

NIDEC MOTOR CORPORATION

8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136



DATE: 1/21/2013

P.O. NO.: CY32
Order/Line NO.: 20342 MN 100

TO:

Model Number: CY32

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 00001.50 ~ KW: 1.119
Enclosure TEFC
Poles 04 ~ RPM: 1800
Frame Size 145~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 "M"
Starting Method Direct-On-Line Start
Duty Cycle Continuous Duty
Efficiency Value 86.5 % ~ NEMA Nominal
Load Inertia (lb-ft²): NEMA ~ NEMA Inertia: 8.60 ~ 1.00
Number Of Starts Per Hour: NEMA
Motor Type Code TCE
Rotor Inertia (LB-FT²) 122 LB-FT²
Qty. of Bearings PE (Shaft) 1
Qty. of Bearings SE (OPP) 1
Bearing Number PE (Shaft) 6205-2Z-J/C3
Bearing Number SE (OPP) 6203-2Z-J/C3

Nidec trademarks followed by the ® symbol are registered with the U.S. Patent and Trademark Office.

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Accessories:

Corro-Duty

Clockwise Rotation FODE

Ground Lug In Conduit Box

Special Balance

Standard Leadtime: REFER TO OFFICE

Est. Weight (lbs ea): 70 ~ F.O.B.: St. Louis, MO

USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT

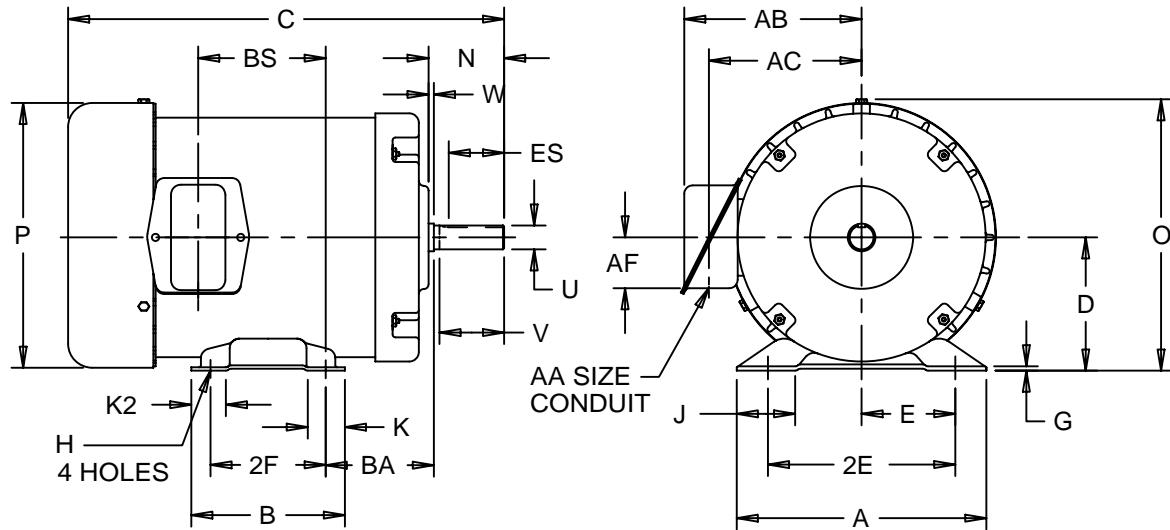
Horsepower	1.5
Pole(s)	04
Voltage(s)	460-230
Frame Size	145T
Shaft U Diameter	0.875
Outlet Box AF	1.25
Outlet Box AA	0.75

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EFFECTIVE:
01-APR-11
SUPERSEDES:
12-JUN-01

HORIZONTAL MOTORS
7.75" STEEL FRAME
FRAME: 140T
BASIC TYPE: TCE

PRINT:
07-2280
SHEET:
1 OF 1



ALL DIMENSIONS ARE IN INCHES & MILLIMETERS

UNITS	A	B	C	E	G	J	K	K2	N	O	P ²
IN	6.50	6.00	13.88	2.75	.13	.88	.88	1.88	2.38	7.31	7.63
MM	165	152	353	70	3	22	22	48	60	186	194

UNITS	V MIN	W	AA	AB	AC	AF	BA	BS	ES MIN	SQ KEY
IN	2.06	.13	3/4 NPT	6.38	4.56	1.25	2.25	4.90	1.41	.188
MM	52	3		162	116	32	57	125	36	4.78

UNITS	D -.06	2E ±.03	H +.05	U -.0005
IN	3.50	5.50	.34	.8750
MM	89	140	9	22.225

FRAME	UNITS	2F ±.03
143T	IN	4.00
	MM	102
145T	IN	5.00
	MM	127

1: ALL ROUGH CASTING DIMENSIONS MAY VARY BY .25"
DUE TO CASTING AND/OR FABRICATION VARIATIONS.

