embossing / Planer / Eccentric wheel machines

Motor Specification Table

HP		1/4	1/2	1	2	3	5	7.5	10
Armature voltage A1 H2		0-80 VDC	0-195 VDC						
Excitation voltage J3 K4		100 VDC	110,220 VDC						
Torque		10 Kg-CM	20 Kg-CM	40 Kg-CM	80 Kg-CM	120 Kg-CM	200 Kg-CM	300 Kg-CM	400 Kg-CM
Full load current		1.2A	3A	4A	10A	15A	24A	35A	42A
Time setting		Continue							
Start torque		More than 125%						220V / 1 phase	
FAN		Self-cool							
Range of speed		30RPM~1800RPM							
Insulator		B							
Exciting more		Separately excited							
Enviroment		-5°C ~ +50°C moisture:less then 85%							
Weight		15.5	20	25	47	52	62	113	128
Bearing	Output side <div>Vertical</div> <div>Horizontal</div>	6303 ZZ 6303 ZZ	6303 ZZ	6204 ZZ	6305 ZZ	6206 ZZ	6208 ZZ	6208 ZZ	
	Trailing side	6303 ZZ	6303 ZZ	6304 ZZ	6304 ZZ	6205 ZZ	6306 ZZ	6306 ZZ	

Each DC motor circuit diagrams and wiring label

Type	Schematic	Forward	Reverse
Shunt type			
Series wound (DC torque)			
Complex excited			

- (1) F : Shunt field coil. S : Series magnet coil. A : Armature.
 (2) Rotation : Forward:clockwise / Reverse:counter-clockish.
 (3) Output : Armature: (A) + (H) - / Coil: (J) + (K) -
 (4) Generator : (T) (G)
 (AC1Φ 48P / 2W / 25V / 1800 RPM)
 (5) Brake : (11) (12)
 (6) Fan: (U) (V)



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DC Motor Series



Twin Rod Motor
(BY Order)

Standard Horizontal Type



TD Type Upright Type With Flange



DG Type
Horizontal Type
With Gear Reducer



DV Type Vertical Type
With Gear Reducer



DW Type DC Motor
With Gear Reducer



DB Type
Standard With Brake



Dga Type Horizontal Type
With Gear Reducer



European Regulation Motor



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Planetary Gear reducer



HF
HORIZONTAL
TYPE



VS
VERTICAL TWO
SHAFTS TYPE



HS
HORIZONTAL TWO
SHAFTS TYPE



VF
VERTICAL
TYPE

Planetary Gear reducer



WPKS



WPW



WPWS



WPKA



WPO



WPDO



WPS



WPDx



WPKS



WPX



WPA



WPKA



WPKA

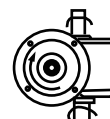
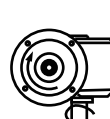
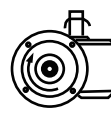


WPDS



WPA

Worm Gear Reducer With Vertical Foot



Aluminum Alloy Worm Gear Reducer



NE



NEO



NEM



NEOM



NEV



NEOV



NEVM



NEOVM

Horizontal / Frank Upright Gear Reducer



GHM



GVM



GHD



GVD



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DC torque motor



Tension coiling



Step tension coiling controller



Tension coiling isolation controller

Advantage

- Constant torque with PLC tension sensor.
- Constant torque synchronous with linkage host.
- Suit for different motors.
- Good heat dissipation and long term operation.
- Adjust wide range with controller and easy use.

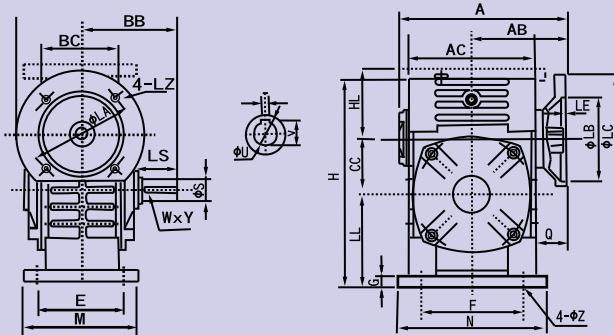
Scope

- Rolling / Mixing liquid
- Calico dyeing
- Load / Auxiliary start / Brake / Collect raw material

Requirement

- Controller
- Correct range of RPM
- Correct KG-M / Voltage
- Correct speed reducer

DC motor attached worm reducer DW type



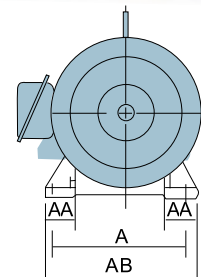
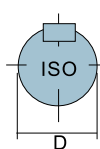
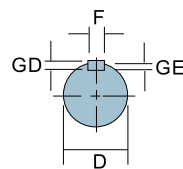
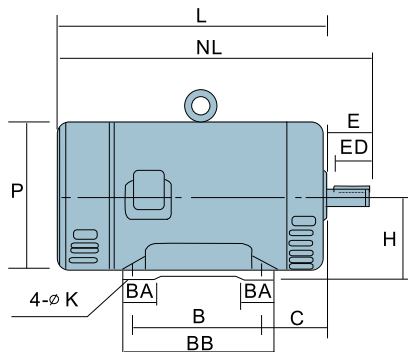
- Specification 4P/6P is the weight for motor

Ratio	1/10~1/30	1/40~1/60	1/10~1/30	1/40~1/60	A	T	B	BB	CC	E	F	H	LL	M	N	G	øZ	Output Shaft		
Model No	4p(HP) / Weight		6p(HP) / Weight															LS	øS	W×Y
50							175	95	50	95	110	180	80	120	140	18	11	40	17	5×3
60	1/4(10 kg)	1/8			165		190	110	60	105	120	205	90	130	150	20	11	50	22	7×4
70	1/2(12 kg)	1/4	1/4(12 kg)	1/8	200		210 230	130	70	115	150	235	105	150	190	25	15	60	28	7×4
80	1(19 kg)	1/2	1/2(19 kg)	1/4	225		240	140	80	135	180	265	120	170	220	25	15	65	32	10×4.5
100	2(26 kg)	1	1(26 kg)	1/2	285		270 295	170	100	155	220	327	150	190	270	25	15	75	38	10×4.5
120	3(35 kg)	2	2(35 kg)	1	325		315	190	120	180	260	388	180	230	320	30	18	85	45	12×4.5
135	5(47 kg)	3	3(47 kg)	2	370		335 360	210	135	200	290	445	215	250	350	30	18	95	55	15×5
155	7½(71 kg)	5	5(71 kg)	3	430		380	252	155	220	320	483	235	280	390	38	20	110	60	15×5
175	10(81 kg)	7½	7½(81 kg)	5	465		400	262	175	250	350	540	260	310	430	40	20	110	65	18×6

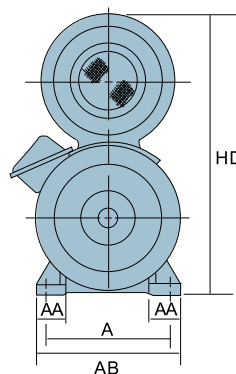
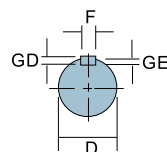
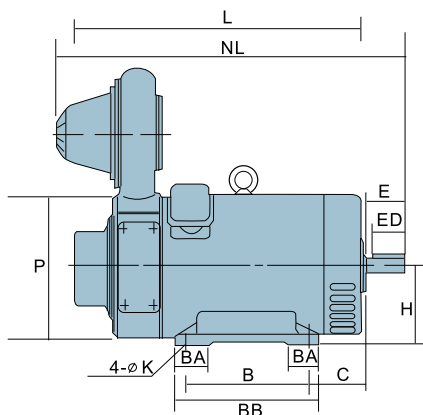


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DC Motor Outward (Standard Horizontal Type)



