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

DATE: 11/21/2012

P.O. NO.: CW93
Order/Line NO.: 20515 MN 100

TO:

Model Number: CW93
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 ..............  00125.00 ~ KW: 93.25
Enclosure ...............  TEFC
Poles ...................  06 ~ RPM: 1200
Frame Size ..............  445~T
Phase/Frequency/Voltage..  3~060~460 ~ 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: 1452.00 ~ 1.00
Number Of Starts Per Hour: NEMA
Motor Type Code .........  LCE
Rotor Inertia (LB-FT²)        53.7 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): 1800 ~ F.O.B.: St. Louis, MO

USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT

Horsepower	125
Pole(s)	06
Voltage(s)	460
Frame Size	445T
Shaft U Diameter	3.375
Outlet Box AF	4.56
Outlet Box AA	3.00

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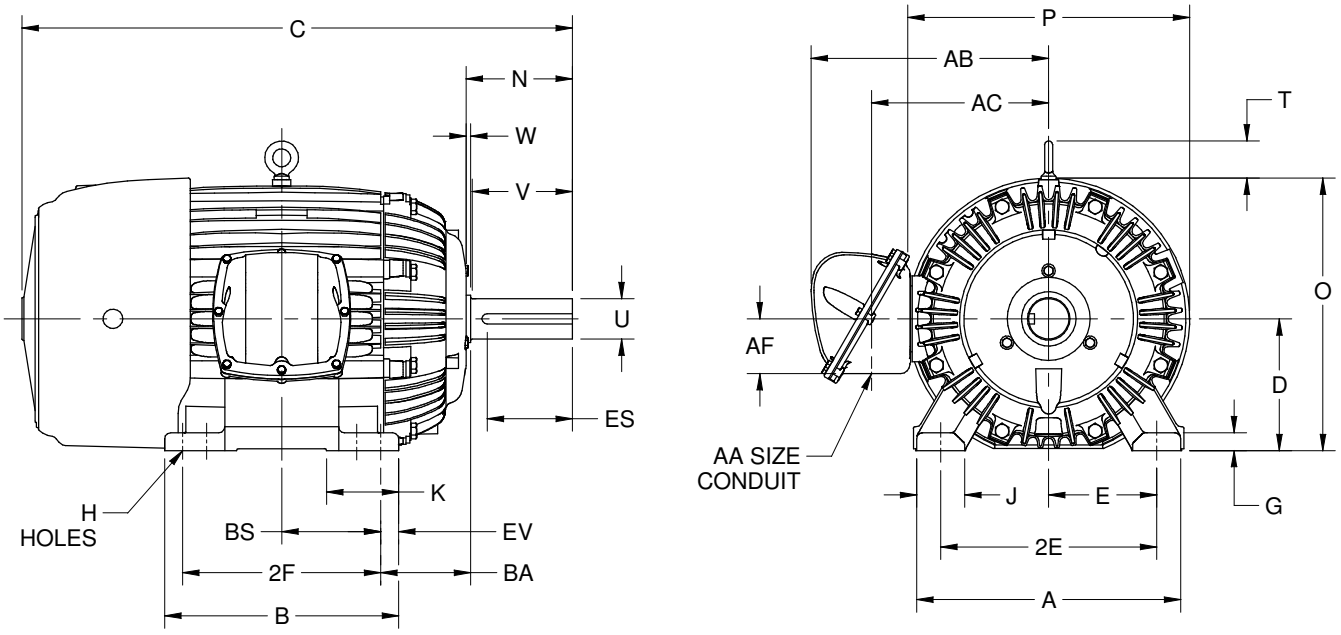
EFFECTIVE: 25-OCT-12	HORIZONTAL MOTORS	PRINT: 07-2769
SUPERSEDES: 18-APR-11	FRAME: 440T BASIC TYPE: L, LC, N, NC	SHEET: 1 OF 1



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

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

IHP_DP_NMCA (MAR-2011) SOLIDEDGE

NAMEPLATE DATA

CATALOG NUMBER:				NAMEPLATE PART #:	431158-000		
MODEL	CW93	FR	445T	TYPE	LCE	ENCL	TE
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	125	RPM	1185	HP		RPM	
VOLTS	460			VOLTS			
FL AMPS	151.0			FL AMPS			
SF AMPS	174.0			SF AMPS			
SF	1.15	DESIGN	B	CODE	F	SF		DESIGN		CODE	
NEMA NOM EFFICIENCY	95.4	NOM PF	81.3	KiloWatt	93.250	NEMA NOM EFFICIENCY		NOM PF			
GUARANTEED EFFICIENCY	94.5	MAX KVAR	35.5	HZ	60	GUARANTEED EFFICIENCY		MAX KVAR		HZ	

UL 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	52.4
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=477257	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.	96.0	Inrush Limit	
Motor Weight (LBS)	1800	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
CW93	NA	3	LCE	445T

ORDER NO.	20515	LINE NO.	