2: LARGEST MOTOR WIDTH.

3: CONDUIT BOX MAY BE LOCATED ON EITHER SIDE
OF MOTOR. CONDUIT OPENINGS MAY BE LOCATED IN
STEPS OF 90 DEGREES REGARDLESS OF LOCATION.
STANDARD AS SHOWN WITH CONDUIT OPENING DOWN.

4: TOLERANCE UNITS ARE IN INCHES ONLY.

07-2280

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 #:							
MODEL	CY32	FR	145T		TYPE	TCE	ENCL	TE				
SHAFT END BRG	6205-2Z-J/C3 - QTY 1				OPP END BRG	6203-2Z-J/C3 - QTY 1						
PH	3	MAX AMB	40 C		ID#							
INSUL CLASS	F	Asm. Pos.	F1		DUTY	CONT						
HP	1.5	RPM	1750		HP							
VOLTS	460	230			VOLTS							
FL AMPS	2.1	4.3			FL AMPS							
SF AMPS	2.4	4.7			SF AMPS							
SF	1.15	DESIGN	B	CODE	M	SF						
NEMA NOM EFFICIENCY	86.5	NOM PF	76.1	KiloWatt	1.119	NEMA NOM EFFICIENCY						
GUARANTEED EFFICIENCY	84.0	MAX KVAR	.9	Hz	60	GUARANTEED EFFICIENCY						
UL DATA (IF APPLICABLE):												
DIVISION					CLASS I					GROUP I		
TEMP CODE					CLASS II					GROUP II		
VFD DATA (IF APPLICABLE):												
VOLTS												
AMPS												
TORQUE 1												
VFD LOAD TYPE 1												
VFD HERTZ RANGE 1												
VFD SPEED RANGE 1												
SERVICE FACTOR												
NO. POLES	4											
VECTOR MAX RPM												
Radians / Seconds	1											
TEAO DATA (IF APPLICABLE):												
HP (AIR OVER)					HP (AIR OVER M/S)					RPM (AIR OVER)		
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.	86.3	Inrush Limit	
Motor Weight (LBS)	70	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
CY32	NA	3	TCE	145T
ORDER NO.	20342		LINE NO.	
MPI:		125393	125394	
HP:		1.5	1.5	
POLES:		4	4	
VOLTS:		460	230	
HZ:		60	60	
SERVICE FACTOR:		1.15	1.15	
EFFICIENCY (%):				
S.F.	86.3	86.3		
FULL	86.5	86.5		
3/4	86.3	86.3		
1/2	83.8	83.8		
1/4	75	75		
POWER FACTOR (%):				
S.F.	79.4	79.4		
FULL	76.1	76.1		
3/4	67.7	67.7		
1/2	54.5	54.5		
1/4	34.9	34.9		
NO LOAD	7.9	7.9		
LOCKED ROTOR	63.5	63.5		
AMPS:				
S.F.	2.4	4.7		
FULL	2.1	4.3		
3/4	1.8	3.6		
1/2	1.5	3.1		
1/4	1.3	2.7		
NO LOAD	1.3	2.6		
LOCKED ROTOR	19.8	40		
NEMA CODE LETTER	M	M		
NEMA DESIGN LETTER	B	B		
FULL LOAD RPM	1750	1750		
NEMA NOMINAL EFFICIENCY (%)	86.5	86.5		
GUARANTEED EFFICIENCY (%)	84	84		
MAX KVAR	0.9	0.9		
AMBIENT (°C)	40	40		
ALTITUDE (FASL)	3300	3300		
SAFE STALL TIME-HOT (SEC)	15	15		
SOUND PRESSURE (DBA@1M)	54	54		
TORQUES:				
BREAKDOWN{ % F.L. }	504	504		
LOCKED ROTOR{ % F.L. }	383	383		
FULL LOAD{LB-FT}	4.5	4.5		