Out put		Rated speed	No.	Dimensions / Exterior (m m)												Dimensions / Shaft (m m)							
HP	KW	RPM	FRAME	A	AA	AB	B	BA	BB	C	H	K	L	NL	NS	E	ED	D	GD	GE	F	HD	P
1/4	0.2	1750		132	42	174	98	34	132	46	97	10	206	242		36	28	14	5	3	5		162
1/2	0.37	1750	90L-5	132	42	174	98	34	132	60	97	10	271	305	M8	34	27	14	5	3	5		165
1	0.75	1750	90B-5	132	42	174	98	34	132	85	97	10	310	354	M8	44.5	37.5	19	6	3.5	6		165
2	1.5	1750	125L-5	176	39	214	155	34	189	85	125	12	335	388	M10	53	46	24	7	4	8	440	218
3	2.2	1750	125B-5	176	39	214	155	34	189	85	125	12	368	434	M10	60	51	28	7	4	8	440	218
5	3.7	1750	125B-5	176	39	214	155	34	189	85	125	12	444	506	M10	62.5	51	28	7	4	8	440	218



Out put		Rated speed	No.	Dimensions / Exterior (m m)												Dimensions / Shaft (m m)							
HP	KW	RPM	FRAME	A	AA	AB	B	BA	BB	C	H	K	L	NL	NS	E	ED	D	GD	GE	F	HD	P
7 1/2	5.5	1750	150L-5	254	66	302	178	53	236	115	150	18	495	575	M12	80	60	38	8	5	10	500	267.5
10	7.5	1750	150L-5a	254	66	302	178	53	236	115	150	18	520	600	M12	80	60	38	8	5	10	500	267.5

P.S. 1.Tolerance : $D \leq 28$ is j6 , $D \leq 32$ is k6
(Refer ISO R773)

2.Tolerance : H is +0 / -0.5

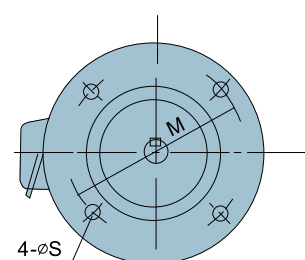
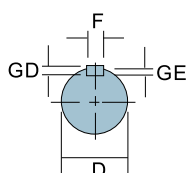
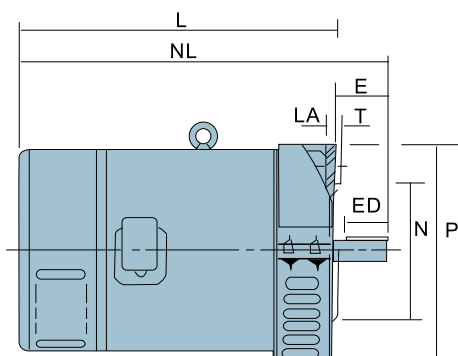
3.The Above Figures are Subject TD Change Without Notice



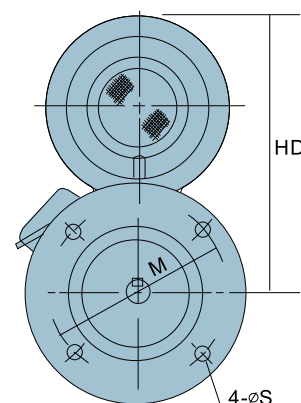
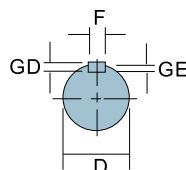
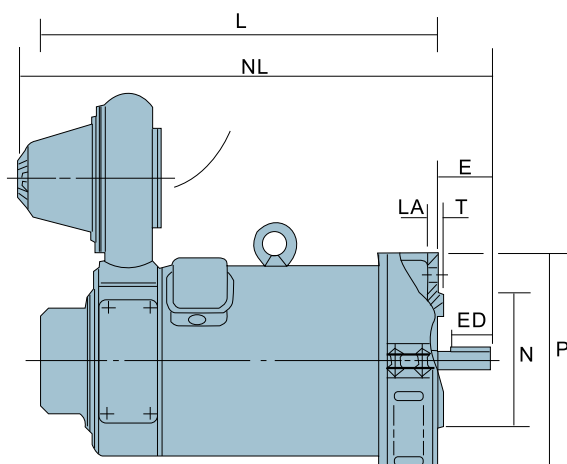
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DC Motor Outward (Frank Upright Type) TD Type



Output		Rated speed	No.	Dimensions / Exterior (m m)										Dimensions / Shaft (m m)					
HP	KW	RPM	FRAME	M	N	P	T	LA	L	NL	NS	S	E	ED	D	GD	GE	F	HD
1/4	0.2	1750		130	110	165	3.5	11.5	213	249		11	29.5	23.5	14				
1/2	0.37	1750	90L-5	130	110	165	3.5	11.5	274	304	M8	11	30	25	14	5	3	5	
1	0.75	1750	90B-5	165	130	190	3.5	11.5	314	355	M10	13	41.5	36	19	6	3.5	6	
2	1.5	1750	125L-5A	165	130	218	3.5	15	340	393	M10	13	52.5	45	24	7	4	8	425
3	2.2	1750	125B-5B	215	180	250	4	15	370	434	M12	15	63.5	50	28	7	4	8	425



Output		Rated speed	No.	Dimensions / Exterior (m m)										Dimensions / Shaft (m m)					
HP	KW	RPM	FRAME	M	N	P	T	LA	L	NL	NS	S	E	ED	D	GD	GE	F	HD
5	3.7	1750	125L-5B	214	178.5	278	4	12	455.5	485	M12	14	60	50	28	7	4	8	300
7 1/2	5.5	1750	150L-5	265	230	318	3.5	16.5	534	540	M12	15	80	60	38	8	5	10	350
10	7.5	1750	150L-5a	265	230	318	3.5	16.5	534	565	M12	15	80	60	38	8	5	10	350

P.S. 1.Tolerance : $D \leq 28$ is j6 , $D \leq 32$ is k6
(Refer ISO R773)

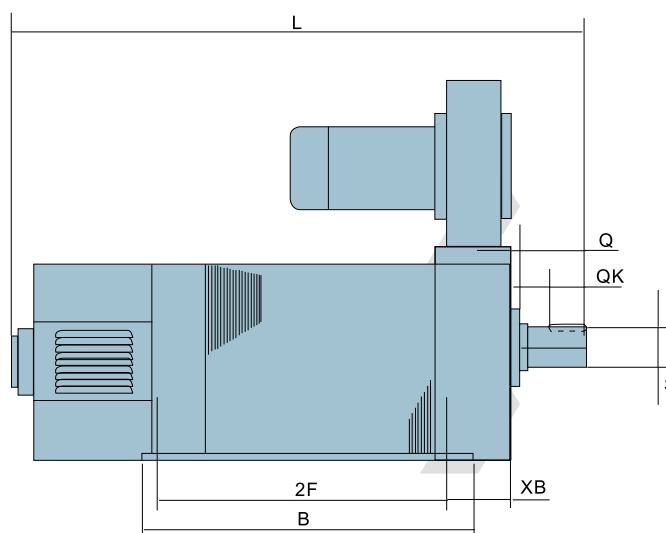
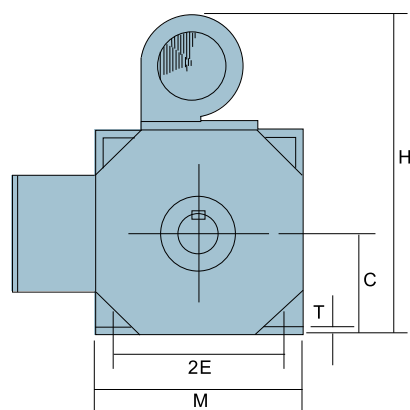
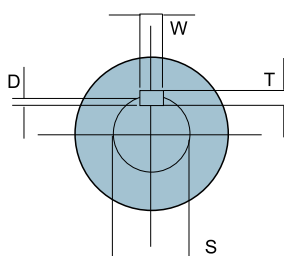
2.Tolerance : N is h7

