ABB BALDOR RELIANCE

Customer information packet

AEM4103-4

25HP, 1770RPM, 3PH, 60HZ, 324U, 1056M, TEFC, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	324U
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	25.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	UR
	CSA
Ambient Temperature	65 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	30.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	30.0 a
Insulation Class	F
Inverter Code	Inverter Duty

Part Detail

Revision	E
Type	AC
Mech. spec.	10J746
Base	
Status	PRD/A
Elec. spec.	10WGZ580
Layout	10LYJ746
Eff. date	12-09-2025
CD Diagram	CD0006
Poles	04
Leads	3#10
Proprietary	False
Created date	01-11-2017

KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 10 AWG
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	1056M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	30.56 IN
Power Factor	85
Product Family	Automotive (Not For DC)
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	NONE (OLD)
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1404									
CAT.NO.	AEM4103-4								
SPEC.	10J746Z580G1								
VOLTS	460								
AMP	30								
RPM	1770		**HP**	25					
FRAME	324U	**HZ**	60		**PH**	3			
SER.F.	1.00	**CODE**	F	**DES**	B	**CL**	F		
NEMA-NOM-EFF	93.6	**PF**	85						
G.MIN.EFF	92.4	**CC**	010A						
RATING	65C AMB-CONT								
LUBRICATION	POLYREX EM								
DE	6312	**ODE**	6309						
ENCL	TEFC	**SER. #**							

Accessories

Part number	Description	Multiplier
12-1105	C FACE KIT	A8

AC Induction Motor Performance Data
Record # 61590
Typical performance - not guaranteed values

Winding: 10WGZ580-R003	**Type:** 1056M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			25	**Full Load Torque**	74.31 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			30	**Breakdown Torque**	197 LB-FT
R.P.M.			1770	**Pull-up Torque**	91.4 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	115 LB-FT
NEMA Design Code	B	**KVA Code**	F	**Starting Current**	173 A
Service Factor (S.F.)			1	**No-load Current**	10.4 A
NEMA Nom. Eff.	93.6	**Power Factor**	85	**Line-line Res. @ 25ºC**	0.29877 Ω
Rating - Duty			65C AMB-CONT	**Temp. Rise @ Rated Load**	54°C
				Locked-rotor Power Factor	30.3

Load Characteristics 460 V, 60 Hz, 25 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	51	73	81	85	86	86
Efficiency	91	93.8	94.1	93.7	92.9	91.8
Speed	1792.8	1785.5	1778.9	1770.7	1762.4	1751.5
Line amperes	12.5	17	22.9	29.5	36.5	44.7

