ABB BALDOR RELIANCE

Customer information packet

AEM4102-4

20HP, 1180RPM, 3PH, 60HZ, 326U, 1256M, TEFC, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	326U
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	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 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	25.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
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	25.0 a
Insulation Class	F
Inverter Code	Inverter Ready

Part Detail

Revision	E
Type	AC
Mech. spec.	12H79
Base	
Status	INA/A
Elec. spec.	12WGY894
Layout	12LYH079
Eff. date	03-10-2021
CD Diagram	CD0006
Poles	06
Leads	3#8
Proprietary	False
Created date	02-23-2015

KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 8 AWG
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	1256M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	30.66 IN
Power Factor	79
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	1180 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1404E								
CAT.NO.								
SPEC.	12H079Y894G1							
VOLTS	460							
AMP	25							
RPM	1180		**HP**	20				
FRAME	326U	**HZ**	60		**PH**	3		
SER.F.	1.00	**CODE**	G	**DES**	B	**CL**	F	
NEMA-NOM-EFF	91.7	**PF**	79					
G.MIN.EFF	90.2	**CC**	010A					
RATING	65C AMB-CONT							
LUBRICATION	POLYREX EM							
DE	6312	**ODE**	6311					
ENCL	TEFC	**SER. #**						

Accessories

Part number	Description	Multiplier
12-1105	C FACE KIT	A8

AC Induction Motor Performance Data
Record # 49352
Typical performance - not guaranteed values

Winding: 12WGY894-R001	**Type:** 1256M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			20	**Full Load Torque**	88.8 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			25	**Breakdown Torque**	227 LB-FT
R.P.M.			1180	**Pull-up Torque**	108 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	129 LB-FT
NEMA Design Code	B	**KVA Code**	G	**Starting Current**	143 A
Service Factor (S.F.)			1	**No-load Current**	9.81 A
NEMA Nom. Eff.	91.7	**Power Factor**	79	**Line-line Res. @ 25ºC**	0.402 Ω
Rating - Duty			65C AMB-CONT	**Temp. Rise @ Rated Load**	39°C
				Locked-rotor Power Factor	28.7
				Rotor inertia	10.7 LB-FT2

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	48	68	77	80	81	81
Efficiency	89.6	92.8	93.3	92.5	92.1	90.3
Speed	1194	1190	1185	1180	1173	1165
Line amperes	11.4	15.1	19.7	25.2	31.3	38.5

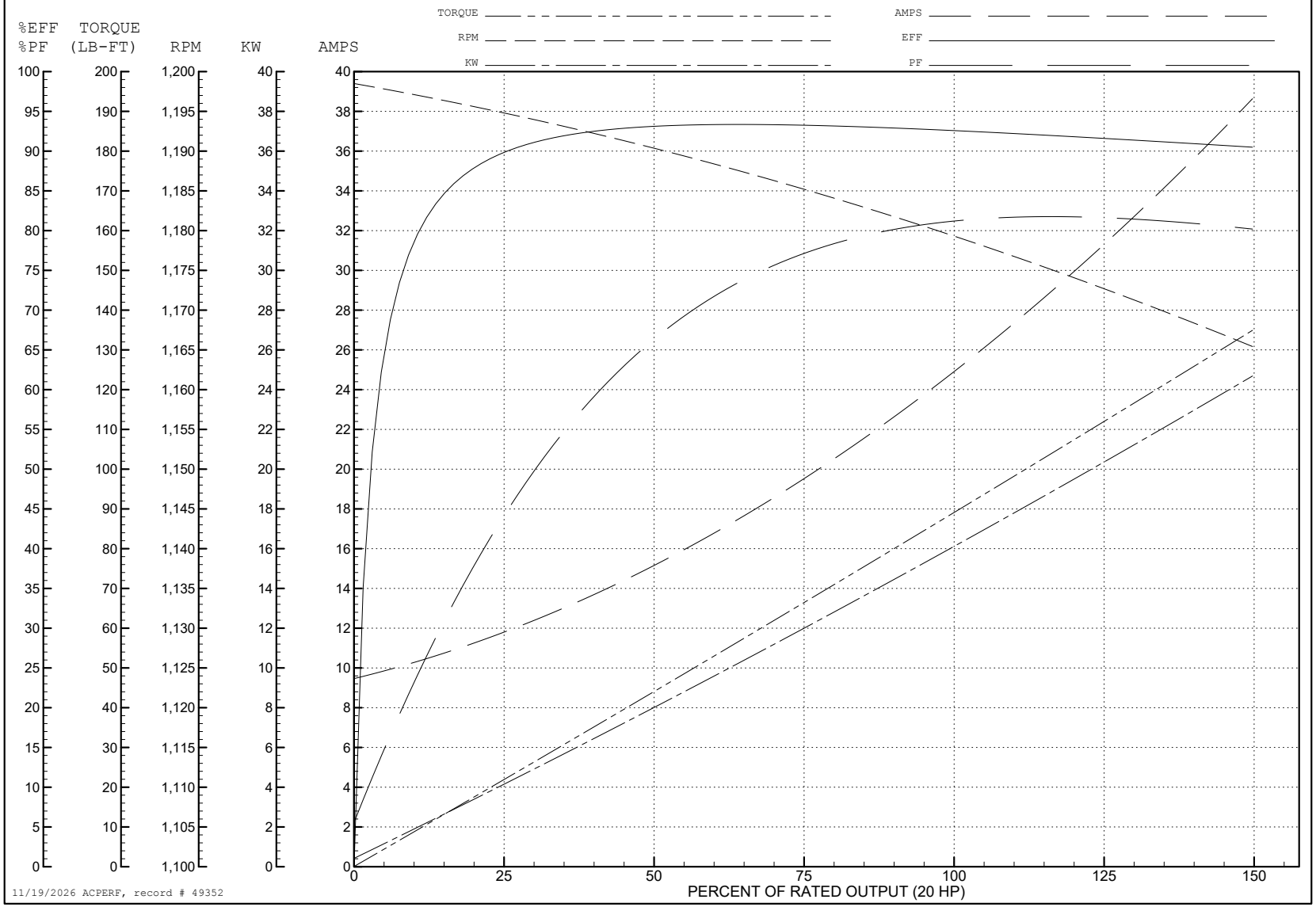
ABB Motors and Mechanical Inc.

