NIDEC MOTOR CORPORATION
8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136

DATE: 10/16/2013

P.O. NO.: CW49
Order/Line NO.: 20359 MN 100

TO:

Model Number: CW49
Catalog Number:
Horiz. XP Premium Eff. Config.
CONF,MOTOR,HORIZ XP 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:

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Horsepower ..............  00002.00 ~ KW: 1.492
Enclosure ...............  TEFC
Poles ...................  02 ~ RPM: 3600
Frame Size ..............  145~T
Phase/Frequency/Voltage..  3~060~230/460 ~ 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 ....
Hazardous Location Info:
Division 1 ~ Class I ~ Group D
Class II N/A ~ Group N/A ~ T2B Temp Code
"AK" Dimension (Inches).. NA
Temperature Rise (Sine Wave): "B" Rise @ 1.0 SF (Resist)
NEMA Design .............  B
KVA Code Letter .........  "L"
Starting Method .........  Direct-On-Line Start
Duty Cycle ..............  Continuous Duty
Efficiency Value ........  85.5 % ~ NEMA Nominal
Load Inertia (lb-ft2): NEMA ~ NEMA Inertia: 2.40 ~ 1.00
Number Of Starts Per Hour: NEMA
Motor Type Code .........  LCE
Rotor Inertia (LB-FT²)        .054 LB-FT²
Qty. of Bearings PE (Shaft)   1
Qty. of Bearings SE (OPP)     1
Bearing Number PE (Shaft)     6205-2Z-J/C3
Bearing Number SE (OPP)       6203-2Z-J/C3
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Accessories:
Corro-Duty
Clockwise Rotation FODE
Standard Leadtime: REFER TO OFFICE
Est. Weight (lbs ea): 65 ~ F.O.B.: St. Louis, MO

USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT

Horsepower	2
Pole(s)	02
Voltage(s)	460-230
Frame Size	145T
Shaft U Diameter	0.875
Outlet Box AF	1.75
Outlet Box AA	0.75

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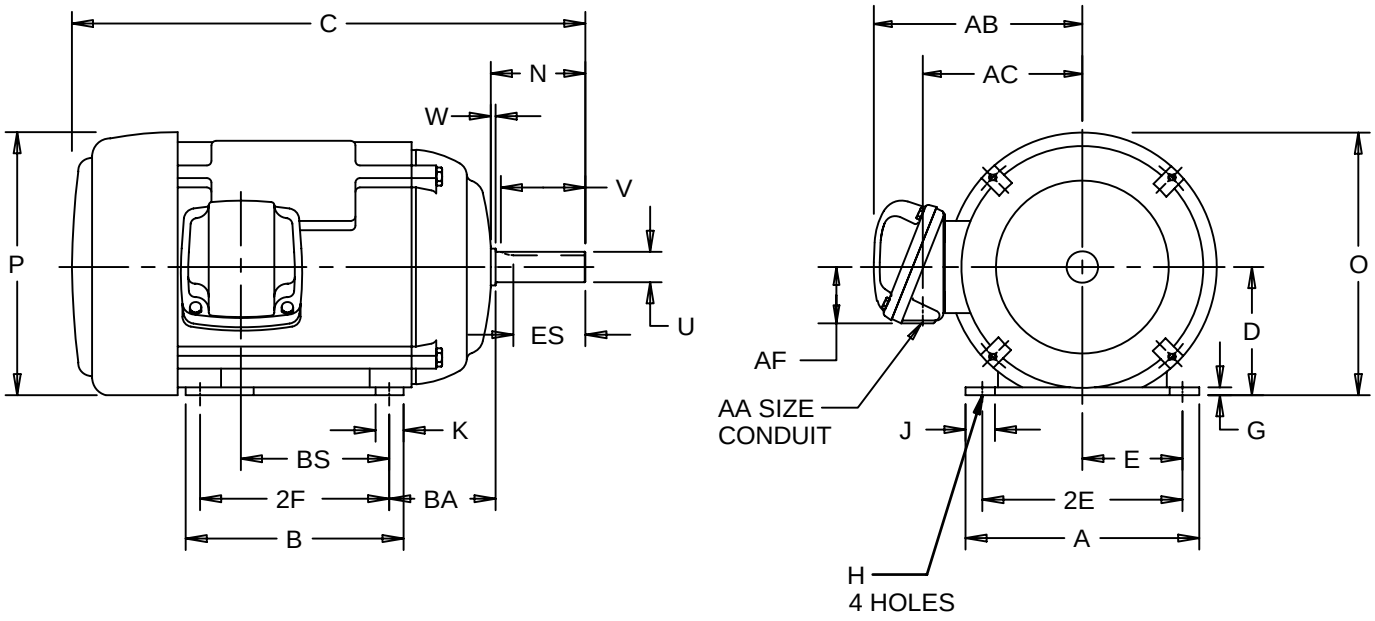
EFFECTIVE: 02-MAR-11	HORIZONTAL MOTORS CAST IRON FRAME FRAME: 140T BASIC TYPE: LC	PRINT: 07-2105
SUPERSEDES: 16-JAN-01		SHEET: 1 OF 1



