

NIDEC MOTOR CORPORATION

8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136



DATE: 2/3/2016

P.O. NO.: FF51
Order/Line NO.: 23647 MN 100

TO:

Model Number: FF51
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 00010.00 ~ KW: 7.46
Enclosure TEFC
Poles 02 ~ RPM: 3600
Frame Size 215~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 90.2 % ~ Typical
Load Inertia (lb-ft²): NEMA ~ NEMA Inertia: 11.00 ~ 1.00
Number Of Starts Per Hour: NEMA
Motor Type Code SE
Rotor Inertia (LB-FT²) .489 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:

.
Conduit Box Information: ~ Std. Oversized- Std. Const.
Conduit Opening Size (AA) .. 1" NPT
1 Conduit Opening ~ Bottom Of Conduit Box
Standard Leadtime: 7-8 WEEKS
Est. Weight (lbs ea): 120 ~ F.O.B.: Monterrey, Mexico

USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT

Horsepower	10
Pole(s)	02
Voltage(s)	460-230
Frame Size	215T
Shaft U Diameter	1.375
Outlet Box AF	2.13
Outlet Box AA	1

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EFFECTIVE:
13-APR-11

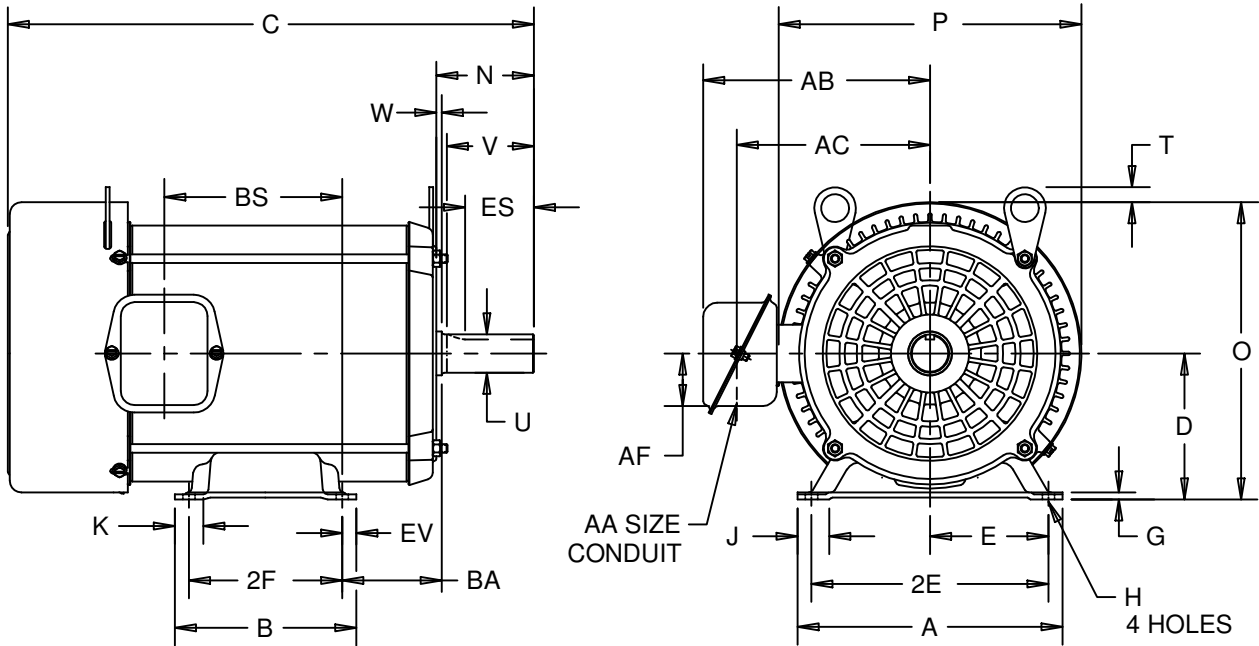
HORIZONTAL MOTORS

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.

