

# **ABB BALDOR RELIANCE III**

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## **Customer information packet**

EM74204T-4

200//150HP, 1785//1485RPM, 3PH, 60//50HZ, 44

Class - CLI GP C,D; CLII GP F,G

Division - Division I

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	449T
<b>Frame Material</b>	Iron
<b>Frequency</b>	50.00 Hz 60.00 Hz
<b>Haz Area Class and Group</b>	CLI GP C,D; CLII GP F,G
<b>Haz Area Division</b>	Division I
<b>Motor Letter Type</b>	Three Phase
<b>Output @ Frequency</b>	200.000 HP @ 60 HZ 150.000 HP @ 50 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1500 RPM @ 50 HZ
<b>Voltage @ Frequency</b>	380.0 V @ 50 HZ 460.0 V @ 60 HZ
<b>Agency Approvals</b>	CSA EEV CCSA US CSA UL
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Base Indicator</b>	Rigid
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Current @ Voltage</b>	216.000 A @ 460.0 V 197.000 A @ 380.0 V
<b>Design Code</b>	B
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Efficiency @ 100% Load</b>	96.2 %
<b>Feedback Device</b>	NO FEEDBACK
<b>Haz Area Temp Code</b>	T4
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	197.0 a

**Part Detail**

<b>Revision</b>	G
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	INA/A
<b>Elec. spec.</b>	A44WG1549
<b>Layout</b>	617426-166
<b>Eff. date</b>	03-10-2021
<b>CD Diagram</b>	416820-036
<b>Poles</b>	04
<b>Leads</b>	3#1/0 (02 per group)
<b>Proprietary</b>	False
<b>Created date</b>	04-22-2015

<b>Insulation Class</b>	F
<b>Inverter Code</b>	Not Inverter
<b>KVA Code</b>	F
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Motor Lead Quantity/Wire Size</b>	6 @ 1/0 AWG
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	A44144M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	48.22 IN
<b>Power Factor</b>	90
<b>Product Family</b>	General Industrial
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Service Factor</b>	1.00
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	1485 rpm 1785 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	Normally Closed Thermostat

**Nameplate**

<b>NP2496L</b>
MOBIL POLYREX EM

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**000613006PC**

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<b>CLASS I GROUP</b>	C D X	<b>NO.</b>	
<b>CLASS II GROUP</b>	F G X		
<b>OPERATING TEMP CODE</b>	T4		

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**NP2293L**

<b>CAT.NO.</b>		<b>SPEC NO.</b>	A44-7167-1549				<b>FRAME</b>	449T
<b>HP</b>	200//150	<b>PHASE</b>	3	<b>DESIGN</b>	B	<b>TYPE</b>	P	
<b>RPM</b>	1785//1485	<b>HZ</b>	60//50	<b>AMB</b>	40	<b>SF</b>	1.00	
<b>VOLTS</b>	460//380	<b>DUTY</b>	CONT	<b>INSUL.CLASS</b>	F			
<b>AMPS</b>	216//197	<b>ENCL</b>	TEFC	<b>CODE</b>	F			
<b>DRIVE END BEARING</b>	90BC03J30X	<b>NEMA-NOM-EFFICIENCY</b>	96.2					
<b>OPP D.E. BEARING</b>	90BC03J30X							
<b>SER.NO.</b>								
							<b>MOTOR WEIGHT</b>	

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	449T	200	P	3/60	1785	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
216	CONT	40/F	1.0	B	F	FCXE
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
833030	418143047SE	---	---	.0166		

**PERFORMANCE**

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	42.6	1800	6.27	0
1/4	50.1	66.2	1796	75.3	94.1
2/4	100	110	1792	88.7	96.1
3/4	150	161	1788	90.3	96.4
4/4	200	216	1784	89.9	96.2
5/4	250	273	1779	89.5	95.8

**SPEED TORQUE**

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	165	968	1402
PULL UP	500	140	824	1218
BREAKDOWN	1728	255	1500	741
FULL LOAD	1784	100	588	216

AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

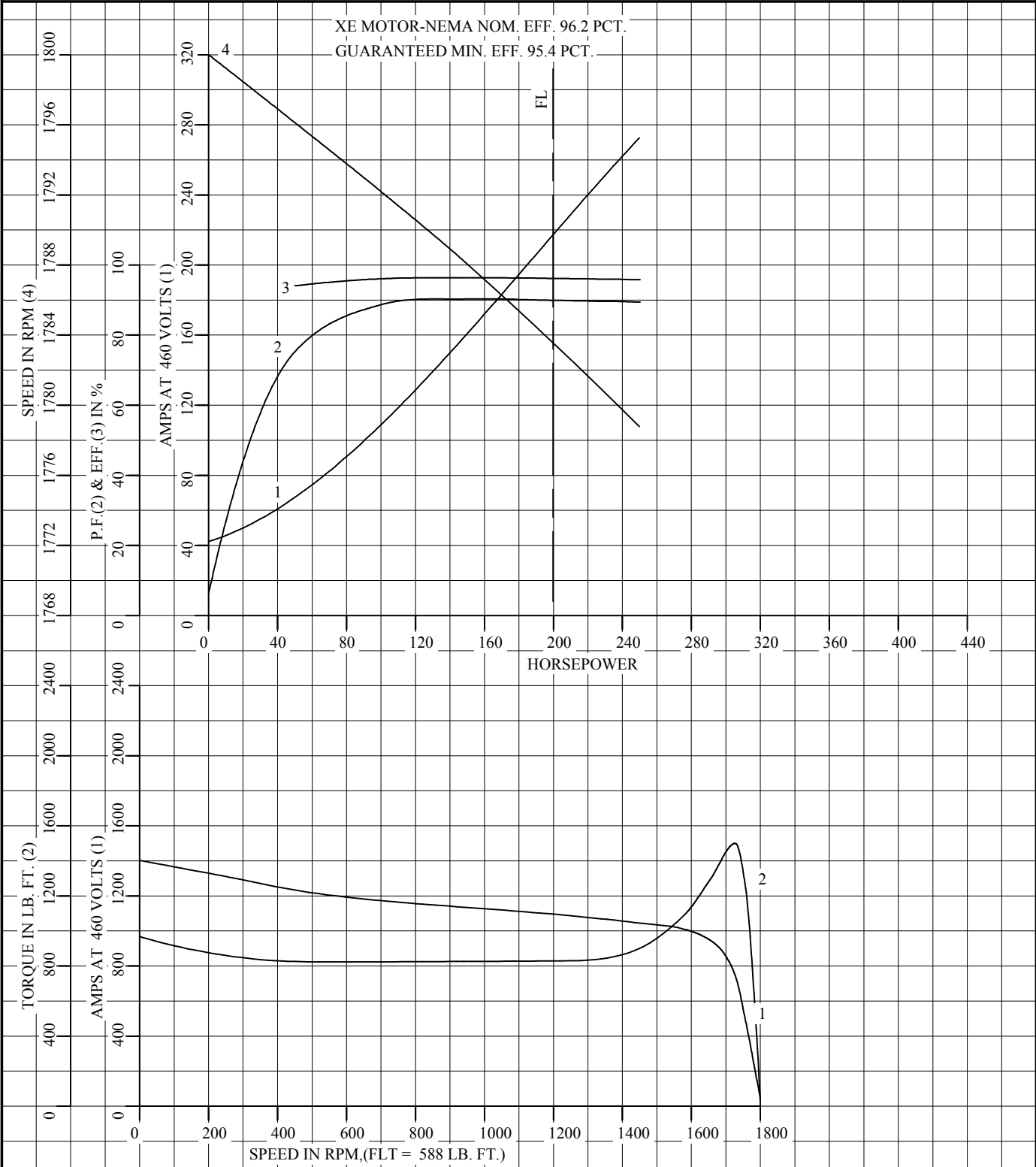
REMARKS: CALCULATED DATA  
XE MOTOR-NEMA NOM. EFF. 96.2 PCT.  
GUARANTEED MIN. EFF. 95.4 PCT.



