

2102 Series - Plate Axial Fans



Features

- 315 - 710 mm diameter
- Volume up to 12,600 m³/h (3.5 m³/s)
- Static pressures up to 300 Pa
- Motor protection IP55
- Overheat protection fitted as standard on single phase fans
- Speed controllable
- Supplied fully assembled
- Full range of accessories

Electrical Supply

- 220-240V/50Hz/1 ϕ
- 380-420V/50Hz/3 ϕ

Temperature Range

- -40°C to 50°C as standard
- 50°C to 70°C must be run at full speed only.

Sizes

280, 315, 355, 400, 450, 500, 560, 670 and 710 mm.

Plate

Manufactured from mild steel with powder coat finish or hot dipped galvanised. 2102 fans are supplied complete with motor side guard.

Motors

All motors are totally enclosed with class F insulation with protection to IP55. Single phase fans have overheat protection. These motors are suitable for inverter speed control down to 20% of full speed.

Impellers

Aerofoil section glass filled polypropylene impeller, suited to the more highly corrosive environments

Product Code

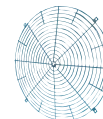
2102/315

- 2102 - Denotes 2100 series plate fan
- 315 - denotes diameter

Accessories



Louvre Shuttes



Impeller side Guard



Controls Transformer

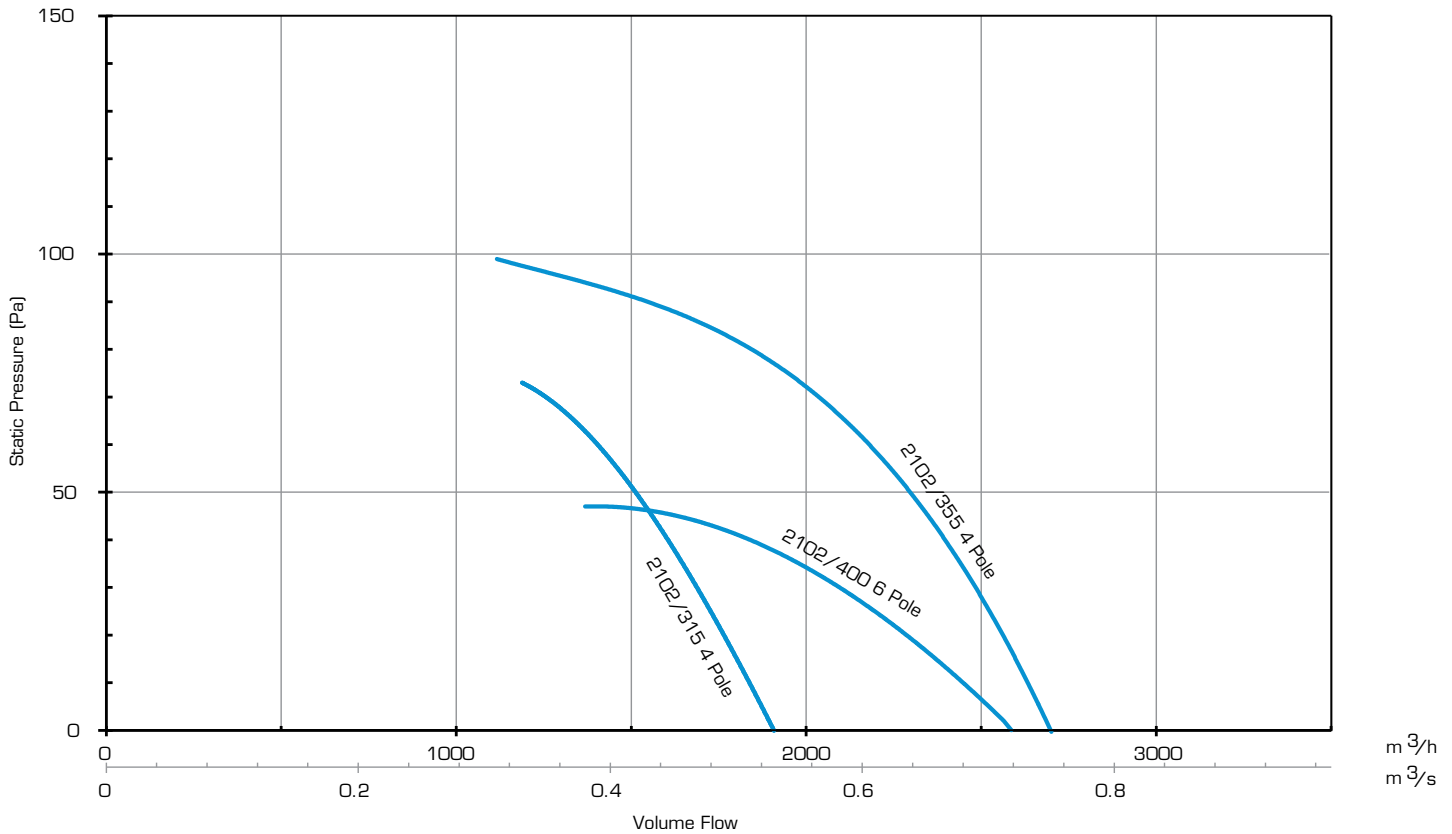


Controls Electronic



