

**BALDOR® • RELIANCE®**

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# Customer information packet

## EM4314T-12

60HP, 1800RPM, 60HZ, 364T, TEFC  
ELECTRIC MOTOR WHOLESALE.COM

## Specifications

**BASIC CONFIGURATION**

Product Family	General Purpose, 3Ph, Enclosed
HP Rating	60
Frequency (HZ)	60
Voltage	230/460
Division	None
Temp Code	None
Enclosure	TEFC
CT Turn Down	4:1
VT Turn Down	20:1
Inverter	Yes
Efficiency	Premium Eff. (NEMA 12-12)
Duty	Cont
Design Letter	B
Frame Material	Cast Iron

**ELECTRICAL**

Tropicalized Protection	No
Starting Method	Wye Start - Delta Run
Motor Space Heater	No

**BEARINGS**

Bearing Type DE	Ball
Bearing Type ODE	Ball
Grease Fittings Rqd	Yes

**PACKAGING**

Pallet Type	Standard
Packaging Type	Standard Packing

**MECHANICAL**

## Part detail

Revision	-
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A36WG4087-DES
Layout	A36C-0000000021
Eff. date	06-23-2020
CD Diagram	CD0104
Poles	04
Leads	12#6,0#0
Proprietary	False
Created date	06-23-2020

<b>Balance</b>	Standard (0.15 in/sec)
<b>Fan Material</b>	Standard
<b>Fan Housing Material</b>	Steel
<b>Ingress Protection</b>	IP54
<b>Drip Cover Required</b>	No
<b>Paint System</b>	Standard (C2)
<b>Paint Color</b>	Gold
<b>Shaft Grounding</b>	None
<b>Frame Grounding Required</b>	Yes
<b>Auto Drain Type</b>	"T" Drain – Plastic

**CONDUIT BOX**

<b>Main Conduit Box Location</b>	Standard (side)
<b>Main Conduit Box Material</b>	Steel
<b>Main Conduit Box Size</b>	Standard Oversize
<b>Lead Entry Location</b>	Toward Feet - Down
<b>Terminal Blocks - Main Leads</b>	No
<b>Auxiliary Conduit Box 1 Loc</b>	None
<b>Auxiliary Conduit Box 2 Loc</b>	None

**MONITORING DEVICES**

<b>Winding Thermistor</b>	No
<b>Winding Thermostat</b>	No

**MOUNTING**

<b>Mounting Flange - DE</b>	None
<b>Mounting Flange - ODE</b>	None
<b>Mounting Position</b>	F-1
<b>Frame Mounting</b>	Foot
<b>Foot Planarity</b>	None
<b>Drive Method</b>	Coupled
<b>Vertical Lifting Required</b>	No
<b>Shaft Extension</b>	T

**NAMEPLATE / LABELS**

<b>Auxiliary Nameplate Required</b>	No
<b>Nameplate Data Type</b>	Etched
<b>Label CSA</b>	Yes
<b>Label CE</b>	N/A
<b>Label UR</b>	Yes

**Nameplate**

**NP3979LUA**

<b>CAT #</b>	EM4314T-12		<b>SER</b>			<b>CC</b>	010A						
<b>SPEC</b>	A36C-0000000021		<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		140/70	1780	60	G	1.15	B	84 %	95.0 %			
									%	% %			
<b>PH</b>	3	<b>CL</b>	F	<b>MAX CORR KVAR</b>	14.23	<b>USABLE AT 208V</b>		154	A				
<b>BRG</b>	<b>DE</b>	6313	<b>ODE</b>	6313	<b>ENCL</b>	TEFC	<b>FR</b>	364T	IP54				
<b>GREASE</b>	POLYREX EM					<b>MTR WT</b>	839		<b>LBS</b>				
<b>USABLE AT</b>	50HZ 60HP 190/380V 168/84A					SF1.0							
<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												