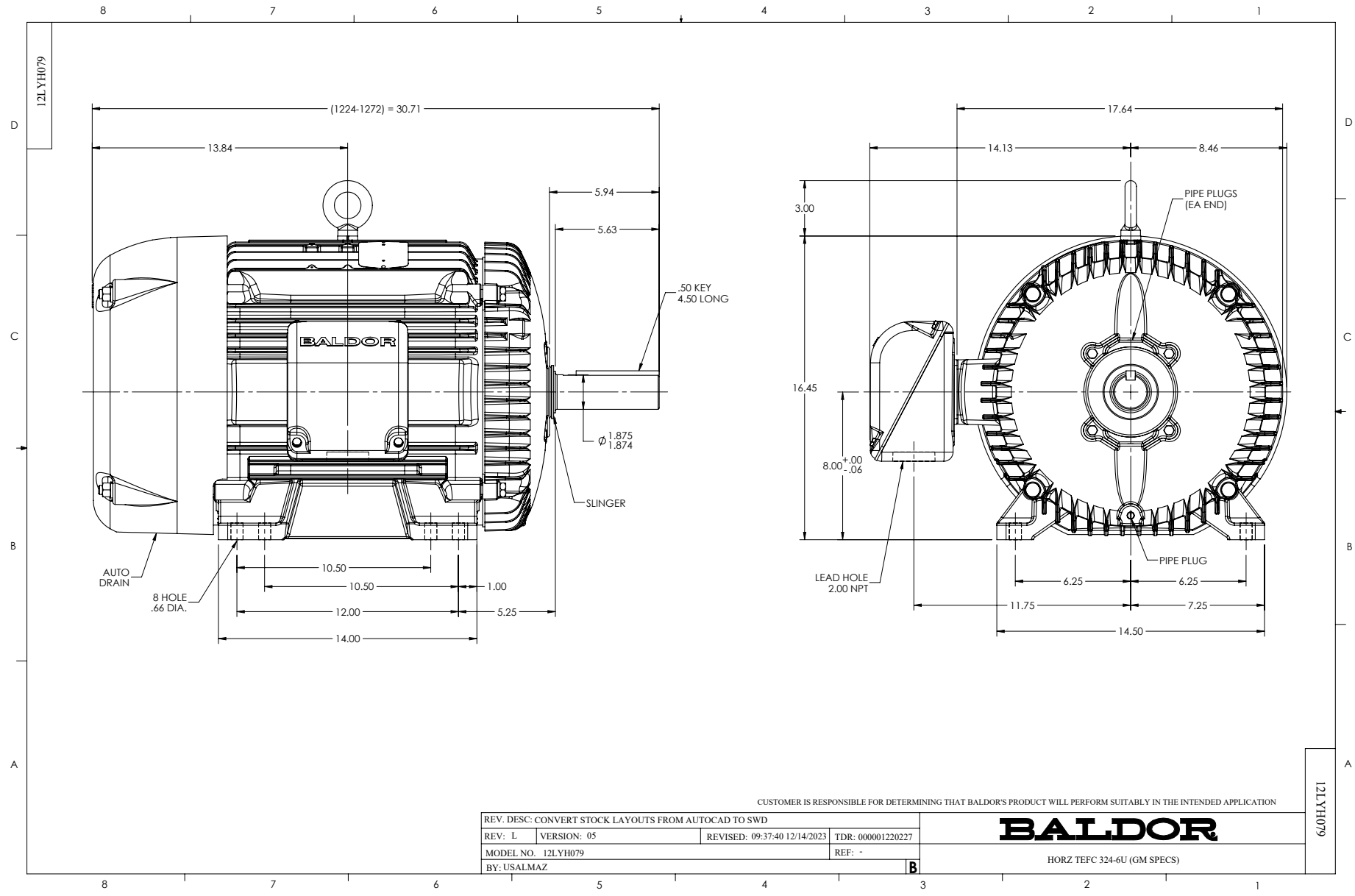
WINDING # 12WGY894

20 HP 3 PH 60 HZ 1180 RPM 460 V 1256M

Typical performance - not guaranteed values.

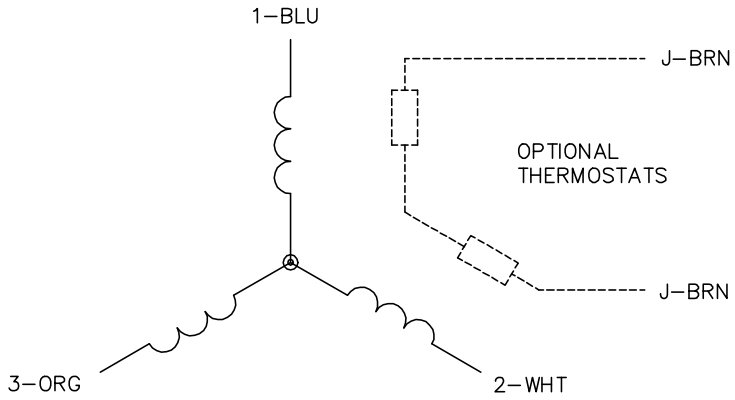
TORQUES(LB-FT): PO=227 PU=108 LR=129 LRA=143

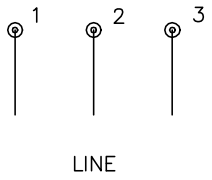



12LYH079
(1224-1272) = 30.71
13.84
5.94
5.63
.50 KEY
4.50 LONG
BALDOR
Ø 1.875
1.874
SLINGER
AUTO
DRAIN
8 HOLE
.66 DIA.
10.50
10.50
1.00
12.00
5.25
14.00
17.64
14.13
8.46
PIPE PLUGS
(EA END)
3.00
16.45
8.00 +.00 -.06
LEAD HOLE
2.00 NPT
PIPE PLUG
6.25
6.25
11.75
7.25
14.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT STOCK LAYOUTS FROM AUTOCAD TO SWD
REV: L
VERSION: 05
REVISED: 09:37:40 12/14/2023
TDR: 000001220227
MODEL NO. 12LYH079
REF: -
BY: USALMAZ
B
BALDOR
HORZ TEFC 324-6U (GM SPECS)
12LYH079

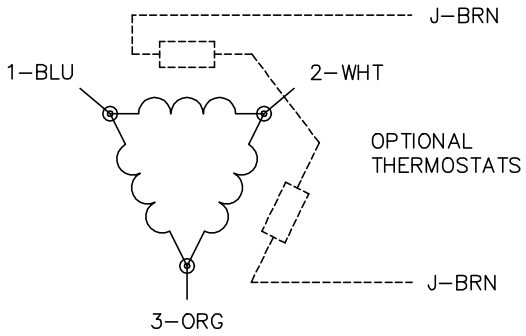
CD0006

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

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