Product Performance and Electrical Data

Performance Chart - 315-400 mm



Performance Table - 315-400 mm

Ref	Product Code	m³/s at Pa (Static)		
		0	50	100
1	2102/315 4 Pole	0.52	0.42	
2	2102/355 4 Pole	0.75	0.63	
3	2102/400 4 Pole	1.11	0.97	0.73

Product, Electrical and ErP Table - 315-400 mm
220-240v/50Hz/1φ

Ref	Product Code	Product Number	Speed rev/min	Motor	Rating (kW)	Full Load Current (A)	Starting Current (A)	Wiring Diagram (CD)	Speed Controller		
									Electronic	Transformer	Inverter
1	2102/315 4 Pole	NH311413	1420	BT5 (IE1)	0.075	0.53	1.45	CD1705	N/A	N/A	N/A
2	2102/355 4 Pole	NH351414	1350	BT5 (IE1)	0.16	1.12	2.15	CD1705	N/A	N/A	N/A
3	2102/400 4 Pole	NH401414	1360	BT5 (IE1)	0.16	2.70	4.50	CD1705	N/A	N/A	N/A

Ref	Product Code	Product Number	Inlet Sound Levels	Efficiency Rating	Target	Grade
1	2102/315 4 Pole	NH311413	50	-	-	-
2	2102/355 4 Pole	NH351414	53	-	-	-
3	2102/400 4 Pole	NH401414	56	-	-	36

380-420v/50Hz/3φ

Ref	Product Code	Product Number	Speed rev/min	Motor	Rating (kW)	Full Load Current (A)	Starting Current (A)	Wiring Diagram (CD)	Speed Controller			ErP Compliant FMEG (36=Pass)	Inlet Sound Levels
									Electronic	Transformer	Inverter		
1	2102/315 4 Pole	NH311432	1420	BT4 (IE1)	0.087	0.35	1.12	CD2408	N/A	N/A	N/A	Ex	50