## Parts list

Part number	Description	Quantity
A36WS4087F00	A36WG4087 WOUND STATOR CLASS F	1.000 ea
033050001C	IBOLT - 360	1.000 ea
085918051A	FRME 360 085918020WCB KB	1.000 ea
403783000AE	PIN 3/8"X2"L	1.000 ea
004824018L	RTV 732 CLEAR 10.1 OZTUBE	0.002 lb
A36WG4075-ROTOR	ROTOR CONFIG	1.000 ea
034180012DA	KEY 1X4X1/4X1-1/2 L	1.000 ea
034180034HA	KEY 5/8X5/8X4-1/4 L	1.000 ea
A36SH1000A00	365T TEFC 6313-6313 CLI SHAFT	1.000 ea
603298012A	CAP,LOCKING,313 BRG - 603298011WCA	1.000 ea
603298012B	CAP,NON-LOCKING,313 BRG 603298011WCA	1.000 ea
416821003FP	6313 C3 - - STL ABEC1 S SLUSH	1.000 ea
416821003FP	6313 C3 - - STL ABEC1 S SLUSH	1.000 ea
085922073B	BRKT 360 085922072WCC KB	1.000 ea
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
415045002E	SLGR	1.000 ea
032018012DK	HHCS 1/2-13X1-1/2 PLTD. 032018012DR	4.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
032018012DK	HHCS 1/2-13X1-1/2 PLTD. 032018012DR	4.000 ea
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
085922073B	BRKT 360 085922072WCC KB	1.000 ea
415045002E	SLGR	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
034530052AB	P/NIP 1/8X6-1/2 GALV.	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea

035000001A	ALFTG 1/8" 1610-BL	1.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
032018008AK	HHCS 1/4-20X1 PLATED	4.000 ea
078559034A	+F/C A 078559001A - 360	1.000 ea
406099000A	PLUG - FAN COVER 320-440	1.000 ea
415072001B	CLAMP	1.000 ea
702676001C	FAN 360	1.000 ea
033512004LB	HHTTS 1/4-20X1/2 PLTD.	1.000 ea
415000103D	T/LUG #4AWG-1/0AWG W/HOLE FOR .250 BOLT	1.000 ea
077176000L	C/BOX, PAINTED 440	1.000 ea
077176001A	CBOXC, PAINTED 360-400	1.000 ea
043292000AJ	GASK 320-400	1.000 ea
402731001A	GASK 360-440	1.000 ea
032018008CK	HHCS 3/8-16X1L PLATED	4.000 ea
032018005AK	HHCS 1/4-20X5/8 PLATED	4.000 ea
MG1025Y17	WILKOFAS T, 789.701, SUPER E PEARL GOLD	0.250 ga
004824003C BY	WILKO PAINT 060.02 - ACTIVATOR	0.063 ga
482403003BEF	RUST VETO 342	0.002 ga
LC0104A01	CONNECTION DIAGRAM	1.000 ea
000692000FP	NP, WARNING LIFT INSTRUCTIONS	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
000692000VD	LABEL WARNING	1.000 ea
MN416	TAG-INSTAL-MAINT w/wire. (1200/bx) 3/19	1.000 ea
14PA1000	PACKAGING 314 GROUP COMBINED PRINT	1.000 ea
032509020C	CARRIAGE BOLT - 360	3.000 ea
HW1000A32	5/16 FL WASHER WIDE, ID=.344, OD=1.125	3.000 ea
NP3979LUA	SS SUPER-E UR CSA-C-US-EEV NEMA PREM CC	1.000 ea
410700004F	WSHR	1.000 ea
004824015A	GREASE POLYREX EM	0.544 lb

**Accessories**

<b>Part number</b>	<b>Description</b>	<b>Multiplier</b>
K36G2	C-FACE KIT	A8
085922068B	BRKT,E360,D-FLG,313,FINISHED-TURNED	P1



