NIDEC MOTOR CORPORATION
8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136

DATE: 1/15/2015

P.O. NO.: CW90
Order/Line NO.: 20512 MN 100

TO:

Model Number: CW90
Catalog Number:
Horiz. XP Premium Eff. Config.
CONF,MOTOR,HORIZ XP PRE EFF

REVISIONS:
(NONE)

ALL DOCUMENTS HEREIN ARE CONSIDERED CERTIFIED BY NIDEC MOTOR CORPORATION.
THANK YOU FOR YOUR ORDER AND THE OPPORTUNITY TO SERVE YOU.

Features:

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Horsepower ..............  00100.00 ~ KW: 74.6
Enclosure ...............  TEFC
Poles ...................  06 ~ RPM: 1200
Frame Size ..............  444~T
Phase/Frequency/Voltage..  3~060~230/460 ~ Random Wound
Service Factor ..........  1.15
Insulation Class ........  Class "F" ~ Insulife 2000
Altitude In Feet (Max) ..  3300 Ft.(1000 M)
Ambient In Degree C (Max)  +40 C
Assembly Position .......  "F-1" Assembly Position
Efficiency Class ........  Premium Efficiency
Application .............  Unknown
Customer Part Number ....
Hazardous Location Info:
Division 1 ~ Class I ~ Group D
Class II N/A ~ Group N/A ~ T2B Temp Code
"AK" Dimension (Inches).. NA
Temperature Rise (Sine Wave): "B" Rise @ 1.0 SF (Resist)
Starting Method .........  Direct-On-Line Start
Duty Cycle ..............  Continuous Duty
Efficiency Value ........  95.0 % ~ NEMA Nominal
Load Inertia (lb-ft2): NEMA ~ NEMA Inertia: 1181.00 ~ 1.00
Number Of Starts Per Hour: NEMA
Motor Type Code .........  LCE
Rotor Inertia (LB-FT²)        43.0 LB-FT²
Qty. of Bearings PE (Shaft)   1
Qty. of Bearings SE (OPP)     1
Bearing Number PE (Shaft)     6220-J/C3
Bearing Number SE (OPP)       6313-J/C3
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Accessories:
Direct Connected To Load
Corro-Duty
Standard Leadtime: REFER TO OFFICE
Est. Weight (lbs ea): 1575 ~ F.O.B.: St. Louis, MO

USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT

Horsepower	100
Pole(s)	06
Voltage(s)	460-230
Frame Size	444T
Shaft U Diameter	3.375
Outlet Box AF	4.56
Outlet Box AA	3.00

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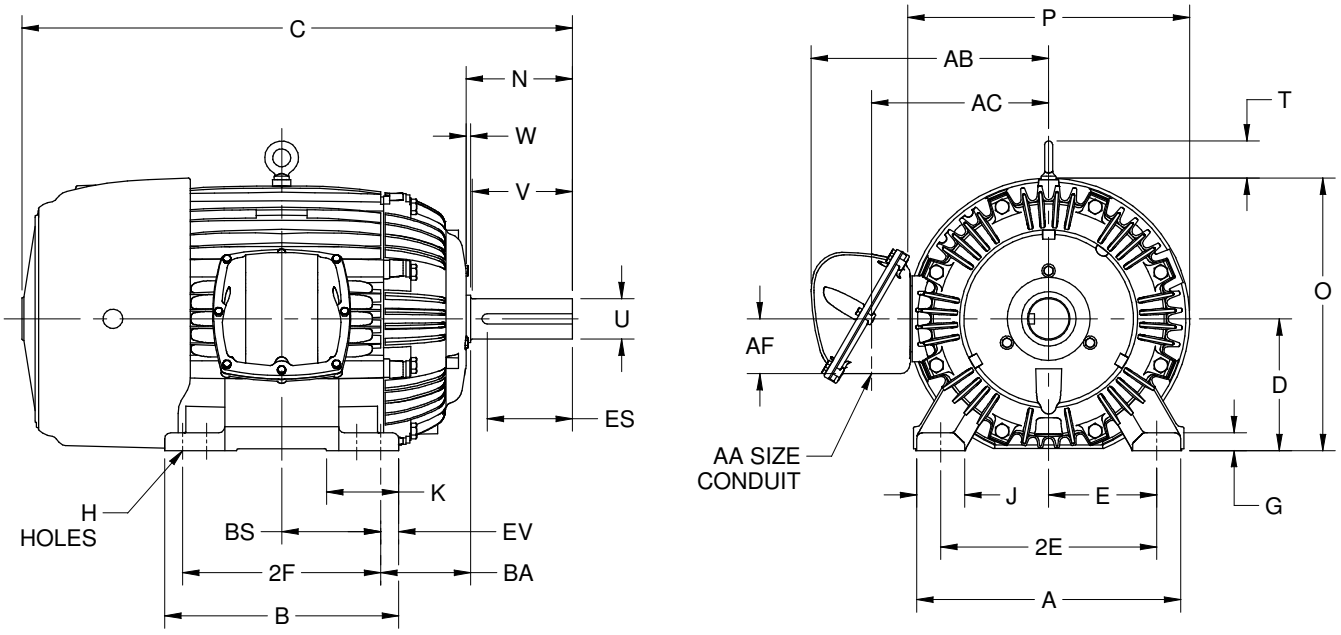
EFFECTIVE: 25-OCT-12	HORIZONTAL MOTORS	PRINT: 07-2769
SUPERSEDES: 18-APR-11	FRAME: 440T BASIC TYPE: L, LC, N, NC	SHEET: 1 OF 1