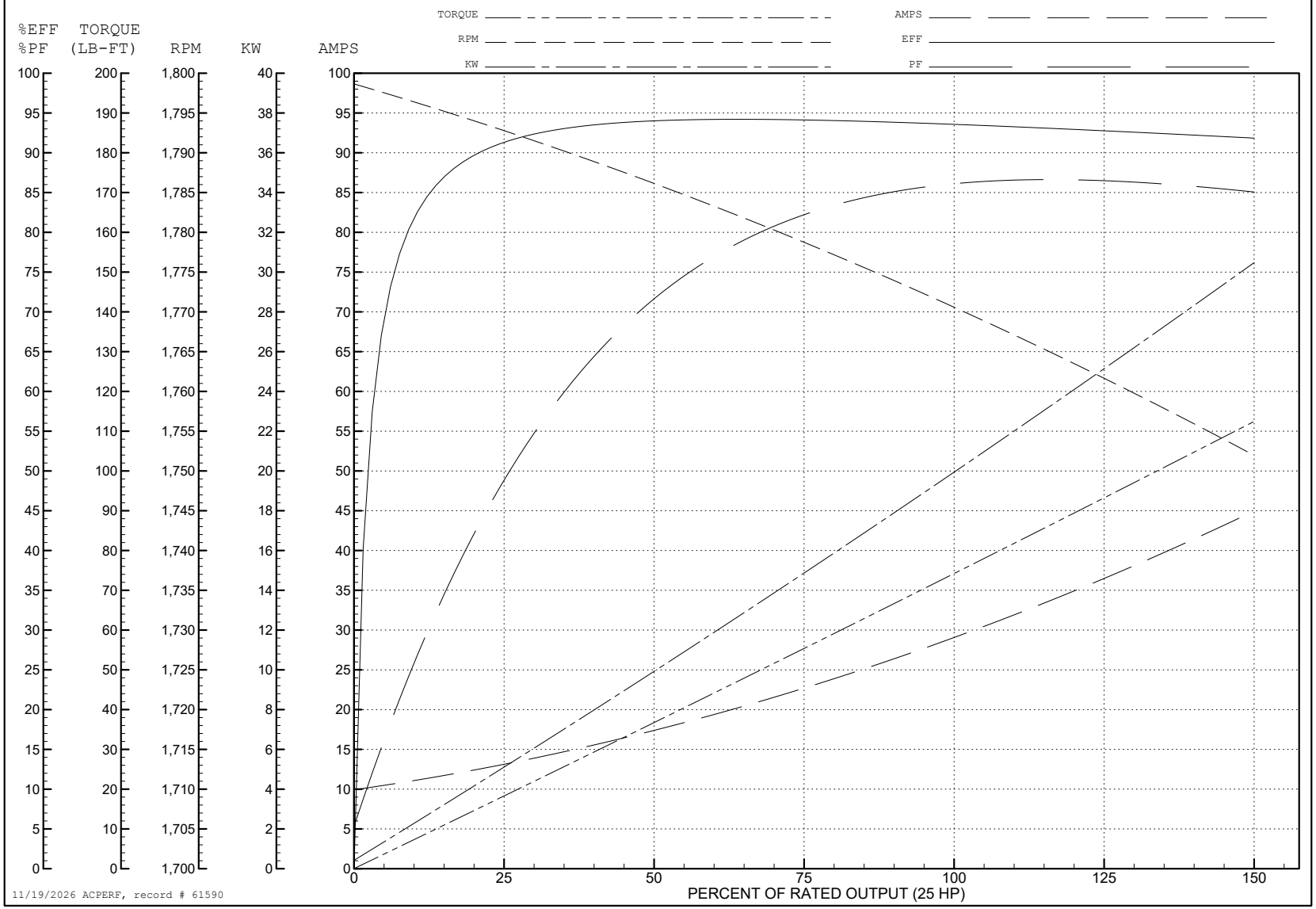
ABB Motors and Mechanical Inc.

