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# Customer information packet

## EM2543T-CI

50HP, 1775RPM, 3PH, 60HZ, 326T, 1256M, OPEN, F1

Class - None

Division - Not Applicable

## Specifications

Enclosure	OPEN
Frame	326T
Frame Material	Iron
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
XP Class and Group	None
XP Division	Not Applicable
Agency Approvals	CSA EEV CURUSEEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	126.000 A @ 208.0 V 60.000 A @ 460.0 V 120.000 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK

## Part detail

Revision	AC
Type	AC
Mech. spec.	12D01
Base	
Status	PRD/A
Elec. spec.	12WGX320
Layout	12LYD001
Eff. date	08-01-2023
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	01-01-0001

Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	60.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1256M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	27.63 IN
Power Factor	83
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1775 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None

<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

**NP3554LUA**

<b>CAT.NO.</b>	EM2543T-CI	<b>P/N</b>		<b>ENCL</b>	OPEN
<b>SPEC.</b>	12D001X320G1	<b>CC</b>	010A	<b>FRAME</b>	326T
<b>HP</b>	50	<b>CLASS</b>	F	<b>HZ</b>	60
<b>RPM</b>	1775	<b>PH</b>	3	<b>DES</b>	B
<b>VOLTS</b>	230/460	<b>CODE</b>	G	<b>ODE BRG</b>	6311
<b>AMPS</b>	120/60	<b>USABLE AT 208V</b>	N/A	<b>DE BRG</b>	6311
<b>RATING</b>	40C AMB-CONT	<b>NEMA-NOM-EFF</b>	94.5	<b>GREASE</b>	POLYREX EM
<b>PF</b>	83	<b>SER.F.</b>	1.15	<b>CT30-60(2:1) VT3-60(20:1)</b>	
<b>USABLE AT</b>	50HZ 50HP 190/380V 136/68A		SF 1.0		
<b>HTR-VOLTS</b>	<b>HTR-AMPS</b>	<b>MAX. SPACE HEATER TEMP.</b>			

**AC Induction Motor Performance Data**

Record # 56462

Typical performance - not guaranteed values

<b>Winding:</b> 12WGX320-R001		<b>Type:</b> 1256M		<b>Enclosure:</b> OPEN	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	50	<b>Full Load Torque</b>	148 LB-FT		
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	120/60	<b>Breakdown Torque</b>	404 LB-FT		
<b>R.P.M.</b>	1775	<b>Pull-up Torque</b>	204 LB-FT		
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	237 LB-FT	
<b>NEMA Design Code</b>	<b>B KVA Code</b>	G	<b>Starting Current</b>	382 A	
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	23.6 A		
<b>NEMA Nom. Eff.</b>	94.5 <b>Power Factor</b>	83	<b>Line-line Res. @ 25°C</b>	0.13209 Ω	
<b>Rating - Duty</b>	40C AMB-CONT	<b>Temp. Rise @ Rated Load</b>	41°C		
<b>S.F. Amps</b>		<b>Temp. Rise @ S.F. Load</b>	50°C		
		<b>Locked-rotor Power Factor</b>	27.1		

**Load Characteristics 460 V, 60 Hz, 50 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	47	69	79	83	85	85	84
<b>Efficiency</b>	92.1	94.8	95.1	94.8	94.3	93.5	94.5
<b>Speed</b>	1794.9	1789.6	1784.2	1777.7	1771.1	1764	1774
<b>Line amperes</b>	27.4	35.9	47	59.6	73.4	88.6	67.9