DR. BY E. J. CHRISTIAN  
CK. BY T. G. KELATI  
APP. BY T. G. KELATI  
DATE 07/07/16

**A-C MOTOR  
PERFORMANCE A44WG1549-R005  
DATA** ISSUE DATE 07/07/16

REL S.O.	RPM 1785	S.F. 1.0	ROTOR 418143047SE
FRAME 449T	VOLTS 460	NEMA DESIGN B	TEST S.O. CALCULATED DATA
HP 200	AMPS 216	CODE LETTER F	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE FCXE	STATOR RES. @ 25 °C .0166
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 833030	OHMS (BETWEEN LINES)



DR. BY E.J. CHRISTIAN  
 CK. BY T.G. KELATI  
 APP. BY T.G. KELATI  
 DATE 07/07/16

**A-C MOTOR  
 PERFORMANCE  
 CURVES**

A44WG1549-R005

ISSUE DATE 07/07/16 Page 8 of 11

**DUTY MASTER ALTERNATING CURRENT MOTORS**

SQUIRREL-CAGE INDUCTION

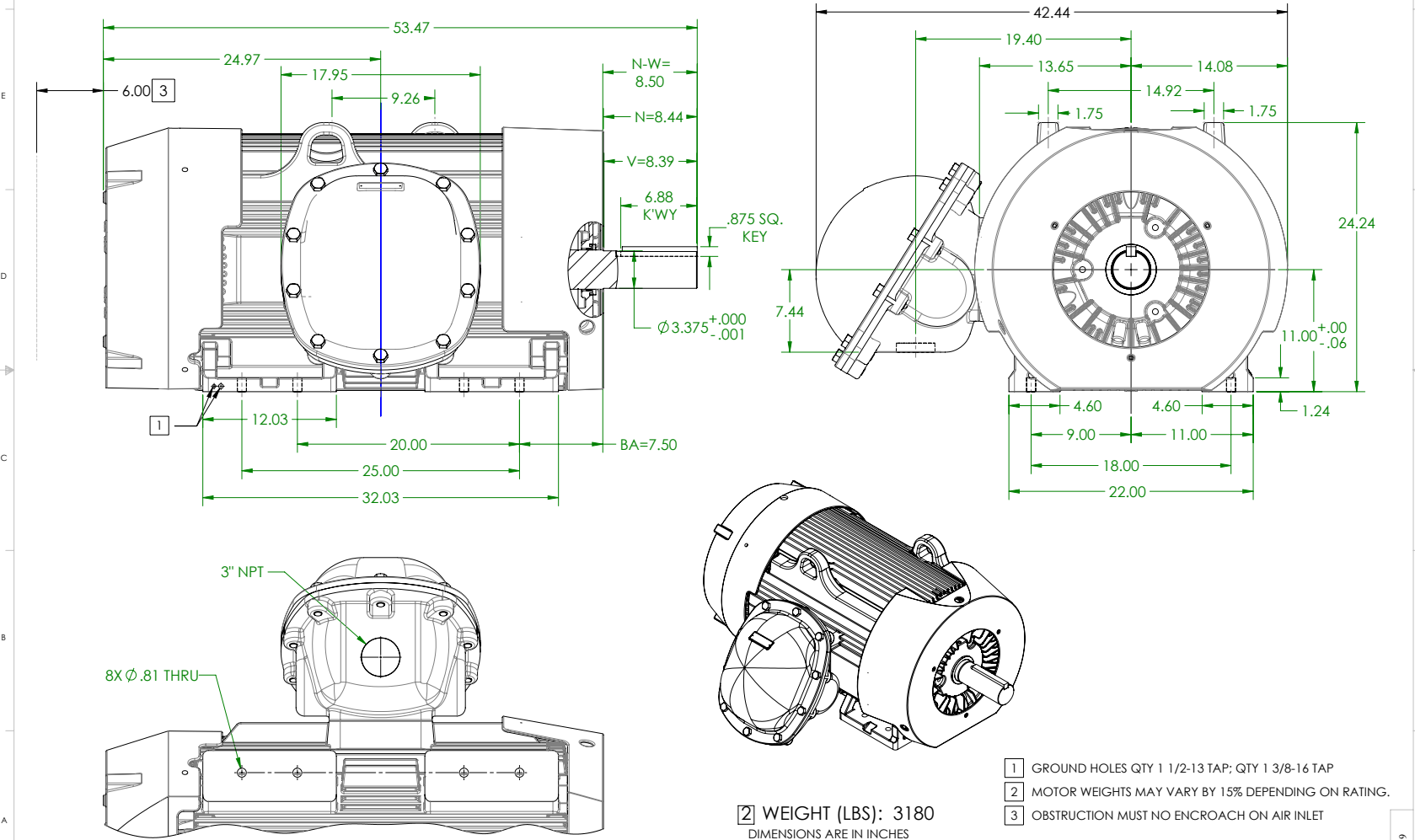
COOLING: FAN COOLED

ENCLOSURE: UL LISTED MOTOR

FRAME G447T ABOVE NEMA RATINGS (1800 RPM MAX)

MOUNTING: FOOT, F-1

INCLUDES G449T FRAME MOUNTING HOLES



SHEET NUMBER  
**1 OF 1**  
991-9CZ119

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.  
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF  
STANDARD SHAFT EXTENSION IS .003" T.I.R. TO 5 INCH DIA.

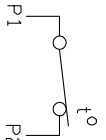
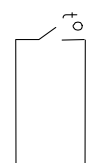
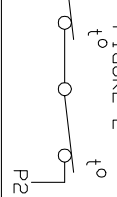
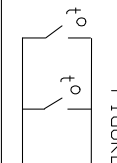
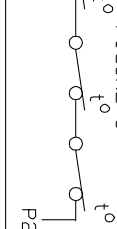
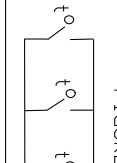
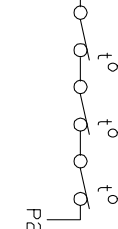
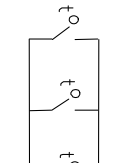
- 1** GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
