

NIDEC MOTOR CORPORATION

8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136



DATE: 12/8/2016

P.O. NO.:

FK70

Order/Line NO.:

23999 MN 100

TO:

Model Number: FK70

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)
Starting Method Direct-On-Line Start
Duty Cycle Continuous Duty
Efficiency Value 95.0 % ~ Typical
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) 19.8 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
Dual Rotation w/Rotation Arrow
Ground Lug In Conduit Box
Special Balance

.
Standard Leadtime: 8-9 WEEKS
Est. Weight (lbs ea): 1750 ~ F.O.B.: Monterrey, Mexico

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:
11-APR-13

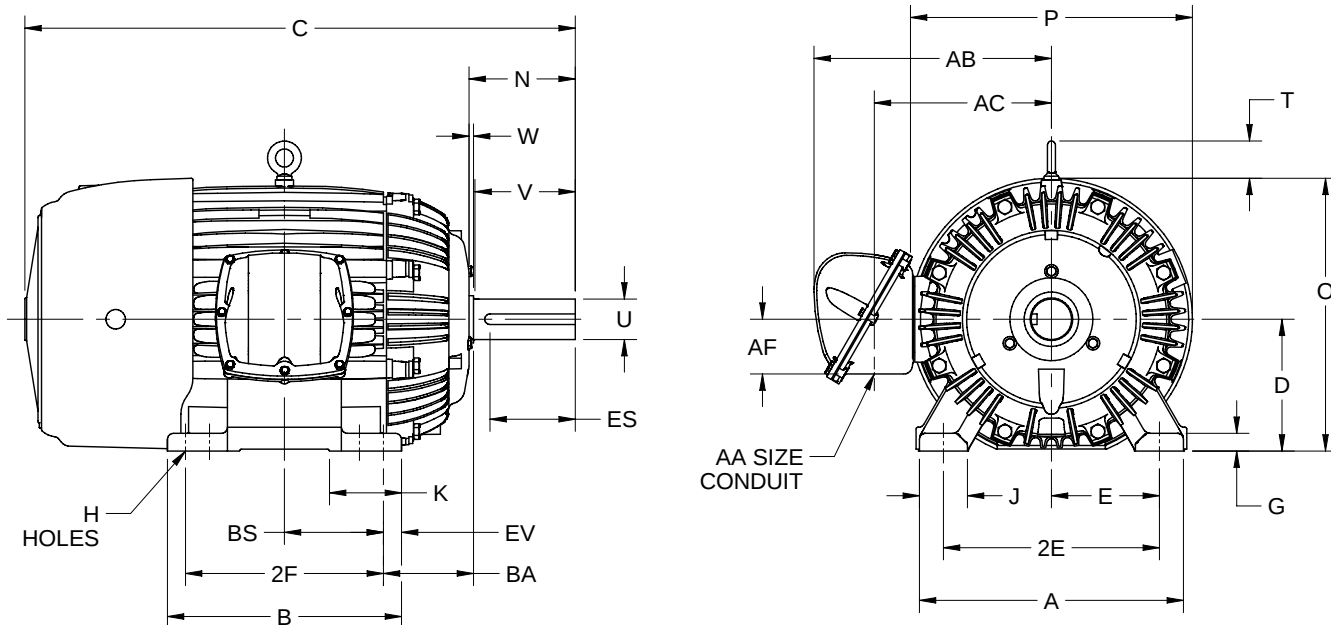
SUPERSEDES:
25-SEP-12

DIMENSION PRINT

FRAME: 440T, TS
BASIC TYPE: TC

PRINT:
07-2763

SHEET:
1 OF 1



ALL DIMENSIONS ARE IN INCHES AND MILLIMETERS

	A	D -.06	E	2E ±.03	G	H +.05	J	O	AA
IN	22.00	11.00	9.00	18.00	1.50	.81	4.00	22.75	2 NPT
MM	559	279	229	457	38	21	102	578	2 1/2 NPT

	P ²	T	W	AB	AC	AF	BA ±.09	EV	AA
IN	23.50	3.13	.38	19.38	15.00	5.28	7.50	1.50	3 NPT
MM	597	80	10	492	381	134	191	38	3 1/2 NPT
									4 NPT

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

	FRAME	C	N	U -.001	V MIN	ES MIN	SQ KEY
IN	444, 445T	45.88	8.88	3.375	8.25	6.91	.875
MM		1165	226	85.73	210	176	22.23
IN	444, 445TS	42.13	5.13	2.375	4.50	3.03	.625
MM		1070	130	60.33	114	77	15.88
IN	447T	49.38	8.88	3.375	8.25	6.91	.875
MM		1254	226	85.73	210	176	22.23
IN	447TS	45.63	5.13	2.375	4.50	3.03	.625
MM		1159	130	60.33	114	77	15.88

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

1. DIMENSIONS MAY VARY .25" DUE TO CASTING AND/OR FABRICATION VARIATIONS.
2. LARGEST MOTOR WIDTH.
3. TOLERANCES ARE SHOWN IN INCHES.
4. CONDUIT BOX MAY BE LOCATED ON EITHER SIDE OF MOTOR. CONDUIT OPENING MAY BE LOCATED IN STEPS OF 90 DEGREES REGARDLESS OF LOCATION. STANDARD AS SHOWN WITH CONDUIT OPENING DOWN.

