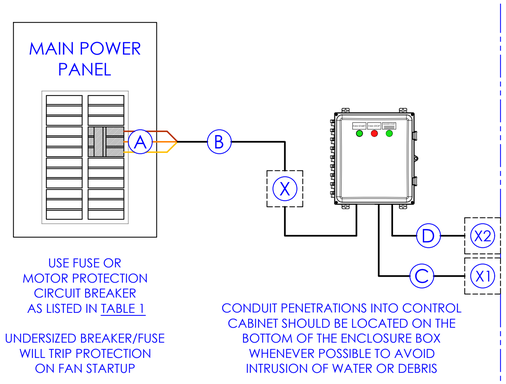
COIMA USA SHK SERIES
WIRING DIAGRAM & CONNECTION TABLES

FOLLOW THE INSTRUCTIONS & TABLES PROVIDED IN THIS GUIDE TO SET UP YOUR SHK SERIES DUST COLLECTOR.

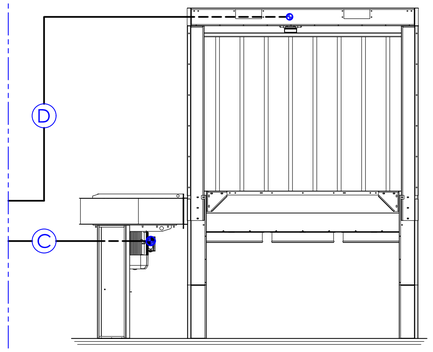
HAVE QUESTIONS?
CONTACT US FOR ASSISTANCE, AND BEFORE YOU START THE UNIT FOR THE FIRST TIME.

(206) 454-7091 - service@coimausa.com

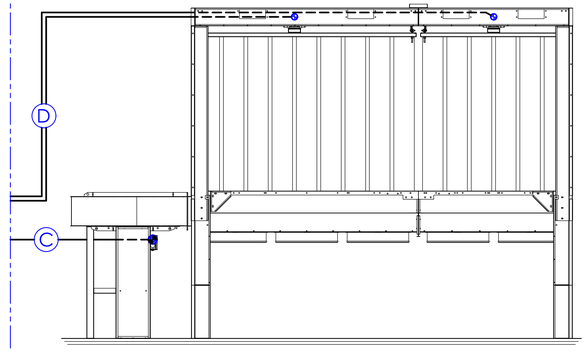
WARNING: DO NOT START FAN MOTOR WITHOUT DUCTWORK INSTALLED ON FAN INLET!
OVER CURRENT CONDITION WILL OCCUR, WHICH WILL TRIP MOTOR PROTECTION DEVICES.



POWER & CONTROLS



SHK - 1 / 2 / 3



SHK - 4 / 4 HS / 5

TABLE 1: POWER / PROTECTION REQUIREMENTS

		208 V / 3 PH / 60 HZ			220 - 240 V / 3 PH / 60 HZ			460 - 480 V / 3 PH / 60 HZ		
MODEL	**MOTOR**	**AMPS (FLA)**	**MPCB (A)**	**WIRE SIZE (B)(C)**	**AMPS (FLA)**	**MPCB (A)**	**WIRE SIZE (B)(C)**	**AMPS (FLA)**	**MPCB (A)**	**WIRE SIZE (B)(C)**
SHK-1	**5 HP**	17.4 A	35 A	4C-12GA	16.0 A	30 A	4C-12GA	8.3 A	15 A	4C-14GA
SHK-2	**7.5 HP**	25.0 A	50 A	4C-10GA	22.7 A	45 A	4C-10GA	11.7 A	20 A	4C-14GA
SHK-3	**10 HP**	31.5 A	60 A	4C-8GA	28.7 A	50 A	4C-8GA	14.7 A	25 A	4C-12GA
SHK-4	**15 HP**	47.0 A	90 A	4C-6GA	42.7 A	80 A	4C-8GA	21.7 A	40 A	4C-10GA
SHK-4 HS	**15 HP**	47.0 A	90 A	4C-6GA	42.7 A	80 A	4C-8GA	21.7 A	40 A	4C-10GA
SHK-5	**20 HP**	60.1 A	100 A	4C-4GA	54.7 A	90 A	4C-6GA	27.7 A	50 A	4C-8GA

(A)* RECOMMENDED CIRCUIT BREAKER RATING FOR POWER DISTRIBUTION PANEL / BRANCH CIRCUIT PROTECTION. MOTOR CIRCUIT PROTECTION VALUES ARE DERIVED FROM NEC ARTICLE 430, TABLE 430.52.