ALL DIMENSIONS ARE IN INCHES AND MILLIMETERS

	A	D -.06	E	2E ±.03	G	H +.05	J	N
IN	22.00	11.00	9.00	18.00	1.50	.81	4.00	8.88
MM	559	279	229	457	38	21	102	226

	O	P [2]	T	U -.001	V MIN	W	AB	AC
IN	22.75	23.50	3.13	3.375	8.25	.38	19.66	14.63
MM	578	597	80	85.73	210	10	499	372

	AF	BA ±.09	ES MIN	EV	SQ KEY
IN	4.56	7.50	6.91	1.50	.875
MM	116	191	176	38	22.23

	FRAME	B	C	2F ±.03	K	BS
IN	444	19.50	45.88	14.50	6.00	8.25
MM		495	1165	368	152	210
IN	445	19.50	45.88	16.50	6.00	8.25
MM		495	1165	419	152	210
IN	447	23.00	49.38	20.00	4.00	10.00
MM		584	1254	508	102	254
IN	449	28.00	54.38	25.00	4.00	12.50
MM		711	1381	635	102	318

	AA
	2 1/2 NPT
	3 NPT
	3 1/2 NPT

1. DIMENSIONS MAY VARY .25" DUE TO CASTING AND/OR FABRICATION VARIATIONS.
2. LARGEST MOTOR WIDTH.
3. TOLERANCES ARE SHOWN IN INCHES.
4. CONDUIT BOX MAY BE LOCATED ON EITHER SIDE OF MOTOR. CONDUIT OPENING MAY BE LOCATED IN STEPS OF 90 DEGREES REGARDLESS OF LOCATION. STANDARD AS SHOWN WITH CONDUIT OPENING DOWN.

Nidec Motor Corporation
St. Louis, Missouri

INFORMATION DISCLOSED ON THIS DOCUMENT IS CONSIDERED PROPRIETARY AND SHALL NOT BE REPRODUCED OR DISCLOSED WITHOUT WRITTEN CONSENT OF NIDEC MOTOR CORPORATION

ISSUED BY	K. FRIEDMAN
APPROVED BY	J. O'BRIEN

IHP_DP_NMCA (MAR-2011) SOLIDEDGE

NAMEPLATE DATA

CATALOG NUMBER:				NAMEPLATE PART #:	431158-000		
MODEL	CW90	FR	444T	TYPE	LCE	ENCL	TEFC
SHAFT END BRG	6220-J/C3 - QTY 1			OPP END BRG	6313-J/C3 - QTY 1		
PH	3	MAX AMB	40 C	ID#			
INSUL CLASS	F	Asm. Pos.	F1	DUTY	CONT		