3.The Above Figures are Subject TD Change Without Notice



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European Regulation Motor 10HP - 175HP



HP	RPM	F#	C	2E	2F	H	J	K	L	M	N	XB	Z	Q	QK	S	T	U	W
10HP	1750	F112M	112	190	360	412	50	70	656	228	182	70	12Ø	80	60	38	8	5	10
15HP	1750	F112L	112	190	420	412	50	70	716	228	182	70	12Ø	80	60	38	8	5	10
20HP	1750	F132S	132	216	399	522	55	70	782	268	202	89	12Ø	110	80	48	9	5.5	14
25HP	1750	F132M	132	216	424	522	55	70	807	268	202	89	12Ø	110	80	48	9	5.5	14
30HP	1750	F132L	132	216	454	522	55	70	837	268	202	89	12Ø	110	80	48	9	5.5	14
40HP	1750	160	160	270	449	610	50	100	892	340	295	133	15Ø	140	110	55	10	6	16
50HP	1750	160	160	270	479	610	50	100	922	340	295	133	15Ø	140	110	55	10	6	16
60HP	1750	160	160	270	509	610	50	100	952	340	295	133	15Ø	140	110	55	10	6	16
75HP	1750	200S	200	318	492	735	70	70	1030	394	510	133	19Ø	140	110	75	13	7	20
100HP	1750	200M	200	318	542	735	70	70	1080	394	510	133	19Ø	140	110	75	13	7	20
125HP	1750	200L	200	318	592	735	70	70	1130	394	510	133	19Ø	140	110	75	13	7	20
150HP	1750	200XL	200	318	642	735	70	70	1180	394	510	133	19Ø	140	110	75	13	7	20
175HP	1750	700XLLB	200	318	866				1290	410		62			110	75	13	7	20

[illegible]

Technical drawing of the YF-300 fan unit, showing front and side views with dimensions and labels.

Front View Dimensions and Labels:

- Top view dimensions: W, C, D, T
- Left side dimensions: 120, 180, 16
- Bottom view dimensions: S, H, Y, L
- Internal features: 出線盒 (Wiring Box), 立式用4孔 (4-hole vertical use), P, N, 5t

Side View Dimensions and Labels:

- Top view dimensions: 250, 525
- Left side dimensions: A, E, Q, F 32, B, U
- Right side dimensions: J, L
- Internal features: FAN, YF-300, 出線盒 (Wiring Box)

Technical drawing of the YF-400 fan unit, showing front and side views with dimensions and labels.

Front View Dimensions:

- Top flange: W (width), T (thickness), C (inner diameter), D (outer diameter)
- Main body: 120 (width), 180 (height), 20 (bottom flange thickness)
- Internal features: G (inner circle), N (central hole), S (bottom flange), Y (bottom flange hole), I (bottom flange hole)
- Mounting: 立式用4孔 (4 holes for vertical mounting), P (mounting hole)
- Bottom flange: H (width), S (height)

Side View Dimensions:

- Top flange: A (width), 10t (thickness)
- Mounting: E (width), Q (height)
- Internal features: F160 (height), B (width), U (width), J (width), L (width)
- Bottom flange: B (width), U (width), J (width), L (width)

Labels:

- FAN
- YF-400
- 出線盒 (Output Box)

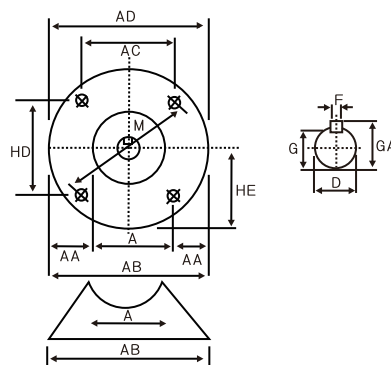
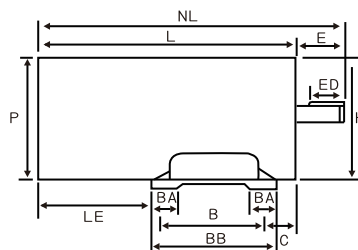
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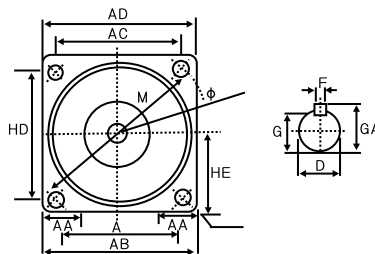
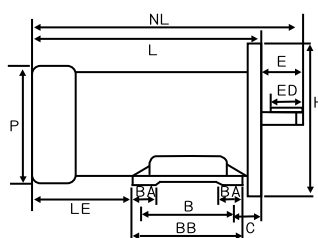
Permanent magnet DC motors series

【Flangeless permanent magnet DC motors】



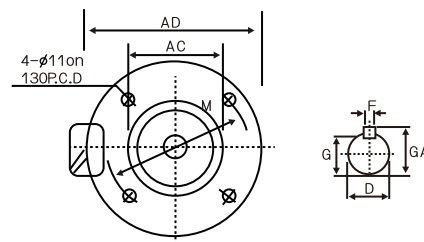
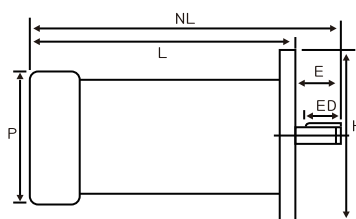
Power	Rated speed	Dimensions/Exterior										Dimensions/shaft										Weight
W	RPM	AD	B	BA	BB	C	L	NL	LE	H	HE	E	ED	D	G	GA	F	HD	P	KG		
375	1800	113	71	25	103	53	250	295	118	139	86	53	45	16	13	18	5	109	130	8		
500	1800	113	71	25	103	67	275	325	130	139	88	53	45	16	13	18	5	109	130	10		
750	1800	113	71	25	102	92	320	395.5	154	139	88	43.5	35	19	15.56	21.5	6	109	130	12		

【Square permanent magnet DC motors】



Power	Rated speed	Dimensions/Exterior							Dimensions/shaft							Weight
W	RPM	AC	AD	L	NL	H	HE	M	E	ED	D	G	GA	F	P	KG
375	1800	110	138	250	295	139	86	155	53	45	16	13	18	5	130	8
500	1800	110	138	275	325	139	88	155	53	45	16	13	18	5	130	10
750	1800	110	138	320	359.5	139	88	155	43.5	35	19	15.5	21.5	6	130	12

【Circular permanent magnet DC motors】



Power	Rated speed	Dimensions/Exterior					Dimensions/shaft							Weight
W	RPM	AC	AD	L	NL	M	E	ED	D	G	GA	F	P	KG
200	1800	110	160	220	250	130	30	25	14	11	16	5	112	8
375	1800	110	160	250	295	130	30	25	14	11	16	5	130	8
500	1800	110	160	270	325	130	30	25	14	11	16	5	130	10
750大圓	1800	130	198	320	365	165	40	35	19	15.5	21	6	130	12



AB type

B type

【Permanent magnet DC motor specifications table】

Output	1/4HP (200W)		3/4HP (500W)		375W	750W
Voltage	110V	220V	110V	220V	220V	220V
Torque	10Kg-cm	10Kg-cm	30Kg-cm	30Kg-cm	15Kg-cm	35Kg-cm
Current	2A	1A	7A	3.5A	1.5A	5A
RPM	1800/3600	1800/3600	1800/3600	1800/3600	1800/3600	1800/3600
Insulation	B	B	B	B	B	B