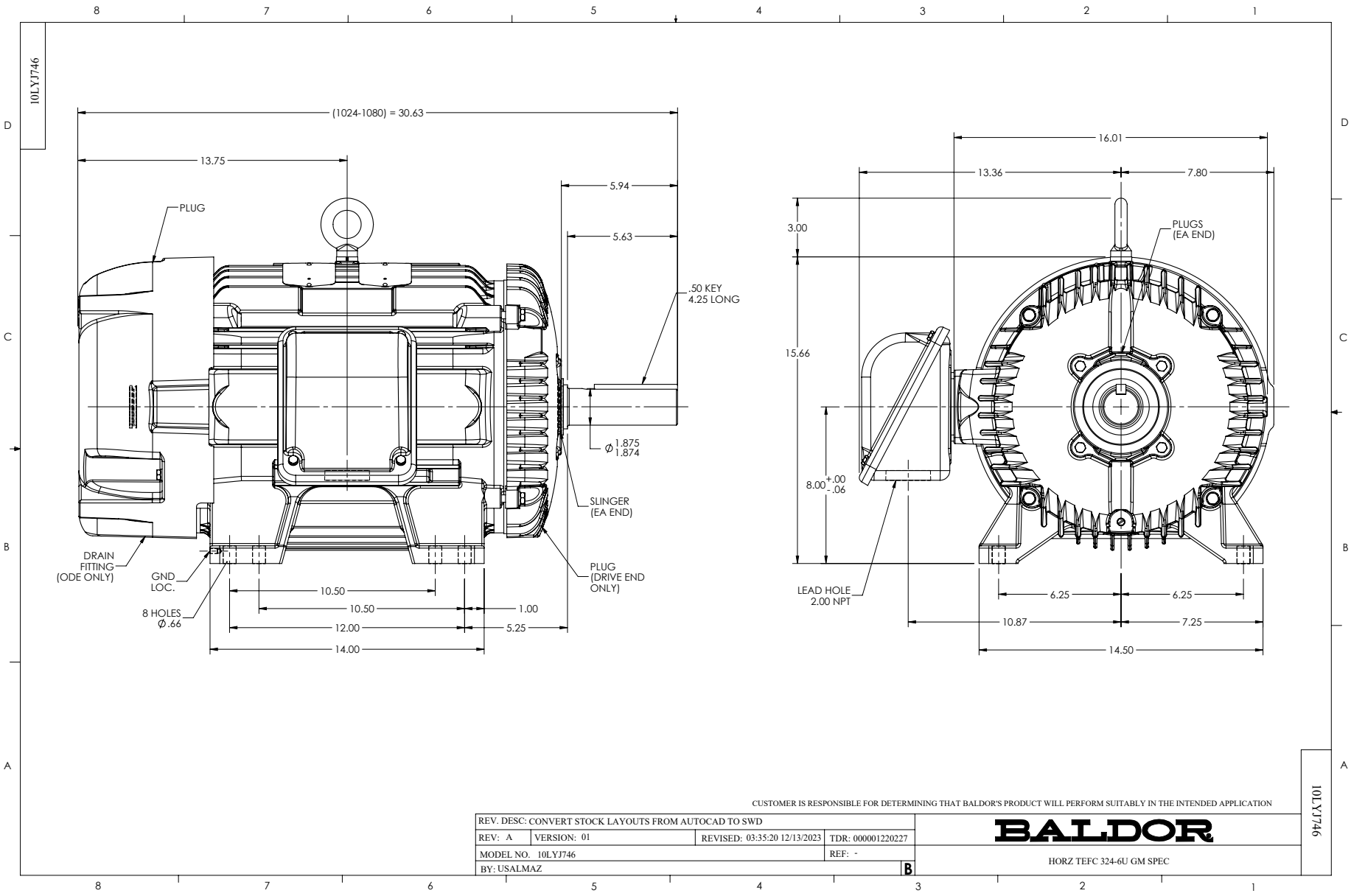
WINDING # 10WGZ580

25 HP 3 PH 60 HZ 1770 RPM 460 V 1056M

Typical performance - not guaranteed values.

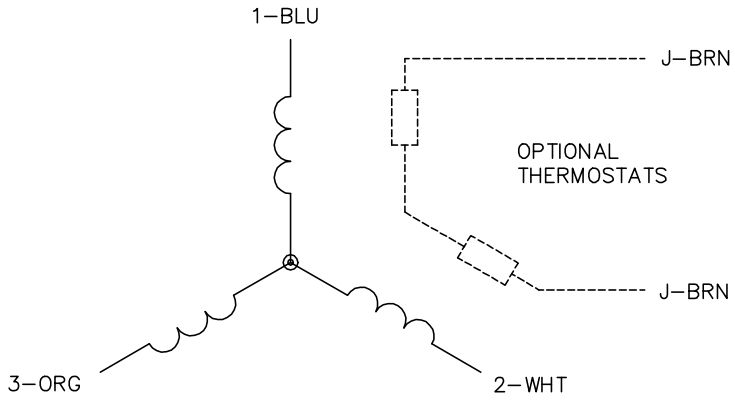
TORQUES(LB-FT): PO=197 PU=91.4 LR=115 LRA=173

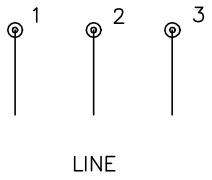



10LYJ746
(1024-1080) = 30.63
13.75
5.94
5.63
PLUG
.50 KEY
4.25 LONG
Ø 1.875
1.874
SLINGER
(EA END)
PLUG
(DRIVE END
ONLY)
DRAIN
FITTING
(ODE ONLY)
GND
LOC.
8 HOLES
Ø .66
10.50
10.50
1.00
12.00
5.25
14.00
16.01
13.36
7.80
3.00
PLUGS
(EA END)
15.66
8.00 +.00 -.06
LEAD HOLE
2.00 NPT
6.25
6.25
10.87
7.25
14.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT STOCK LAYOUTS FROM AUTOCAD TO SWD
REV: A
VERSION: 01
REVISED: 03:35:20 12/13/2023
TDR: 000001220227
MODEL NO. 10LYJ746
REF: -
BY: USALMAZ
B
BALDOR
HORZ TEFC 324-6U GM SPEC
10LYJ746

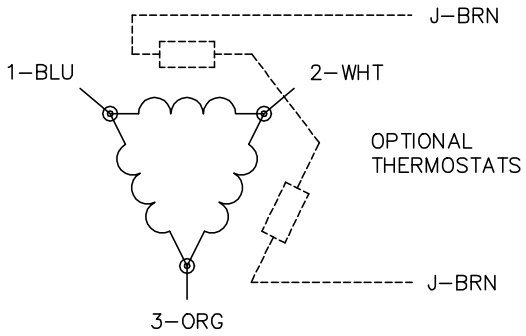
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1