HP	100		RPM	1185		HP		RPM	
VOLTS	460	230				VOLTS			
FL AMPS	124.0	247.0				FL AMPS			
SF AMPS						SF AMPS			
SF	1.15	DESIGN	B	CODE	G	SF		DESIGN	CODE
NEMA NOM EFFICIENCY	95.0	NOM PF	79.7	KiloWatt	74.600	NEMA NOM EFFICIENCY		NOM PF	
GUARANTEED EFFICIENCY	94.1	MAX KVAR	32.7	HZ	60	GUARANTEED EFFICIENCY		MAX KVAR	HZ

HAZARDOUS LOCATION DATA (IF APPLICABLE):

DIVISION	1	CLASS I	I	GROUP I	D
TEMP CODE	T2B	CLASS II		GROUP II	

VFD DATA (IF APPLICABLE):

VOLTS			
AMPS			
TORQUE 1		TORQUE 2	
VFD LOAD TYPE 1		VFD LOAD TYPE 2	
VFD HERTZ RANGE 1		VFD HERTZ RANGE 2	
VFD SPEED RANGE 1		VFD SPEED RANGE 2	
SERVICE FACTOR		FL SLIP	
NO. POLES	6	MAGNETIZING AMPS	48.3
VECTOR MAX RPM		Encoder PPR	
Radians / Seconds	1	Encoder Volts	

TEAO DATA (IF APPLICABLE):

HP (AIR OVER)		HP (AIR OVER M/S)		RPM (AIR OVER)		RPM (AIR OVER M/S)	
FPM AIR VELOCITY		FPM AIR VELOCITY M/S		FPM AIR VELOCITY SEC			

ADDITIONAL NAMEPLATE DATA:

Decal / Plate	WD=158803	Customer PN	
Notes		Non Rev Ratchet	
Max Temp Rise	80C RISE/RES@1.00SF	OPP/Upper Oil Cap	GREASE
Thermal (WDG)		SHAFT/Lower Oil Cap	GREASE
Altitude			
Regulatory Notes		Regulatory Compliance	
COS		Marine Duty	
Balance		Arctic Duty	
3/4 Load Eff.	95.2	Inrush Limit	
Motor Weight (LBS)	1575	Direction of Rotation	
Sound Level		Special Note 1	
Vertical Thrust (LBS)		Special Note 2	
Thrust Percentage		Special Note 3	
Bearing Life		Special Note 4	
Starting Method		Special Note 5	
Number of Starts		Special Note 6	
200/208V 60Hz Max Amps		SH Max. Temp.	
190V 50 hz Max Amps		SH Voltage	
380V 50 Hz Max Amps		SH Watts	
NEMA Inertia		Load Inertia	
Sumpheater Voltage		Sumpheater Wattage	
Special Accessory Note 1		Special Accessory Note 16	
Special Accessory Note 2		Special Accessory Note 17	
Special Accessory Note 3		Special Accessory Note 18	
Special Accessory Note 4		Special Accessory Note 19	
Special Accessory Note 5		Special Accessory Note 20	
Special Accessory Note 6		Special Accessory Note 21	
Special Accessory Note 7		Special Accessory Note 22	
Special Accessory Note 8		Special Accessory Note 23	
Special Accessory Note 9		Special Accessory Note 24	
Special Accessory Note 10		Special Accessory Note 25	
Special Accessory Note 11		Special Accessory Note 26	
Special Accessory Note 12		Special Accessory Note 27	
Special Accessory Note 13		Special Accessory Note 28	
Special Accessory Note 14		Special Accessory Note 29	
Special Accessory Note 15		Special Accessory Note 30	

NIDEC MOTOR CORPORATION

ST. LOUIS, MO

TYPICAL NAMEPLATE DATA
ACTUAL MOTOR NAMEPLATE LAYOUT MAY VARY
SOME FIELDS MAY BE OMITTED

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MOTOR PERFORMANCE

MODEL NO.	CATALOG NO.	PHASE	TYPE	FRAME
CW90	NA	3	LCE	444T

ORDER NO.	20512	LINE NO.	