07-2763/D

Nidec Motor Corporation
St. Louis, Missouri

INFORMATION DISCLOSED ON THIS DOCUMENT
IS CONSIDERED PROPRIETARY AND SHALL NOT BE
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ISSUED BY
R. KING
APPROVED BY
J. O'BRIEN

IHP_DP_NMCA (MAR-2011) SOLIDEDGE

NAMEPLATE DATA

CATALOG NUMBER				NAMEPLATE PART #:		2022000-004	
MODEL	FK70	FR	445TS	TYPE	TCE	ENCL	TEFC
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	3570	HP		RPM	
VOLTS	460			VOLTS			
FL AMPS	171.0			FL AMPS			
SF AMPS	196.0			SF AMPS			
SF	1.15	DESIGN	B	CODE	G		
NEMA NOM EFFICIENCY	95.8	NOM PF	85.8	KiloWatt	111.9		
GUARANTEED EFFICIENCY	95.0	MAX KVAR	37.2	HZ	60		

HAZARDOUS LOCATION 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		FL SLIP	
NO. POLES	2	MAGNETIZING AMPS	54.9
VECTOR MAX RPM		Encoder PPR	
Radians/ Seconds		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	2.03 MM/SEC	Arctic Duty	
3/4 Load Eff.	96.2	Inrush Limit	
Motor Weight (LBS)	794.5 KG	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	
Heater in C/B Voltage		Heater in C/B Watts	
Zone 2 Group		Division 2 Service Factor	

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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
FK70	NA	3	TCE	445TS

ORDER NO.	23999	LINE NO.	
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MPI:	178801
HP:	150
POLES:	2
VOLTS:	460
HZ:	60
SERVICE FACTOR:	1.15
EFFICIENCY (%):	
S.F.	95.4
FULL	95.8
3/4	96.2
1/2	96.1
1/4	94.2
POWER FACTOR (%):	
S.F.	86.3
FULL	85.8
3/4	83
1/2	75.5
1/4	54.9
NO LOAD	3.3
LOCKED ROTOR	22.8
AMPS:	
S.F.	196
FULL	171
3/4	132
1/2	97
1/4	68
NO LOAD	54.9
LOCKED ROTOR	1088
NEMA CODE LETTER	G
NEMA DESIGN LETTER	B
FULL LOAD RPM	3570
NEMA NOMINAL / EFFICIENCY (%)	95.8
GUARANTEED EFFICIENCY (%)	95
MAX KVAR	37.2
AMBIENT (°C)	40
ALTITUDE (FASL)	3300
SAFE STALL TIME-HOT (SEC)	12
SOUND PRESSURE (DBA @ 1M)	79
TORQUES:	
BREAKDOWN{% F.L.}	252
LOCKED ROTOR{% F.L.}	126
FULL LOAD{LB-FT}	220.5

NEMA Nominal and Guaranteed Efficiencies are up to 3,300 feet above sea level and 25 ° C ambient

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

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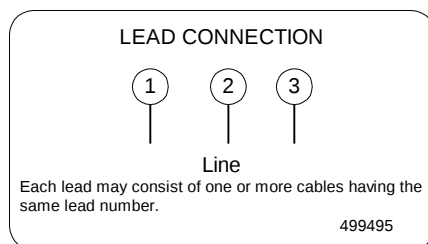
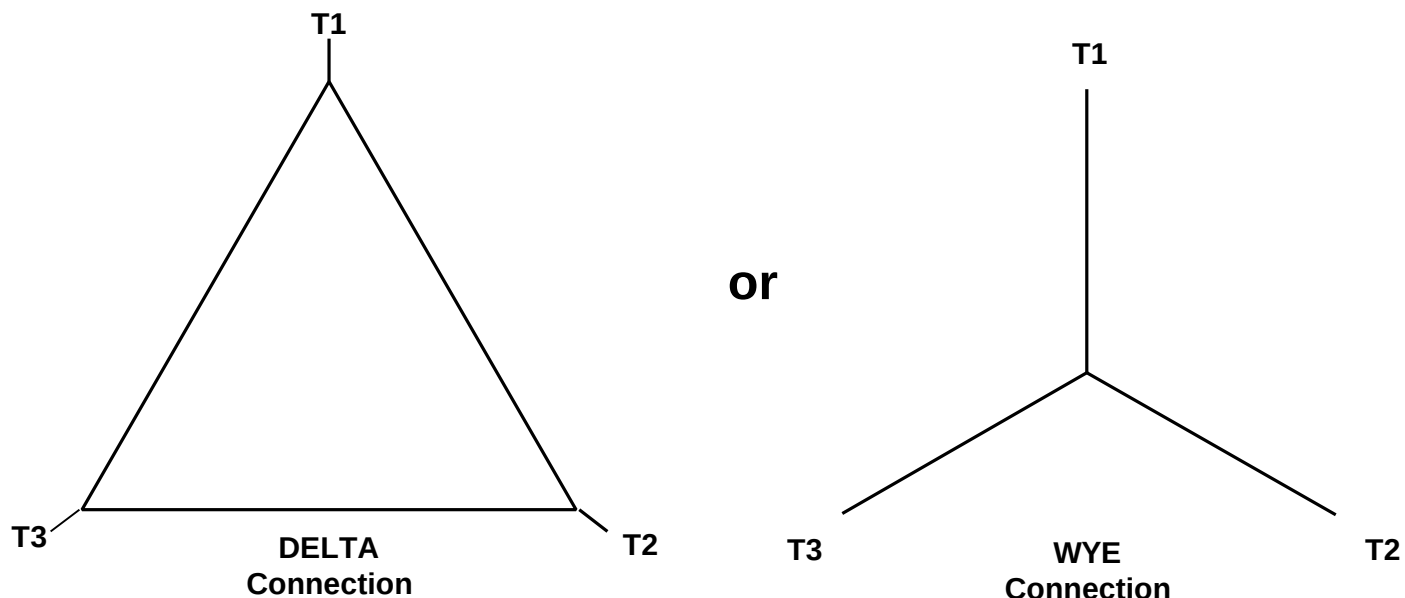


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Motor Wiring Diagram



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.