

# ABB BALDOR RELIANCE III

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## Customer information packet

### EFM4316T

75HP, 1780RPM, 3PH, 60HZ, 365T, A36070M, TEFC

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	365T
<b>Frame Material</b>	Iron
<b>Frequency</b>	60.00 Hz
<b>Haz Area Class and Group</b>	None
<b>Haz Area Division</b>	Not Applicable
<b>Motor Letter Type</b>	Three Phase
<b>Output @ Frequency</b>	75.000 HP @ 60 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1800 RPM @ 60 HZ
<b>Voltage @ Frequency</b>	230.0 V @ 60 HZ 460.0 V @ 60 HZ
<b>Agency Approvals</b>	CCSAUSEEV CURUSEEV NEMA PREMIUM NEMA PREMIUM (OLD LOGO)
<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>	172.000 A @ 230.0 V 188.000 A @ 208.0 V 86.000 A @ 460.0 V
<b>Design Code</b>	B
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Efficiency @ 100% Load</b>	95.4 %
<b>Enclosure Modification</b>	Severe Duty Features
<b>Feedback Device</b>	NO FEEDBACK
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	86.0 a
<b>Insulation Class</b>	F

**Part Detail**

<b>Revision</b>	M
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	A36WG4076
<b>Layout</b>	611740-001-SH1
<b>Eff. date</b>	02-13-2025
<b>CD Diagram</b>	416820-002
<b>Poles</b>	04
<b>Leads</b>	3#4,6#6 Y
<b>Proprietary</b>	False
<b>Created date</b>	05-16-2019

<b>Inverter Code</b>	Inverter Ready
<b>IP Rating</b>	NONE
<b>KVA Code</b>	G
<b>Lifting Lugs</b>	No Lifting Lugs
<b>Max Speed</b>	2700 rpm
<b>Motor Lead Quantity/Wire Size</b>	3 @ 4 AWG
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	A36070M
<b>Mounting Arrangement</b>	F2
<b>Number of Poles</b>	4
<b>Overall Length</b>	33.44 IN
<b>Power Factor</b>	86
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	2.375 IN
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	Shaft Slinger
<b>Speed</b>	1780 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>	None

**Nameplate**

**NP3979LUA**

<b>CAT #</b>	EFM4316T		<b>SER</b>			<b>CC</b>	010A						
<b>SPEC</b>	A36-3394-4076		<b>RATING</b>	40C AMB-CONT									
<b>HZ</b>	<b>VOLTS</b>	<b>AMPS</b>	<b>RPM</b>	<b>HP</b>	<b>CODE</b>	<b>SF</b>	<b>DES</b>	<b>PF</b>	<b>NEMA NOM. EFF</b>				
60	230/460	172/86	1780	75	G	1.15	B	86 %	95.4 %				
	-							%	%				
<b>PH</b>	3	<b>CL</b>	F	<b>MAX CORR KVAR</b>	15.8								
<b>BRG</b>	<b>DE</b>	6313	<b>ODE</b>	6313	<b>ENCL</b>	TEFC	<b>FR</b>	365T	IP54				
<b>GREASE</b>	POLYREX EM			<b>MTR WT</b>	908	<b>LBS</b>							
<b>USABLE AT</b>	50HZ 60HP 190/380V 168/84A				<b>SF1.0</b>								
<b>INVERTER DUTY</b>	<b>CT</b>	15-60	<b>HZ</b>	4:1	<b>VT</b>	3-60	<b>HZ</b>	20:1	<b>CHP</b>	60-90	<b>HZ</b>	1.5:1	<b>1.0 SF VPWM</b>
<b>MAX RPM</b>	2700												

AC induction motor performance data

Record #71910 - Typical performance - not guaranteed values

Winding	A36WG4076
Type	A3670M
Enclosure	TEFC

Nameplate data

Rated Output			75
Volts			230/460
Full Load Amps			172/86
R.P.M.			1780
Hz	60	Phase	3
KVA Code			G
S.F.			1.15
NEMA Nom. Eff.	95.4	Power Factor	86
Duty			CONT
S.F. Amps			

