INDUSTRIAL HEAT EXCHANGERS
XCHANGER

1401 7th STREET S.
HOPKINS, MN 55343
952-933-2559
XCHANGER.COM

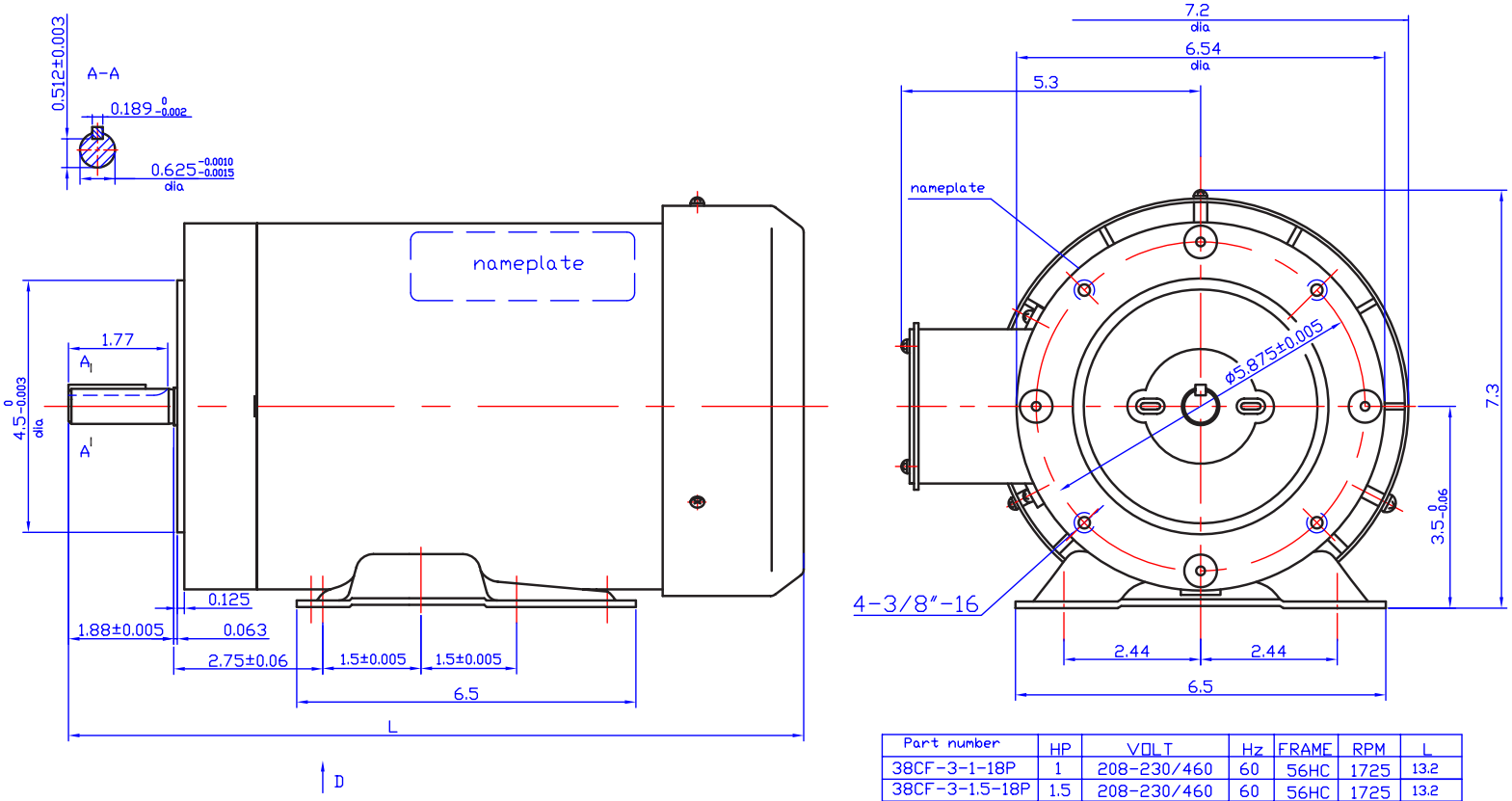
Motor Data
P/N 54897

Product Group		Rolled Steel
Series		38C/P Series
Efficiency		Premium
Phase	PH	3
Horsepower	HP	2
RPM	RPM	1800
Nominal RPM 60Hz	RPM	1750
Frame		56HC
Mount		Footed C-Face
Removable / Rotatable / Double Drilled Feet		No / No / Yes
Voltage	V	208-230/460V 60Hz & 190/380V 50Hz
Hertz	Hz	60
Winding Connection		Double Wye / Wye
Inverter Rated		3:1CT & 5:1VT
Full Load Torque [FLT] 60Hz	lb-ft	6
Lock Rotor Torque [LRT] 60Hz	%	310
Break Down Torque [BDT] 60Hz	%	400
FLA [115V] / [208V] / [230V] / [460V] / [575V] / [796V] 60Hz	A	-- / 6 / 5.4 / 2.7 / -- / --
LRA %	%	830
Lock Rotor Amps [230V] / [460V] / [575V] / [796V] 60Hz	A	-- / -- / -- / --
Efficiency at Full / 0.75 / 0.50 Load 60Hz	%	86.5 / -- / --

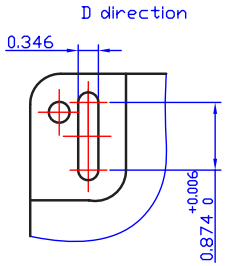
Power Factor Full / 0.75 / 0.50 Load 60Hz	%	80 / -- / --
FLA [190V] / [230V] / [380V] / [400V] 50Hz	A	-- / -- / -- / --
Efficiency at Full / 0.75 / 0.50 Load 50Hz	%	-- / -- / --
NEMA / IEC Design		B
Service Factor 60Hz / 50Hz		1.15 / 1
Insulation Class		F
DE Bearing / ODE Bearing		6205 / 6205
Impregnation Method		Dip and Bake
PTC Thermistors / Space Heater		Option / Option
Junction Box / Fan Guard		Rolled Steel / Steel
Mounting Position / Protection Degree		F1 / IP55
Enclosure		TEFC
Finish		Blue
Net Weight / Ship Weight	lbs	37 / 39

Elektrim® 56C Frame Motors

PREMIUM EFFICIENCY - "P" SUFFIX



Part number	HP	VOLT	Hz	FRAME	RPM	L
38CF-3-1-18P	1	208-230/460	60	56HC	1725	13.2
38CF-3-1.5-18P	1.5	208-230/460	60	56HC	1725	13.2
38CF-3-2-18P	2	208-230/460	60	56HC	1725	13.9



FRAME 56C PREMIUM 4P FOOTED

UPON DELIVERY

