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

DATE: 1/17/2014

P.O. NO.: CW61
Order/Line NO.: 20499 MN 100

TO:

Model Number: CW61
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 ..............  00010.00 ~ KW: 7.46
Enclosure ...............  TEFC
Poles ...................  02 ~ RPM: 3600
Frame Size ..............  215~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)
NEMA Design .............  B
KVA Code Letter .........  "G"
Starting Method .........  Direct-On-Line Start
Duty Cycle ..............  Continuous Duty
Efficiency Value ........  90.2 % ~ NEMA Nominal
Load Inertia (lb-ft2): NEMA ~ NEMA Inertia: 10.90 ~ 1.00
Number Of Starts Per Hour: NEMA
Motor Type Code .........  LCE
Rotor Inertia (LB-FT²)        .440 LB-FT²
Qty. of Bearings PE (Shaft)   1
Qty. of Bearings SE (OPP)     1
Bearing Number PE (Shaft)     6208-J/C3
Bearing Number SE (OPP)       6206-J/C3
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Accessories:
Corro-Duty
Clockwise Rotation FODE
Standard Leadtime: REFER TO OFFICE
Est. Weight (lbs ea): 170 ~ F.O.B.: St. Louis, MO

USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT

Horsepower	10
Pole(s)	02
Voltage(s)	460-230
Frame Size	215T
Shaft U Diameter	1.375
Outlet Box AF	2.63
Outlet Box AA	1.00

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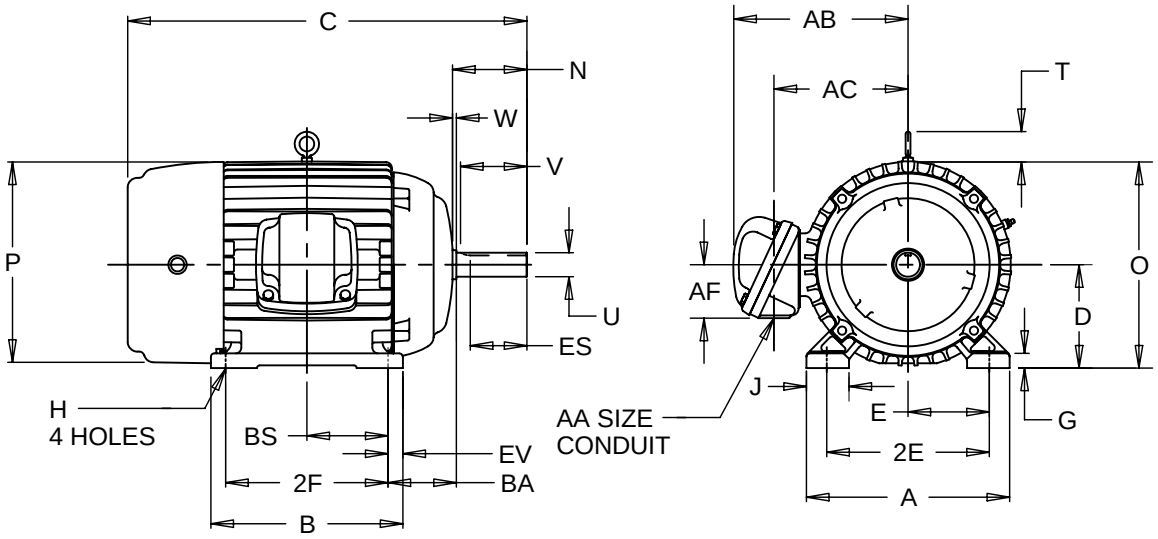
EFFECTIVE: 10-MAR-11	HORIZONTAL MOTORS	PRINT: 07-2891
SUPERSEDES: 31-JUL-09	FRAME: 213, 215T BASIC TYPE: LC, NC	SHEET: 1 OF 1



ALL DIMENSIONS ARE IN INCHES AND MILLIMETERS

	UNITS	A	B	C	D -.06	E	2E ±.03	G	H +.05	J	N
	IN	10.38	8.50	20.00	5.25	4.25	8.50	.75	.41	1.75	3.75
	MM	264	216	508	133	108	216	19	10	44	95

	UNITS	O	P [2]	T	U -.0005	V MIN	W	AA	AB	AC	AF	BA
	IN	10.75	11.00	2.03	1.3750	3.13	.38	1.00 NPT	9.16	6.81	2.63	3.50
	MM	273	279	52	34.925	79	10		233	173	67	89

	UNITS	BS	ES MIN	EV	SQ KEY
	IN	3.50	2.41	.75	.313
	MM	89	61	19	7.95

	FRAME	UNITS	2F ±.03
	213T	IN	5.50
		MM	140
	215T	IN	7.00
		MM	178

1: ALL ROUGH CASTING DIMENSIONS MAY VARY BY .25" DUE TO CASTING AND/OR FABRICATION VARIATIONS.
2: LARGEST MOTOR WIDTH.
3: TOLERANCES SHOWN ARE IN INCHES ONLY.