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

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ST. LOUIS, MO

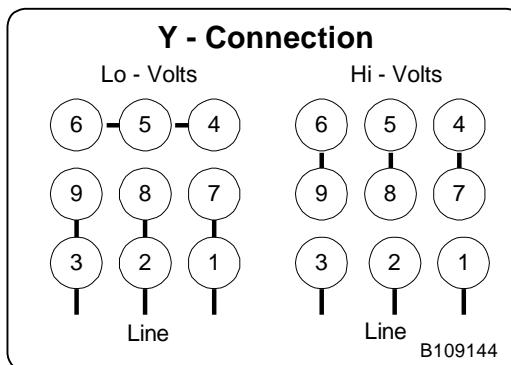
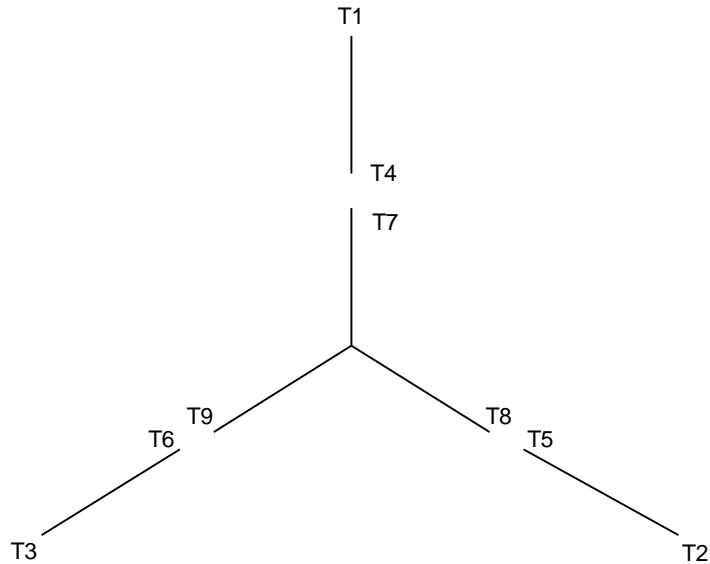


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B109144

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



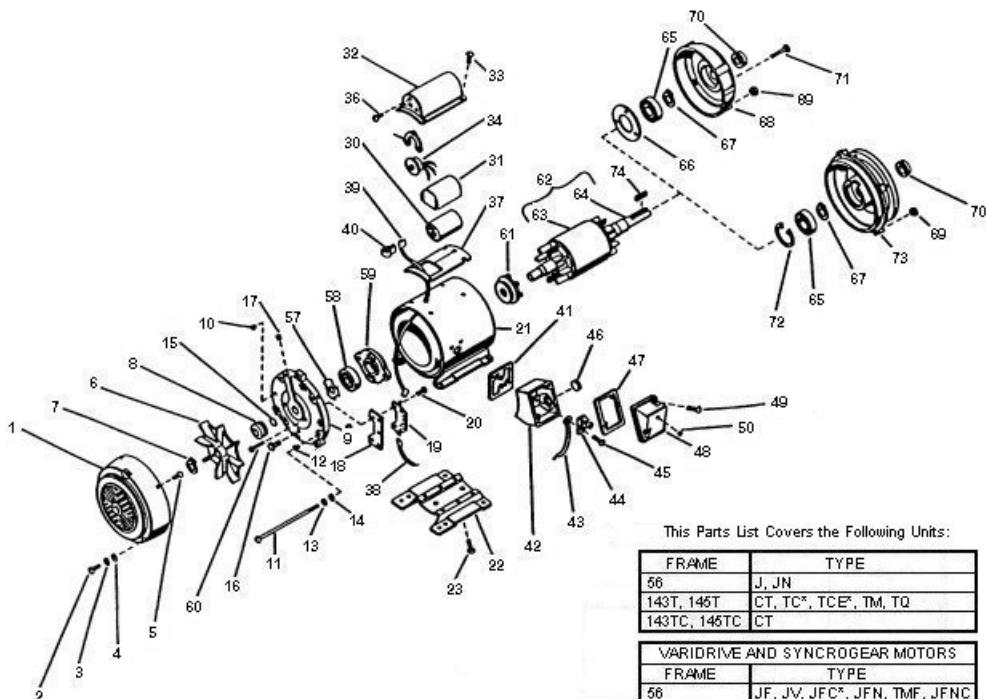
To reverse direction of rotation interchange connections L1 and L2.