ALL DIMENSIONS ARE IN INCHES & MILLIMETERS

	UNITS	A	B	C	E	G	J	K	K2	N	O	P [2]
	IN	6.50	6.00	13.06	2.75	.16	.94	.94	1.94	2.38	7.50	8.00
	MM	165	152	332	70	4	24	24	49	60	191	203

	UNITS	V MIN	W	AA	AB	AC	AF	BA	BS	ES MIN	SQ KEY
	IN	2.06	.13	3/4 NPT	6.78	5.34	1.75	2.25	3.94	1.41	.188
	MM	52	3		172	136	44	57	100	36	4.78

	UNITS	D -.06	2E ±.03	H +.05	U -.0005
	IN	3.50	5.50	.34	.8750
	MM	88.9	140	9	22.225

	FRAME	UNITS	2F ±.03
	143T	IN	4.00
		MM	101.6
	145T	IN	5.00
		MM	127.0

1: ALL ROUGH CASTING DIMENSIONS MAY VARY BY .25" DUE TO CASTING AND/OR FABRICATIONVARIATIONS.
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: TOLERANCE UNITS ARE IN INCHES ONLY.

Nidec Motor Corporation
St. Louis, Missouri

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ISSUED BY	R. KING
APPROVED BY	M. GALVAN

IHP_DP_NMCA (MAR-2011) SOLIDEDGE

NAMEPLATE DATA

CATALOG NUMBER:				NAMEPLATE PART #:	431158-000		
MODEL	CW49	FR	145T	TYPE	LCE	ENCL	TE
SHAFT END BRG	6205-2Z-J/C3 - QTY 1			OPP END BRG	6203-2Z-J/C3 - QTY 1		
PH	3	MAX AMB	40 C	ID#			
INSUL CLASS	F	Asm. Pos.	F1	DUTY	CONT		

HP	2		RPM	3500		HP		RPM	
VOLTS	460	230				VOLTS			
FL AMPS	2.4	4.9				FL AMPS			
SF AMPS						SF AMPS			
SF	1.15	DESIGN	B	CODE	L	SF		DESIGN	CODE
NEMA NOM EFFICIENCY	86.5	NOM PF	88.7	KiloWatt	1.492	NEMA NOM EFFICIENCY		NOM PF	
GUARANTEED EFFICIENCY	84.0	MAX KVAR	.7	HZ	60	GUARANTEED EFFICIENCY		MAX KVAR	HZ

UL DATA (IF APPLICABLE):

DIVISION	1	CLASS I	I	GROUP I	D
TEMP CODE	T2B	CLASS II		GROUP II	

VFD DATA (IF APPLICABLE):

VOLTS			
AMPS			
TORQUE 1		TORQUE 2	
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	
NO. POLES	2	MAGNETIZING AMPS	1.0
VECTOR MAX RPM		Encoder PPR	
Radians / Seconds	1	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=158802	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.	87.0	Inrush Limit	
Motor Weight (LBS)	65	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
CW49	NA	3	LCE	145T

ORDER NO.	20359	LINE NO.	