Upon receipt of your motor, visually inspect it for damage that may have occurred in shipment or storage. Turn the shaft manually to be sure that it runs freely, and check the nameplate data to be sure that specifications are in accordance with your order.

MOTOR CONTROL DEVICES

Use of a suitable motor starter, either manual or magnetic, incorporating thermal overload protection is advisable and usually required by local electrical codes. Power supply must have fuses or circuit breakers to provided short circuit protection for the motor and controller. Follow the control manufacturer's recommendations on overload heater selection or setting. If an existing controller is to be used with a replacement motor, new heaters may be required.

MOTOR MOUNTING

Motor must be securely fastened to a rigid, flat surface to prevent vibration and minimize noise. For secure mounting use high-quality bolts of the largest possible diameter. Belt-drive sheaves must be in-line. Use a straight edge to check. Do not over-tighten belts. Direct-coupled installations require a careful check of shaft and coupling alignment, shaft offset and/or angular misalignment should be less than .002". Shim motor bases as necessary. Do not depend on a flexible coupling to compensate for misalignment.

TO REDUCE MAINTENANCE REQUIREMENTS

To reduce maintenance requirement and extend motor life, protect your motor from:

1. Excessive moisture;
2. Excessive dirt which can reduce cooling effectiveness;
3. Overheating due to ambient temperature in excess of 40ºC
4. Inaccessible position that makes regular maintenance difficult.

CONNECTING POWER TO MOTOR

To connect motor for proper voltage and rotation, refer to the connection diagram on the nameplate or inside the terminal/conduit box.