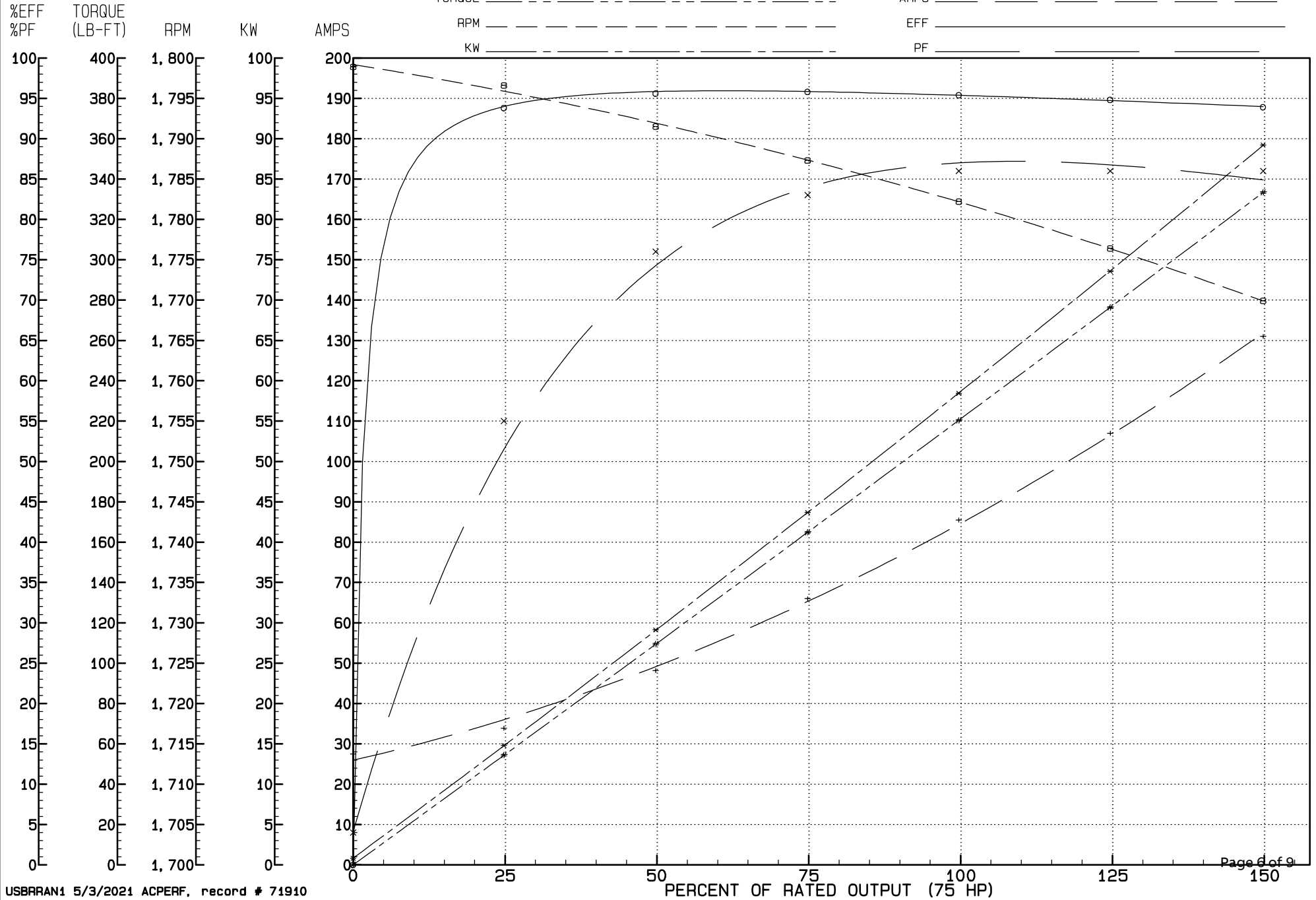
460 V, 60 Hz:

