

PRODUCT INFORMATION PACKET



Model No: 596A
Catalog No: 596A

OEM Replacement Motor, 1/8,1/12,1/14 HP, 1 Ph, 60 Hz, 277 V, 1075 RPM, 3 Speed, 42 Frame, OAO



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Nameplate Specifications

Phase	1	Output HP	1/8,1/12,1/14 Hp
Voltage	277 V	Speed	1075 rpm
Service Factor	1.0	Frame	42
Enclosure	Open Air Over	Thermal Protection	Thermally Protected
Efficiency	44 %	Ambient Temperature	40 °C
Frequency	60 Hz	Current	0.83,0.59,0.49 A
Duty	Continuous Air Over	Insulation Class	B
UL	Recognized	CSA	Y
CE	N	Number of Speeds	3

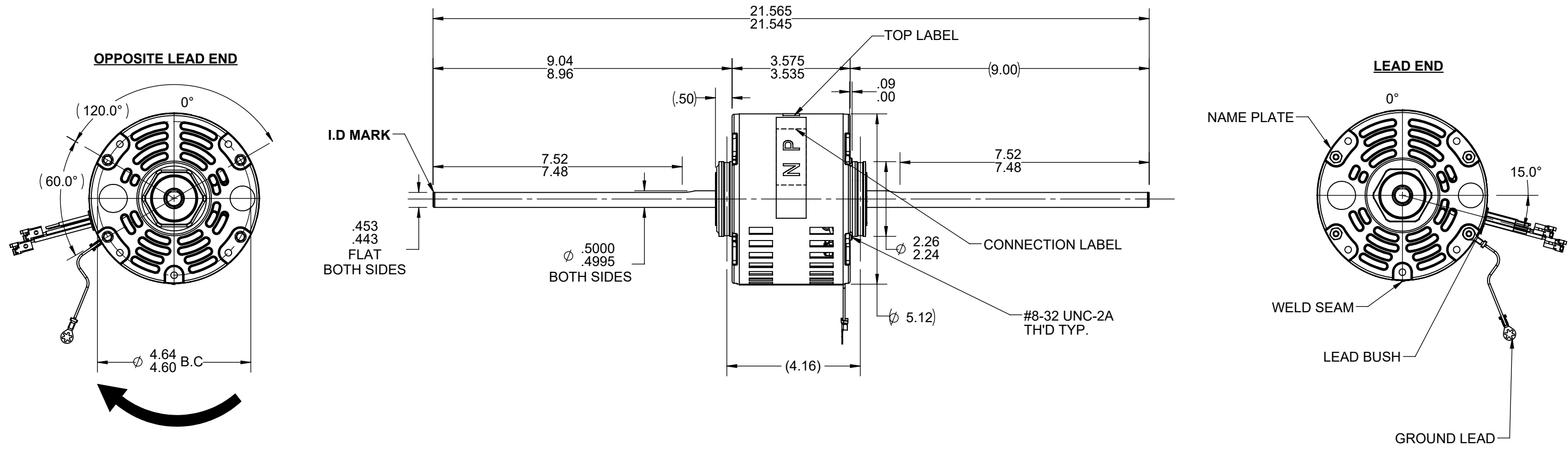
Technical Specifications

Electrical Type	Permanent Split Capacitor	Starting Method	Across The Line
Poles	6	Rotation	Counterclockwise Lead End
Mounting	Resilient Rings	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Rolled Steel
Shaft Type	Flat	Frame Length	3.58 in
Shaft Diameter	0.500 in	Shaft Extension	9X.5X9 in
Outline Drawing	71870499R		

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S.NO	CONNECTION	COLOR	EXIT TYPE	EXIT LOC (VIEWING LE)	GAGE	MATERIAL	WALL THK.	LENGTH (±1.50)	TERMINATION
1	COMMON LEAD	WHITE	LEAD BUSH	3:30	18	XLPE	2/64	36.0	0.50 BWS
2	CAPACITOR LEAD	BRN/WHT	LEAD BUSH	3:30	18	XLPE	2/64	36.0	0.25 FQC
3	CAPACITOR LEAD	BROWN	LEAD BUSH	3:30	18	XLPE	2/64	36.0	0.25 FQC
4	HIGH SPEED LEAD	BLACK	LEAD BUSH	3:30	18	XLPE	2/64	36.0	0.50 BWS
5	MEDIUM SPEED LEAD	BLUE	LEAD BUSH	3:30	18	XLPE	2/64	36.0	0.50 BWS
6	LOW SPEED LEAD	RED	LEAD BUSH	3:30	18	XLPE	2/64	36.0	0.50 BWS
7	GROUND LEAD	GRN/YEL	CLAMP SCREW	4:00	16	THERMOPLASTIC	2/64	9.0	# 10 SERR.EYELET