**AC Induction Motor Performance Data**

Record # 72809

Typical performance - not guaranteed values

Winding: A36WG4087-R001		Type: A3658M	Enclosure: TEFC	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>	
Rated Output (HP)	60	Full Load Torque	176.4 LB-FT	
Volts	230/460	Start Configuration	direct on line	
Full Load Amps	140/70	Breakdown Torque	422 LB-FT	
R.P.M.	1780	Pull-up Torque	276 LB-FT	
Hz	60 Phase	3	Locked-rotor Torque	352 LB-FT
NEMA Design Code	B KVA Code	G	Starting Current	462 A
Service Factor (S.F.)	1.15	No-load Current	24.8 A	
NEMA Nom. Eff.	95 Power Factor	84	Line-line Res. @ 25°C	0.10816 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	56°C	
S.F. Amps		Temp. Rise @ S.F. Load	70°C	
		Locked-rotor Power Factor	32.1	

**Load Characteristics 460 V, 60 Hz, 60 HP**

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

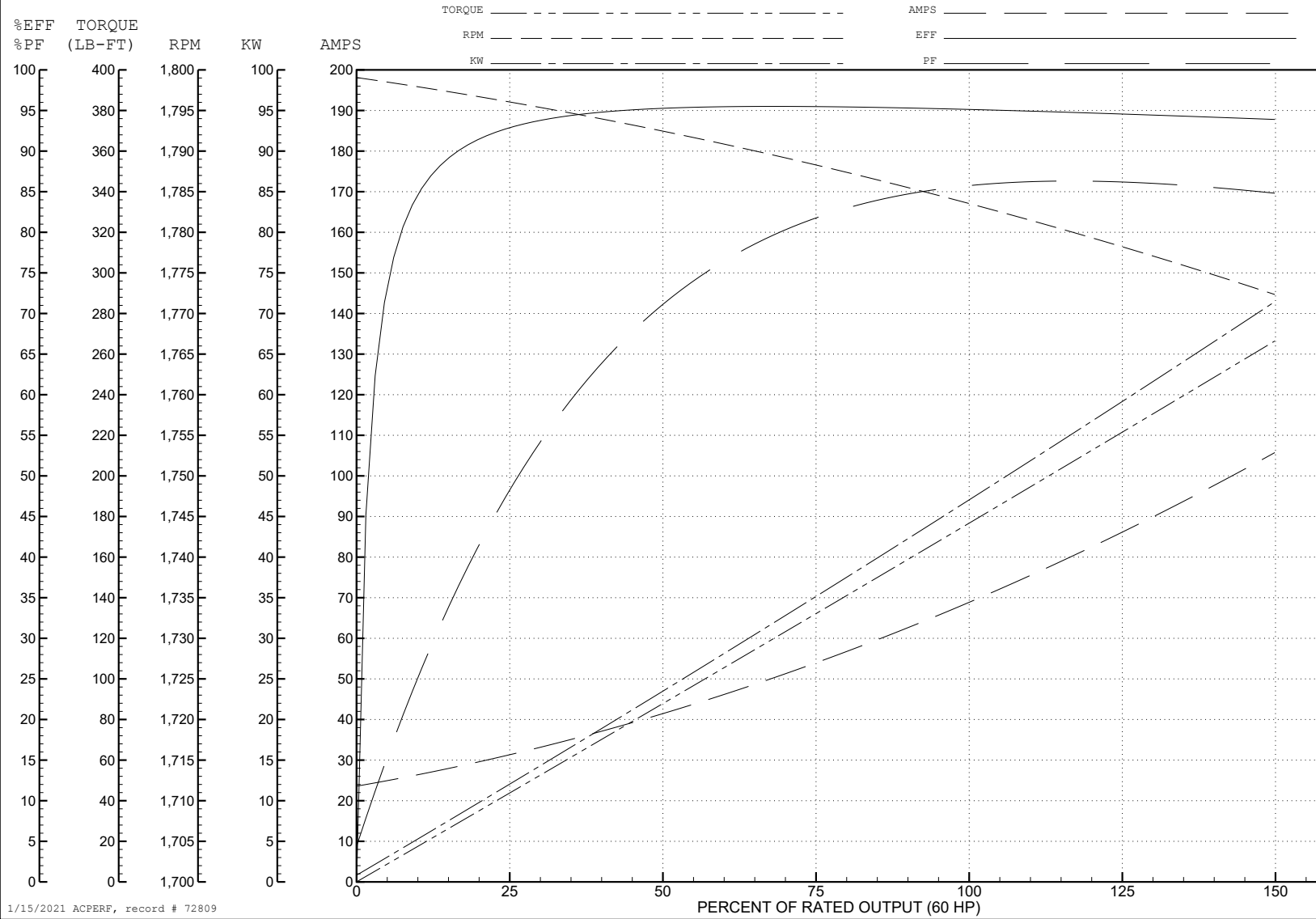
ABB Motors and Mechanical Inc.