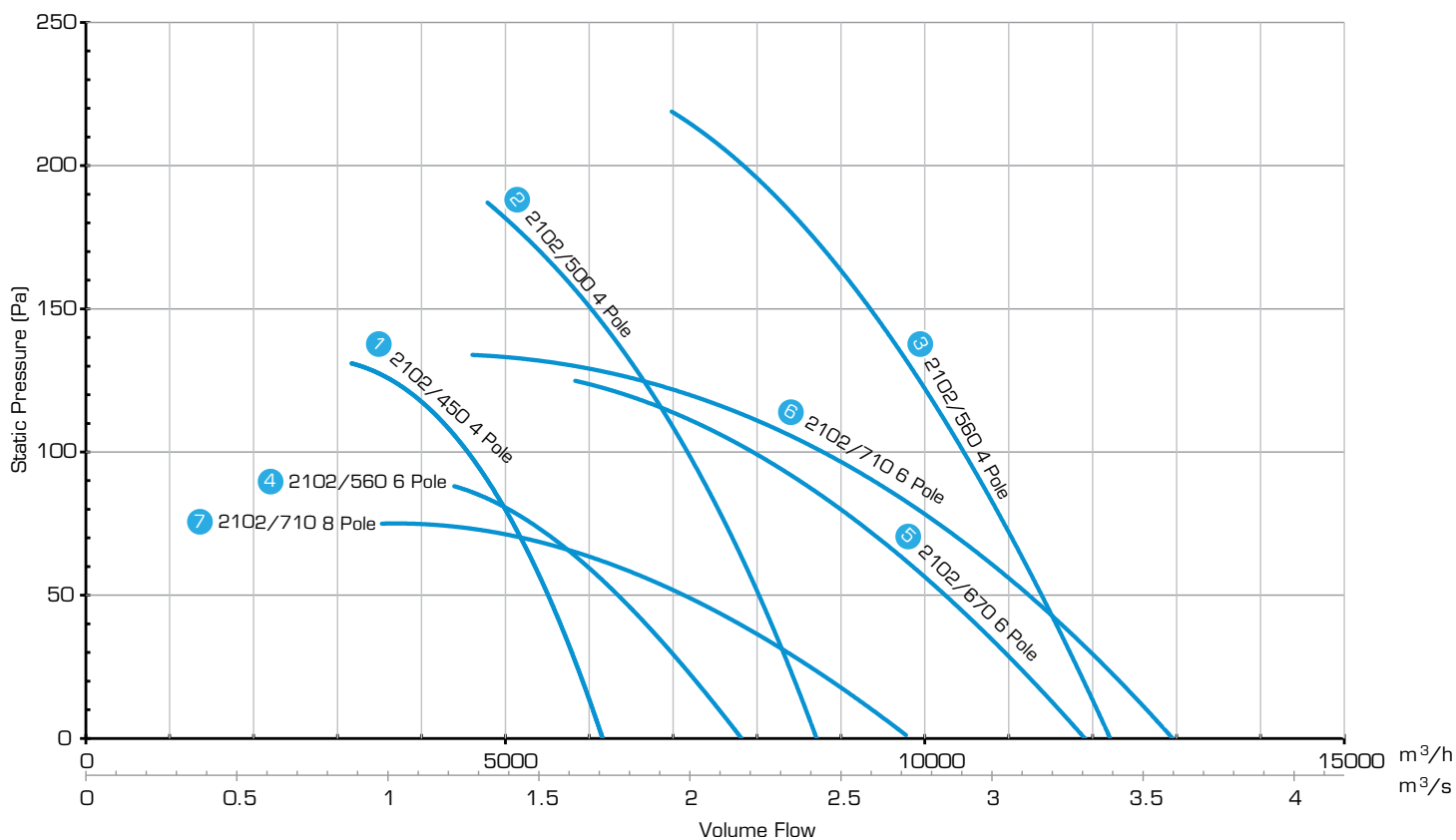
Ref	Product Code	Product Number	Inlet Sound Levels	Efficiency Rating	Target	Grade
1	2102/315 4 Pole	NH311432	-	-	-	-

Sound pressure levels quoted are at the inlet, and are average dBA at 3m distance over a sphere at the mid point at the highest angle given, under free field conditions. These are presented for comparative purposes only.



Product Performance and Electrical Data

Performance Chart - 450-710 mm



Performance Table - 450-710 mm

Ref	Product Code	m³/s at Pa (Static)				
		0	50	100	150	200
1	2102/450 4 Pole	1.71	1.52	1.26		
2	2102/500 4 Pole	2.42	2.22	1.99	1.67	
3	2102/560 4 Pole	3.39	3.16	2.9	2.59	2.17
4	2102/560 6 Pole	2.17	1.76			
5	2102/670 6 Pole	3.3	2.84	2.2		
6	2102/710 6 Pole	2.42	1.68			
7	2102/710 8 Pole	3.59	3.11	2.43		

Sound pressure levels quoted are at the inlet, and are average dBA at 3m distance over a sphere at the mid point at the highest angle given, under free field conditions. These are presented for comparative purposes only.



