

NIDEC MOTOR CORPORATION

8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136



DATE: 12/3/2012

P.O. NO.: CY79
Order/Line NO.: 20412 MN 100

TO:

Model Number: CY79
Catalog Number:
Corro-Duty Premium Eff. Config
CONF,MOTOR,CORRO-DUTY 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 00150.00 ~ KW: 111.9
Enclosure TEFC
Poles 02 ~ RPM: 3600
Frame Size 445~TS
Phase/Frequency/Voltage.. 3~060~460 ~ 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 "F"
Starting Method Direct-On-Line Start
Duty Cycle Continuous Duty
Efficiency Value 94.1 % ~ Guaranteed
Load Inertia (lb-ft²): NEMA ~ NEMA Inertia: 133.00 ~ 1.00
Number Of Starts Per Hour: NEMA
Motor Type Code TCE
Rotor Inertia (LB-FT²) 18.1 LB-FT²
Qty. of Bearings PE (Shaft) 1
Qty. of Bearings SE (OPP) 1
Bearing Number PE (Shaft) 6313-J/C3
Bearing Number SE (OPP) 6313-J/C3

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Accessories:

Direct Connected To Load
Corro-Duty
Counter CW Rotation FODE
Ground Lug In Conduit Box
Horizontal Lifting Lugs
Precision Balance
Standard Leadtime: REFER TO OFFICE
Est. Weight (lbs ea): 1750 ~ F.O.B.: St. Louis, MO

USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT

Horsepower	150
Pole(s)	02
Voltage(s)	460
Frame Size	445TS
Shaft U Diameter	2.375
Outlet Box AF	5.28
Outlet Box AA	3.50

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EFFECTIVE:
25-SEP-12

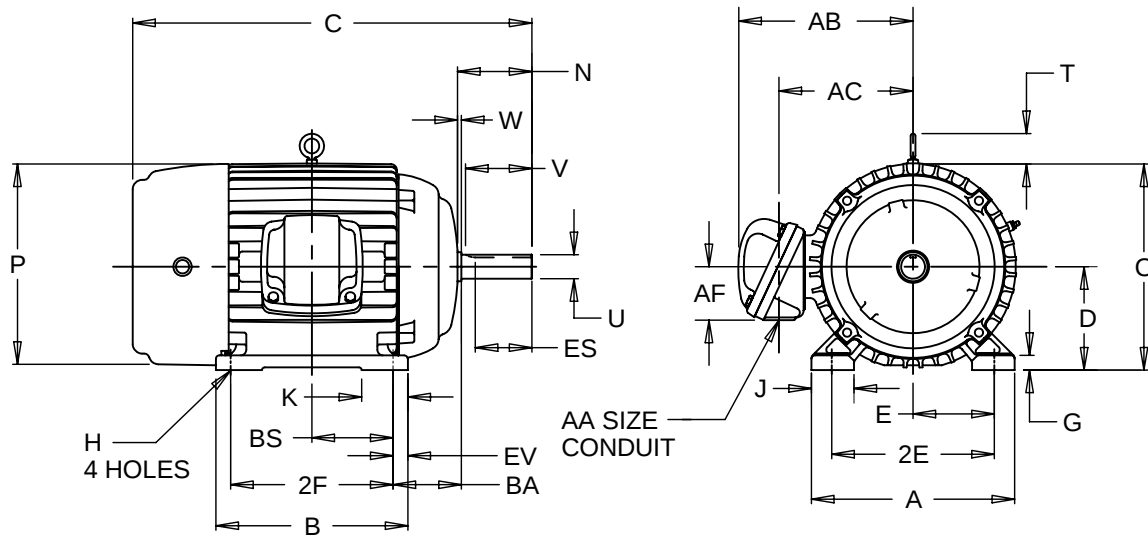
SUPERSEDES:
30-MAR-11

HORIZONTAL MOTORS

FRAME: 444T THRU 447TS
BASIC TYPE: TC

PRINT:
07-2763

SHEET:
1 OF 1



ALL DIMENSIONS ARE IN INCHES AND MILLIMETERS

UNITS	A	D -.06	E	2E ±.03	G	H +.05	J	O	P ²	T
IN	22.00	11.00	9.00	18.00	1.50	.81	4.00	22.75	23.50	3.13
MM	559	279	229	457	38	21	102	578	597	80