VENTILATION SYSTEM	
SHELL VENTS	PARTIAL OPEN
ENDSHIELD(PE END)	OPEN
ENDSHIELD(OPE END)	OPEN



ROTATION

NAME PLATE DATA	
MODEL	71870499
CUST P/N	596A
HP	1/8-1/12-1/14
RPM	1075 (3 SPD)
VOLTS	277
HZ	60
SPEEDS	3
AMPS	0.83 0.59 0.49
CAP REQ D-1	5.00/370
CAP REQ D-2	N/R
CONN. DRW	NP24X350200
ROTATION	CCWLE

- NOTE:
1. NAMEPLATE LABEL LOCATION: 315 ° -CENTER - READ FROM LE WITH RESPECT TO MOTOR ZERO.
 2. OVERLOAD PROTECTOR : AUTOMATIC RESET (7AM 036)

DRAWING REVISION AB	REVISION BY GPK	REV DATE/© DATE 05/08/2024
REQUEST NUMBER ECR-0233790	APPROVED BY Muralidar	DATE 05/08/2024
REQUEST NUMBER DESCRIPTION REMOVED SUFFIX R FROM NP DATA AS PER ECR		
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DRAWN BY Muralidar	Regal Rexnord Regal Beloit America, Inc.	
DATE 6/7/2023	DESCRIPTION OUTLINE	
APPROVED BY TSRK	CUSTOMER NAME: DISTRIBUTION SERVICES	
DATE 6/7/2023	MATERIAL	PROCESS/FINISH
REFERENCE	SIZE B	DRAWING NUMBER 71870499R
THIRD ANGLE PROJECTION	SHEET 1 OF 1	

Winding and Test Specification

WTS # 82870499-1

Revision # 1	Revised By : 610143927	Rev. Date : Dec 06, 2023	First Made for : 71870499R
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Comments : UPDATED NP AMPS PER TEST DATA

Engineering Data				WTS Nameplate Data			
Frame	29	Stator Punching	87356050	Horsepower	1/8-1/12-1/14	RPM	1075 (3 SPD)
Motor Type	KCP	Rotor Punching	87356051	Voltage	277	Amps	0.83 0.59 0.49
Air Gap	.012	PE Endring	88286017	Frequency	60	Phases	1
Stack	0.75	OPE Endring	88286017	Capacitor	5.0 μ fd	Cap Volts	370
Con. Diag.	24B200217FIG2	Skew, Electric	10 ⁰	Test Volts : 277 Low Spd St Volts : 135			
Wdg. Diag.	62006016	Rotor Resistance	53.7	Test Frequency : 60			
Engineer	Durga	Max Space Factor	.44	Test Instructions : 24A105040AA-P1			
Spl. Insul.		Energy SaverLbl	No				
Design Type	A						

Winding	Winding Characteristics							Resistance			Tap (Coil#)	
	Poles	N1e	Strands	Wire Size	Wire Spec	Shift	Turns	Weight	Min	Nominal		Max
Main *	6	336.7	1	0.0119	B22M47P1	0	162 230	0.52	81.26	85.54	89.81	
X Main	6	72.1	1	0.0089	B22M47P1	0	35 49	0.06	30.91	32.53	34.16	
Y Main	6	24.5	1	0.0080	B22M47P1	0	10 18	0.02	12.99	13.67	14.35	
Z Main												
W Main												
Start	6	258.0	1	0.0113	B22M47P1	91	93 199	0.35	68.89	72.52	76.14	

	N. L. Performance Data				Full Load Performance						
	Amps	Watts		Cap. Volts	Amps		Watts		Speed	Torque	
	Nominal	Nominal	Max		Nominal	Max	Nominal	Max	Nominal	Min	Nominal
High	0.64	151	181	398	0.76	0.84	208	218	1080	8.7	9.7
Med. High											
Medium	0.33	84	101		0.50	0.55	137	144	1080	6.0	6.7
Med. Low											
Low	0.28	73	88		0.44	0.48	122	128	1080	5.3	5.9

	Max. Torque			Locked Rotor		
	RPM	Torque		Amps	Watts	Torque
		Min	Nominal	Nominal	Nominal	Nominal
High	879	13.2	14.7	1.37	363	6.1
Med. High					244	3.9
Medium		8.7	9.7			
Med. Low					215	3.4
Low		7.7	8.5			

	Customer/Special Load Points						
	Speed	Torque		Watts		Amps	
	Nominal	Min	Nominal	Nominal	Max	Nominal	Max
High	1075	9.5	10.0	211	222	0.77	0.85
Med. High							
Medium	1075	6.6	6.9	139	146	0.51	0.56
Med. Low							
Low	1075	5.7	6.0	123	129	0.45	0.49

* Large wire size may be double stranded.



