

# ABB BALDOR RELIANCE III

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## Customer information packet

EWDM4314T

60HP, 1780RPM, 3PH, 60HZ, 364T, A3658M, TEFC, F

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	364T
<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>	60.000 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>	CSA EEV CCSA US
<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>	140.000 A @ 230.0 V 152.000 A @ 208.0 V 70.000 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>	95.0 %
<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>	70.0 a
<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Ready
<b>IP Rating</b>	IP55

**Part Detail**

<b>Revision</b>	E
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	A36WG4075
<b>Layout</b>	617428-593
<b>Eff. date</b>	02-13-2025
<b>CD Diagram</b>	416820-002
<b>Poles</b>	04
<b>Leads</b>	3#4,6#6
<b>Proprietary</b>	False
<b>Created date</b>	08-20-2019

<b>KVA Code</b>	G
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Motor Lead Quantity/Wire Size</b>	3 @ 4 AWG
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	A3658M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	33.48 IN
<b>Power Factor</b>	84
<b>Product Family</b>	Washdown Features
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	2.374 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**

<b>NP2496L</b>
MOBIL POLYREX EM

**NP2428L**

<b>SPEC NO.</b>	A36-6178-4075	<b>CAT.NO.</b>	EWDM4314T	<b>FRAME</b>	364T				
<b>HP</b>	60	<b>VOLTS</b>	230/460	<b>PHASE</b>	3	<b>DESIGN</b>	B	<b>TYPE</b>	P
<b>RPM</b>	1780	<b>AMPS</b>	140/70	<b>HZ</b>	60	<b>AMB</b>	40	<b>SF</b>	1.15
<b>DRIVE END BEARING</b>	65BC03JGG30A	<b>DUTY</b>	CONT	<b>INSUL.CLASS</b>	F				
<b>OPP D.E. BEARING</b>	65BC03JGG30A	<b>ENCL</b>	TEFC	<b>CODE</b>	G				
<b>SER.NO.</b>		<b>POWER FACTOR</b>	84	<b>NEMA-NOM-EFFICIENCY</b>	95				
		<b>MAX CORR KVAR</b>	15	<b>GUARANTEED EFFICIENCY</b>	94.1				
		<b>NEMA NOM/CSA QUOTED EFF</b>							
	IP55								
	10:1CT AND 10:1VT ON VPWM INVE	<b>RTER, 1.00SF</b>		<b>MOTOR WEIGHT</b>					

AC induction motor performance data

Record #72794 - Typical performance - not guaranteed values

Winding	A36WG4075
Type	A3658M
Enclosure	TEFC

Nameplate data

Rated Output			60
Volts			230/460
Full Load Amps			140/70
R.P.M.			1780
Hz	60	Phase	3
KVA Code			G
S.F.			1.15
NEMA Nom. Eff.	95	Power Factor	84
Duty			CONT
S.F. Amps			