UNITS	W	AB	AC	AF	BA ±.09	EV
IN	.25	19.38	15.00	5.28	7.50	1.50
MM	6	492	381	134	191	38

FRAME	UNITS	N	U -.001	V MIN	ES MIN	SQ KEY
440T	IN	8.75	3.375	8.25	6.91	.875
	MM	220	85.73	210	176	22.23
440TS	IN	5.00	2.375	4.50	3.03	.625
	MM	127	60.33	114	77	15.88

FRAME	UNITS	C
444, 445T	IN	45.41
	MM	1153
444, 445TS	IN	41.66
	MM	1058
447T	IN	48.91
	MM	1242
447TS	IN	45.16
	MM	1147

AA
1 1/2 NPT
2 NPT
2 1/2 NPT
3 NPT
3 1/2 NPT

FRAME	UNITS	B	K	BS
444, 445T, TS	IN	19.50	6.00	8.25
	MM	495	152	210
447T, TS	IN	23.00	4.00	10.00
	MM	584	102	254

FRAME	UNITS	2F ±.03
444T, TS	IN	14.50
	MM	368
445T, TS	IN	16.50
	MM	419
447T, TS	IN	20.00
	MM	508

- 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.

07-2763/C

Nidec Motor Corporation
St. Louis, Missouri

INFORMATION DISCLOSED ON THIS DOCUMENT
IS CONSIDERED PROPRIETARY AND SHALL NOT BE
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CONSENT OF NIDEC MOTOR CORPORATION



ISSUED BY
R. KING
APPROVED BY
J. O'BRIEN

IHP_DP_NMCA (MAR-2011) SOLIDEDGE

NAMEPLATE DATA

CATALOG NUMBER:				NAMEPLATE PART #:		431157-000	
MODEL	CY79	FR	445TS	TYPE	TCE	ENCL	TE
SHAFT END BRG		6313-J/C3 - QTY 1		OPP END BRG		6313-J/C3 - QTY 1	
PH	3	MAX AMB	40 C	ID#			
INSUL CLASS	F	Asm. Pos	F1	DUTY	CONT		
HP	150	RPM	3575	HP		RPM	
VOLTS	460			VOLTS			
FL AMPS	176.0			FL AMPS			
SF AMPS	202.0			SF AMPS			
SF	1.15	DESIGN	B	CODE	F		
NEMA NOM EFFICIENCY	95.0	NOM PF	84.0	KiloWatt	111.900		
GUARANTEED EFFICIENCY	94.1	MAX KVAR	37.3	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	2	
VECTOR MAX RPM		
Radians / Seconds	1	
FL SLIP		
MAGNETIZING AMPS	55.1	
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.	95.3	Inrush Limit	
Motor Weight (LBS)	1750	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
CY79	NA	3	TCE	445TS

ORDER NO.	20412	LINE NO.	
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MPI:		70024
HP:		150
POLES:		2
VOLTS:		460
HZ:		60
SERVICE FACTOR:		1.25
EFFICIENCY (%):		
	S.F.	94.4
	FULL	95
	3/4	95.3
	1/2	94.8
	1/4	91.7
POWER FACTOR (%):		
	S.F.	84.2
	FULL	84
	3/4	81.5
	1/2	74.6
	1/4	54.9
	NO LOAD	5.1
	LOCKED ROTOR	21.3
AMPS:		
	S.F.	221
	FULL	176
	3/4	136
	1/2	99
	1/4	70
	NO LOAD	55.1
	LOCKED ROTOR	986
NEMA CODE LETTER		F
NEMA DESIGN LETTER		B
FULL LOAD RPM		3575
NEMA NOMINAL EFFICIENCY (%)		95
GUARANTEED EFFICIENCY (%)		94.1
MAX KVAR		37.3
AMBIENT (°C)		40
ALTITUDE (FASL)		3300
SAFE STALL TIME-HOT (SEC)		19
SOUND PRESSURE (DBA @ 1M)		84
TORQUES:		
	BREAKDOWN(% F.L.)	223
	LOCKED ROTOR(% F.L.)	106
	FULL LOAD(LB-FT)	220.4