WINDING # A36WG4087

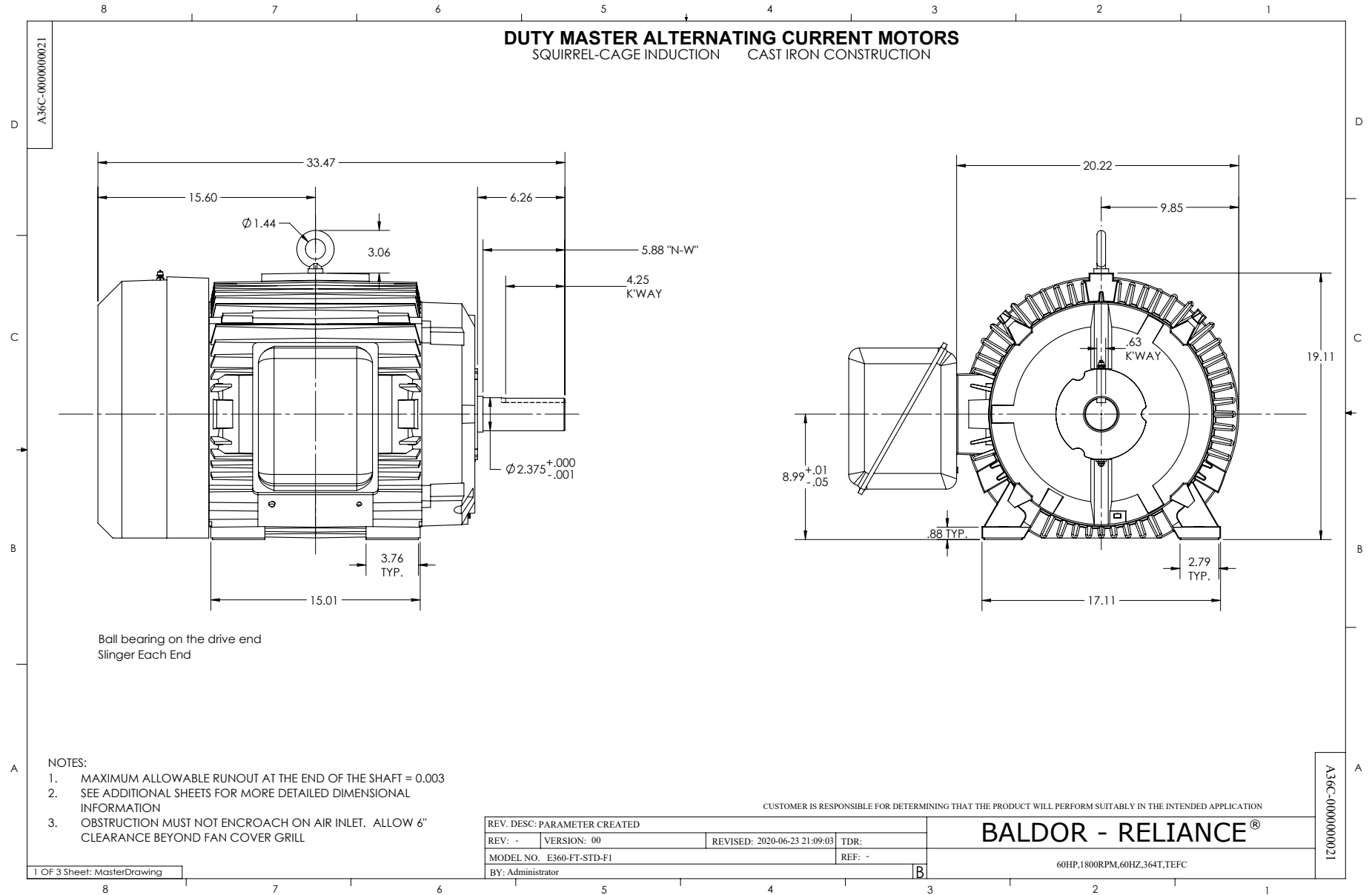
Typical performance - not guaranteed values.