Motor Details

Model : 71870499R

General:

Application : N/R
 Phases : 1
 # of Speeds : 3
 Testspec : 82870499-1
 Horiz/Vertical : HOR
 Shell Enclosure : OPEN
 Endshield Enclosure : OPEN

Nameplate Data:

Horsepower : 1/8-1/12-1/14
 RPM : 1075 (3 SPD)
 Voltage : 277
 FL Amps : 0.83 0.59 0.49
 Capacitor 1mFd/V : 5.00/370

Additional Information :
 N/R
 N/R

Miscellaneous:

Fullload RPM - HI : 1080
 Poles : 6
 Rotation : CCW
 Thermal Protection :
 Finish Color: BLACK

OVERLOAD INFORMATION::

Protector: 24A100514P11
 Catalog No: 7AM036A54838C

THERMAL CUT-OFF INFORMATION:

TCO: N/A
 Catalog No: N/A

U.L.CONSTRUCTION FILES:

Motor Construction: E46035(excluding SME)
 Over Load : E27885(excluding SME)

Shaft:

PE Type : FLAT
 PE Length : 9.0
 PE Diameter : .5
 PE Flat Length : 7.50

Endshields:

PE Material : AL
 PE Hub Type : STD
 PE Oiler : N/R
 PE Oil Plug : N/R
 PE Mounting Holes : N/R

Bearings:

PE Bearing Type : BALL
 Bearing Protection : No

Mounting:

Base : 2RR
 Clamp Screw : Yes

Resilient Ring:

Type : SINGLE

Extended Clamp Screws:

PE Pattern :
 PE Length : N/R
 PE Nut Qty : 0
 Head End : PE
 Nut Thickness : .12

Lead & Cord :

Lead End : OPE
 Lead Exit H/W : NYLON GROMMET
 Lead Exit H/W Orient. : N/R
 Conductor ID : COMM-FIXED LINE
 Exit : 3:30 - GROMMET
 Color : WHITE
 Termination : .50 BWS
 Conductor ID : CAPACITOR

Catalog Number :

Motor Category : COMPLETE MOTOR
 Production Status : PROD
 Stock Status :
 Approved For Sale :
 Restricted Model :
 Customer : DISTRIBUTION SERVICE
 Customer Part# : 596A

GE Type : KCP
 Time Rating : AO
 Frequency : 60
 Insulation Class: B
 Capacitor 2mFd/V : N/R

GE Frame : 42
 Shell Length : 3.125
 Drains : N
 Est. Weight : -10
 Capacitor By : ORDER SEPARATELY

Overload Temp : 150/140
 Vendor Name: TEXAS INSTRUMENTS

Overload Temp : N/A
 Vendor Name: N/A

Class B Insulation : E306343(excluding SME)
 CSA(REY) : MC236833(excluding SME)

OPE Type : FLAT
 OPE Length : 9.0
 OPE Diameter : .5
 OPE Flat Length : 7.50

OPE Material : AL
 OPE Hub Type : STD
 OPE Oiler : N/R
 OPE Oil Plug : N/R
 OPE Mounting Holes : N/R

OPE Bearing Type : BALL
 Rohs Compliant : No

Lug : N/R
 Weld Screw : No

Diameter : 2.25

OPE Pattern :
 OPE Length : 0.09
 OPE Nut Qty : 1
 Screw Size : #8

Lead Type : SINGLE COND
 Lead Harness Desc : N/R

Length : 36
 Mat'l Spec : 18 2/64 XLPE
 Slot ID : N/A

Conductor ID :	CAPACITOR	Length :	36
Exit :	3:30 - GROMMET	Mat'l Spec :	18 2/64 XLPE
Color :	BROWN	Slot ID :	N/A
Termination :	.25 FQC		
Conductor ID :	CAPACITOR	Length :	36
Exit :	3:30 - GROMMET	Mat'l Spec :	18 2/64 XLPE
Color :	BR/WH	Slot ID :	N/A
Termination :	.25 FQC		

Note : Exit position is viewed from the Lead End with the Shell Weld at 6:00.

Grounding :

Type :	LEAD	Location :	4:00 viewed from OPE with Oil boss at 12:00
Exit Type :	CLAMPSCREW	AWG Size :	16
Length :	9.00	Color :	GRN-YEL
Terminal :	#10 SERRATED EYELET	Ins.Material & Thickness	2/64 THRMOPLAST

Diagrams and Dimensions :

Outline Drawing :	71870499R	C-Dimension :	21.56
Connection Diagram :	24B200217 Fig# 2	Connection Label :	NP24X350200

Notes :

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Date of last revision : **06-DEC-23**

