

NIDEC MOTOR CORPORATION

8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136



DATE: 1/28/2016

P.O. NO.: FF50
Order/Line NO.: 23646 MN 100

TO:

Model Number: FF50
Catalog Number:
Steel Frame TEFC Premium Eff.
CONF,MOTOR,STEEL FRAME 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 00007.50 ~ KW: 5.595
Enclosure TEFC
Poles 02 ~ RPM: 3600
Frame Size 213~T
Phase/Frequency/Voltage.. 3~060~230/460 ~ Random Wound
Service Factor 1.15
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
"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-ft²): NEMA ~ NEMA Inertia: 8.00 ~ 1.00
Number Of Starts Per Hour: NEMA
Motor Type Code SE
Rotor Inertia (LB-FT²) .391 LB-FT²
Qty. of Bearings PE (Shaft) 1
Qty. of Bearings SE (OPP) 1
Bearing Number PE (Shaft) 6208-2Z-J/C3
Bearing Number SE (OPP) 6205-2Z-J/C3

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Accessories:

Standard Leadtime: 7-8 WEEKS
Est. Weight (lbs ea): 105 ~ F.O.B.: Monterrey, Mexico

USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT

Horsepower	7.5
Pole(s)	02
Voltage(s)	460-230
Frame Size	213T
Shaft U Diameter	1.375
Outlet Box AF	2.13
Outlet Box AA	1.00

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EFFECTIVE:
13-APR-11

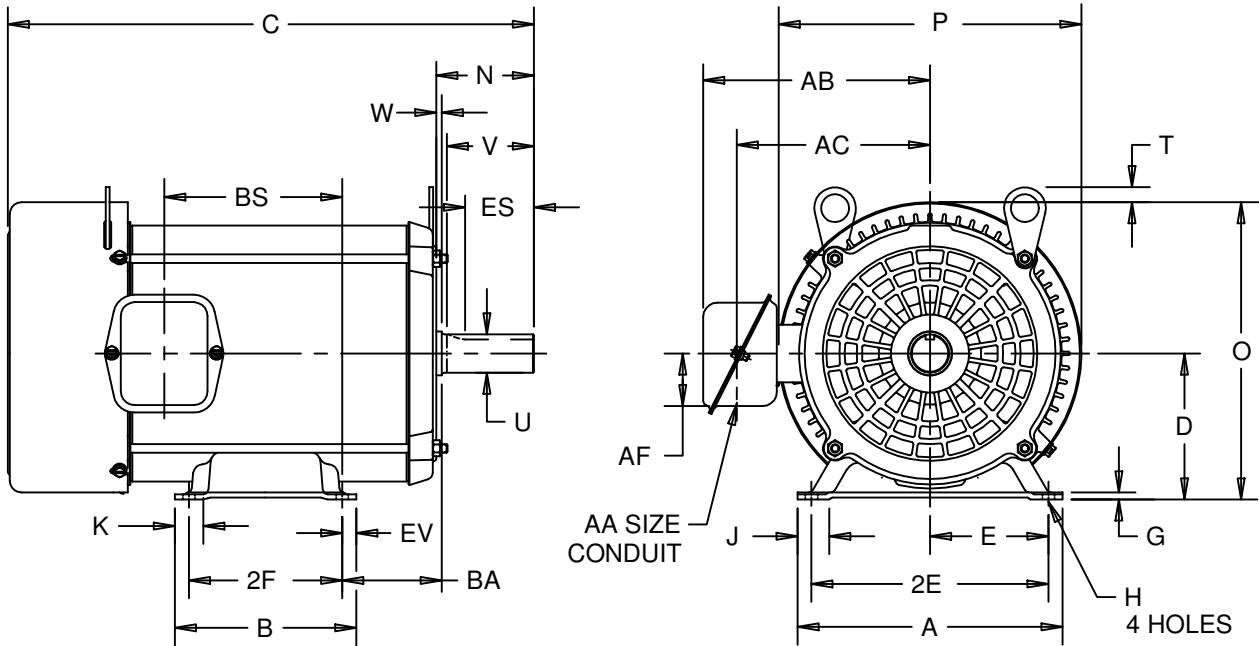
HORIZONTAL MOTORS

PRINT:
07-2048

SUPERSEDES:
09-FEB-10

TEFC
FRAME: 210T
BASIC TYPE: S

SHEET:
1 OF 1



ALL DIMENSIONS ARE IN INCHES AND MILLIMETERS

UNITS	A	C	D -.06	E	G	H +.05	J	K	N	O	P ²	T
IN	9.50	18.86	5.25	4.25	.19	.44	1.20	1.19	3.50	10.67	10.86	.53
MM	241	479	133	108	5	11	30	30	89	271	276	13