MPI:	138730
HP:	125
POLES:	6
VOLTS:	460
HZ:	60
SERVICE FACTOR:	1.15
EFFICIENCY (%):	
S.F.	94.8
FULL	95.4
3/4	96
1/2	95.9
1/4	93.8
POWER FACTOR (%):	
S.F.	81.7
FULL	81.3
3/4	78.5
1/2	70.6
1/4	49.5
NO LOAD	3
LOCKED ROTOR	25.4
AMPS:	
S.F.	174
FULL	151
3/4	116
1/2	87
1/4	63
NO LOAD	52.4
LOCKED ROTOR	865.7
NEMA CODE LETTER	F
NEMA DESIGN LETTER	B
FULL LOAD RPM	1185
NEMA NOMINAL EFFICIENCY (%)	95.4
GUARANTEED EFFICIENCY (%)	94.5
MAX KVAR	35.5
AMBIENT (°C)	40
ALTITUDE (FASL)	3300
SAFE STALL TIME-HOT (SEC)	30
SOUND PRESSURE (DBA @ 1M)	80
TORQUES:	
BREAKDOWN{% F.L.}	221
LOCKED ROTOR{% F.L.}	129
FULL LOAD{LB-FT}	553.7

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

NIDEC MOTOR CORPORATION

ST. LOUIS, MO

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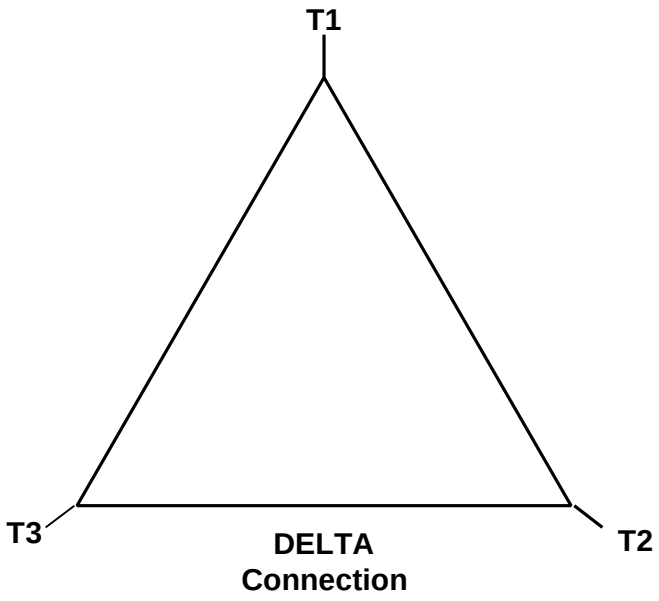
499495

Motor Wiring Diagram



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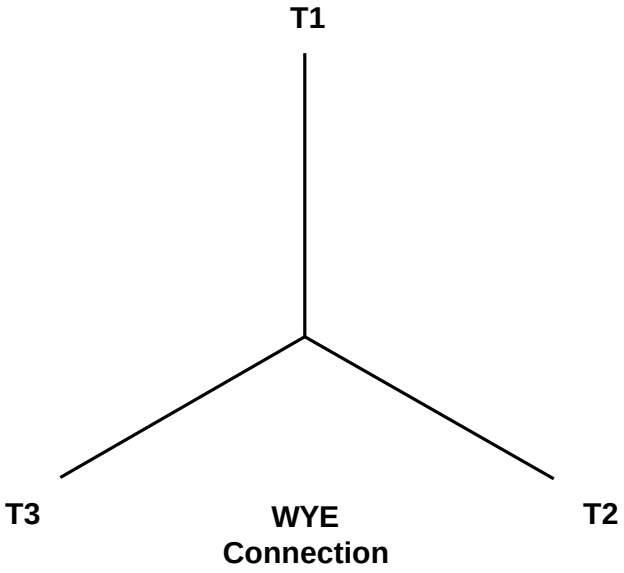
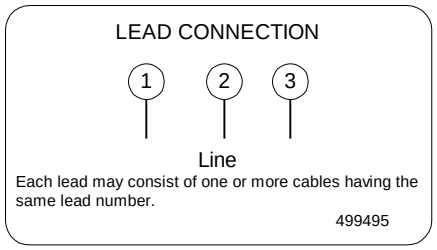




To reverse direction of rotation interchange connections L1 and L2.