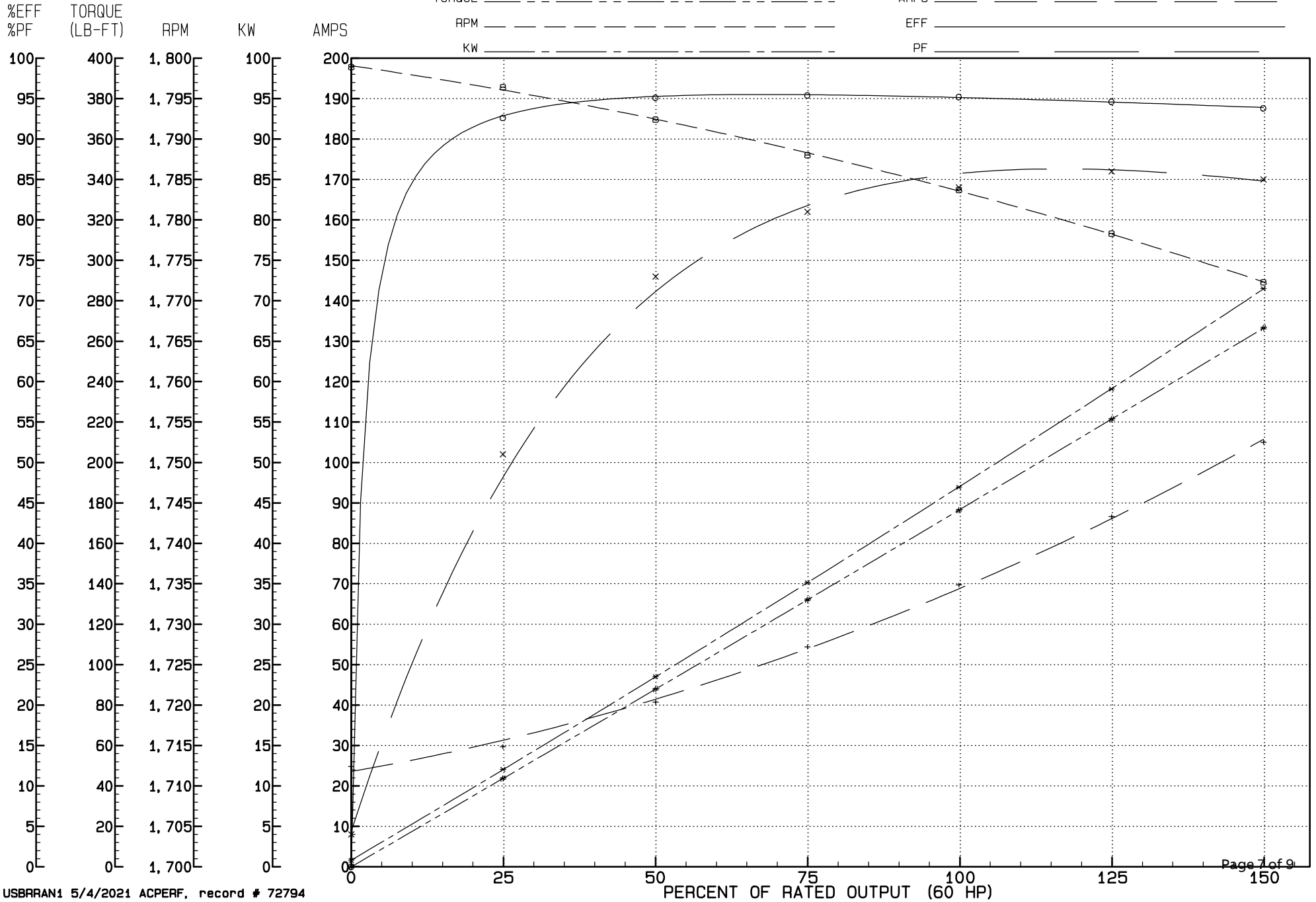
460 V, 60 Hz:

High Voltage Connection

Full Load Torque	176.4 LB-FT
Start Configuration	direct on line
Breakdown Torque	422 LB-FT
Pull-up Torque	276 LB-FT
Locked-rotor Torque	352 LB-FT
Starting Current	462 A
No-load Current	24.8
Line-line Res. @ 25°C	0.10816 Ω
Temp. Rise @ Rated Load	56°C
Temp. Rise @ S.F. Load	70°C
Locked-rotor Power Factor	32.3
Rotor inertia	0

Load Characteristics 460 V, 60 Hz, 60 HP

% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	4	51	73	81	84	86	85	85
Efficiency	0	92.6	95.1	95.4	95.2	94.6	93.8	94.8
Speed	1798.9	1796.4	1792.4	1788	1783.7	1778.3	1772.3	1780
Line amperes	24.8	29.7	40.7	54.4	69.7	86.6	105	79.8