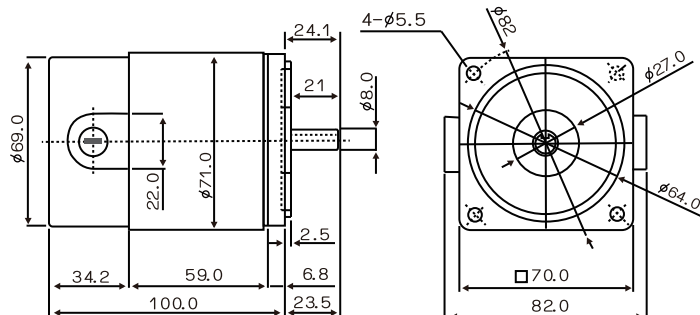
BC type



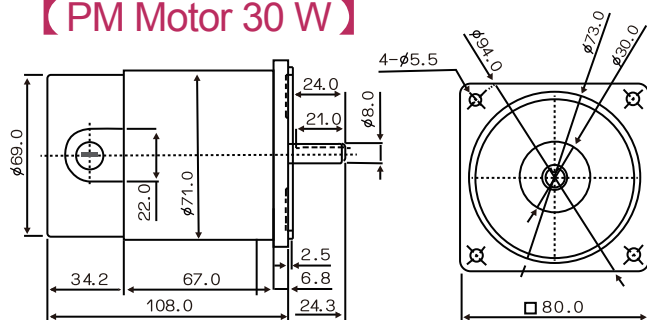
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PM Motor

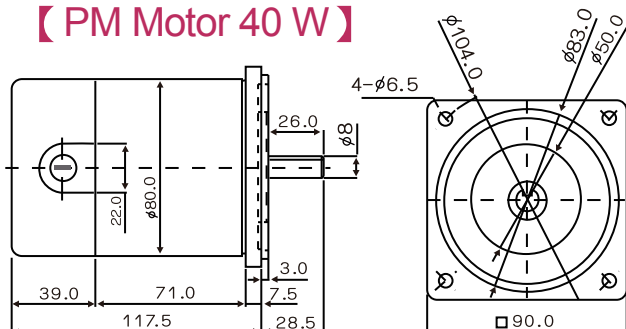
【PM Motor 20 W】



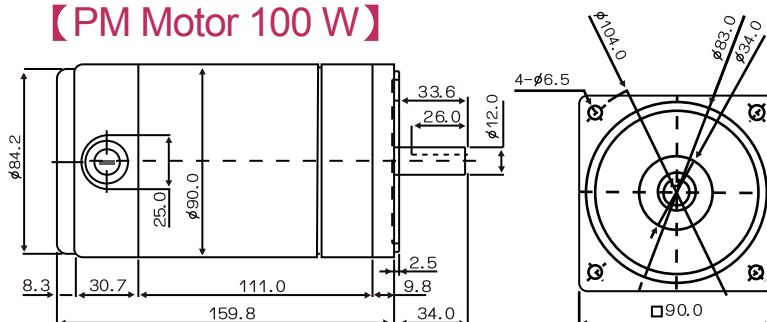
【PM Motor 30 W】



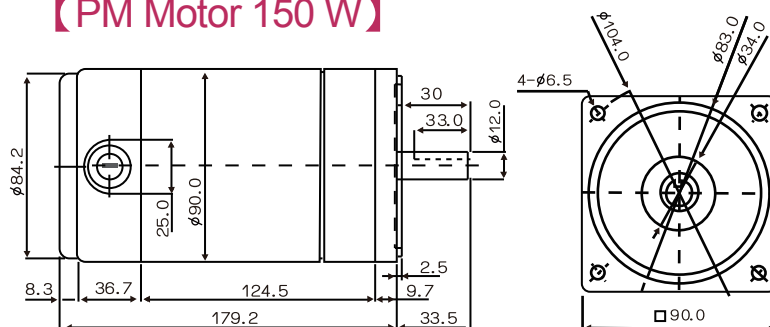
【PM Motor 40 W】



【PM Motor 100 W】



【PM Motor 150 W】



Dimensions in mm



Motor Index

10 Type	S Flange	GS Shaft	BHF Option	180 Voltage	18 RPM
06: (3GN)	R:Round	GN:Helical	B:Brake	12:12VDC	18:1800R
07: (4GN)	S:Square	WG:Worm Gear	H:Horizontal	24:24VDC	32:3200R
08: (5GN)		P:Round Shaft	F:Fan	90:90VDC	36:3600R
10: (5GN)				180:180VDC	
M29: (5GU)					



06SP.SGN



07SWG.SGN



08SWG.SGN



10SWG.SGN



M29SWG.SGU

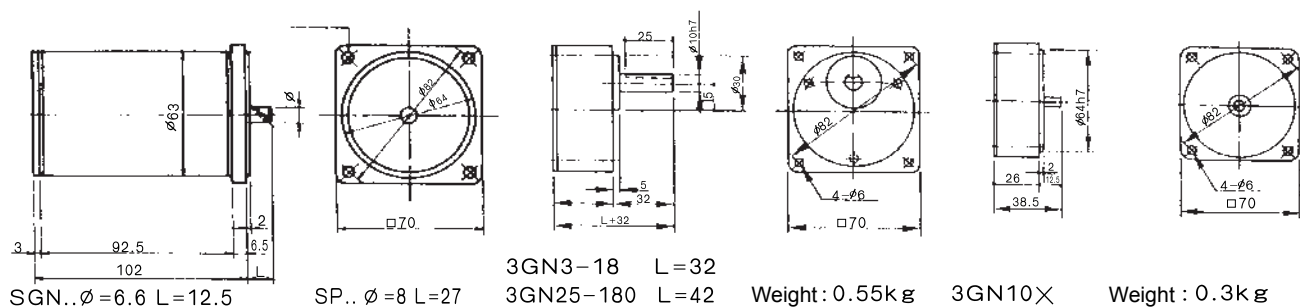
Small DC motors rated specifications

TYPE	VOLTS (V)	AMPS (A)	SPEED (RPM)	OUTPUT (W)	TORQUE (KG-CM)	RATING (MIN)	WEIGHT (KG)
06	12	2.4	1800	20	1.08	CONT	1.0
	24	1.2	1800	20	1.08		
	90	0.32	1800	20	1.08		
	12	4.2	3200	36	1.1	30MIN	1.0
	24	2.1	3200	36	1.1		
	90	0.56	3200	36	1.1		
07	12	3.5	1800	30	1.62	CONT	1.3
	24	1.8	1800	30	1.62		
	90	0.5	1800	30	1.62		
	12	7.0	3200	60	1.83	30MIN	1.3
	24	3.5	3200	60	1.83		
	90	0.9	3200	60	1.83		
08	12	4.4	1800	40	2.2	CONT	1.7
	24	2.2	1800	40	2.2		
	90	0.6	1800	40	2.2		
	12	8.0	3200	70	2.1	30MIN	1.7
	24	4.0	3200	70	2.1		
	90	1.1	3200	70	2.1		
10	12	9.0	1800	65	3.5	CONT	2.2
	24	4.5	1800	65	3.5		
	90	1.2	1800	65	3.5		
	180	0.6	1800	65	3.5	30MIN	2.3
	12	14.0	3200	120	3.66		
	24	6.8	3200	120	3.66		
	90	1.8	3200	120	3.66		
	180	0.9	3200	120	3.66		
M29	12	13.0	1800	100	7	CONT	3.4
	24	6.5	1800	100	7		
	90	1.7	1800	100	7		
	180	0.85	1800	100	7		
	12	24.0	3600	200	6.4	30MIN	3.5
	24	12.0	3600	200	6.4		
	90	3.2	3600	200	6.4		
	180	1.6	3600	200	6.4		

