

NIDEC MOTOR CORPORATION

8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136



DATE: 1/23/2013

P.O. NO.: DR27
Order/Line NO.: 21925 MN 100

TO:

Model Number: DR27
Catalog Number:
Unimount Pre. Eff. Config.
CONF,MOTOR,UNIMOUNT 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 00001.00 ~ KW: .746
Enclosure TEFC
Poles 04 ~ RPM: 1800
Frame Size 143~TC
Phase/Frequency/Voltage.. 3~060~230/460 ~ Random Wound
Service Factor 1.25
Insulation Class Class "F" ~ Insulife 1000
Altitude In Feet (Max) .. 3300 Ft.(1000 M)
Ambient In Degree C (Max) +40 C
Assembly Position F1, Ftls, Flng Mnt, Shaft Horz
Efficiency Class Premium Efficiency
Application Unknown
Customer Part Number
"AK" Dimension (Inches).. 4.500
Temperature Rise (Sine Wave): "B" Rise @ 1.0 SF (Resist)
Starting Method Direct-On-Line Start
Duty Cycle Continuous Duty
Efficiency Value 82.5 % ~ Typical
Load Inertia (lb-ft²): NEMA ~ NEMA Inertia: 5.80 ~ 1.00
Number Of Starts Per Hour: NEMA
Motor Type Code UTEF
Rotor Inertia (LB-FT²) .108 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

Nidec trademarks followed by the ® symbol are registered with the U.S. Patent and Trademark Office.

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Accessories:

Footless (Round Frame)

.
Product Family
Reserved for future use
Reserved for future use
Reserved for future use
Reserved for future use
Reserved for future use
Reserved for future use NA
Reserved for future use NA
Standard Leadtime: 9-10 WEEKS
Est. Weight (lbs ea): 30 ~ F.O.B.: Monterrey, Mexico

USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT

Horsepower 1
Pole(s) 04
Voltage(s) 460-230
Frame Size 143TC
Shaft U Diameter 0.875
Outlet Box AF 1.59
Outlet Box AA 0.75