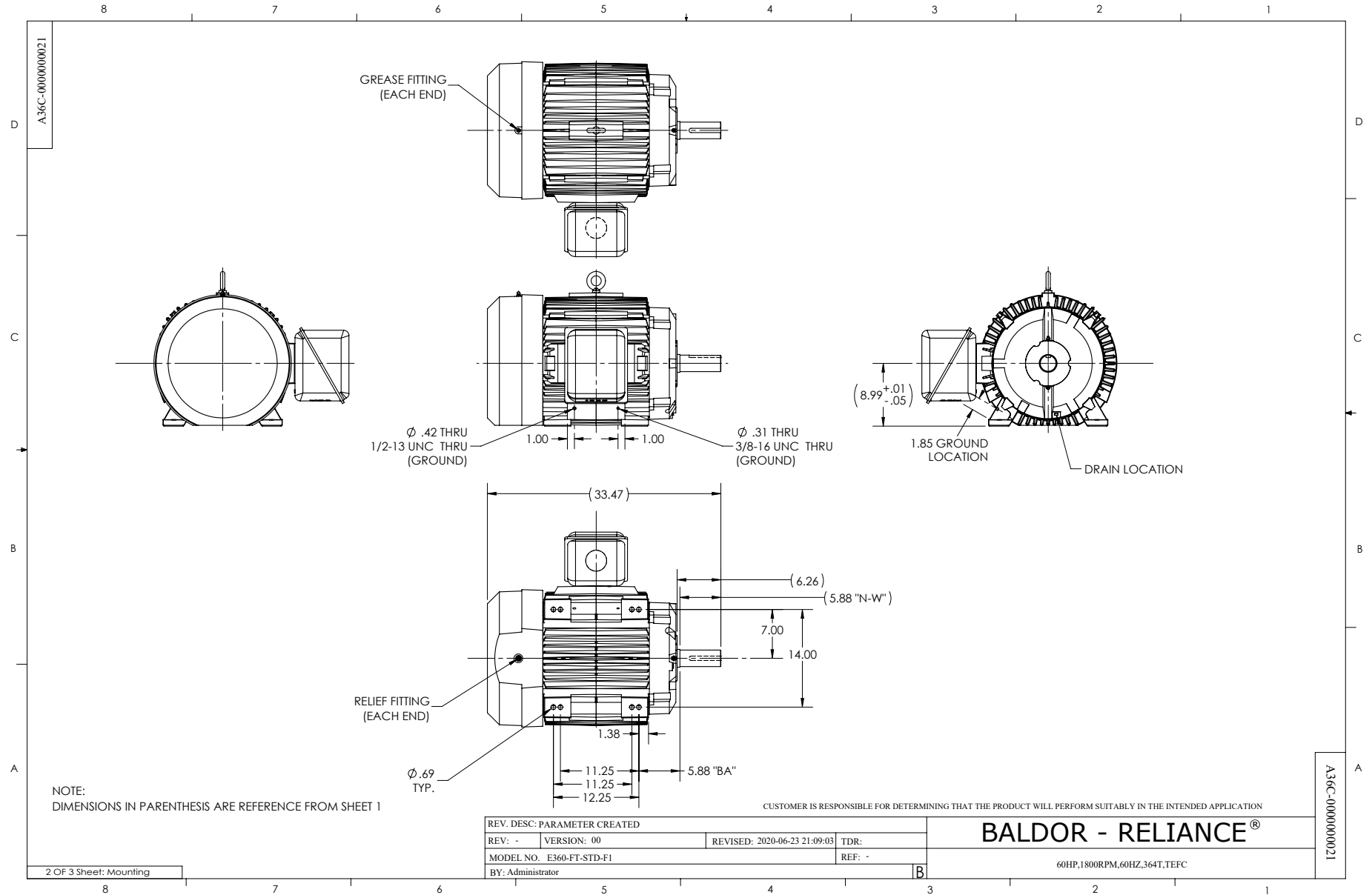
60 HP 3 PH 60 HZ 1780 RPM 460 V A3658M