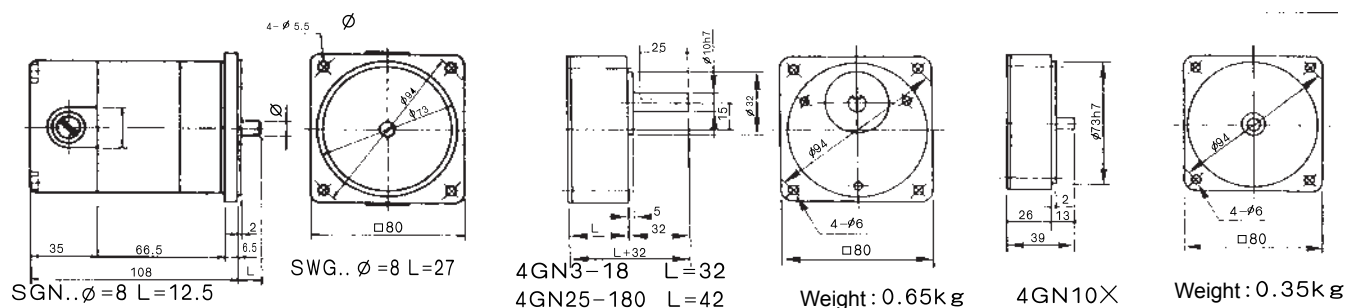


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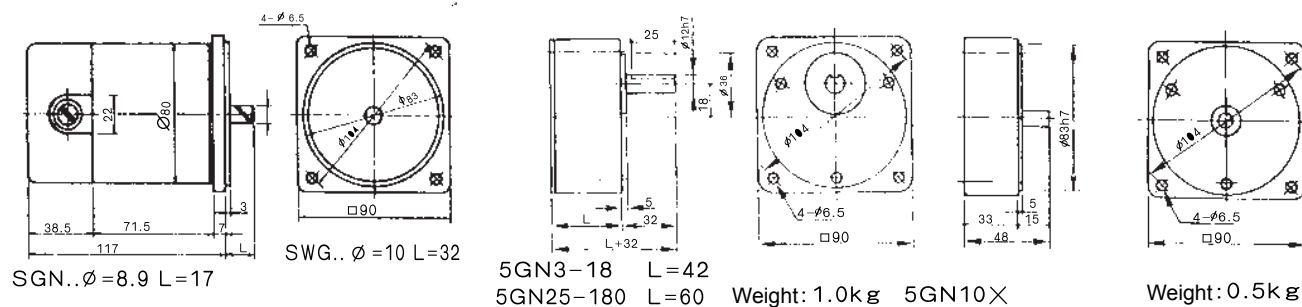
06



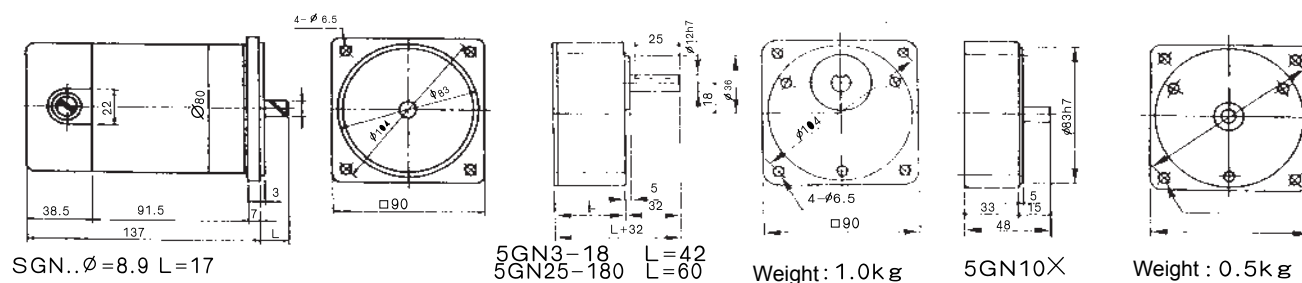
07



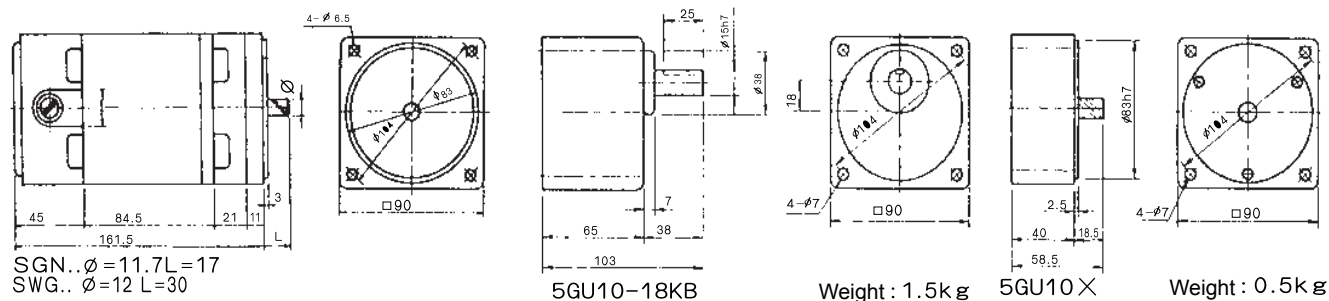
08



10



M29



Flange IEC71



Flange IEC71



C Type





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Single-phase DC motor 4Q controller

【Control Principle】

This controller uses thyristor six phase bridge rectifier(input:AC output : DC)

The voltage is changed by pulse. it constants the speed within different DC voltage.

【Feature】

1. Simplification of the three-phase connection.
2. Inspection of over-current, unusual-current. SCR over heat.
3. Trake & control several " Parallel controllers ".
4. Constant torque / HP.
5. Low breakdown / Easy maintain.
6. High efficiency of speed cintrol, complete protection system.
7. High precision / wile speed(100:1) / add function is available.
8. 2Q type - single direction. (Normal speed control)
9. 4Q type - all electroic control. (Forward. Reverse. Brake.)



〔一〕 4Q feature (Forward / Reverse instant)

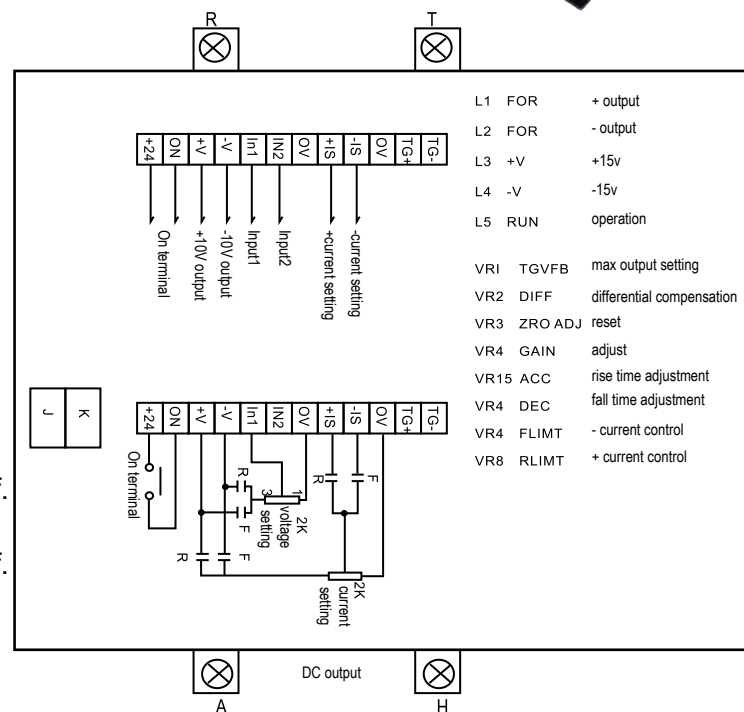
- Single type: (AC 200-400V)
- Easy connection
- Inspection of over-current, unusual-current, over heat. unusual magnetic.
- Voltage feedback built-in.
- Detachable terminal.

〔二〕 DM 4Q control principle

1. This controller uses two SCR bridge rectifier and reverse parallel.
2. The motor is forward when SCR1 is on. The SCR2 will transmitting electricity and it brake. when the SCR1 is off.
3. The motor is reverse when SCR2 is on. the SCR1 will transmitting electricity and it brake. when the SCR2 is off.