Product Performance and Electrical Data

Product, Electrical and ErP Table - 450-710 mm 220-240v/50Hz/1 ϕ

Ref	Product Code	Product Number	Speed rev/min	Motor	Rating (kW)	Full Load Current (A)	Starting Current (A)	Wiring Diagram (CD)	Speed Controller		
									Electronic	Transformer	Inverter
1	2102/450 4 Pole	NH451413	1370	BT9 (IE1)	0.32	2.20	5.00	CD1705	EEID 4A	TEDS 5A	N/A
2	2102/500 4 Pole	NH501413	1350	CT9 (IE1)	0.68	4.80	11.00	CD1705	EEDS 6A	TEDS 5A	N/A
4	2102/560 6 Pole	NH561611	850	CT5 (IE1)	0.29	2.30	4.10	CD1705	EEID 4A	TEDS 5A	N/A
3	2102/560 4 Pole	NH561411	1340	CT9 (IE1)	0.97	6.90	13.50	CD1705	N/A	N/A	N/A
5	2102/670 6 Pole	NH672611	890	CT9 (IE1)	0.43	3.00	7.10	CD1705	EEID 4A	TEDS 5A	N/A

Ref	Product Code	Product Number	Inlet Sound Levels	Efficiency Rating	Target	Grade
1	2102/450 4 Pole	NH451413	61	29.4	27.5	38
2	2102/500 4 Pole	NH501413	62	31.7	29.1	39
4	2102/560 6 Pole	NH561611	54	28.2	27.1	37
3	2102/560 4 Pole	NH561411	66	34.9	34.3	41
5	2102/670 6 Pole	NH672611	59	31.9	28.7	39

