

**NIDEC MOTOR CORPORATION**

8050 WEST FLORISSANT AVE.  
ST. LOUIS, MO 63136



**DATE:** 8/20/2013

**P.O. NO.:** CY37  
**Order/Line NO.:** 20347 MN 100

**TO:**

**Model Number:** CY37

**REVISIONS:**  
(NONE)

**Catalog Number:**

Corro-Duty Premium Eff. Config  
CONF,MOTOR,CORRO-DUTY PRE EFF

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

**Features:**

Horsepower ..... 00003.00 ~ KW: 2.238  
Enclosure ..... TEFC  
Poles ..... 02 ~ RPM: 3600  
Frame Size ..... 182~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 ....  
"AK" Dimension (Inches).. NA  
Temperature Rise (Sine Wave): "B" Rise @ 1.0 SF (Resist)  
NEMA Design ..... B  
KVA Code Letter ..... "K"  
Starting Method ..... Direct-On-Line Start  
Duty Cycle ..... Continuous Duty  
Efficiency Value ..... 86.5 % ~ NEMA Nominal  
Load Inertia (lb-ft<sup>2</sup>): NEMA ~ NEMA Inertia: 3.50 ~ 1.00  
Number Of Starts Per Hour: NEMA  
Motor Type Code ..... TCE  
Rotor Inertia (LB-FT<sup>2</sup>) ..... 125 LB-FT<sup>2</sup>  
Qty. of Bearings PE (Shaft) 1  
Qty. of Bearings SE (OPP) 1  
Bearing Number PE (Shaft) 6206-J/C3  
Bearing Number SE (OPP) 6206-J/C3

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**Accessories:**

Corro-Duty  
Clockwise Rotation FODE  
Ground Lug In Conduit Box  
Horizontal Lifting Lugs  
Special Balance  
Standard Leadtime: REFER TO OFFICE  
Est. Weight (lbs ea): 100 ~ F.O.B.: St. Louis, MO

**USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT**

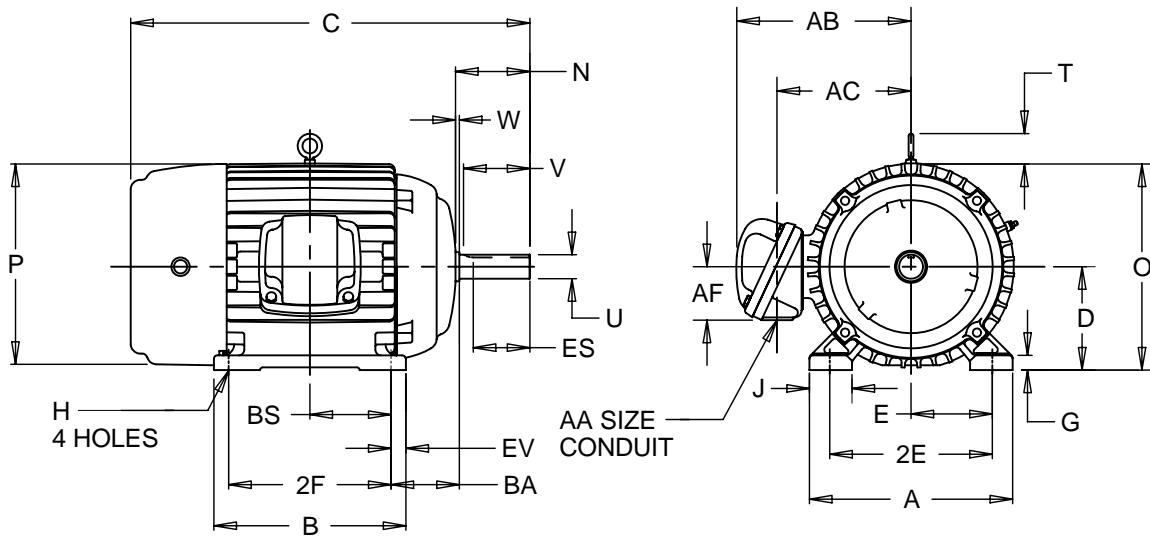
<b>Horsepower</b>	3
<b>Pole(s)</b>	02
<b>Voltage(s)</b>	460-230
<b>Frame Size</b>	182T
<b>Shaft U Diameter</b>	1.125
<b>Outlet Box AF</b>	2.13
<b>Outlet Box AA</b>	0.75