ELEKTRIM MOTORS
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40 YEARS OF MANUFACTURING EXCELLENCE

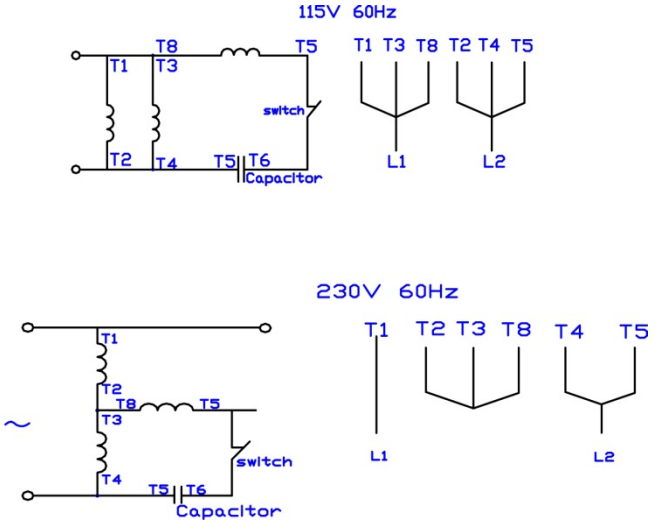
Elektrim® Motors

56C FRAME 1PH AND 3PH MOTOR T-FRAME STAINLESS STEEL INSTALLATION AND MAINTENANCE INSTRUCTIONS

The purpose of this booklet is to help you install, operate and maintain ELEKTRIM Motors to assure that you will get full advantage of their built-in efficiency and reliability. Following the recommended installation and maintenance procedures will extend the service life of the motor and minimize downtime.

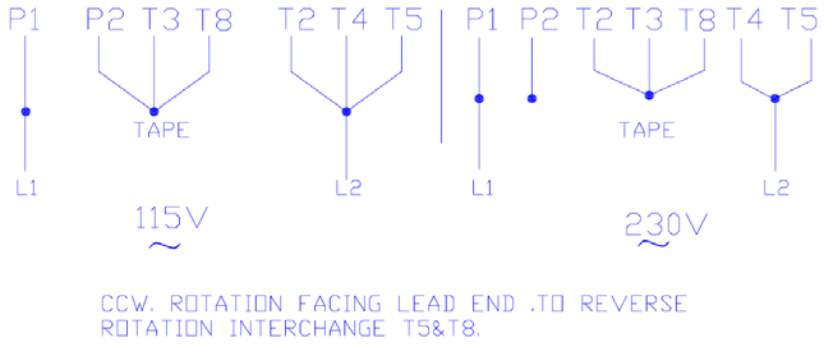
Carefully read and fully understand the Owner's Manual prior to installation, operation and maintenance of your motor.

WIRING DIAGRAM FOR 1 PHASE-CAPACITOR STARTING WITHOUT THERMAL PROTECTION 115/230V ONLY

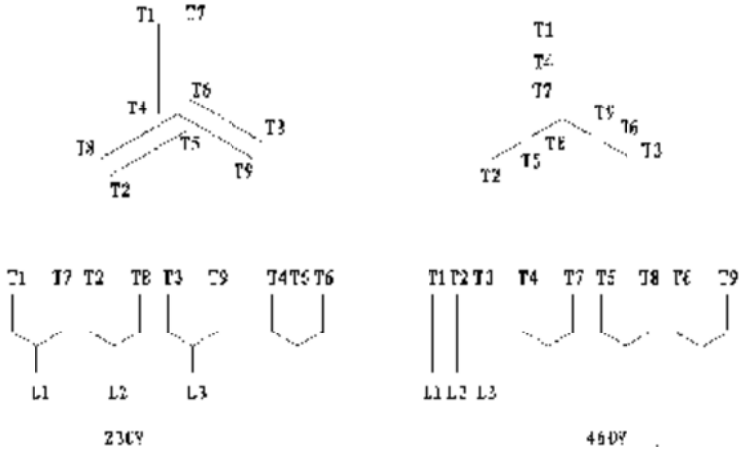


NOTE: 1) CCW rotation facing lead end as shown. 2) Interchange T5&T8 for CW facing lead end.

