

NIDEC MOTOR CORPORATION

8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136



DATE: 5/11/2012

P.O. NO.:

Order/Line NO.:

20393 MN

TO:

Model Number: CY74

Catalog Number:

TEFC, PRE, AC MTR

60 HZ, 460 V, MEX. MARKET

TCE, 100 HP, 4 P, 405T

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	100
Enclosure.	TE
Poles.	04
RPM (Full Load).	1780
Motor Frame Size	405T
Phase.	3
Frequency.	60
Voltage.	460
Motor Type Code.	TCE
Rotor Inertia (LB-FT ²)	23.0 LB-FT ²
Qty. of Bearings PE (Shaft)	1
Qty. of Bearings SE (OPP)	1
Bearing Number PE (Shaft)	6316-J/C3
Bearing Number SE (OPP)	6316-J/C3

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EFFECTIVE:
18-APR-11

SUPERSEDES:
NEW

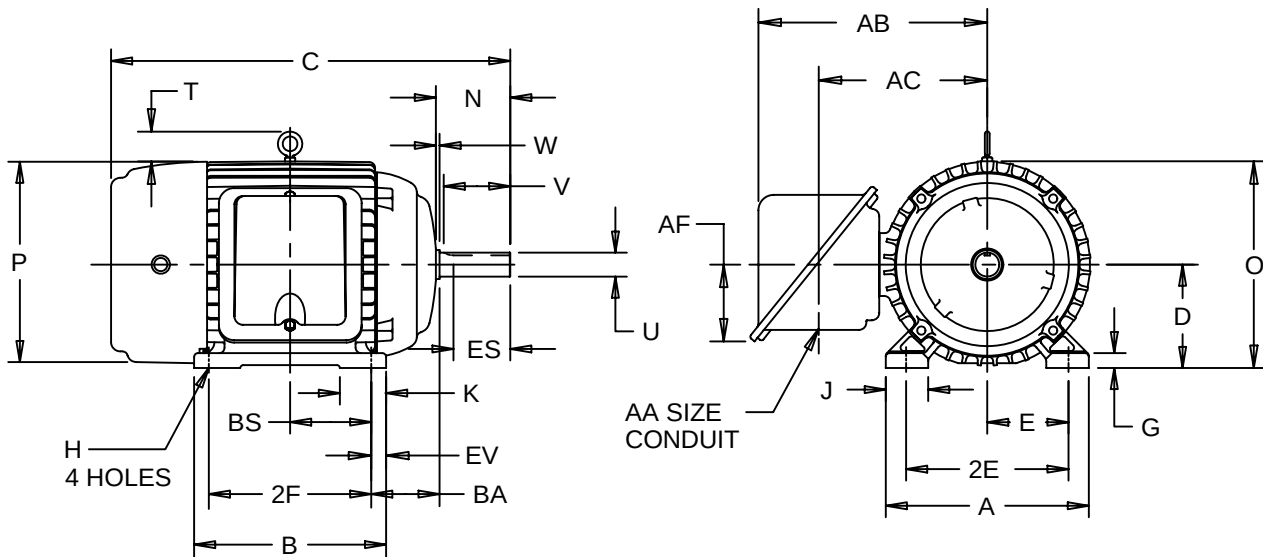
HORIZONTAL MOTORS

TEFC

FRAME: 400T
BASIC TYPE: TC

PRINT:
07-2702-05

SHEET:
1 OF 1



ALL DIMENSIONS ARE IN INCHES AND MILLIMETERS

UNITS	A	B	C	D -.06	E	2E ±.03	G	H +.05	J	K	N	O	P ²
IN	19.75	16.75	38.00	10.00	8.00	16.00	1.38	.81	3.75	5.00	7.38	20.44	20.88
MM	502	425	965	254	203	406	35	21	95	127	187	519	530

UNITS	T	U -.001	V MIN	W	AA	AB	AC	AF	BA	BS	ES MIN	EV	SQ KEY
IN	2.94	2.875	7.00	.13	3 NPT	18.69	14.13	4.88	6.63	6.88	5.66	1.50	.750
MM	75	73.03	178	3		475	359	124	168	175	144	38	19.05

FRAME	UNITS	2F ±.03
404T	IN	12.25
	MM	311
405T	IN	13.75
	MM	349

1: ALL ROUGH 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: TOLERANCES SHOWN ARE IN INCHES ONLY.

