

CHARACTERISTIC <KSC4202>

OUTPUT (KW)	Pole (P)	syn speed (r.p.m)	WITH FULL LOAD		REFERENCE		
			EFFICIENCY (%)	POWER FACTOR (%)	NO-L CURRENT (A)	FULL-L CURRENT (A)	FULL-L SLIP (%)
0.2	2	3600	56.0	65.0	1.0	1.5	10.0
0.4			64.0	72.0	1.4	2.3	8.5
0.75			70.0	77.0	1.9	3.5	7.5
1.5			76.5	80.5	3.1	6.3	7.0
2.2			79.5	81.5	4.2	8.7	6.5
3.7			82.5	82.5	6.3	14.0	6.0
5.5			84.5	79.5	10.0	20.9	6.0
7.5	2	3600	85.5	80.5	12.7	28.2	6.0
11			86.5	82.0	16.4	40.0	5.5
15			88.0	82.5	21.8	53.6	5.5
18.5			88.0	83.0	26.4	65.5	5.5
22			89.0	83.5	30.9	76.4	5.0
30			89.0	84.0	40.9	102.7	5.0
37			90.0	84.5	50.0	125.5	5.0
0.2	4	1800	58.0	53.0	1.4	1.6	10.5
0.4			65.0	63.0	1.8	2.5	9.0
0.75			71.5	70.0	2.5	3.8	8.0
1.5			78.0	75.0	3.9	6.6	7.5
2.2			81.0	77.0	5.0	9.1	7.0
3.7			83.0	78.0	8.2	14.6	6.5
5.5			85.0	77.0	11.8	21.8	6.0
7.5	4	1800	86.0	78.5	14.5	29.1	6.0
11			87.0	79.0	20.9	40.9	6.0
15			88.0	79.5	26.4	55.5	5.5
18.5			88.5	80.0	31.8	67.3	5.5
22			89.0	80.5	36.4	78.2	5.5
30			89.5	81.0	47.3	105.5	5.5
37			90.0	81.5	56.4	129.1	5.5
0.4	6	1200	64.0	55.0	2.3	2.9	10.0
0.75			70.0	63.0	3.1	4.4	8.5
1.5			76.5	69.0	4.7	7.3	8.0
2.2			79.5	71.0	6.2	10.1	7.0
3.7			82.5	73.0	9.1	15.8	6.5
5.5	6	1200	84.5	72.0	13.6	23.6	6.0
7.5			85.5	73.0	17.3	30.9	6.0
11			86.5	74.5	23.6	43.6	6.0
15			87.5	75.5	30.0	58.2	6.0
18.5			88.0	76.0	37.3	71.8	5.5
22			88.5	77.0	40.0	82.7	5.5
30			89.0	78.0	50.9	111.8	5.5
37	89.5	78.5	60.9	136.4	5.5		

MOTOR TORQUE FEATURE

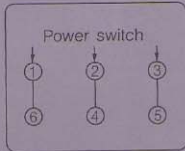
OUT PUT (KW)	Positive torque proportion								
	2 Pole			4 Pole			6 Pole		
	Starting torque	Pull up torque	Positive torque	Starting torque	Pull up torque	Positive torque	Starting torque	Pull up torque	Positive torque
0.2	1.9	1.3	2.0	2.0	1.4	2.0	-	-	-
0.4	1.9	1.3	2.0	2.0	1.4	2.0	1.7	1.2	1.7
0.75	1.8	1.2	2.0	1.9	1.3	2.0	1.7	1.2	1.8
1.5	1.8	1.2	2.0	1.9	1.3	2.0	1.6	1.1	1.9
2.2	1.7	1.1	2.0	1.8	1.2	2.0	1.6	1.1	1.9
3.7	1.6	1.1	2.0	1.7	1.2	2.0	1.5	1.1	1.9
5.5	1.5	1.0	2.0	1.6	1.1	2.0	1.5	1.1	1.9
7.5	1.5	1.0	2.0	1.6	1.1	2.0	1.5	1.1	1.8
11	1.4	1.0	2.0	1.5	1.1	2.0	1.4	1.0	1.8
15	1.4	1.0	2.0	1.5	1.1	2.0	1.4	1.0	1.8
18.5	1.3	0.9	1.9	1.4	1.0	1.9	1.4	1.0	1.8
22	1.3	0.9	1.9	1.4	1.0	1.9	1.4	1.0	1.8
30	1.2	0.9	1.9	1.3	1.0	1.9	1.3	1.0	1.8
37	1.2	0.9	1.9	1.3	1.0	1.9	1.3	1.0	1.8