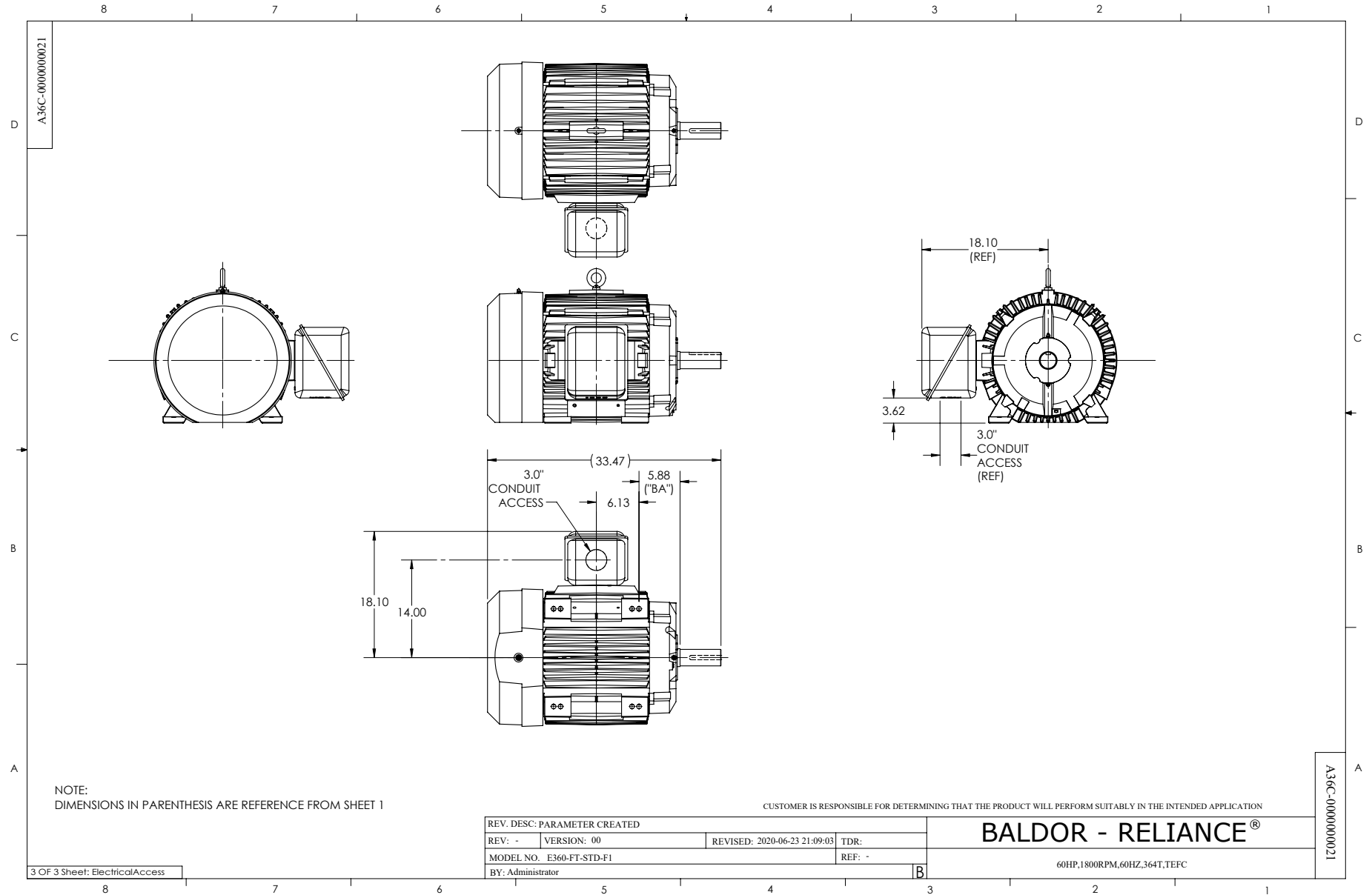
TORQUES (LB-FT): PO=422 PU=276 LR=352 LRA=462