MPI:	118273	118274
HP:	2	2
POLES:	2	2
VOLTS:	460	230
HZ:	60	60
SERVICE FACTOR:	1.15	1.15
EFFICIENCY (%):		
S.F.	85.9	85.9
FULL	86.5	86.5
3/4	87.2	87.2
1/2	85.6	85.6
1/4	78.4	78.4
POWER FACTOR (%):		
S.F.	90	90
FULL	88.6	88.6
3/4	84.2	84.2
1/2	74.8	74.8
1/4	54	54
NO LOAD	11.8	11.8
LOCKED ROTOR	67.9	67.9
AMPS:		
S.F.	2.8	5.6
FULL	2.4	4.9
3/4	1.9	3.8
1/2	1.5	2.9
1/4	1.1	2.2
NO LOAD	1	1.9
LOCKED ROTOR	24.1	48
NEMA CODE LETTER	L	L
NEMA DESIGN LETTER	B	B
FULL LOAD RPM	3500	3500
NEMA NOMINAL EFFICIENCY (%)	86.5	86.5
GUARANTEED EFFICIENCY (%)	84	84
MAX KVAR	0.7	0.6
AMBIENT (°C)	40	40
ALTITUDE (FASL)	3300	3300
SAFE STALL TIME-HOT (SEC)	9	9
SOUND PRESSURE (DBA @ 1M)	69	69
TORQUES:		
BREAKDOWN{% F.L.}	422	422
LOCKED ROTOR{% F.L.}	321	321
FULL LOAD{LB-FT}	3	3

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

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ST. LOUIS, MO

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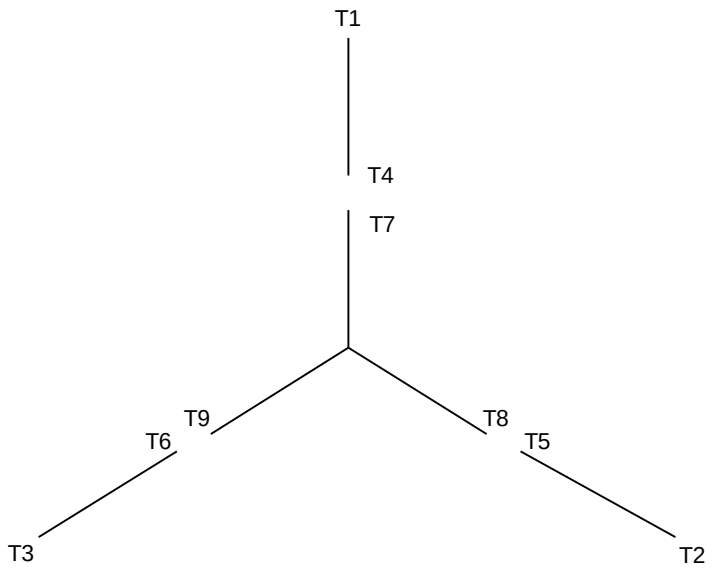
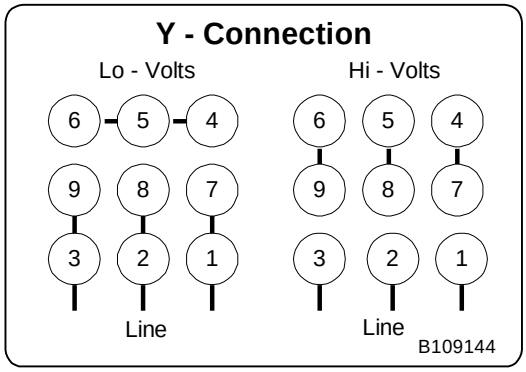
B109144

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.

Connection Plate: B109144
Connection Decal: 344136