

**NIDEC MOTOR CORPORATION**

8050 WEST FLORISSANT AVE.  
ST. LOUIS, MO 63136



**DATE:** 9/10/2012

**P.O. NO.:** DN69  
**Order/Line NO.:** 21839 MN 100

**TO:**

**Model Number:** DN69  
**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:**

Horsepower ..... 00005.00 ~ KW: 3.73  
Enclosure ..... TEFC  
Poles ..... 04 ~ RPM: 1800  
Frame Size ..... 184~T  
Phase/Frequency/Voltage.. 3~060~230/460 ~ Random Wound  
Service Factor ..... 1.00  
Insulation Class ..... Class "F" ~ Insulife 1000  
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 ~ Group F & G ~ T3B 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 ..... 89.5 % ~ Typical  
Load Inertia (lb-ft<sup>2</sup>): NEMA ~ NEMA Inertia: 26.70 ~ 1.00  
Number Of Starts Per Hour: NEMA  
Motor Type Code ..... LE  
Rotor Inertia (LB-FT<sup>2</sup>) ..... .361 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) 6205-J/C3

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**Accessories:**

Thermostats - Normally Closed  
Product Family .....  
Reserved for future use  
Reserved for future use  
Reserved for future use  
Reserved for future use  
Reserved for future use  
Reserved for future use NA  
Reserved for future use NA  
Standard Leadtime: 8-10 WEEKS  
Est. Weight (lbs ea): 110 ~ F.O.B.: Monterrey, Mexico

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

**Horsepower** 5  
**Pole(s)** 04  
**Voltage(s)** 460-230  
**Frame Size** 184T  
**Shaft U Diameter** 1.125  
**Outlet Box AF** 2.25  
**Outlet Box AA** 0.75

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EFFECTIVE:  
**13-JUN-11**

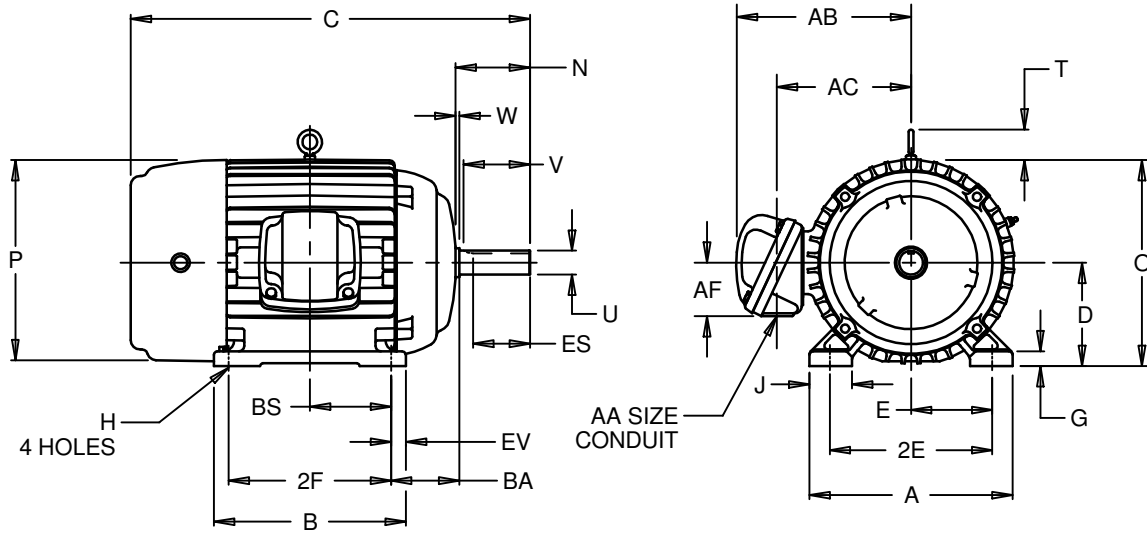
# HORIZONTAL MOTORS

PRINT:  
**07-2805**

SUPERSEDES:  
**02-APR-09**

FRAME: 182, 184T  
BASIC TYPE: L, N

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	O
IN	8.88	6.75	16.00	4.50	3.75	7.50	.63	.41	1.56	2.81	9.06
MM	226	171	406	114	95	191	16	10	40	71	230

UNITS	P <sup>2</sup>	T	U -.0005	V MIN	W	AA	AB	AC	AF	BA
IN	9.13	1.75	1.1250	2.50	.16	.75 NPT	7.75	5.94	2.25	2.75
MM	232	44	28.575	64	4		197	151	57	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° REGARDLESS OF LOCATION. STANDARD AS SHOWN WITH CONDUIT OPENING DOWN.