High Voltage Connection

Full Load Torque	220.4 LB-FT
Start Configuration	direct on line
Breakdown Torque	618 LB-FT
Pull-up Torque	341 LB-FT
Locked-rotor Torque	434 LB-FT
Starting Current	545 A
No-load Current	27.5
Line-line Res. @ 25°C	0.081965 Ω
Temp. Rise @ Rated Load	60°C
Temp. Rise @ S.F. Load	75°C
Locked-rotor Power Factor	31.8
Rotor inertia	0

Load Characteristics 460 V, 60 Hz, 75 HP

% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	4	55	76	83	86	86	86	86
Efficiency	0	93.8	95.6	95.8	95.4	94.8	93.9	95
Speed	1798.9	1796.6	1791.5	1787.3	1782.2	1776.4	1769.9	1779
Line amperes	27.5	33.9	48.2	66	85.5	107	131	98.4



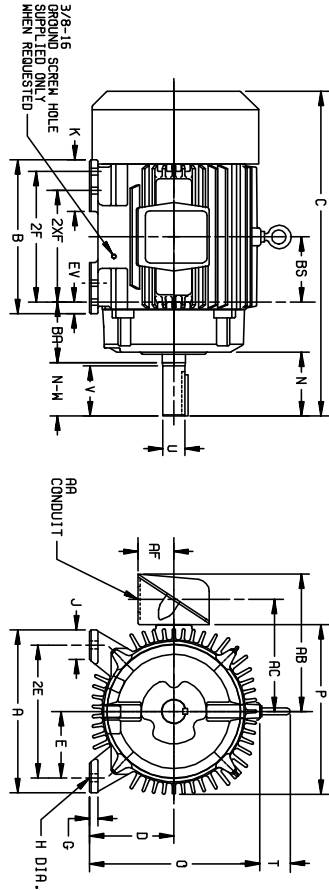
611740-001-SH1

**DUTY MASTER ALTERNATING CURRENT MOTORS**  
SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED  
MOUNTING: FOOT

FRAMES 250T THRU 440T

COOLING: FAN COOLED



DIMENSIONS ARE IN INCHES; SEE SHEET 2 FOR DIMENSIONS IN MILLIMETERS

FRAME SIZE	A	D(2)	E	G	H	J	K	O	P	T	AA	AB	AC	AF	BA	EV
254T-256T	12.50	6.25	5.00	7.5	56	2.50	---	13.25	13.25	2.44	1-1/4	10.75	8.75	2.50	4.25	1.00
264T-266T	13.75	7.00	5.50	7.5	56	2.50	---	14.75	14.88	2.44	1-1/2	12.75	10.00	3.19	4.75	1.00
324T-326T	15.50	8.00	6.25	8.8	69	2.75	4.50	16.89	17.00	2.44	2	15.19	11.44	4.25	5.25	1.58
364T-365T	17.00	9.00	7.00	8.8	69	2.75	3.88	18.50	19.50	2.94	3	18.08	14.00	5.38	5.88	1.58
404T-405T	19.00	10.00	8.00	11.2	81	3.25	4.62	21.51	22.50	2.94	3	19.51	15.25	5.38	6.62	1.13
444T-445T	21.00	11.00	9.00	11.2	81	3.25	5.25	23.38	25.25	3.25	3	23.38	18.12	6.50	7.50	1.25