07-2702/-

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 #:		431157-000	
MODEL	CY74	FR	405T	TYPE	TCE	ENCL	TE
SHAFT END BRG		6316-J/C3 - QTY 1		OPP END BRG		6316-J/C3 - QTY 1	
PH	3	MAX AMB	40 C	ID#			
INSUL CLASS	F	Asm. Pos	F1	DUTY	CONT		
HP	100	RPM	1780	HP		RPM	
VOLTS	460			VOLTS			
FL AMPS	113.0			FL AMPS			
SF AMPS	129.0			SF AMPS			
SF	1.15	DESIGN	B	CODE	G		
NEMA NOM EFFICIENCY	95.4	NOM PF	87.1	KiloWatt	74.600		
GUARANTEED EFFICIENCY	94.5	MAX KVAR	22.6	HZ	60		

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		
TORQUE 2		
VFD LOAD TYPE 2		
VFD HERTZ RANGE 2		
VFD SPEED RANGE 2		
SERVICE FACTOR		
NO. POLES	4	
VECTOR MAX RPM		
Radians / Seconds	1	
FL SLIP		
MAGNETIZING AMPS	33.4	
Encoder PPR		
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	0.05 IN/SEC	Arctic Duty	
3/4 Load Eff.	95.6	Inrush Limit	
Motor Weight (LBS)	1300	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
CY74	NA	3	TCE	405T

ORDER NO.	20393	LINE NO.	
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MPI:		104021
HP:		100
POLES:		4
VOLTS:		460
HZ:		60
SERVICE FACTOR:		1.15
EFFICIENCY (%):		
	S.F.	95
	FULL	95.4
	3/4	95.6
	1/2	95.1
	1/4	92.2
POWER FACTOR (%):		
	S.F.	87.6
	FULL	87.1
	3/4	84.8
	1/2	78.3
	1/4	58.9
	NO LOAD	4.9
	LOCKED ROTOR	27.6
AMPS:		
	S.F.	129
	FULL	113
	3/4	87
	1/2	63
	1/4	43
	NO LOAD	33.4
	LOCKED ROTOR	716.9
NEMA CODE LETTER		G
NEMA DESIGN LETTER		B
FULL LOAD RPM		1780
NEMA NOMINAL EFFICIENCY (%)		95.4
GUARANTEED EFFICIENCY (%)		94.5
MAX KVAR		22.6
AMBIENT (°C)		40
ALTITUDE (FASL)		3300
SAFE STALL TIME-HOT (SEC)		30
SOUND PRESSURE (DBA @ 1M)		71
TORQUES:		
	BREAKDOWN{% F.L.}	241
	LOCKED ROTOR{% F.L.}	165
	FULL LOAD{LB-FT}	294.7