** SHAKER MOTOR WIRE SIZE: 4C-16GA FOR ALL VOLTAGES.

(D)*** FOR SHK-4, SHK-4 HS & SHK-5 MODELS USE 2X 4C-16GA TO CONNECT (2) SHAKER MOTORS TO CONTROL PANEL. SHAKER MOTORS MUST BE CONNECTED IN PARALLEL. IF DISCONNECT IS LOCATED BETWEEN CONTROL PANEL & SHAKER MOTORS, RUN 4C-14GA TO DISCONNECT AND 2X 4C-16GA FROM DISCONNECT TO MOTORS.

(X)(X1)(X2)+ DISCONNECTS MAY BE REQUIRED PER NFPA 70 / NEC ARTICLE 430.102. THE LOCATION OF ANY DISCONNECT(S) MAY VARY DEPENDING ON THE INSTALLATION LOCATION, UTILITY CONNECTIONS AND SITE CONDITIONS. EACH DISCONNECT MUST BE SIZED NO LESS THAN 115% OF RATED FLA CURRENT, AND BE LOCATED WITHIN SIGHT OF THE MOTOR(S) SERVICED BY EACH DISCONNECT.

(C)(D)++ SOOW CORD RECOMMENDED FOR CONDITIONS WHERE CONDUIT MAY NOT BE IDEAL OR POSSIBLE. SIZING FOR WIRE IN FLEXIBLE CONDUIT MAY BE DIFFERENT DEPENDING ON TYPE OF CONDUCTOR USED. SEE NEC 310.16 (CONDUCTORS FOR GENERAL WIRING) & NEC 400.6 (FLEXIBLE CORDS AND FLEXIBLE CABLES).

SAFETY GUIDELINES

**** FOLLOW PROPER SAFETY PROCEDURES AND PRECAUTIONS ****
READ ALL DOCUMENTATION AND INSTRUCTIONS PRIOR TO INSTALLATION

PROTECT YOURSELF FROM RISK OF ELECTRIC SHOCK

DO NOT OPEN FAN MOTOR CONNECTION BOX COVER OR CONTROL PANEL IF PANEL IS CONNECTED TO POWER SOURCE

PROTECT YOURSELF FROM FAN INLET & OUTLET WHEN FAN IN OPERATION

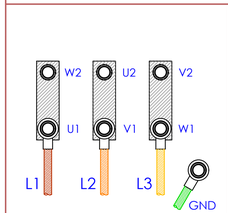
DO NOT OPEN SHAKER MOTOR CONNECTION BOX COVER, ECCENTRIC WEIGHT COVERS, OR CONTROL PANEL IF PANEL IS CONNECTED TO POWER SOURCE

LOCAL AUTHORITY HAVING JURISDICTION (AHJ) MAY REQUIRE DEDICATED POWER DISCONNECT PER NFPA 70 / NATONAL ELECTRIC CODE (NEC) FOR THIS MACHINE OR SPECIFIC MOTORS - USE DISCONNECT WHEN CONDUCTING ALL INSTALLATION AND SERVICE OPERATIONS

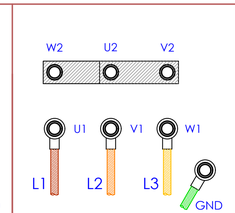
ALWAYS WEAR APPROPRIATE PERSONAL PROTECTION EQUIPMENT (PPE) WHEN INSTALLING, SERVICING AND CLEANING THIS EQUIPMENT

TABLE 2: FAN MOTOR WIRING DIAGRAMS

6 POST FAN MOTOR WIRING
MOTOR COLOR: GRAY / SILVER
MFGR: TECHTOP / SEIPEE

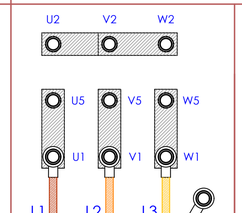


220 - 240V
DELTA - Δ

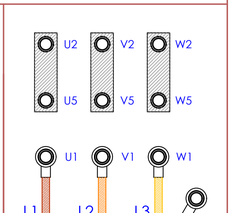


460 - 480V
STAR / WYE - Y

9 POST FAN MOTOR WIRING
MOTOR COLOR: GREEN
MFGR: NIDEC



208V / 220 - 240V
DOUBLE STAR / WYE - YY

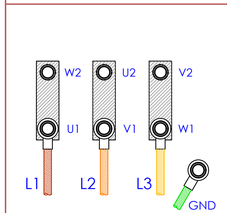


460 - 480V
STAR / WYE - Y

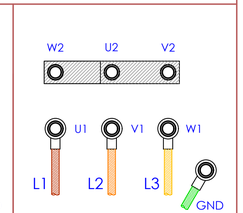
* DELTA (Δ) OR STAR / WYE (Y) AS SHOWN IN TABLE 2 & TABLE 3 ARE NOT THE SAME AS DELTA OR STAR / WYE IN REFERENCE TO POWER SERVICE. EITHER DELTA OR STAR / WYE SERVICE CAN BE USED WITH ANY OF THE CONNECTIONS ABOVE. FOR THE TABLES ABOVE, DELTA OR STAR / WYE REFERS TO HOW THE MOTOR WINDINGS ARE CONNECTED TO PRODUCE THE DESIRED PERFORMANCE OF THE MOTOR ITSELF.