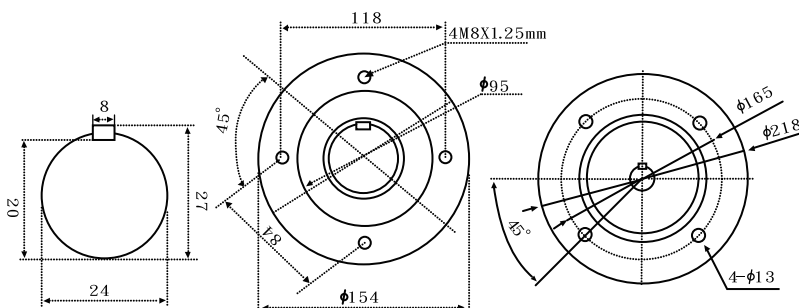
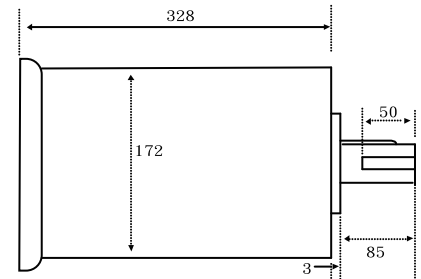
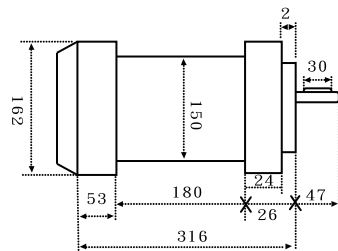
〔三〕 Precautions & Temperature

- Reserve GAP when installing the controller.
- The control box needs vents or fan.
- Dont over 70% of capacity if the enviroment is too hot.
- Dont install the controller in moist / dusty / gases place.
- Moisture:less than 90% RH.
- Temperature: -10°C~45°C

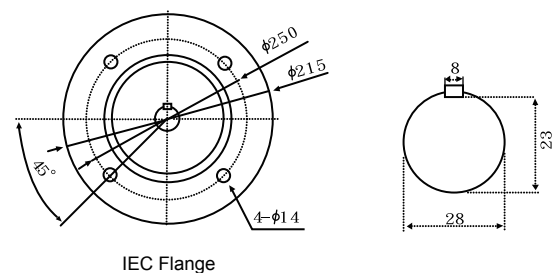




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**Low-voltage Motor 3KW
DC12V 24V 1700RPM**



**Low-voltage Motor 5.0KW DC24V 1800RPM
Shunt excitation, Series wound**

Series-connection Low-voltage Motor:

Feature:

Series-connection motor is setting as constant torque. The current will be reduced when the motor is overload. When the current is going up, the RPM is going down. When the current is going down, the RPM is going up.

Application:

Vehicle, Rail car, Coiling maching, (Adjust-speed machines).

Parallel-connection Low-voltage Motor:

Feature:

Parallel-connection motor is setting as constant RPM. The torque will be increased when external force is increased, if is constant-speed motor.

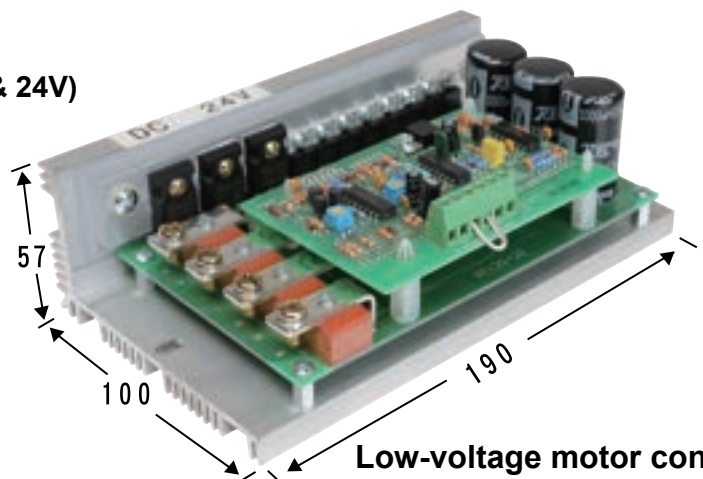
Application:

Constant-RPM machines (Adjust-speek machines)

For both series / parallel connection motor (12V & 24V)



**Low-voltage
current: less than 15A**



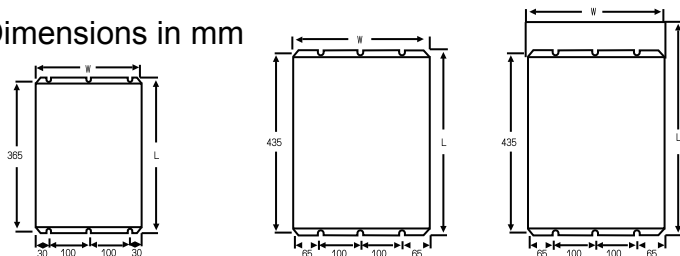
**Low-voltage motor controller
voltage: 24V 12V
curpnt: less than 100A**



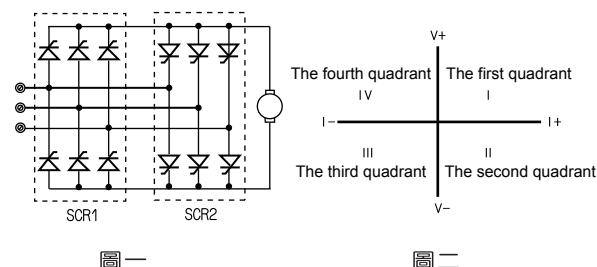
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Three Phase 4Q (DC Quadrant) Controller

→ Dimensions in mm



Ampere	less than 58A	less than 225A	less than 450A	less than 800A
Long	380	380	450	520
Width	260	260	330	350
High	170	255	295	295



Control Principle

- Two units of SCR bridge rectifiers parallel connection.
- DC motor forward when SCR1 switch on after SCR1 switch off.
SCR2 transfer the power back to the switch.
The brake comes out.
- DC motor reverse when SCR2 switch on.
After SCR2 switch off. SCR1 transfer the power back to the switch.
The brake comes out.