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

RENEWAL PARTS

56 thru 145 - TOTALLY ENCLOSED MOTORS

Types: CE, CEF, CEF4, CT, CT4, CTC, CTE, CTE4, CTEF, CTF, CTFI, CTFNI, CTI, CTN, FCT, FCTF, FTC, FTCF, J, JCE, JF, JFC, JFN, JFNC, JFNI, JN, JV, TC, TC1, TC4, TCE, TCEF, TCEN, TCE1, TCF, TCF1, TCF4, TCFI, TCI, TCN, TF, TFN, TFNI, TM, TMF, TMQ



BEARINGS:

Refer to motor nameplate for the bearing numbers.

RENEWAL PARTS

56 thru 145 - TOTALLY ENCLOSED MOTORS

Types: CE, CEF, CEF4, CT, CT4, CTC, CTE, CTE4, CTEF, CTF, CTFI, CTFNI, CTI, CTN, FCT, FCTF, FTC, FTCF, J, JCE, JF, JFC, JFN, JFNC, JFNI, JN, JV, TC, TC1, TC4, TCE, TCEF, TCEN, TCE1, TCF, TCF1, TCF4, TCFI, TCI, TCN, TF, TFN, TFNI, TM, TMF, TMQ

ITEM NO.	QTY	NAME OF PART
19	1	Starting Switch Assembly (Types TM, TMF, TMQ)
20	3	Self Tapping Screw (Types TM, TMF, TMQ)
21	1	Wound Stator Assembly (Mounting Base Included on types CT, TC, TCE, TM, TMQ)
22	1	Mounting Bases (Types J & JN)
23	2	Screws (Types J & JN)
24-29	-	Not Used
30	1	Starting Capacitor (Types TM, TMF, TMQ)
31	1	Capacitor Insulator (Types TM, TMF, TMQ)
32	1	Capacitor Box (Types TM, TMF, TMQ)
33	4	Self Tapping Screws (Types TM, TMF, TMQ)
34	1	Thermal Protector (Type TMQ)
35	1	Clamping Plate (Type TMQ)
36	3	Self Tapping Screw (Type TMQ)
37	1	Gasket (Type TMQ)
38	1	Connection Lead Assembly No. 5 (Included with Wound Stator Assembly item 20) (Types TM & TMQ)
39	1	Connection Lead Assembly No. 10 (Included with Wound Stator Assembly item 20) (Types TM & TMQ)
40	4	Sleeving Insulation (Included with Items No. 38 & 39)
41	1	Gasket (Not used on J, JN, JV)
42	1	Outlet Box Base
43	1	Connection Lead Assembly Ground (Type TMQ)
44	1	Grounding Lug (Types TC, TCE)
45	2	Self Tapping Screw (Qty. 4 Round Head Screw on types J, JN, JV)
46	1	Plastic Plug (Types CT, TC, TCE)
47	1	Gasket (Types CT, TC, TCE)

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.

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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, Pages 10 & 11

ITEM NO.	QTY	NAME OF PART
48	1	Outlet Box Cover
49	2	Screw (Qty. 4 Round Head Screws on types J, JN, JV)
50	3	Plastic Plug (Types JFC, JFNC, TFC)
51-56	-	Not Used
57	1	Wave Spring Washer (Type CT without "C" Bracket, TC, TCE, TM, TMQ, TMF)
58	1	Ball Bearing
59	1	Bearing Cap (Type JV only)
60	2	Round Head Screw (Type JV only)
61	1	Rotary Actuator (Types TM, TMQ, TMF)
62	1	Rotor Assembly (Includes items 63 & 64)
63	1	Rotor Core
64	1	Rotor Shaft
ITEMS 65 THRU 74 ARE FOR TYPES J, CT, JN, TC, TCE, TM, TMQ		
65	1	Ball Bearing (Refer to section 775)
66	1	Retaining Cap (Type TMQ)
67	1	Retaining Snap Ring (Types CT with "C" Bracket, & TMQ)
68	1	Bracket (Not used with "C" Bracket)
69	4	Hex Nut
70	1	Water Deflector (Types CT with "C" Bracket, TC, TCE)
71	3	Round Head Machine Screw (Type TMQ)
72	1	Retaining Snap Ring (Type CT with "C" Bracket)
73	1	"C" Bracket
74	1	Square Key