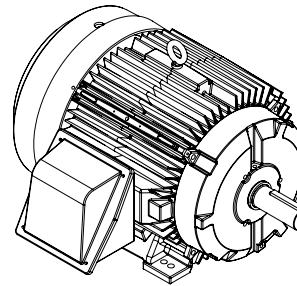
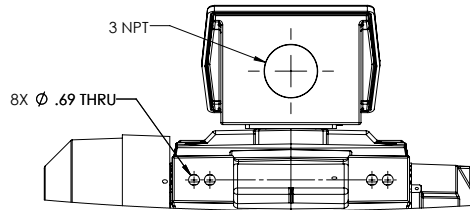
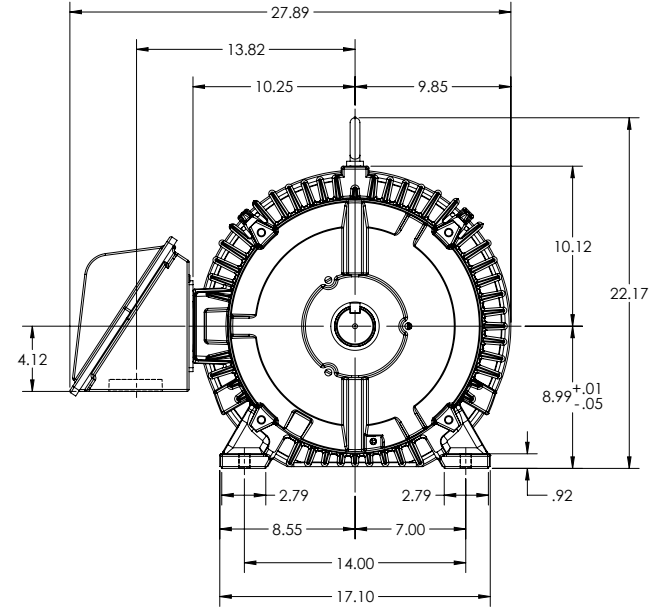
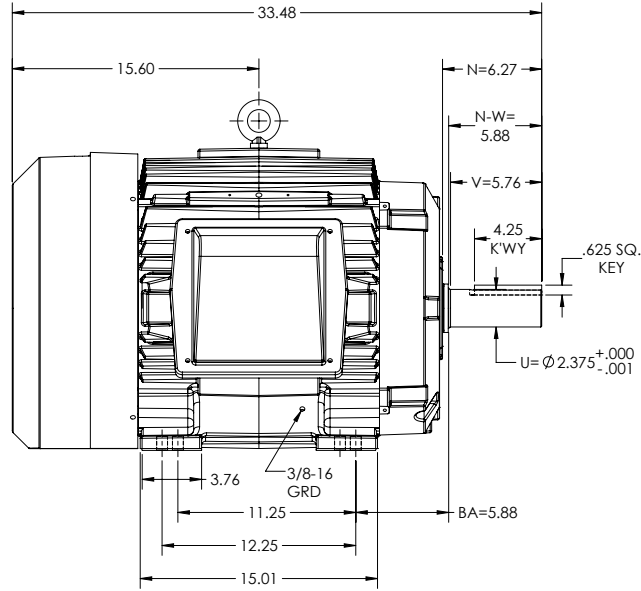
**DUTY MASTER ALTERNATING CURRENT MOTORS**  
SQUIRREL-CAGE INDUCTION

617428-593

ENCLOSURE: TOTALLY ENCLOSED  
MOUNTING: FOOT, F-1 SIDE

FRAME E365T  
INCLUDES E364T FRAME MOUNTING HOLES  
CAST IRON CONDUIT BOX

COOLING: FAN COOLED  
ENCLOSURE ENHANCEMENT: SEVERE DUTY



DIMENSIONS ARE IN INCHES

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

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.

REV. DESC: REMOVE SLINGER NOTE	VERSION: 01	REVISED: 08-44-20 03/26/2020	TDR: 000001135936
MODEL NO. 617428-593			
BY: RAGSS1			

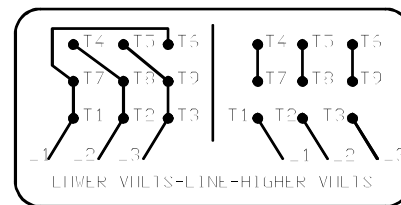
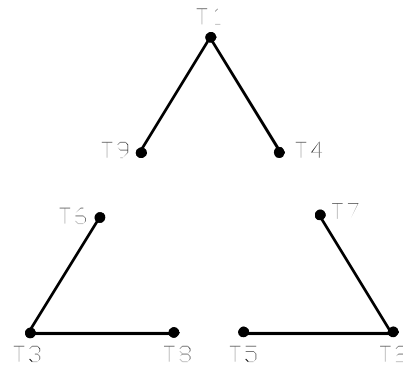
**BALDOR**

E3654T TEFC F1 FT SEVERE-

617428-593

416820-002

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 9 LEAD DELTA-CONNECTED



(N.P. 1575-B)

416820-002

REV. DESC: FONT CHANGE FOR PDF SEARCHABLE		
REV. LTR: A	VERSION: 01	TDR: 000001009382
FILE: \MGA\00000\661	REVISED: 02:46:19 02/13/2020	BY: MGHMTT
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**BALDOR - RELIANCE®**

CONN DIAG - STANDARD 9 LEAD, DELTA-CONNECTED

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