4: STANDARD ASSEMBLY POSITION F-1 IS SHOWN F-2 IS PROVIDED WHEN SPECIFIED. CONDUIT OPENINGS 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	R. KING
APPROVED BY	K. POTTER

IHP_DP_NMCA (MAR-2011) SOLIDEDGE

NAMEPLATE DATA

CATALOG NUMBER:				NAMEPLATE PART #:	431158-000		
MODEL	CW61	FR	215T	TYPE	LCE	ENCL	TEFC
SHAFT END BRG	6208-J/C3 - QTY 1			OPP END BRG	6206-J/C3 - QTY 1		
PH	3	MAX AMB	40 C	ID#			
INSUL CLASS	F	Asm. Pos.	F1	DUTY	CONT		

HP	10		RPM	3500		HP		RPM	
VOLTS	460	230				VOLTS			
FL AMPS	11.8	23.6				FL AMPS			
SF AMPS						SF AMPS			
SF	1.15	DESIGN	B	CODE	G	SF		DESIGN	CODE
NEMA NOM EFFICIENCY	90.2	NOM PF	87.8	KiloWatt	7.460	NEMA NOM EFFICIENCY		NOM PF	
GUARANTEED EFFICIENCY	88.5	MAX KVAR	2.2	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	2	MAGNETIZING AMPS	3.2
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=158802	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.	91.7	Inrush Limit	
Motor Weight (LBS)	170	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
CW61	NA	3	LCE	215T

ORDER NO.	20499	LINE NO.	

MPI:	119551	119552
HP:	10	10
POLES:	2	2
VOLTS:	460	230
HZ:	60	60
SERVICE FACTOR:	1.15	1
EFFICIENCY (%):		
S.F.	89.6	
FULL	90.2	90.2
3/4	91.7	91.7
1/2	91.3	91.3
1/4	87.2	87.2
POWER FACTOR (%):		
S.F.	88	
FULL	87.8	87.8
3/4	86	86
1/2	80.4	80.4
1/4	63.2	63.2
NO LOAD	9.2	9.2
LOCKED ROTOR	37.8	37.8
AMPS:		
S.F.	13.7	
FULL	11.8	23.6
3/4	8.9	17.8
1/2	6.4	12.8
1/4	4.2	8.5
NO LOAD	3.2	6.4
LOCKED ROTOR	78.3	157.6
NEMA CODE LETTER	G	G
NEMA DESIGN LETTER	B	B
FULL LOAD RPM	3500	3500
NEMA NOMINAL EFFICIENCY (%)	90.2	90.2
GUARANTEED EFFICIENCY (%)	88.5	88.5
MAX KVAR	2.2	2.2
AMBIENT (°C)	40	40
ALTITUDE (FASL)	3300	3300
SAFE STALL TIME-HOT (SEC)	11	11
SOUND PRESSURE (DBA @ 1M)	70	70
TORQUES:		
BREAKDOWN{% F.L.}	294	294
LOCKED ROTOR{% F.L.}	185	185
FULL LOAD{LB-FT}	15	15

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

NIDEC MOTOR CORPORATION

ST. LOUIS, MO

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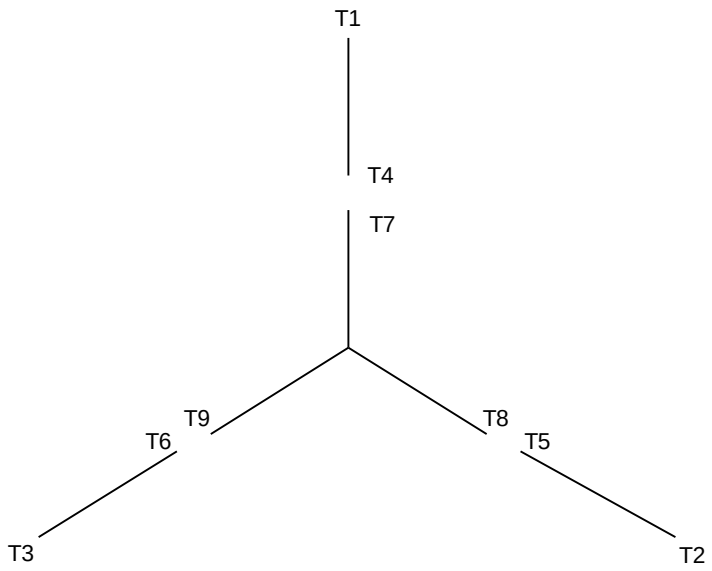
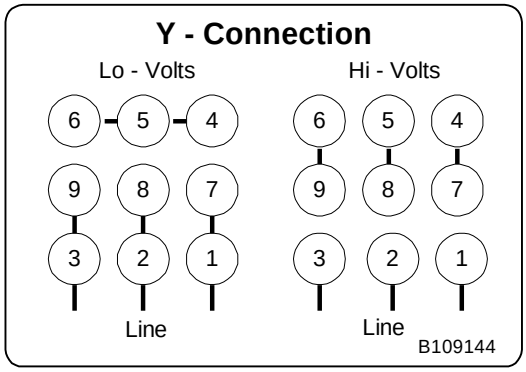
B109144