UNITS	U -.0005	V MIN	W	AA	AB	AC	AF	BA	BS	2E ±.03	ES MIN	EV	SQ KEY
IN	1.3750	3.13	.13	1.00	8.13	6.93	2.13	3.50	6.39	8.50	2.19	.50	.313
MM	34.925	80	3		207	176	54	89	162	216	56	13	7.95

BASIC FRAME	UNITS	B	2F ±.03
213T	IN	6.50	5.50
	MM	165	140
215T	IN	8.00	7.00
	MM	203	178

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



NAMEPLATE DATA

CATALOG NUMBER: _____				NAMEPLATE PART #: 417128-002			
MODEL	FF50	FR	213T	TYPE	SE	ENCL	TEFC
SHAFT END BRG: 6208-2Z-J/C3 - QTY 1				OPP END BRG: 6205-2Z-J/C3 - QTY 1			
PH	3	MAX AMB	40 C	ID#	_____		
INSUL CLASS	F	Asm. Pos.	F1		DUTY	CONT	
HP	7.5	RPM	3525	HP	_____	RPM	_____
VOLTS	460	230	_____	VOLTS	_____	_____	_____
FL AMPS	9.0	17.9	_____	FL AMPS	_____	_____	_____
SF AMPS	10.3	20.5	_____	SF AMPS	_____	_____	_____
SF	1.15	DESIGN	B	CODE	H	DESIGN	_____
NEMA NOM EFFICIENCY	89.5	NOM PF	87.0	KiloWatt	5.6	NOM PF	_____
GUARANTEED EFFICIENCY	87.5	MAX KVAR	1.8	HZ	60	MAX KVAR	_____

HAZARDOUS LOCATION DATA (IF APPLICABLE):

DIVISION	_____	CLASS I	_____	GROUP I	_____
TEMP CODE	_____	CLASS II	_____	GROUP II	_____

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	2.6
NO. POLES	2	Encoder PPR	_____	Encoder Volts	_____
VECTOR MAX RPM	_____				
Radians/ Seconds	_____				

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=417132	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.	91.3	Inrush Limit	
Motor Weight (LBS)	47.67 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	

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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
FF50	NA	3	SE	213T

ORDER NO.	23646	LINE NO.

MPI:	127297	127298
HP:	7.5	7.5
POLES:	2	2
VOLTS:	460	230
HZ:	60	60
SERVICE FACTOR:	1.15	1.15
EFFICIENCY (%):		
S.F.	90.1	90.1
FULL	90.2	90.2
3/4	91.3	91.3
1/2	90.2	90.2
1/4	85.1	85.1
POWER FACTOR (%):		
S.F.	87.3	87.3
FULL	87	87
3/4	84.8	84.8
1/2	78.5	78.5
1/4	61.3	61.3
NO LOAD	10.4	10.4
LOCKED ROTOR	35.8	35.8
AMPS:		
S.F.	10.3	20.5
FULL	9	17.9
3/4	6.8	13.6
1/2	5	9.9
1/4	3.4	6.7
NO LOAD	2.6	5.2
LOCKED ROTOR	60.8	121.5
NEMA CODE LETTER	H	H
NEMA DESIGN LETTER	B	B
FULL LOAD RPM	3525	3525
NEMA NOMINAL / EFFICIENCY (%)	89.5	90.2
GUARANTEED EFFICIENCY (%)	87.5	88.5
MAX KVAR	1.8	1.8
AMBIENT (°C)	40	40
ALTITUDE (FASL)	3300	3300
SAFE STALL TIME-HOT (SEC)	27	27
SOUND PRESSURE (DBA @ 1M)	70	70
TORQUES:		
BREAKDOWN{% F.L.}	296	296
LOCKED ROTOR{% F.L.}	172	172
FULL LOAD{LB-FT}	11.2	11.2

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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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.