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EFFECTIVE:
25-MAR-11

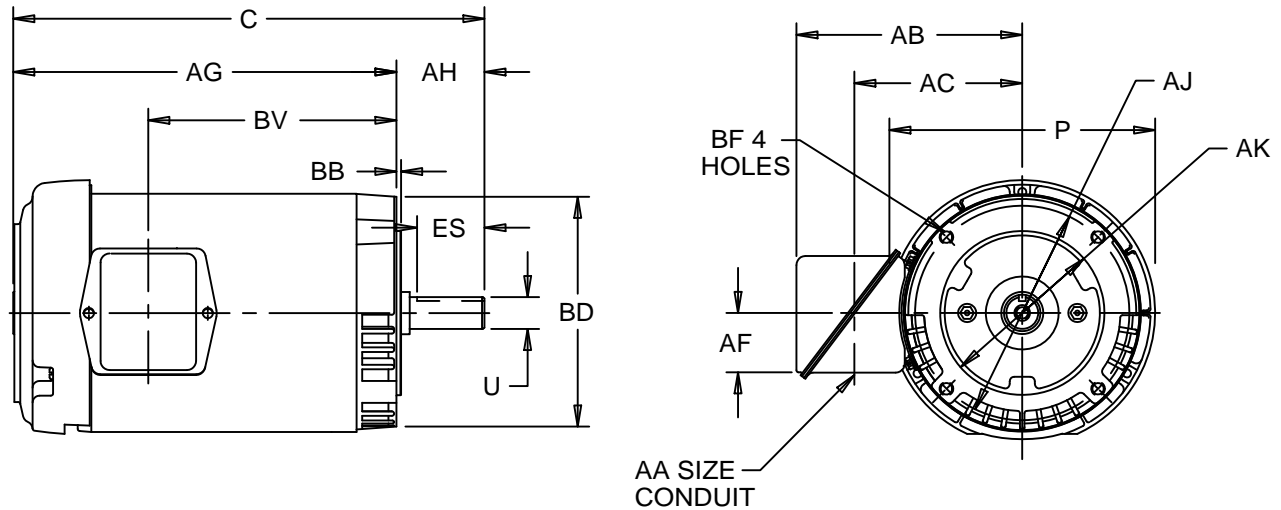
HORIZONTAL MOTORS

PRINT:
07-2019

SUPERSEDES:
18-APR-05

TEFC
FRAME: 143, 145TC
BASIC TYPE: UTF

SHEET:
1 OF 1



ALL DIMENSIONS ARE IN INCHES AND MILLIMETERS

UNITS	C	P 2	U -.0005	AA	AB	AC	AF	AG	AH
IN	12.13	7.25	.8750	.75	6.09	4.50	1.59	10.00	2.13
MM	308	184	22.225		155	114	40	254	54

UNITS	AJ	AK -.003	BB	BD MAX	BV	BF 3	ES MIN	SQ KEY
IN	5.875	4.500	.16	6.50	6.13	3/8-16 X .75	1.41	.188
MM	149.23	114.30	4	165	156		36	4.78

- 1: ALL ROUGH DIMENSIONS MAY VARY BY .25" DUE TO CASTING AND/OR FABRICATION VARIATIONS.
- 2: LARGEST MOTOR WIDTH.
- 3: TAP SIZE AND BOLT PENETRATION ALLOWANCE.
- 4: ALL TAPPED HOLES ARE UNIFIED NATIONAL COARSE, RIGHT HAND THREAD.

- 5: CONDUIT BOX MAY BE LOCATED ON EITHER SIDE OF MOTOR. CONDUIT OPENINGS MAY BE LOCATED IN STEPS OF 180 DEGREES REGARDLESS OF LOCATION. STANDARD AS SHOWN WITH CONDUIT OPENING DOWN.
- 6: TOLERANCES SHOWN ARE IN INCHES ONLY.
- 7: FRAME REFERENCE: 6.750/143/145

07-2019/D

Nidec Motor Corporation
St. Louis, Missouri

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ISSUED BY
L. CUESTA
APPROVED BY
J. RANGEL

IHP_DP_NMCA (MAR-2011) SOLIDEDGE

NAMEPLATE DATA

CATALOG NUMBER: _____		NAMEPLATE PART #: 417128-001	
MODEL	DR27	FR	143TC
SHAFT END BRG		6205-2Z-J/C3 - QTY 1	
PH	3	MAX AMB	40 C
INSUL CLASS	F	Asm. Pos.	_____
HP	1	RPM	1755
VOLTS	460	230	_____
FL AMPS	1.5	3.0	_____
SF AMPS	1.7	3.5	_____
SF	1.25	DESIGN	B
NEMA NOM EFFICIENCY	85.5	NOM PF	73.0
GUARANTEED EFFICIENCY	82.5	MAX KVAR	.7
CODE	M	KiloWatt	.746
		HZ	60

TYPE		UTEF	ENCL	TE
OPP END BRG		6203-2Z-J/C3 - QTY 1		
DUTY		CONT		
HP	_____	RPM	_____	_____
VOLTS	_____	_____	_____	_____
FL AMPS	_____	_____	_____	_____
SF AMPS	_____	_____	_____	_____
SF	_____	DESIGN	_____	CODE
NEMA NOM EFFICIENCY	_____	NOM PF	_____	_____
GUARANTEED EFFICIENCY	_____	MAX KVAR	_____	HZ
	_____	_____	_____	_____

UL DATA (IF APPLICABLE):

DIVISION	_____	CLASS I	_____	GROUP I	_____
TEMP CODE	_____	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	4	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=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.	85.0	Inrush Limit	
Motor Weight (LBS)	30	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
DR27	NA	3	UTEF	143TC

ORDER NO.	21925	LINE NO.