07-2805/A

**Nidec Motor Corporation**  
St. Louis, Missouri

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ISSUED BY  
**N. SHELAR**  
APPROVED BY  
**R. KING**

IHP\_DP\_NMCA (MAR-2011) SOLIDEDGE

# NAMEPLATE DATA

CATALOG NUMBER: _____		NAMEPLATE PART #: <span style="border: 1px solid black; padding: 2px;">431158-000</span>	
MODEL	<span style="border: 1px solid black; padding: 2px;">DN69</span>	FR	<span style="border: 1px solid black; padding: 2px;">184T</span>
SHAFT END BRG: <span style="border: 1px solid black; padding: 2px;">6206-J/C3 - QTY 1</span>		OPP END BRG: <span style="border: 1px solid black; padding: 2px;">6205-J/C3 - QTY 1</span>	
PH	<span style="border: 1px solid black; padding: 2px;">3</span>	MAX AMB	<span style="border: 1px solid black; padding: 2px;">40 C</span>
INSUL CLASS	<span style="border: 1px solid black; padding: 2px;">F</span>	Asm. Pos	<span style="border: 1px solid black; padding: 2px;">F1</span>
DUTY: <span style="border: 1px solid black; padding: 2px;">CONT</span>		ID#: _____	
HP	<span style="border: 1px solid black; padding: 2px;">5</span>	RPM	<span style="border: 1px solid black; padding: 2px;">1750</span>
VOLTS	<span style="border: 1px solid black; padding: 2px;">460</span>	<span style="border: 1px solid black; padding: 2px;">230</span>	_____
FL AMPS	<span style="border: 1px solid black; padding: 2px;">6.2</span>	<span style="border: 1px solid black; padding: 2px;">12.5</span>	_____
SF AMPS	_____	_____	_____
SF	<span style="border: 1px solid black; padding: 2px;">1.00</span>	DESIGN	<span style="border: 1px solid black; padding: 2px;">B</span>
NEMA NOM EFFICIENCY	<span style="border: 1px solid black; padding: 2px;">89.5</span>	NOM PF	<span style="border: 1px solid black; padding: 2px;">83.9</span>
GUARANTEED EFFICIENCY	<span style="border: 1px solid black; padding: 2px;">87.5</span>	MAX KVAR	<span style="border: 1px solid black; padding: 2px;">1.8</span>
CODE	<span style="border: 1px solid black; padding: 2px;">J</span>	KiloWatt	<span style="border: 1px solid black; padding: 2px;">3.730</span>
_____	_____	HZ	<span style="border: 1px solid black; padding: 2px;">60</span>

**UL DATA (IF APPLICABLE):**

DIVISION	<span style="border: 1px solid black; padding: 2px;">1</span>	CLASS I	<span style="border: 1px solid black; padding: 2px;">I</span>	GROUP I	<span style="border: 1px solid black; padding: 2px;">D</span>
TEMP CODE	<span style="border: 1px solid black; padding: 2px;">T3B</span>	CLASS II	<span style="border: 1px solid black; padding: 2px;">II</span>	GROUP II	<span style="border: 1px solid black; padding: 2px;">FG</span>

**VFD DATA (IF APPLICABLE):**

VOLTS	_____	TORQUE 1	_____	TORQUE 2	_____
AMPS	_____	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	_____	MAGNETIZING AMPS	<span style="border: 1px solid black; padding: 2px;">2.7</span>
NO. POLES	<span style="border: 1px solid black; padding: 2px;">4</span>	Encoder PPR	_____	Encoder Volts	_____
VECTOR MAX RPM	_____				
Radians/ Seconds	<span style="border: 1px solid black; padding: 2px;">1</span>				

**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.	90.6	Inrush Limit	
Motor Weight (LBS)	110	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
DN69	NA	3	LE	184T

ORDER NO.	21839	LINE NO.	
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The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

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**B109144**

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



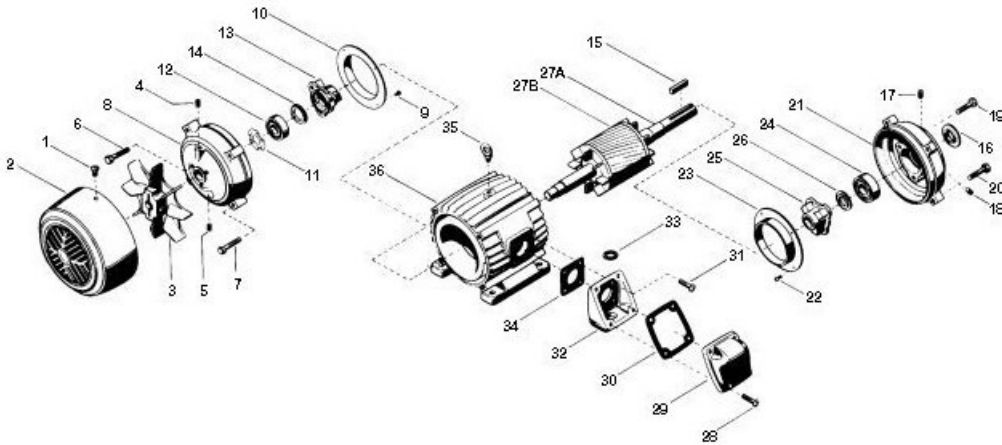
To reverse direction of rotation interchange connections L1 and L2.

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, 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