TABLE 3: SHAKER MOTOR

6 POST SHAKER MOTOR WIRING
MOTOR COLOR: ORANGE
MFGR: ITALVIBRAS



208V / 220 - 240V
DELTA - Δ



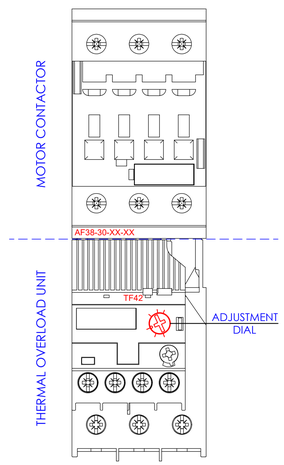
460 - 480V
STAR / WYE - Y

TABLE 4: THERMAL OVERLOAD SETTINGS

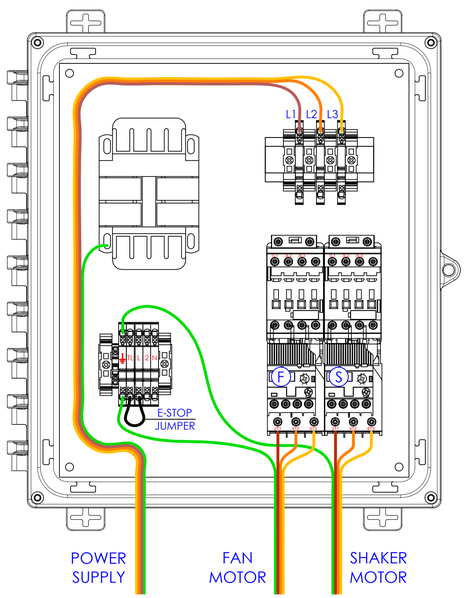
		208 V		220 - 240 V		460 - 480 V	
MODEL	**MOTOR**	**FAN (F)**	**SHAKER (S)**	**FAN (F)**	**SHAKER (S)**	**FAN (F)**	**SHAKER (S)**
SHK-1	**5 HP**	19.2 A	0.7 A	17.5 A	0.7 A	8.7 A	0.4 A
SHK-2	**7.5 HP**	27.8 A	0.7 A	25.3 A	0.7 A	12.6 A	0.4 A
SHK-3	**10 HP**	35.0 A	0.7 A	32.2 A	0.7 A	16.1 A	0.4 A
SHK-4	**15 HP**	53.1 A	1.5 A	48.3 A	1.4 A	24.2 A	0.7 A
SHK-4 HS	**15 HP**	53.1 A	1.5 A	48.3 A	1.4 A	24.2 A	0.7 A
SHK-5	**20 HP**	68.3 A	1.5 A	62.1 A	1.4 A	31.1 A	0.7 A

* VALUES LISTED ABOVE ARE RECOMMENDED FOR EACH THERMAL OVERLOAD PROTECTION DEVICE. ACTUAL SUPPLY VOLTAGE WILL AFFECT PROPER OVERLOAD PROTECTION LEVEL.
VOLTAGE MAY VARY DEPENDING ON UTILITY PROVIDER, DISTANCE FROM SUBSTATION, LENGTH OF WIRE BETWEEN COMPONENTS, OTHER EQUIPMENT USED ON THE SAME SERVICE, AND OTHER FACTORS.

** TO ADJUST PROTECTION LEVEL ON THERMAL OVERLOAD, OPEN CLEAR PLASTIC DOOR ON FACE OF UNIT. LOCATE THE ADJUSTMENT DIAL (SHOWN IN RED ON EXAMPLE TO RIGHT). USING A SMALL PHILIPS SCREWDRIVER TURN DIAL CLOCKWISE TO INCREASE PROTECTION LEVEL, OR COUNTER-CLOCKWISE TO REDUCE. DO NOT TURN DIAL PAST MAXIMUM SETTING. **ELECTRIC SHOCK HAZARD: DO NOT ADJUST THERMAL OVERLOAD WHILE CONTROL PANEL IS ENERGIZED!!**



THERMAL OVERLOAD



CONTROL PANEL WIRING

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COIMA USA™
Solutions for dust collection, painting, & biomass sytems

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