MPI:	133417	133419
HP:	1	1
POLES:	4	4
VOLTS:	460	230
HZ:	60	60
SERVICE FACTOR:	1.25	1.25
EFFICIENCY (%):		
S.F.	85.7	85.7
FULL	85.5	85.5
3/4	85	85
1/2	81.8	81.8
1/4	71.8	71.8
POWER FACTOR (%):		
S.F.	78.7	78.7
FULL	73	73
3/4	64.1	64.1
1/2	51	51
1/4	32.5	32.5
NO LOAD	8.4	8.4
LOCKED ROTOR	65.2	65.2
AMPS:		
S.F.	1.7	3.5
FULL	1.5	3
3/4	1.3	2.6
1/2	1.1	2.2
1/4	1	2
NO LOAD	1	2
LOCKED ROTOR	13.6	27.1
NEMA CODE LETTER	M	M
NEMA DESIGN LETTER	B	B
FULL LOAD RPM	1755	1755
NEMA NOMINAL EFFICIENCY (%)	85.5	85.5
GUARANTEED EFFICIENCY (%)	82.5	82.5
MAX KVAR	0.7	0.7
AMBIENT (°C)	40	40
ALTITUDE (FASL)	3300	3300
SAFE STALL TIME-HOT (SEC)	21	21
SOUND PRESSURE (DBA @ 1M)	54	54
TORQUES:		
BREAKDOWN{% F.L.}	523	523
LOCKED ROTOR{% F.L.}	412	412
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.

RENEWAL PARTS

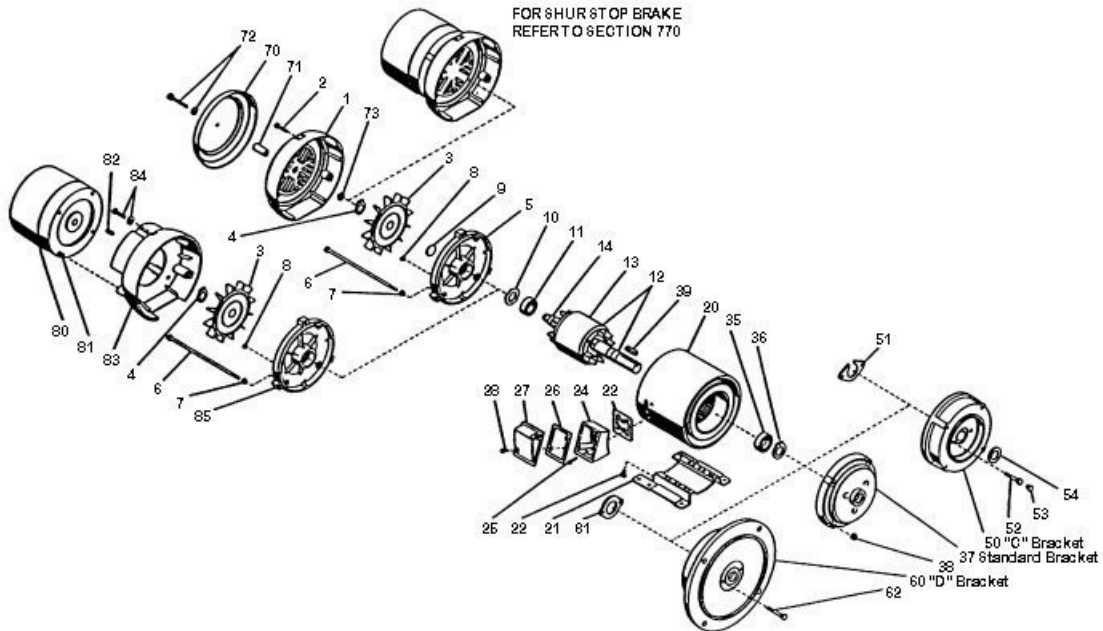
FRAMES - 56 THRU B145

UNIMOUNT TOTALLY ENCLOSED MOTORS

TYPES: FUT, FUTF, FUTF4, UT, UT1, UT4, UTE, UTE1, UTE4, UTEF, UTEN, , UTEF1, UTEF4, UTF, UTF1, UTF4, UTFI, UTFI4, UTFN, UTI, UTN, UTNI, UTQ, UTV, UTVE