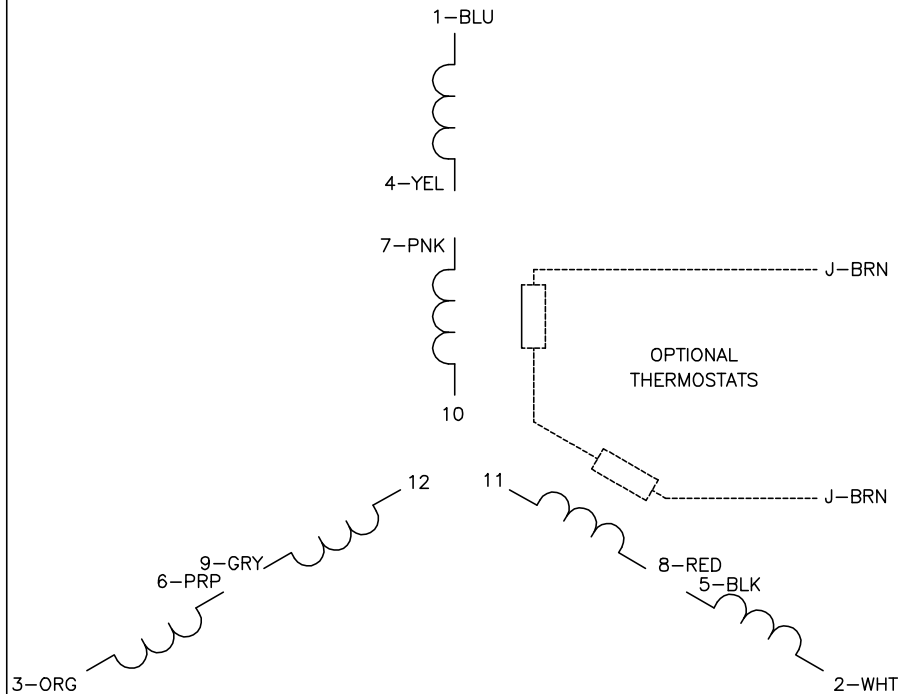
1/15/2021 ACPERF, record # 72809





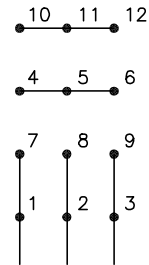


CD0104



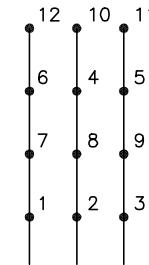
**LOW VOLTAGE**

START (2Y)



LINE

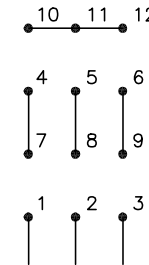
RUN (2D)



LINE

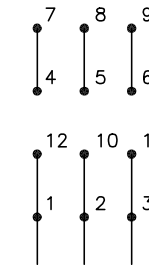
**HIGH VOLTAGE**

START (1Y)



LINE

RUN (1D)



LINE

**NOTES:**

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0104

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00008\377	REVISED: 09:02:55 02/19/2019	BY: ENBRIRO
MTL: -	© □	

**BALDOR - RELIANCE®**

3PH, DV, 12 LEADS, Y START/D RUN

SH 1 of 1