FRAME SIZE	C	BS	B	2F	N	SHAFT AND KEY		WEIGHT LBS. (5)				
						N-W(6) U(3)	V					
254T	24.56	5.00	12.00	---	8.25	4.12	4.00	1.625	3.75	3.75	2.88	3.05
256T	24.56	5.00	12.00	10.00	---	4.12	4.00	1.625	3.75	3.75	2.88	3.15
264T	27.44	5.50	13.00	---	9.50	5.00	4.62	1.875	4.38	5.00	3.25	4.35
264T	27.44	5.50	13.00	---	9.50	3.82	3.25	1.625	3.00	3.75	1.98	4.35
266T	27.44	5.50	13.00	11.00	---	5.00	4.62	1.875	4.38	5.00	3.25	4.50
266T	27.44	5.50	13.00	11.00	---	3.82	3.25	1.625	3.00	3.75	1.98	4.50
268T	26.06	5.50	13.00	---	10.50	5.62	5.25	2.125	5.00	5.00	3.88	5.40
324T	30.44	6.00	14.75	---	10.50	4.12	3.75	1.875	3.50	5.00	2.00	5.80
324T	30.44	6.00	14.75	12.00	---	5.62	5.25	2.125	5.00	5.00	3.88	5.80
326T	28.94	6.00	14.75	---	11.25	4.12	3.75	1.875	3.50	5.00	2.00	5.80
326T	28.94	6.00	14.75	12.00	---	5.62	5.25	2.125	5.00	5.00	3.88	5.80
364T	33.44	6.12	15.00	---	11.25	4.12	3.75	1.875	3.50	5.00	2.00	5.80
364T	33.44	6.12	15.00	12.25	---	6.25	5.88	2.375	5.62	6.25	4.25	6.80
365T	33.44	6.12	15.00	---	11.25	4.12	3.75	1.875	3.50	5.00	2.00	5.80
365T	33.44	6.12	15.00	12.25	---	6.25	5.88	2.375	5.62	6.25	4.25	6.80
404T	38.31	6.88	16.00	---	12.25	7.50	7.25	2.875	7.00	7.50	5.62	11.20
404T	38.31	6.88	16.00	13.75	---	7.50	7.25	2.875	7.00	7.50	5.62	11.20
405T	38.31	6.88	16.00	---	12.25	7.50	7.25	2.875	7.00	7.50	5.62	11.20
405T	38.31	6.88	16.00	13.75	---	7.50	7.25	2.875	7.00	7.50	5.62	11.20
405T	35.31	6.88	16.00	---	14.50	8.94	8.50	3.375	8.25	8.75	6.88	15.40
444T	44.62	8.25	19.00	---	14.50	8.94	8.50	3.375	8.25	8.75	6.88	15.40
444T	44.62	8.25	19.00	16.50	---	8.94	8.50	3.375	8.25	8.75	6.88	17.20
445T	40.88	8.25	19.00	16.50	---	5.19	4.75	2.375	4.50	6.25	3.00	17.14

- (1) SPECIAL DIMENSIONS APPLYING TO THIS ORDER ON THIS LINE.
- (2) "D" VARIES UP TO 1.625 DIA. +.000, -.005
- (3) "U" VARIES UP TO 1.625 DIA. +.000, -.0005
- (4) ALL FRAMES HAVE EIGHT MOUNTING HOLES FOR DUAL MOUNTING.
- (5) MOTOR WEIGHTS MAY VARY BY 15% DEPENDING UPON RATING.
- (6) "N-W" VARIES +.00, -.25.

FRAME \_\_\_\_\_ TYPE \_\_\_\_\_ CERTIFIED FOR \_\_\_\_\_  
 ORDER \_\_\_\_\_ ITEM \_\_\_\_\_ HP \_\_\_\_\_ RPM \_\_\_\_\_ APPROVED BY \_\_\_\_\_ PH \_\_\_\_\_ HZ \_\_\_\_\_ VOLTS \_\_\_\_\_  
 RELIANCE SALES ORDER \_\_\_\_\_ DATE \_\_\_\_\_

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: UPDATE TITLE SHEET 2	VERSION: 02	TDR: 00000498266
FILE: \RAG\00000\167	REVISED: 07: 05: 46 04/29/2009	BY: RAGEC
MTL: -		

**Baldor • Dodge • Reliance**

DIM SHEET 250T THRU 440T  
SH 1 of 1

611740-001-SH1