THIS PARTS LIST IS GOOD FOR THE FOLLOWING TYPES:

Types	Frames	Types	Frames
UT, FUT	56, 56C 143T, TC, TD, TCZ 145T, TC, TD, TCZ B145T, TC, TD	UTE, UTQ	143, 145, B145T
UT-1	143, 145, B145JP	UTF	56C, 143TC, TD 145TC, TD
UT-4	143, 145, B145JM	UTN	143, 145T
		UTV	143, 145TCV, JMV, JPV
		UTFN	56C



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.

RENEWAL PARTS

FRAMES - 56 THRU B145

UNIMOUNT TOTALLY ENCLOSED MOTORS

TYPES: FUT, FUTF, FUTF4, UT, UT1, UT4, UTE, UTE1, UTE4, UTEF, UTEN, UTEF1, UTEF4, UTF, UTF1, UTF4, UTF1, UTF4, UTFN, UTI, UTN, UTNI, UTQ, UTV, UTVE

ITEM NO.	QTY	NAME OF PART
1	1	Fan Cover (not used on types UTN & UTFN)
2	3	Self Tapping Screw & Lockwasher (not used on types UTN & UTFN)
3	1	Fan (fan assembly on types UTE, 3600 RPM and UTQ) (not used on types UTN & UTFN)
4	1	Retaining Snap Ring (not used on UTE, 3600 RPM and UTN, UTQ and UTFN)
5	1	Bracket
6	4	Round Head Machine Screw
7	4	Bushing
8	4	Plastic Plug
9	1	Bracket Plug (used on types UTN & UTFN only)
10	1	Spring Wave Washer (not on type UTV)
11	1	Ball Bearing
12	1	Rotor Assembly (includes item 12 & 13)
13	1	Rotor Core
14	1	Shaft
15-19	-	Not Used
20	1	Wound Stator Assembly (includes items 21 and 22 if used)
21	1	Mounting Base (not used on types UTF, UTV, UTFN)
22	6	Hex Head Cap Screw (not used on types UTF, UTV, and UTFN)
23	1	Gasket
24	1	Outlet Box Base
25	2	Self Tapping Screw
26	1	Gasket
27	1	Outlet Box Cover
28	2	Self Tapping Screw
29-34	-	Not Used
35	1	Ball Bearing
36	1	Retaining Snap Ring (not used on frames 56 and 56C, also types UTN and UTQ)
37	1	Bracket

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BEARINGS:

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PRICES:

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ITEM NO.	QTY	NAME OF PART
38	4	Hex Nut
39	1	Square Key
40-49	-	Not Used
For Types UT, UTF, UTV and UTFN with "C" bracket, and types UT-1 and UT-4 omit items 37, 38 and item 10 on frames 143, 145, and B145		
50	1	"C" Bracket
51	1	Clamping Plate (not used on frame 56C)
52	2	Hex Head Cap Screw (not used on frames 143, 145, & B145)
53	2	Not Used
For types UT and UTF with "D" bracket, omit items 10, 37, and 38, and add the following parts		
60	1	"D" Bracket
61	1	Bearing Cap
62	2	Hex Head Cap Screw
63-69	-	Not Used
For type UTV and units with canopy cap, add the following parts		
70	1	Canopy Cap
71	1	Spacer
72	1	Hex Head Cap Screw and Lockwasher
73	1	Square Nut
74-79	-	Not Used
For SHUR-STOP bakes, omit items 1, 3 and 4, and refer to section 770 for part addition		
For Dings and Stearns brake, omit items 1, 2, and 5, and add the following		
80	1	Brake (for replacement parts for brake, refer to the brake manufacturer)
81	2	Socket Head Cap Screw
82	1	Key
83	1	Bracket Mounting Bracket
84	3	Round Head Machine Screw and Lockwasher
85	1	Bracket

reference: Renewal Parts Section 700, Pages 12 & 13