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EFFECTIVE:  
03-MAR-11  
SUPERSEDES:  
02-APR-09

**HORIZONTAL MOTORS**  
TEFC - CORRODUTY  
FRAME: 182, 184T  
BASIC TYPE: TC, CE

PRINT:  
07-2807  
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	8.88	6.75	16.13	4.50	3.75	7.50	.50	.41	1.50	2.91
	MM	226	171	410	114	95	191	13	10	38	74

	UNITS	O	P <sup>2</sup>	T	U -.0005	V MIN	W	AA	AB	AC	AF	BA
	IN	9.22	9.13	1.75	1.1250	2.50	.16	.75 NPT	8.06	5.75	2.13	2.75
	MM	234	232	44	28.575	64	4		205	146	54	70

	UNITS	BS	ES MIN	EV	SQ KEY
	IN	2.75	1.78	.63	.250
	MM	70	45	16	6.35

	FRAME	UNITS	2F ±.03
182T	IN	4.50	
	MM	114	
184T	IN	5.50	
	MM	140	

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.

07-2807/A ECO 46385-00

**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  
R. KING  
APPROVED BY  
K. POTTER

## NAMEPLATE DATA

CATALOG NUMBER:			NAMEPLATE PART #:	431157-000	
MODEL	CY37	FR	182T	TYPE	TCE
SHAFT END BRG	6206-J/C3 - QTY 1			ENCL	TE
PH	3	MAX AMB	40 C	OPP END BRG	6206-J/C3 - QTY 1
INSUL CLASS	F	Asm. Pos.	F1	ID#	
HP	3	RPM	3540	DUTY	CONT
VOLTS	460	230		HP	
FL AMPS	3.9	7.8		VOLTS	
SF AMPS	4.3	8.7		FL AMPS	
SF	1.15	DESIGN	B	SF	
NEMA NOM EFFICIENCY	87.5	NOM PF	82.8	CODE	
GUARANTEED EFFICIENCY	85.5	MAX KVAR	1.2	KiloWatt	2.238
			1.2	Hz	60
<b>UL DATA (IF APPLICABLE):</b>					
DIVISION			CLASS I		
TEMP CODE			CLASS II	GROUP I	
<b>VFD DATA (IF APPLICABLE):</b>					
VOLTS					
AMPS					
TORQUE 1					
VFD LOAD TYPE 1					
VFD HERTZ RANGE 1					
VFD SPEED RANGE 1					
SERVICE FACTOR					
NO. POLES	2				
VECTOR MAX RPM					
Radians / Seconds	1				
<b>TEAO DATA (IF APPLICABLE):</b>					
HP (AIR OVER)		HP (AIR OVER M/S)		RPM (AIR OVER)	
FPM AIR VELOCITY		FPM AIR VELOCITY M/S		FPM AIR VELOCITY SEC	
				RPM (AIR OVER M/S)	

**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	0.08 IN/SEC	Arctic Duty	
3/4 Load Eff.	88.0	Inrush Limit	
Motor Weight (LBS)	100	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
CY37	NA	3	TCE	182T
ORDER NO.	20347		LINE NO.	
MPI:		125411	125412	
HP:		3	3	
POLES:		2	2	
VOLTS:		460	230	
HZ:		60	60	
SERVICE FACTOR:		1.15	1.15	
EFFICIENCY (%):				
S.F.	88	88		
FULL	87.5	87.5		
3/4	88	88		
1/2	85.8	85.8		
1/4	77.8	77.8		
POWER FACTOR (%):				
S.F.	84.6	84.6		
FULL	82.8	82.8		
3/4	77.4	77.4		
1/2	67.1	67.1		
1/4	46.3	46.3		
NO LOAD	10.3	10.3		
LOCKED ROTOR	55.9	55.9		
AMPS:				
S.F.	4.3	8.7		
FULL	3.9	7.8		
3/4	3.1	6.2		
1/2	2.4	4.9		
1/4	2	3.9		
NO LOAD	1.8	3.5		
LOCKED ROTOR	32	63		
NEMA CODE LETTER	K	K		
NEMA DESIGN LETTER	B	B		
FULL LOAD RPM	3540	3540		
NEMA NOMINAL EFFICIENCY (%)	87.5	87.5		
GUARANTEED EFFICIENCY (%)	85.5	85.5		
MAX KVAR	1.2	1.2		
AMBIENT (°C)	40	40		
ALTITUDE (FASL)	3300	3300		
SAFE STALL TIME-HOT (SEC)	12	12		
SOUND PRESSURE (DBA@1M)	64	64		
TORQUES:				
BREAKDOWN{ % F.L. }	336	336		
LOCKED ROTOR{ % F.L. }	251	251		
FULL LOAD{LB-FT}	4.5	4.5		