When the regular voltage is not 220V, no load current and full load current value is 220/E. The E value is 220, 380, 440 respectively.

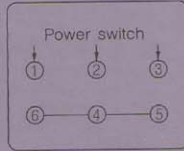
3 PHASE INDUCTION MOTOR LEAD CONNECTIONS

1. Voltage(6 lead lines)

Δ Connection(220V)

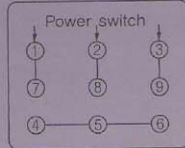


Y Connection(380V)

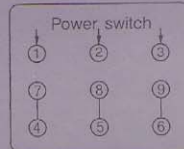


2. Voltage(9 lead lines)

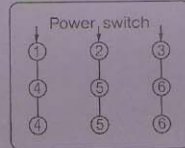
Y Connection(220V)



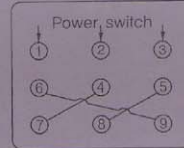
Y Connection(440V)



Δ Connection(220V)

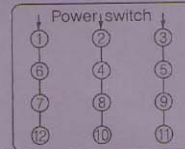


Δ Connection(440V)

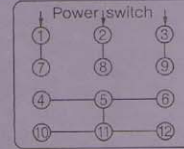


3. Voltage(12 lead lines)

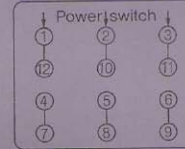
Δ Connection(220V)



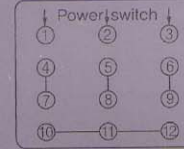
Δ Connection(440V)



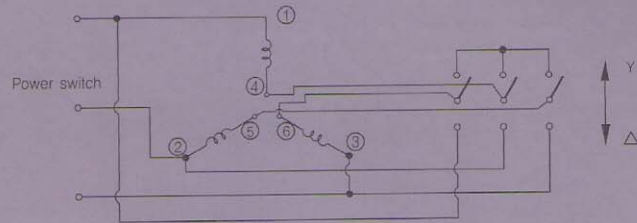
Δ Connection(220V)



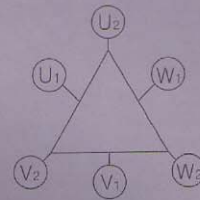
Y Connection(440V)