380-420v/50Hz/3 ϕ

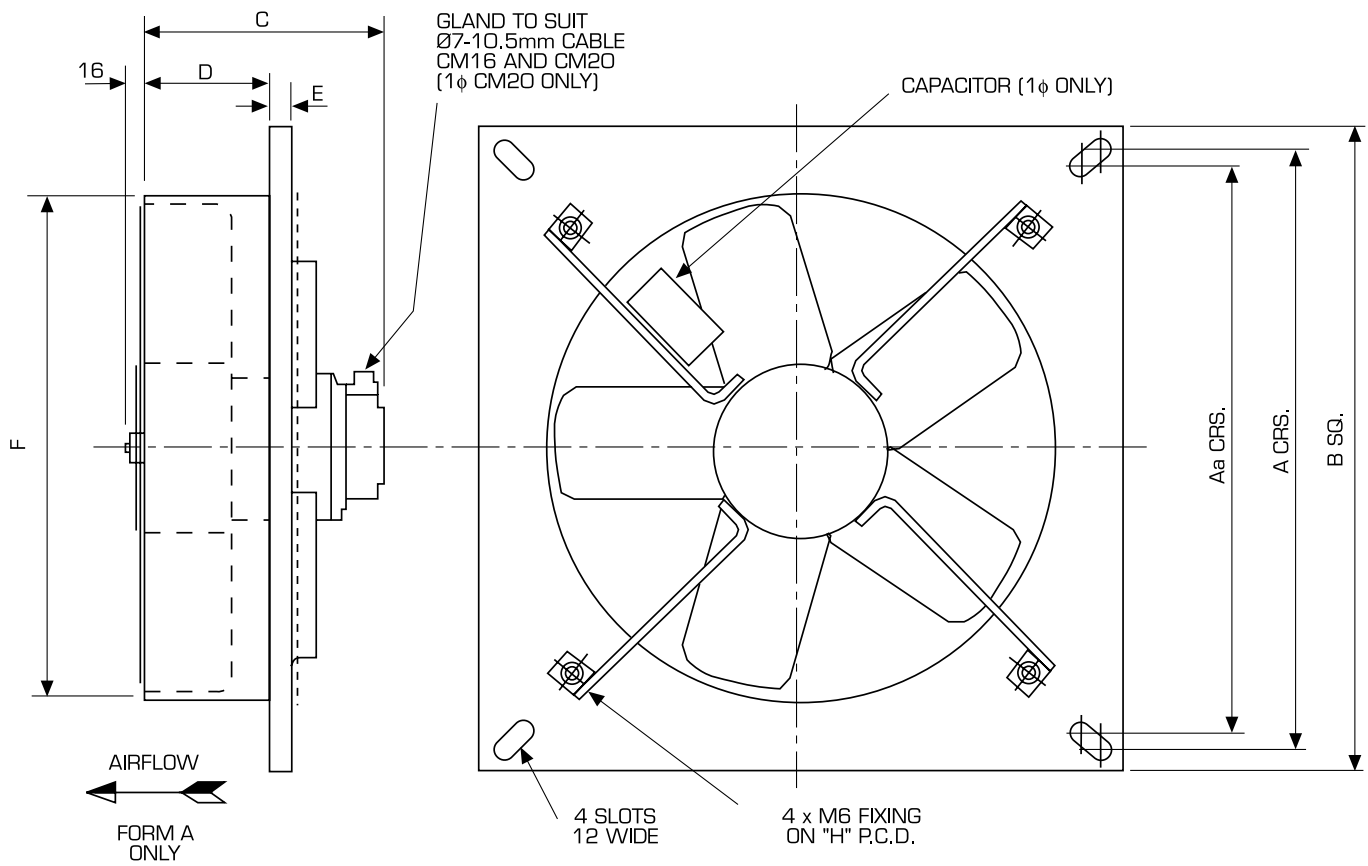
Ref	Product Code	Product Number	Speed rev/min	Motor	Rating (kW)	Full Load Current (A)	Starting Current (A)	Wiring Diagram (CD)	Speed Controller		
									Electronic	Transformer	Inverter
1	2102/450 4 Pole	NH451431	1370	BT9 (IE1)	0.39	1.26	3.90	CD2407	N/A	N/A	N/A
2	2102/500 4 Pole	NH501431	1350	CT5 (IE1)	0.66	1.90	6.40	CD2407	N/A	N/A	N/A
3	2102/560 4 Pole	NH561431	1340	CT9 (IE1)	0.83	2.30	8.60	CD2410	N/A	TDID 2.5A	N/A
5	2102/670 6 Pole	NH672631	890	CT9 (IE1)	0.49	1.60	4.70	CD2408	N/A	TDID 2.5A	N/A
7	2102/710 8 Pole	NH712831	650	CT9 (IE1)	0.30	1.05	2.80	CD2408	N/A	N/A	N/A
4	2102/710 6 Pole	NH712631	870	CT9 (IE1)	0.50	1.50	4.50	CD2407	N/A	TDID 2.5A	N/A

Ref	Product Code	Product Number	Inlet Sound Levels	Efficiency Rating	Target	Grade
1	2102/450 4 Pole	NH451431	61	29.0	27.5	37
2	2102/500 4 Pole	NH501431	62	33.2	32.9	40
3	2102/560 4 Pole	NH561431	66	39.0	34.0	45
5	2102/670 6 Pole	NH672631	59	29.9	28.9	37
7	2102/710 8 Pole	NH712831	53	26.7	27.1	36
4	2102/710 6 Pole	NH712631	60	28.9	29.2	36

Sound pressure levels quoted are at the inlet, and are average dBA at 3m distance over a sphere at the mid point at the highest angle given, under free field conditions. These are presented for comparative purposes only.