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

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ST. LOUIS, MO

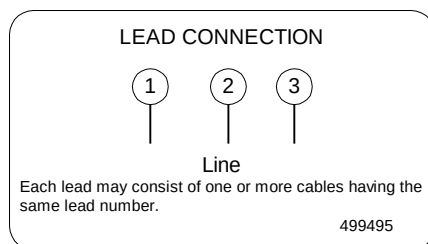
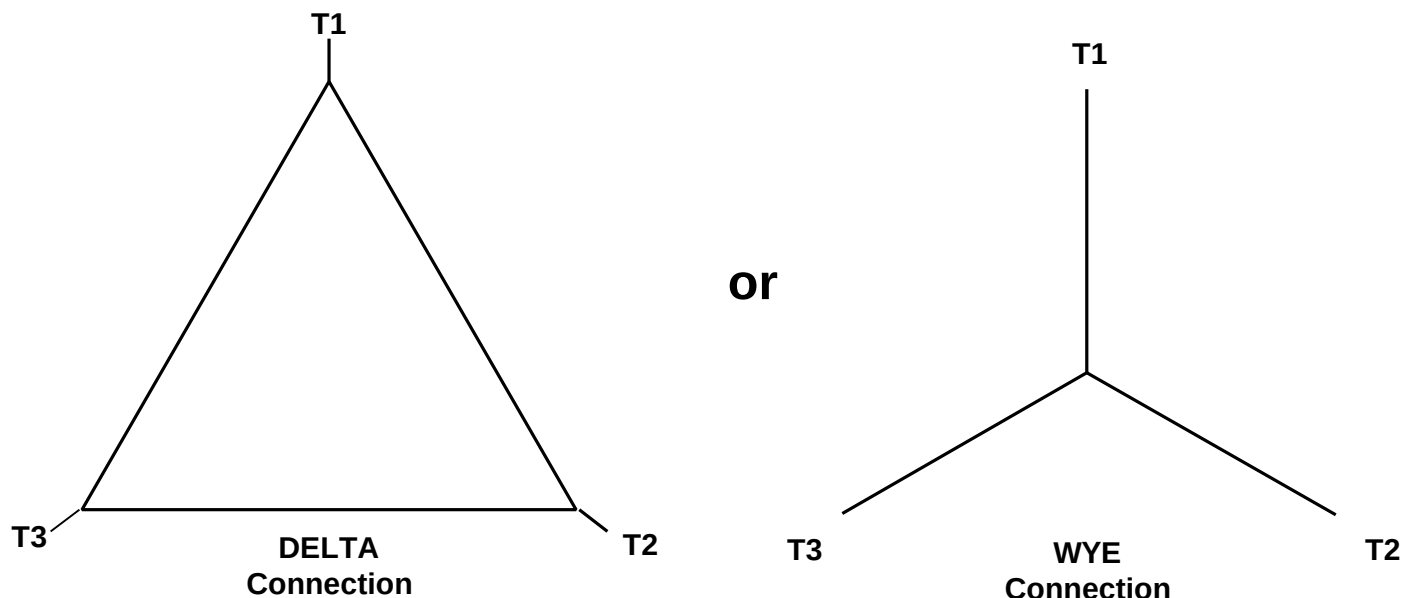


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Motor Wiring Diagram



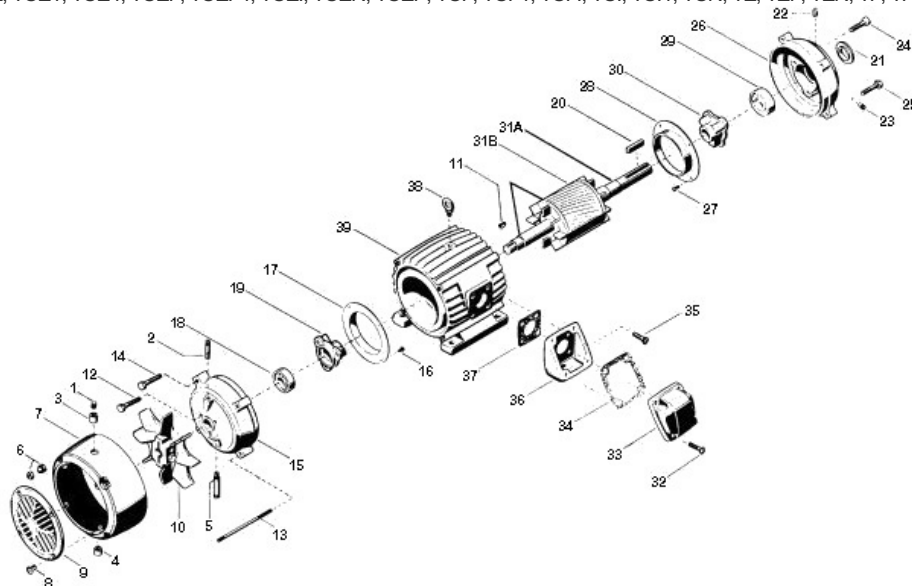
To reverse direction of rotation interchange connections L1 and L2.

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

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