07-2048/B

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
V. PAWAR
APPROVED BY
R. KING

IHP_DP_NMCA (MAR-2011) SOLIDEDGE

NAMEPLATE DATA

CATALOG NUMBER				NAMEPLATE PART #:	417128-002				
MODEL	FF51	FR	215T	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	10	RPM	3515	HP			RPM		
VOLTS	460	230			VOLTS				
FL AMPS	11.7	23.5			FL AMPS				
SF AMPS	13.6 27.2				SF AMPS				
SF	1.15	DESIGN	B	CODE	G				
NEMA NOM EFFICIENCY	90.2	NOM PF	88.4	KiloWatt	7.5				
GUARANTEED EFFICIENCY	88.5	MAX KVAR	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		
NO. POLES	2	
VECTOR MAX RPM		
Radians/ Seconds		
FL SLIP		
MAGNETIZING AMPS	3.0	
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=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.	91.2	Inrush Limit	
Motor Weight (LBS)	54.48 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	

**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
FF51	NA	3	SE	215T

ORDER NO.	23647	LINE NO.

MPI:	191241	191242
HP:	10	10
POLES:	2	2
VOLTS:	460	230
HZ:	60	60
SERVICE FACTOR:	1.15	1.15
EFFICIENCY (%):		
S.F.	89.5	89.5
FULL	90.2	90.2
3/4	91.2	91.2
1/2	90.4	90.4
1/4	85.5	85.5
POWER FACTOR (%):		
S.F.	88.5	88.5
FULL	88.4	88.4
3/4	86.8	86.8
1/2	81.6	81.6
1/4	65.8	65.8
NO LOAD	11.5	11.5
LOCKED ROTOR	36	36
AMPS:		
S.F.	13.6	27.2
FULL	11.7	23.5
3/4	8.9	17.7
1/2	6.3	12.7
1/4	4.2	8.3
NO LOAD	3	6.1
LOCKED ROTOR	79.3	158.6
NEMA CODE LETTER	G	G
NEMA DESIGN LETTER	B	B
FULL LOAD RPM	3515	3515
NEMA NOMINAL / EFFICIENCY (%)	90.2	90.2
GUARANTEED EFFICIENCY (%)	88.5	88.5
MAX KVAR	2	2.1
AMBIENT (°C)	40	40
ALTITUDE (FASL)	3300	3300
SAFE STALL TIME-HOT (SEC)	24	24
SOUND PRESSURE (DBA @ 1M)	70	70
TORQUES:		
BREAKDOWN{% F.L.}	295	295
LOCKED ROTOR{% F.L.}	175	175
FULL LOAD{LB-FT}	14.9	14.9

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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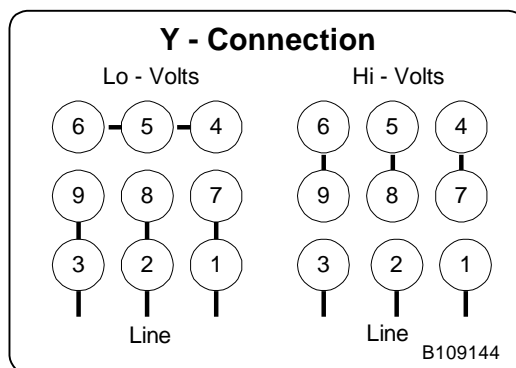
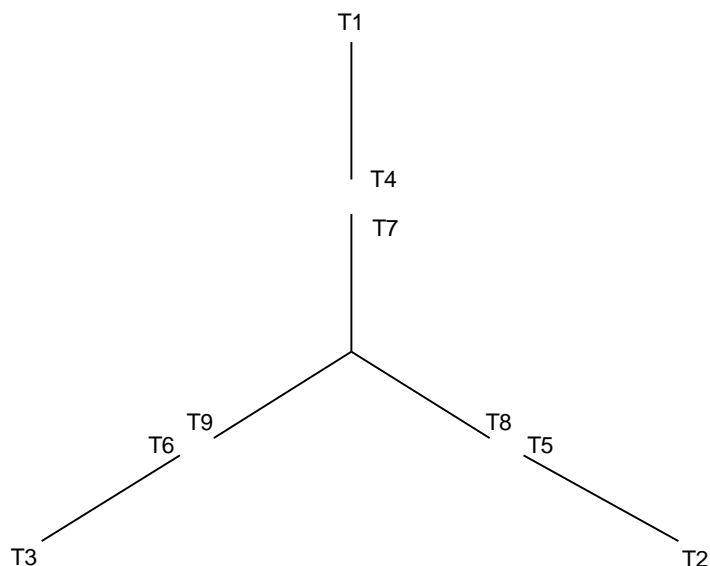


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B109144

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.