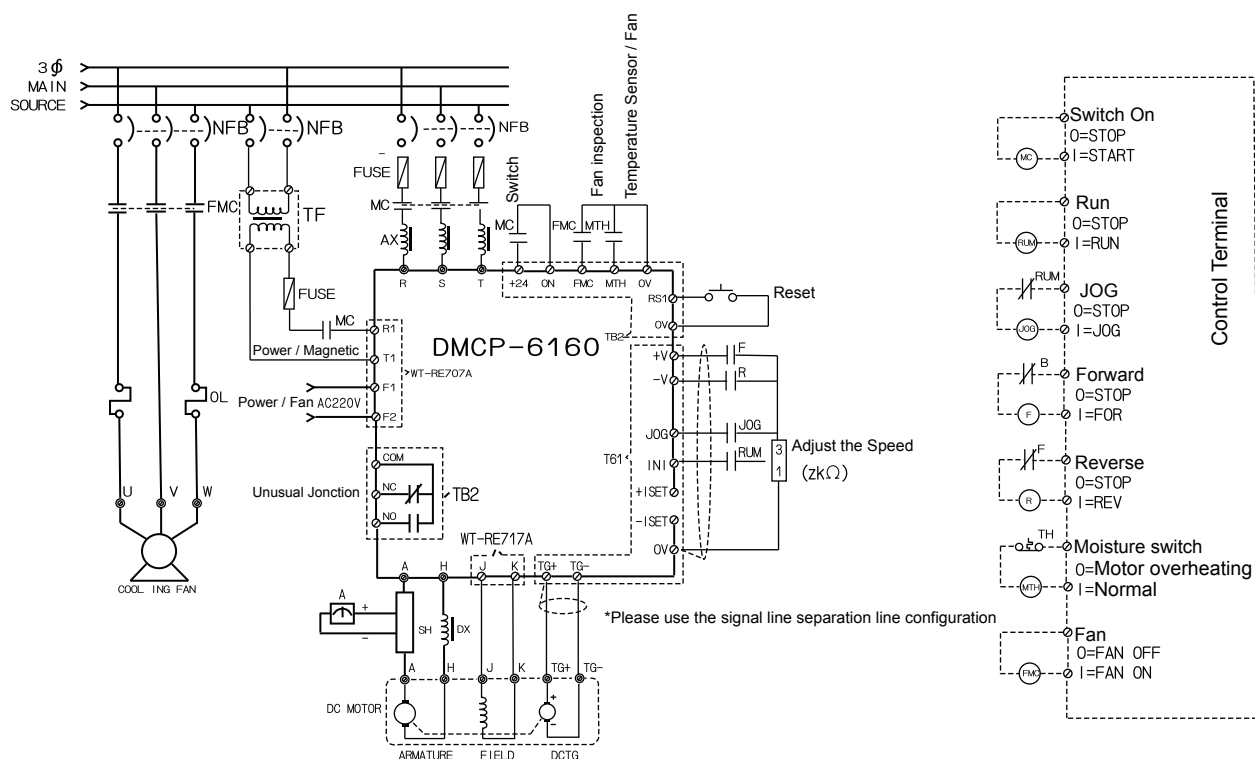
Feature

- Instead the solenoid switch.
- Inspect current / Temperature / Magnetic.
- Precision speed control if Coordinate with DC motor.
- Easy assembly / low Breakdown / easy maintain.
- Constant voltage / Current can run constant torque / HP.

Other

- Constant voltage / Current suit for plating or high frequency forward / Reverse change.
- Good for battery charger. Instead the resistance discharge reduce the waste of thermal.

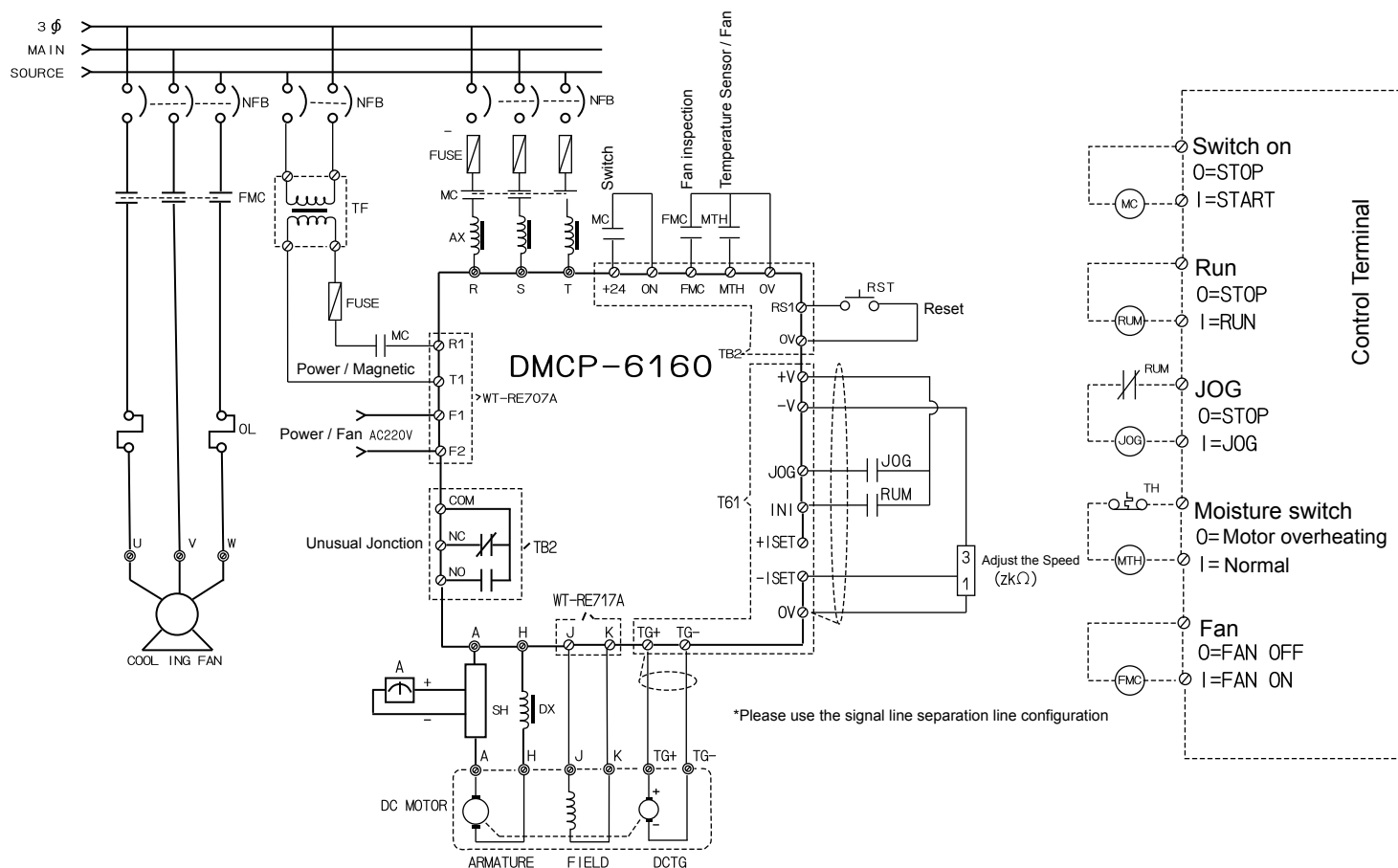
Forward / Reverse speed controller Wiring Diagram





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六、Forward / Constant Current Controller



Three Phase 4Q DC Quadrant



DC Controller 25HP-500HP



DC controller 10HP



List of countries around the world (Voltage, Frequency) (一)

Regional or national		Frequency	Voltage		Regional or national		Frequency	Voltage	
Chinese	English		1-Phase	Three-phase	Chinese	English		1-Phase	Three-phase
阿富汗	Afghanistan	50	220	220/380	薩爾瓦多	El Salvador	60	110/220 115	220 230
阿爾及利亞	Algeria	50	127/220	220/380	赤道幾內亞	Equatorial Guinea	50	220	
安哥拉	Angola	50	220	220/380	衣索匹亞	Ethiopia	50	220	220/380
安地瓜	Antigua	50	230	230/400	法羅群島	Faeroe Island	50	220	220/380
阿根廷	Argentina	50	220	220/380	斐濟	Fiji	50	240	240/415
澳洲	Australia	50	240	240/415	芬蘭	Finland	50	220	220/380
奧地利	Austria	50	220	220/380	法國	France	50	115/220 127	220/380
亞述爾	Azores	50	220	220/380	加彭	Gabon	50	220	220/380
巴哈馬	Bahamas	60	120	120/208	甘比亞	Gambia	50	230	220/400
巴林	Bahrain	60			德國	Germany Federal Rep	50	110/220	220/380
孟加拉	Bangladesh	50	230	230/400	迦納	Ghana	50	220	220/400
巴貝多	Babados	50	110/220	120/208	直布羅陀	Gibraltar	50	240	240/415
比利時	Belgium	50	127/220 115/200	220/380	大不列顛	Great Britain	50		
百慕達	Bermuda	60	115/230	230	希臘	Greece	50	220	220/380
玻利維亞	Bolivia	50	115/230	220/380	格陵蘭	Greenland	50	220	220/380
波札那	Botswana	50	220	220/380	關島	Guam	60	110	
巴西	Brazil	50 60	110/220 127	220/380	石叻島	Grenada	50	220	220/400
保加利亞	Bulgaria	50	220	220/380	瓜地馬拉	Guatemala	60	120/127 220	220/240
緬甸	Burma	50	230	230/440	幾內亞	Guinea	50	220	220/380
蒲隆地	Burundi	50	220	220/380	蓋亞納	Gayana	50	110/220	220
高棉	Cambodia	50	120	220/380	海地	Haiti	60	110/220	220
喀麥隆	Cameroon	50	127/220	220/380	夏威夷	Hawaii	60	120	
加拿大	Canada	60	120/240 110/120 115/230	220/240 480	宏都拉斯	Honduras	60	110/220	200
康那利群島	Canary Is Land	50	127/220	220/380	香港	Hong Kong	50	110/200 230	315 200/346 220/380
中非共和國	Cental Africa Rep	50	220	220/380	匈牙利	Hungary	50	220	220/380
錫蘭	Ceylon	50	230	230/400	冰島	Lce Land	50	220	220/380
查德	Chad	50	220	220/380	印度	India	50	230	220/380 230/400
海峽群島	Channel Island	50	240	240/415	伊朗	Iran	50	110/220	220/380
智利	Chile	50	220	220/380	伊拉克	Iraq	50	220	220/380
中共	China Peoples Rep	50	220	220/380	愛爾蘭	Ireland	50	220	220/380
哥倫比亞	Colombia	60	110/220	220	曼島	Lsleof Man	50	240	240/415
剛果	Congo	50	220	220/380	以色列	Israel	50	230	230/400
哥斯大黎加	Costa Rica	60	120/240	240	義大利	Italy	50 60	110/120 127/220 220/260	220/380
古巴	Cuba	60	115/120		印尼	Indonesia	50	110/190 125/220 127/200	220/380
塞普路斯	Cyprus	50	240	240/415	象牙海岸	Lvory Coast	60	200	220/380
捷克	Czechoslovakia	50	120/220	220/380	牙買加	Jamaica	60	110/220	220
達荷美	Dahomey	50	220	220/380	日本	Japan	60	100/200	200
丹麥	Den mark	50	220	220/380	日本	Japan	60	100/200	220
多明尼加	Dominican Rep	60	110/220	220 220/440	約旦	Jordan	50	220	220/380
杜拜	Dubai	50	220		肯亞	Kenya	50	240	240/415
英國	England	50	220/240	415/346	韓國	Korea Rep	60	100/200	200 220/380
厄瓜多爾	Ecuador	60	120/127	208/220	科威特	Kuwait	50	220 240	220/380 415
埃及	Egyptian Arab Rep	50	220	220/380	黎巴嫩	Lebanon	50	110/190 110/220	220/380