- 2** WEIGHT (LBS): 3180  
DIMENSIONS ARE IN INCHES  
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.
- 3** MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
- 3** OBSTRUCTION MUST NO ENCROACH ON AIR INLET

REV. DESC: NEW ISSUE	VERSION: 00	REVISED: 09-31-40 04/21/2016	TDR: 00000976634
MODEL NO. 617426-166			
BY: RAGGDM			

**BALDOR**  
G449T447T XP FT SIDE CTR C/B - CL 1 C / CL 2 E, F & G 3" NPT

# CONNECTION DIAGRAM ACCESSORIES

MOTOR WINDING THERMOSTATS	
CONTACTS _____ @ _____ °C	
FIGURE NUMBER _____	
CONTACT RATING	
VOLTS	CONTACT RATING CONTINUOUS AMPERES
110-120	3.0
220-240	1.5
440-480	0.75
550-600	0.60
	INRUSH AMPERES
	30
	15
	7.5
	6.0

NORMALLY CLOSED	THERMOSTATS	NORMALLY OPEN
 <p>FIGURE 1</p>		 <p>FIGURE 4</p>
 <p>FIGURE 2</p>		 <p>FIGURE 5</p>
 <p>FIGURE 3</p>		 <p>FIGURE 6</p>
 <p>FIGURE 7</p>		 <p>FIGURE 8</p>

CUSTOMER \_\_\_\_\_ CUSTOMER ORDER NO. \_\_\_\_\_ S.O. NO. \_\_\_\_\_

418174-006

418174-006

REV. DESC: LOADED TO BUS		
REV. LTR: A	VERSION: 01	TDR: 000000570390
FILE: \RAG\00013\849	REVISED: 10:16:21 12/07/2010	BY: RAGDRF
MTL: -		

**BALDOR**

A-C MOTOR CONNECTION ACCESSORIES

SH 1 of 1

416820-036

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 3 LEAD CONNECTED



(N.P. 1575-BA)

416820-036

REV. DESC: LOADED TO BUS, C/R 335225

REV. LTR: -

VERSION: 00

TDR: 000000538207

FILE: \MGA\00000\682

REVISED: 11:54:06 04/30/2010

MTL: -

BY: RAGRA

**BALDOR**

CONN DIAG - STANDARD 3 LEAD

SH 1 of 1