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

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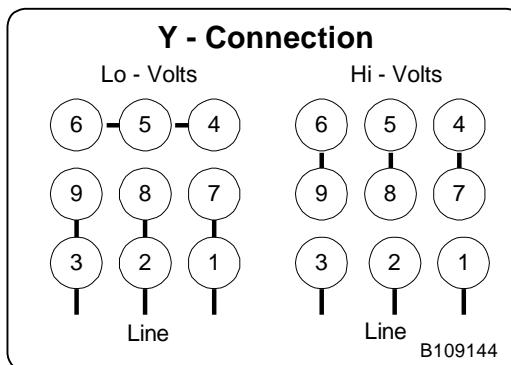
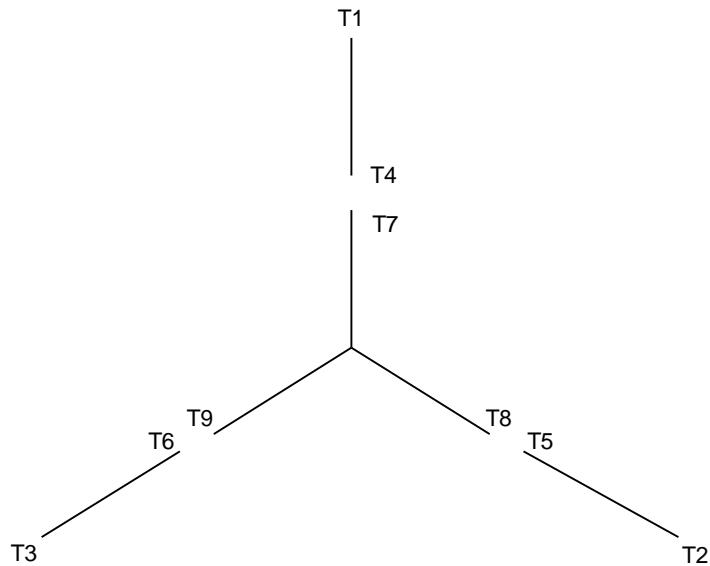


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**B109144**

**Motor Wiring Diagram  
9 Lead, Dual Voltage (WYE Conn.)**



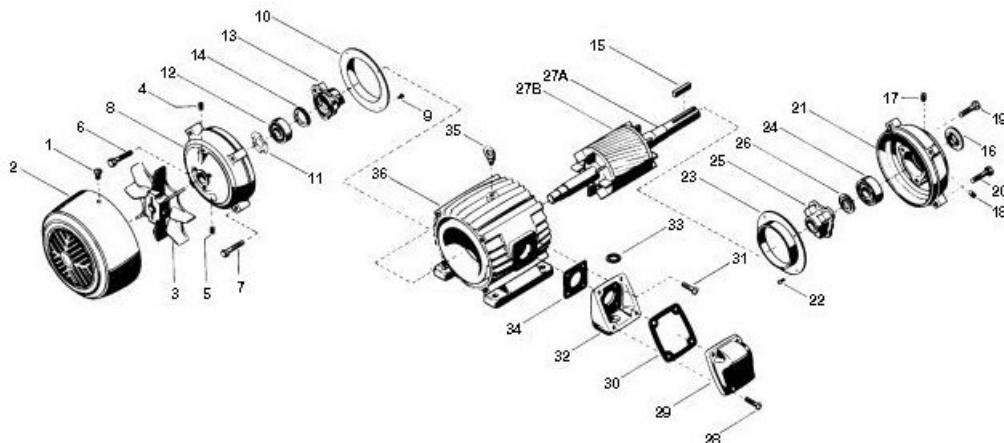
To reverse direction of rotation interchange connections L1 and L2.

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

## 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, 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, TOE, & 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, TOE, & 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)

**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