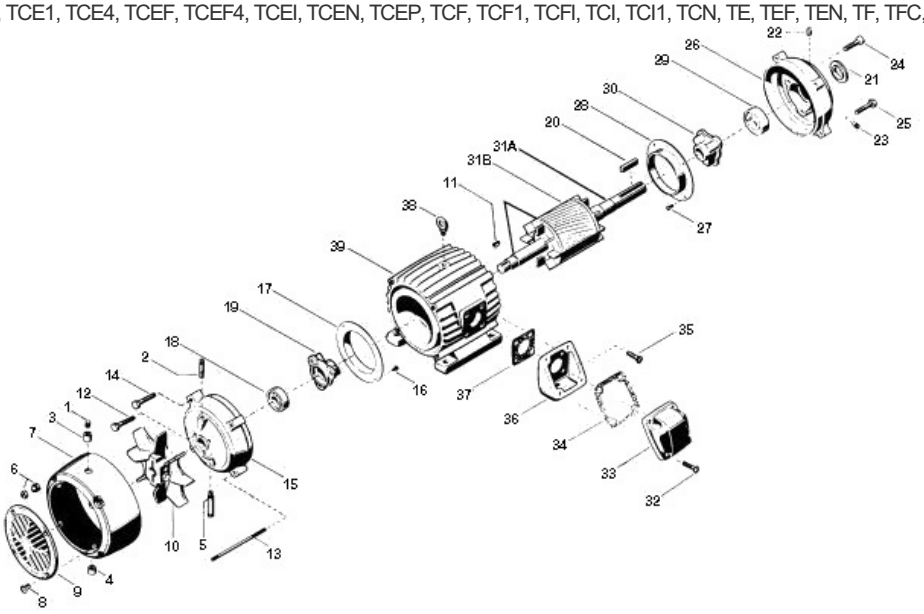
Each lead may be comprised of one or more cables.
Each cable will be marked with the appropriate lead number.

EFFECTIVE: 2/27/96
SUPERCEDES: X736618, 96441, 179879, 284138
Connection Plate: 499495
Connection Decal: 912113

RENEWAL PARTS

FRAMES 254T THRU 447T - TOTALLY ENCLOSED AND EXPLOSIONPROOF MOTORS

TYPES: CE, CE1, CE4, CEF, CT, CT1, CT4, CTC, CTE, CTE1, CTE4, CTEF, CTEF1, CTEF4, CTEI, CTEN, CTF, CTF1, CTF4, CTFI, CTFI1, CTFI4, CTFN, CTI, CTI4, CTN, CTNI, EC, ECEI, FCT, FCTF, FCTF1, FCTN, FD, FDF, FDF1, FL, FLC, FLCA, FLCF, FLF, FN, FNC, FTC, FTCF, JAD, JDE, L, L1, L4, LC, LC1, LCA, LCAE, LCE, LCEF, LCEI, LCE1, , LCF, LCFI, LCI, LE, LE1, LE4, LEF, LF, LF1, LF4, LFC, LFI, LI, LN, N, NC, NCE, NCEF, NCF, NCFI, NCI, NE, NF, NN, T, T1, T4, TC, TC1, TC4, TCA, TCE, TCE1, TCE4, TCEF, TCEF4, TCEI, TCEN, TCEP, TCF, TCF1, TCFI, TCI, TCI1, TCN, TE, TEF, TEN, TF, TFC, TFN, TN



ITEM NO.	QTY	NAME OF PART
1	1	Slotted Headless Pipe Plug
2	1	Pipe Coupling
3	1	Pipe Nipple
4	1	Pipe Cap
5	1	Pipe Nipple
6	2	Cap and Jam Nut
7	1	Fan Cover Guard
8	3	Screw & Lockwasher
9	1	Grill
10	1	Vent Fan Assembly
11	1	Woodruff Key (Not used on frames 254T &256T
12	2	Screw
13	2	Stud & Nut
14	2	Screw (Qty 6 on frames 254T & 256T)
15	1	Bracket
16	4	Screw (Used only on frame 286T & 326T)
17	1	Air Deflector (Used only on frame 286T & 326T)
18	1	Ball Bearing
19	1	Bearing Cap
20	1	Key
21	1	Water Deflector

ITEM NO.	QTY	NAME OF PART
22	1	Slotted Headless Pipe Plug
23	1	Pipe Plug
24	2	Screw
25	4	Screw (Qty 8 on frames 286T & 326T)
26	1	Bracket (Not used on types TF)
27	4	Screw (Used only on frame 286T & 326T)
28	1	Air Deflector ((Used only on frame 286T & 326T)
29	1	Ball Bearing
30	1	Bearing Cap
31	1	Rotor Assembly (Includes items 31A & 31B)
31A	1	Motor Shaft
31B	1	Rotor Core
32	4	Screw
33	1	Outlet Box Cover
34	1	Gasket
35	4	Screw (Qty 2 on frames 254T & 256T)
36	1	Outlet Box Base
37	1	Gasket (Outlet Box Base)
38	1	Eyebolt
39	1	Wound Stator Assembly

WARNING:
Any disassembly or repair work on explosionproof motors will void the Underwriters Laboratories, Inc. label unless done by the manufacturer, or a facility approved by the Underwriters Laboratories, Inc. Refer to your nearest sales office for assistance.

BEARINGS:
Refer to motor nameplate for the bearing numbers.

PRICES:
Parts stocking distributors: refer to renewal parts numerical index. All Others: refer to your nearest parts distributor.

reference: Renewal Parts Section 700, Page 19

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