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List of countries around the world (Voltage, Frequency) (二)

Regional or national		Frequency	Voltage		Regional or national		Frequency	Voltage	
Chinese	English		1-Phase	Three-phase	Chinese	English		1-Phase	Three-phase
賴 索 托	Lesotho	50	220	220/380	沙烏阿拉伯	Saudi Arabia	50 60	120/208 127/220	220/380 230/400 415
賴 比 瑞 亞	Liberia	60	120/240 208	208/240 440	蘇 格 蘭	Scotland	50	240	240/415
利 比 亞	Libye	50	120/220	220/230 400	塞 內 加 爾	Senegal	50	110/220	220
盧 森 堡	Luxembourg	50	120/208	220/380	獅 子 山	Sierra Leone	50	220	220/440
寮 國	Laos	50		220/380	新 加 坡	Singapore	50	115/230 240	230/400 415/440
澳 門	Macao	50	115/220 107/220	220/380	索 馬 利 亞	Somalia	50	110/220	220/380
馬 德 利 群 島	Madeiral	50	200	220/380	南 非 共 和 國	South Africa Rep	50	220/230	220/380 230/400
馬 約 卡 島	Majokca Isiland	50	127/220	220/380	西 班 牙	Spain	50	127/220	220/380
馬 拉 加 西	Malagasy Rep	50	127/220	220/380	斯 裏 蘭 卡	Sri Lanka	50	230	230/400
馬 拉 威	Malawi	50	230	230/400	蘇 丹	Sudan	50	240	240/415
馬 來 西 亞	Malaysia	50	115/240 230	240/415 400/440	蘇 利 南	Surinam	60	110/220 115/230 127	220/230
馬 利	Mali Rep	50	220	220/380	史 瓦 濟 蘭	SwazilandSwe	50	230	230/400
馬 爾 他	Malte	50	240	240/415	瑞 典	Sweden	50	120/127 220	220/380
馬丁尼克島	Martinique	50	220	220/380	瑞 士	Switzerland	50	220	220/380
茅 裏 塔 尼 亞	Mauritania	50	220	220	叙 利 亞	Syris Arad Rep	50	115/220	220/380
模 裏 西 斯	Mauritius	50	230	230/400	大 溪 地	Tahiti	60	127/220	220
墨 西 哥	Mexico	50	110/220 120/127	208/220	臺 灣	Taiwan	60	110/220	220
摩 那 哥	Monaco	50	127/220	220/380	坦 尚 尼 亞	Tanzania	50	230	230/400
蒙特色納島	Montserrat	60	230	230/400	泰 國	Thailand	50	220/110 220	220/380
摩 洛 哥	Morocco	50	115/200 220	220/380	哥 多 共 和 國	Toge Rep of	50	127/220	220/380
莫 桑 鼻 克	Mozambique	50	220	220/380	東 加	Tonga	50	240	240/415
尼 泊 爾	Nepal	50	230	230/440	千 裏 達	Trinidad	60	115/230 127/220	230/440 220
荷 蘭	Netberlands	50	110/220	220/380	他 巴 哥	Tobago	60	115/230 127/220	230/400 220
新 蘇 格 蘭	New Caledonia	50	220	220/380	突 尼 西 亞	Tunisia	50	127/220	220/380
紐 西 蘭	New Zealand	50	230	230/400	土 耳 其	Turkey	50	127/230 220	220/380
尼 加 拉 瓜	Nicaragua	60	120/240	240	烏 干 達	Uganda	50	240	240/415
尼 日	Niger	50	220	220/380	美 國	USA	60	120/240	240/480
奈 及 利 亞	Nigeria	50	230	230/400	蘇 聯	USSR	50	127/220	220
挪 威	Norway	50	230	230	英 國	United Kingdom	50	240	240/415
琉 球	Norway	60	120/240 100/200	240軍 200民	上 伏 塔	Upper Volta Rep of	50	220/230	220/380
阿 曼	Oman	50	220	220/440	烏 拉 圭	Uruguav	50	220	220
巴 基 斯 坦	Pakistan	50	230	230/400 220/380	委 內 瑞 拉	Venezuela	60	120/240	240
巴 拿 馬	Panama	60	110/220 120	220/240	越 南	Viet-nam	50	120/208 127/220	220/380
巴 拉 圭	Paraguay	50	220	220	維 爾 京 群 島	Virgin Island	60	120/240	240
秘 魯	Peru	60	110/220	220	西 薩 摩 亞	Western Samoa	50	230	230/400
菲 律 賓	Philippines	60	115/230 110/220	220	葉 門 亞 丁	Yemen(Aden)	50	230	230/400
波 蘭	Poland	50	200	220/380	葉 門 阿 拉 伯	yemen(Arab)	50	220	220
葡 萄 牙	Portugal	50	110/190 220	220/380	南 斯 拉 夫	Yugoslavia	50	220	220/380
波 多 黎 各	Puerto Rico	60	120/240	240	薩 伊 共 和 國	Zaire Rep of	50	220	220/380
科 托	Qater	50	240	240/415	尚 比 亞	Zambia	50	220	220/380
羅 德 西 亞	Rhodesia	50	220/230	220/380 230/400					
羅 馬 尼 亞	Romania	50	220	220/380					
盧 安 達	Rwanda	50	220	220/380					

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JANG YIH ELECTRICRL INDUSTRY CO., LTD

No.58, Lane 151, Tung-Lai Rd., Ho-mei Town, Changhua County,Taiwan, R.O.C

TEL: +886-4-7368161 7368132

FAX: +886-4-7368131

E-mail: cyei.com@msa.hinet.net

<http://www.cyei.com.tw>

Branches in China :

Dong Wan +86-769-85996095

Kunshan +86-512-57753195

Fuzhou +86-591-83401450



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