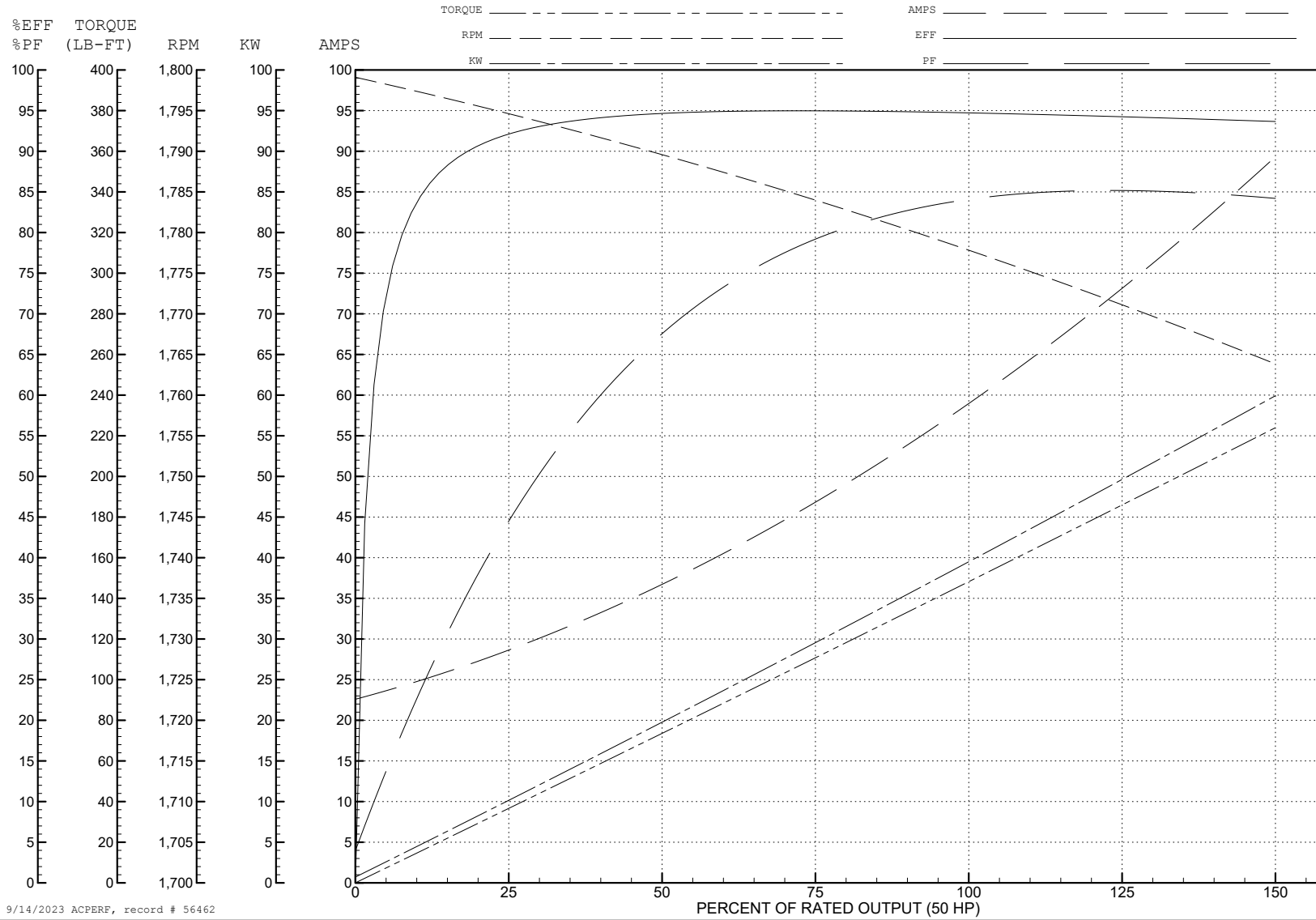
ABB Motors and Mechanical Inc.