Motor Wiring Diagram

9 Lead, Dual Voltage (WYE Conn.)





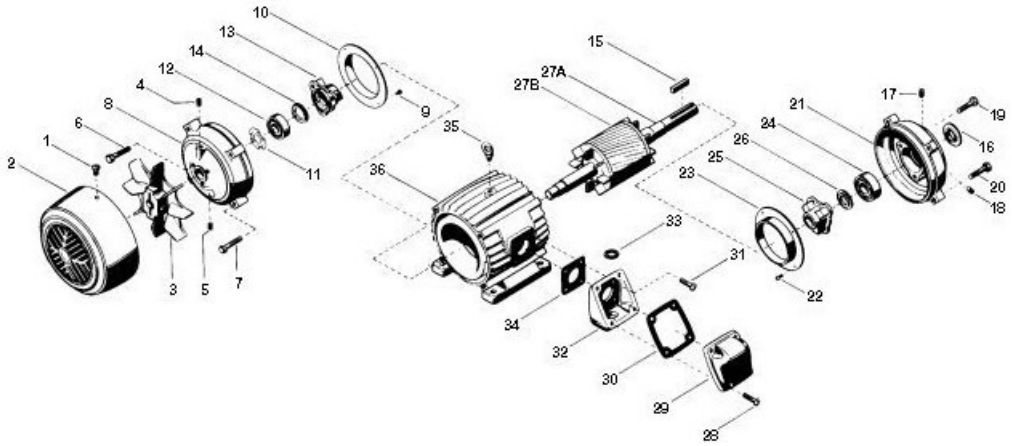
To reverse direction of rotation interchange connections L1 and L2.

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: B109144
Connection Decal: 344136

RENEWAL PARTS

FRAMES 182 THRU 215 - TOTALLY ENCLOSED AND EXPLOSION PROOF MOTORS
TYPES: CE, CEF, CEF4, CT, CT2, CT4, CTC, CTE, CTE4, CTEF, CTF, CTF1, CTF4, CTFI, CTI, CTI4, CTN, CTNI, FCT, FCT4, FCTF, FCTN, FL, FLC, FLCA, FLCF, FLF, FN, FNC, FTC, FTCF, JAD, JDE, L, L1, L4, LC, LC4, LCA, LCAE, LCE, LCE4, LCEF, LCF, LCF1, LCFI, LCI, LE, LE1, LEF, LF, LF1, LF4, LFI, LFN, LI, LI4, LN, N, NC, NCE, NCEF, NCF, NI, T, TC, TC1, TC2, TC3, TC4, TCAE, TCE, TCE1, TCE2, TCE3, TCE4, TCEF, TCEFN, TCEN, TCEP, TCF, TCF1, TCF4, TCFI, TCFN, TCI, TCI3, TCN, TCNI, TF, TFN



ITEM NO.	QTY	NAME OF PART
1	4	Screw (Omit for Type TFN)
2	1	Fan Cover Guard (Omit for Type TFN)
3	1	Vent Fan (Omit for Type TFN)
4	1	Slotted Headless Pipe Plug
5	1	Slotted Headless Pipe Plug
6	3	Screw (Types L & LF only)
7	4	Screw
8	1	Bracket
9	4	Screw (Used only on Frame 184T)
10	1	Air Deflector (Used Only on Frame 184T)
11	1	Loading Spring (Types T, TF, TC, TCE, & TFN only)
12	1	Ball Bearing (Short End) (Refer to section 775)
13	1	Bearing Cap (Types L & LF only)
14	1	Slinger (Frames 213T & 215T, Types T, TF, TC, TCE, & TFN only)
15	1	Key
16	1	Water Deflector
17	1	Slotted Headless Pipe Plug
18	1	Slotted Headless Pipe Plug
19	3	Screw (Types L & LF only)
20	4	Screw
21	1	Bracket (Not used on Types TF, LF, & TFN)

ITEM NO.	QTY	NAME OF PART
22	4	Screw (Used only on frame 184T)
23	1	Air Deflector (Used only on frame 184T)
24	1	Ball Bearing (Refer to section 775)
25	1	Bearing Cap (Type L only)
26	1	Slinger
27	1	Rotor Assembly (Includes Items 27A & 27B)
27A	1	Motor Shaft
27B	1	Rotor Core
28	4	Screw
29	1	Outlet Box Cover
30	1	Gasket (Types T, TC, TCE, TF, & TFN only)
31	2	Screw
32	1	Outlet Box Base
33	1	Washer
34	1	Gasket (Types T, TC, TCE, TF, & TFN only)
35	1	Eyebolt
36	1	Wound Stator Assembly
37	1	Thermal Protectors (Used on Wheel Drive units only) (Not Illustrated)
38	2	Round Head Machine Screw (Thermal Protectors)
39	2	Hex Nut (Thermal Protectors)

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 18

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