WIRING DIAGRAM FOR 1 PHASE-CAPACITOR STARTING WITH THERMAL PROTECTION 115/230V ONLY

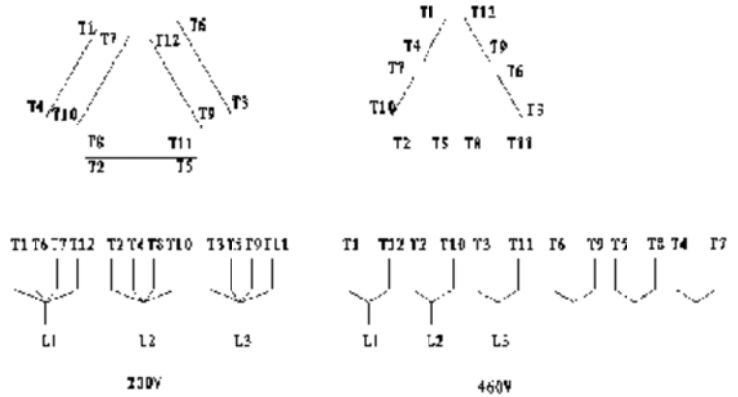


WIRING DIAGRAM FOR 3 PHASE MOTOR (UP TO 5HP) 230/460V ONLY



NOTE: 1) Connect lead L1-L2-L3 to line. 2) To reverse rotation interchange any two line lead.

WIRING DIAGRAM FOR 3 PHASE MOTOR (7.5HP and up) 230/460V ONLY



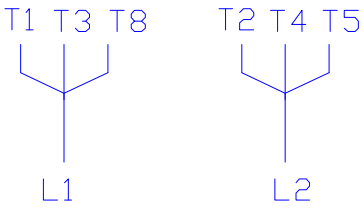
NOTE: 1) Connect lead L1-L2-L3 to line. 2) To reverse rotation interchange any two line lead.

POWER SOURCE

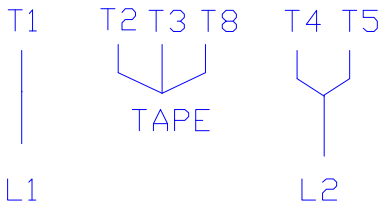
Voltage, frequency and phase of the power supply must correspond to that shown on the motor nameplate. Low voltage can reduce performance and cause overheating. Line voltages on all three lines should be balanced within 1%. Unbalanced voltages cause motor overheating and poor performance.

1 PHASE MOTORS

115V



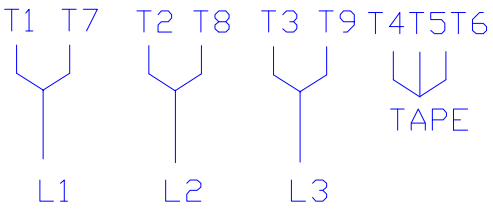
230V



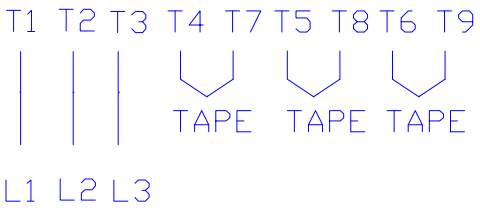
C.C.W. ROTATION FACING LEAD END,INTERCHANGE T5&T8 FOR C.W.

3 PHASE MOTORS

208-230V



460V



CONNECT LEAD L1-L2-L3 TO LINE.TO REVERSE ROTATION INTERCHANGE ANY TWO LINE LEAD.

CONNECTION DIAGRAM

56C


Elektrim®
Motors
PREMIUM EFFICIENCY
ELECTRIC MOTOR
HP 2
PART# 38CF-3-2-18PA
LBS
Hz 60
RPM 1760
PF 0.72
V 208-230
V 460
PH 3
NO THERMAL PROTECTED
EFF 86.5%
FLA 6.5-6.0
FLA 3.0
ENCL TEFC
DUTY CONT
DES B
LOW VOLTAGE
HIGH VOLTAGE
FRAME 56HC
MAX AMB. 40℃
SF 1.15
DATE 17.07
INS.CLASS F
CODE L
T4 T5 T6
T7 T8 T9
T1 T2 T3
LINE
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