WINDING # 12WGX320

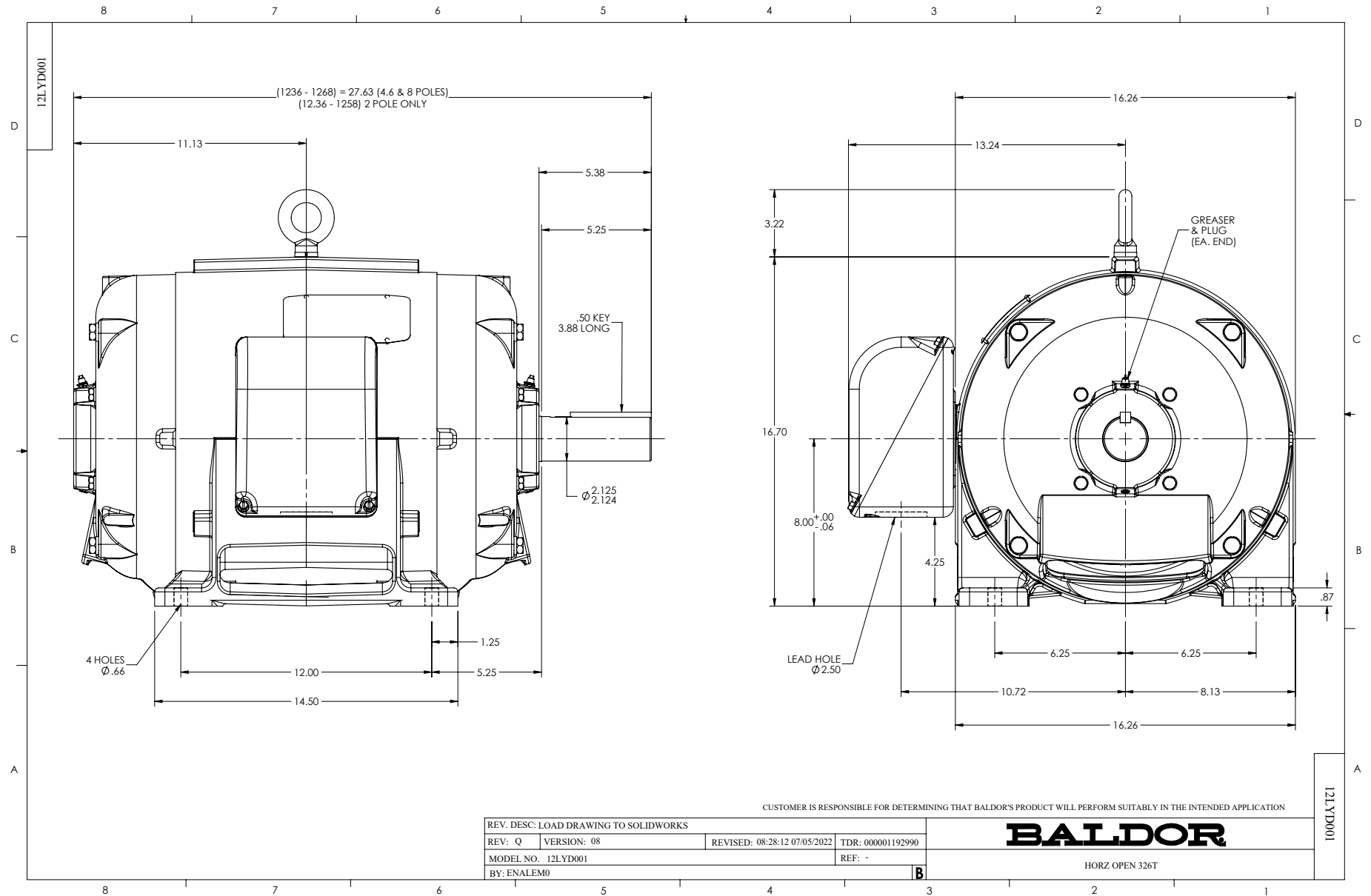
Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 1775 RPM 460 V 1256M

TORQUES (LB-FT): PO=404 PU=204 LR=237 LRA=382



9/14/2023 ACPERF, record # 56462





CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



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.

CD0180

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\148	REVISED: 10: 25: 29 02/19/2019	BY: ENBRIRO
MTL: -	© □	

**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1