Drawings - 2102 Plate



Product Code	Motor Range	A	Aa	B	C	D	E	F	H	Weight (kg)
2102/315	BT4	400	375	425	205	100	10	315	398	8.1
2102/355	BT4	450	425	475	205	100	10	355	438	8.7
2102/400	BT5	495	470	520	205	100	10	400	490	10.5
2102/450	BT9	560	535	585	240	100	10	450	540	13.5
2102/500	CT5	625	600	650	226	110	10	500	600	16.2
2102/560	CT9	690	665	715	266	110	10	560	660	19.8
2102/670	CT9	760	724	805	266	110	10	670	770	22
2102/710	CT9	760	724	805	266	110	10	710	810	23.3

All dimensions in mm



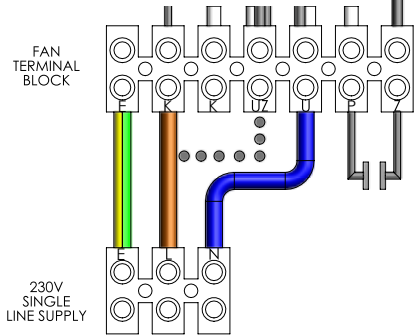
Wiring Diagrams - 2102 Plate

CD1705

SINGLE PHASE FAN WITH INTERNAL CAPACITOR AND OVERHEAT PROTECTION

NOTE: 56JM, 63JM AND MAXFANS REQUIRE THE DOTTED CONNECTION TO 'UZ' TERMINAL ON EACH DIAGRAM

TO CHANGE FAN ROTATION INTERCHANGE CABLES (U1) AND (U2).
Connection diagram for single ϕ remove overheat protection



FAN CONNECTED TO SUPPLY (FULL SPEED)

CONNECT THERMAL CUT OUT TERMINALS 'K' TO A RESETTABLE DEVICE WHEN FLA EXCEEDS 6.3A. (IF APPLICABLE REMOVE **LINK A** AND CONNECT LIVE WIRE 'UZ' FROM THE SPEED CONTROLLER TO TERMINAL 'UZ' ON THE FAN TERMINAL BLOCK).

ME1_ SPEED CONTROLLER

230V SINGLE LINE SUPPLY

FAN CONNECTED TO SPEED CONTROLLER (VARIABLE SPEED)

WHEN USING 1PH 3 WIRE CONTROL REMOVE DOTTED LINK

3-WIRE CONTROL
 UZ (LIVE)
 U (VARIABLE NEUTRAL)
 Z (FULL NEUTRAL)