MPI:	129244	134003
HP:	100	100
POLES:	6	6
VOLTS:	460	230
HZ:	60	60
SERVICE FACTOR:	1	1
EFFICIENCY (%):		
S.F.		
FULL	95	95
3/4	95.2	95.2
1/2	94.6	94.6
1/4	91.5	91.5
POWER FACTOR (%):		
S.F.		
FULL	79.7	79.7
3/4	76.1	76.1
1/2	66.9	66.9
1/4	45.8	45.8
NO LOAD	3.8	3.8
LOCKED ROTOR	26.1	26.1
AMPS:		
S.F.		
FULL	124	247
3/4	97	194
1/2	74	148
1/4	56	112
NO LOAD	48.3	96.7
LOCKED ROTOR	708.4	1417.9
NEMA CODE LETTER	G	G
NEMA DESIGN LETTER	B	B
FULL LOAD RPM	1185	1185
NEMA NOMINAL EFFICIENCY (%)	95	95
GUARANTEED EFFICIENCY (%)	94.1	94.1
MAX KVAR	32.7	32.7
AMBIENT (°C)	40	40
ALTITUDE (FASL)	3300	3300
SAFE STALL TIME-HOT (SEC)	30	30
SOUND PRESSURE (DBA @ 1M)	79	79
TORQUES:		
BREAKDOWN{% F.L.}	226	226
LOCKED ROTOR{% F.L.}	129	129
FULL LOAD{LB-FT}	442.3	442.3

NEMA Nominal and Guaranteed Efficiencies are up to 3,300 feet above sea level and 25 ° C ambient

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

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ST. LOUIS, MO

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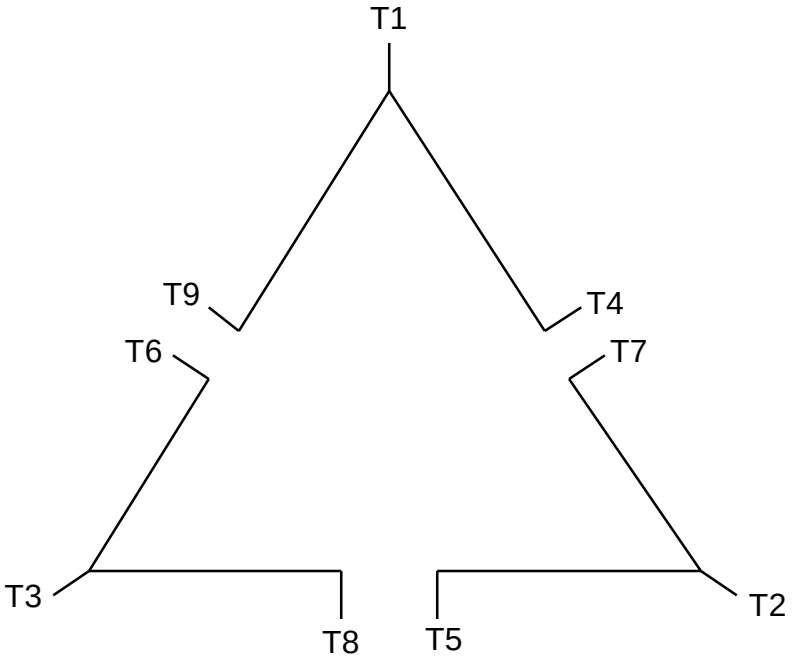
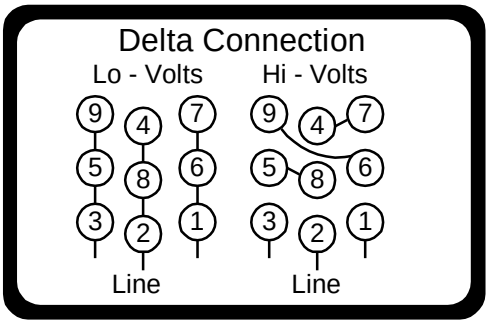
A109145

Motor Wiring Diagram

9 Lead, Dual Voltage (DELTA Conn.)





To reverse direction of rotation interchange connections L1 and L2.

Each lead may have one or more cables comprising that lead.
In such case each cable will be marked with the appropriate lead number.

Connection Plate: A109145
Connection Decal: 344122