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

NIDEC MOTOR CORPORATION
ST. LOUIS, MO

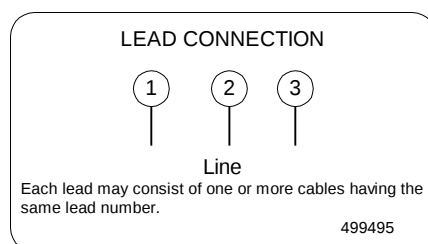
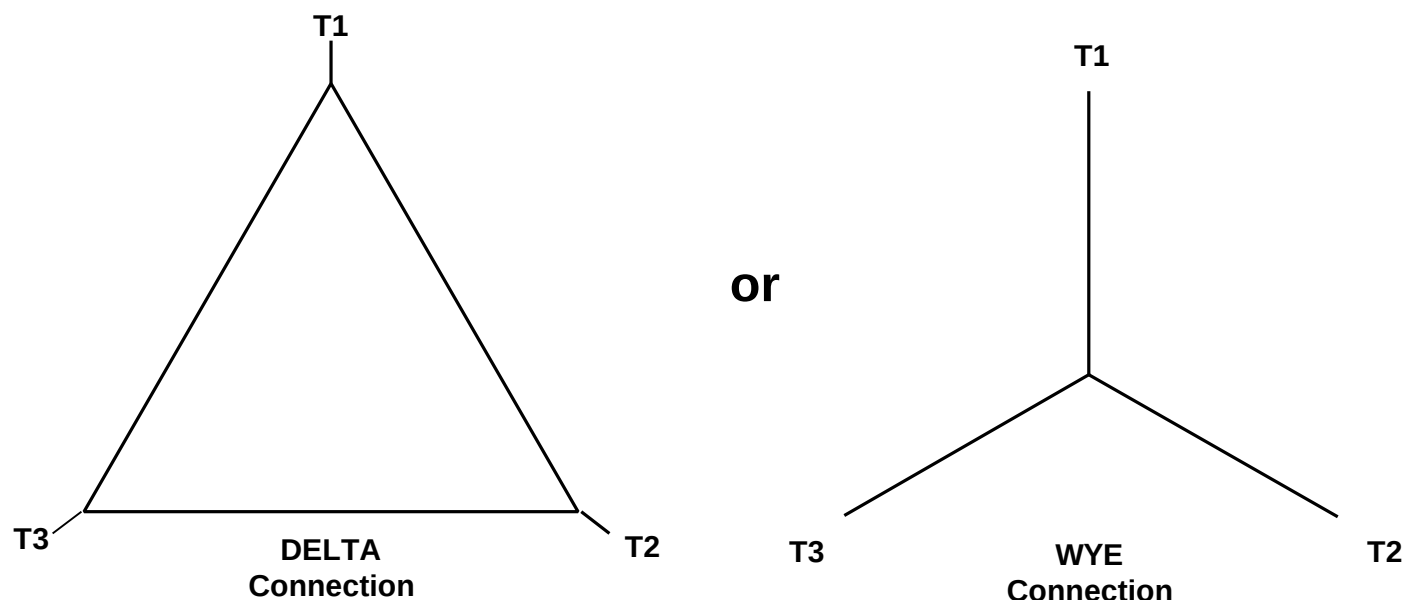


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Motor Wiring Diagram



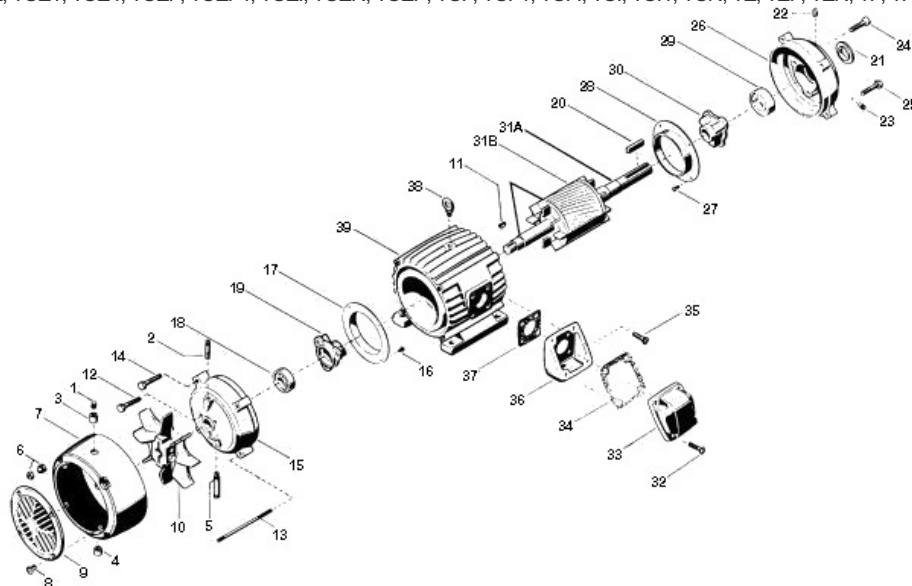
To reverse direction of rotation interchange connections L1 and L2.

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