4. Y-Δ Change moter(6 lead lines)

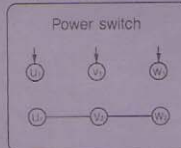


5. Pole converting lead connection(6 lead lines)

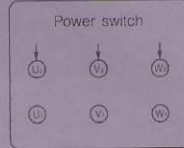


● Positive torque connetion

High speed revolution

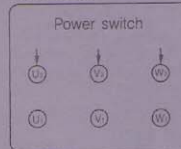


Low speed revolution

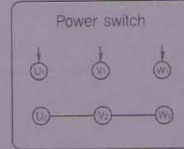


● Positive out put connetion

High speed revolution

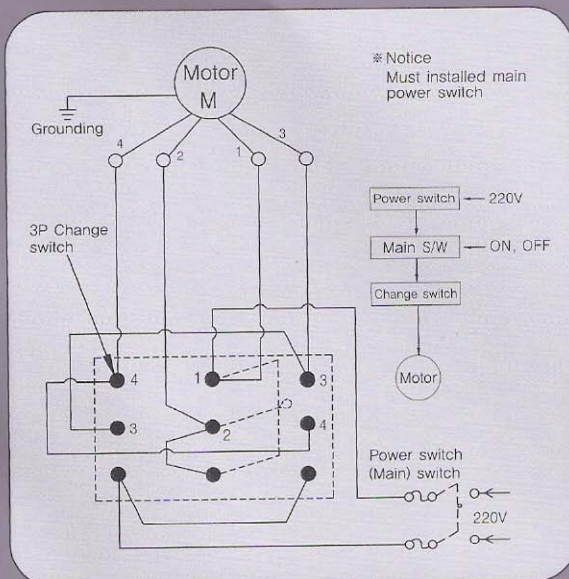


Low speed revolution

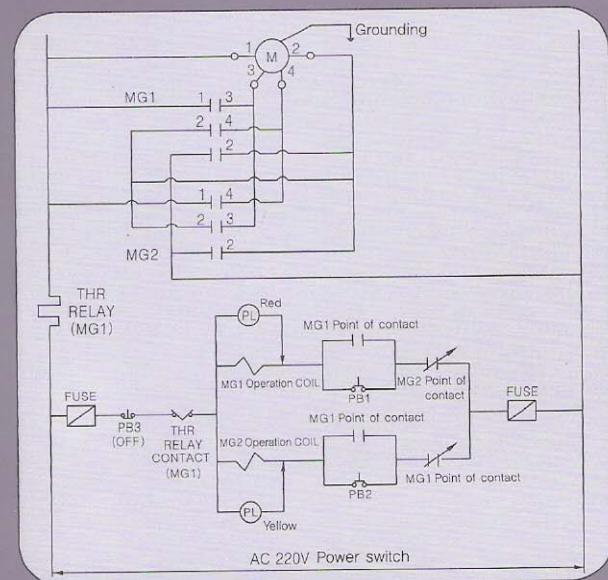


Single phase induction motor positive-reverse bios connections(4 lead lines)

(1) Using change switch



(2) Using magnetic switch



CLASSIFICATION OF MOTORS BY PROTECTION TYPE

1. Enclosures – Degrees of Protection

Designation	1st Numeral	2st Numeral	General Classification
	Protection against contact and ingress of foreign bodies	Protection against water	
IP22	Protection against contact by finger with electrically live or moving parts inside the enclosure. Protection against ingress of solid foreign bodies with a diameter greater than 12mm	Drops of water falling at any angle up to 15° from the vertical shall have no harmful effect	Drip Proof
IP23		Water falling as spray at an angle up to 60° from the vertical shall have no harmful effect	Drip Proof
IP44	Protection against contact with live or moving parts by tools, wires or other objects of thickness greater than 1mm. Protection against the ingress of solid foreign bodies with a diameter greater than 1mm	Water splashed against the machine from any direction shall have no harmful effect	
IP54	Complete protection against contact with live or moving parts inside the enclosure. Protection against harmful deposits of dust. The ingress of dust is not totally prevented, but dust cannot enter in an amount sufficient to interfere with satisfactory operation of the machine	Water splashed against the machine from any direction shall have no harmful effect	TEFC Weatherproof
IP56		Water projected by a nozzle against the machine from any direction shall have no harmful effect	TEFC Hoseproof

2. Mechanical Protection

First symbolic figure		Second symbolic figure protection against the penetration of liquids				
		0	2	3	4	5
Protection of persons against contact with live or moving parts within the enclosure	Protection against the penetration of solid of foreign bodies	No protection	Protection against drops of water falling up to 15° from vertical	Protection against falling rain up to 60° from vertical	Protection against water splashes from all directions	Protection against jets of water from directions
0/No protection	No protection	IP 00			X	X
1/ of a large area of the human body	of large dimensions (∅ 50mm)	IP 10	IP 22			X
2 / of the fingers	of dimensions (∅ 12mm)	IP 20	IP 22	IP 23	IP 24	X
4 / of tools or wires of a thickness(1mm)	of dimensions (∅ 1mm)	X			IP 44	
5 / complete protection against contacts	protection against harmful deposits of dust	X			IP 54	