CD2407



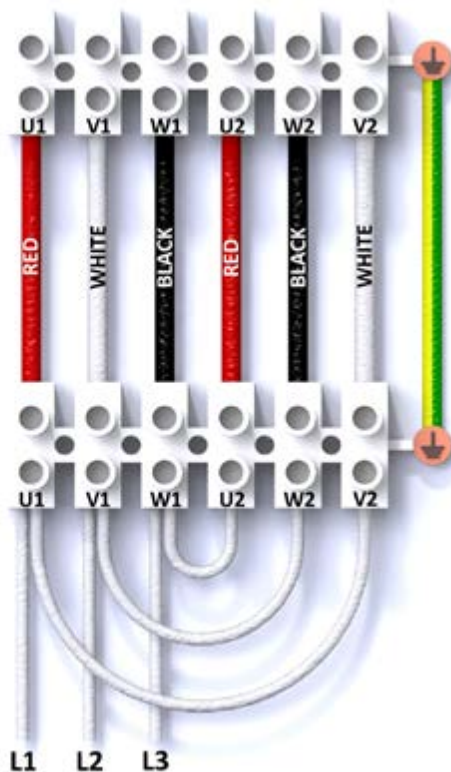
CD 2407

Three ϕ
 Single Voltage
 Unregulated

Clockwise
 Rotation



Delta





Wiring Diagrams - 2102 Plate

CD2408



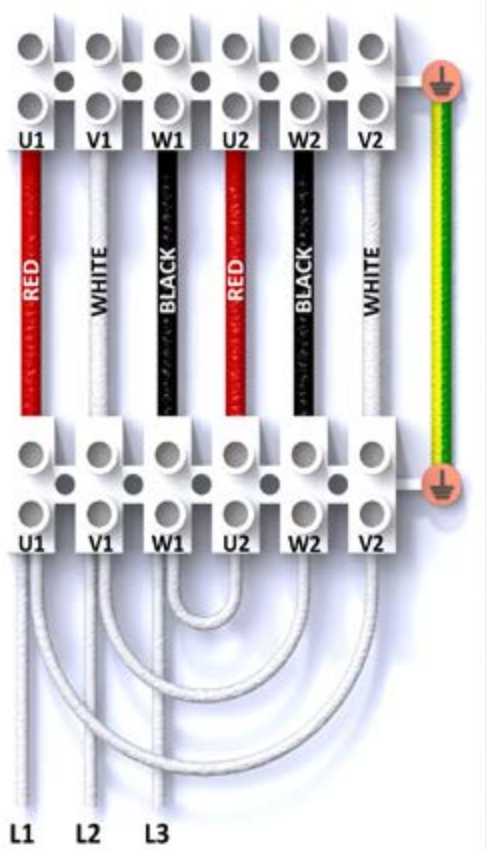
CD 2408

Three ϕ
Two Speed

Clockwise
Rotation



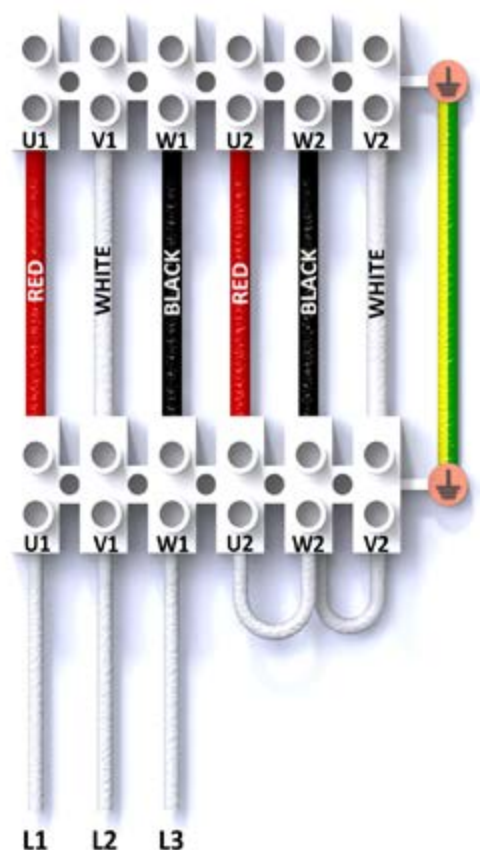
High Speed



Clockwise
Rotation



Low Speed



CD2410



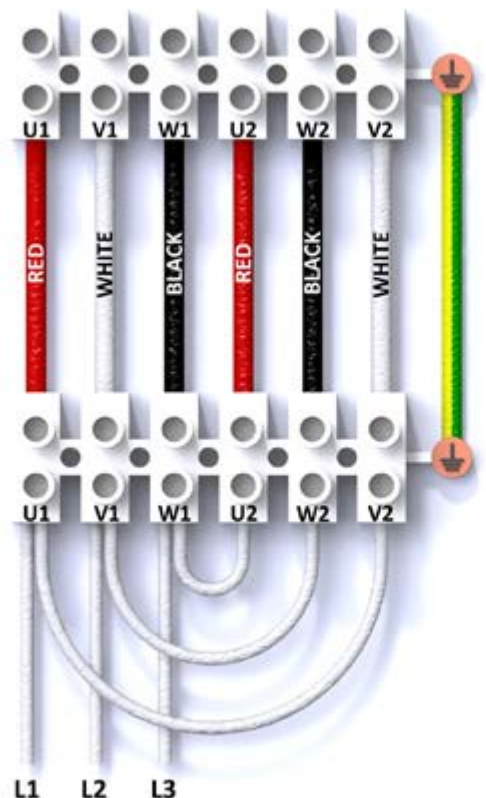
CD 2410

Three ϕ
Two Speed

Clockwise
Rotation



High Speed



Clockwise
Rotation



Low Speed

