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# Customer information packet

## EM3581T-BG

1HP, 1770RPM, 3PH, 60HZ, 143T, 0520M, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	143T
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	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV UR NEMA_PREMIUM NEMA PREMIUM
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	1.600 A @ 460.0 V 3.200 A @ 208.0 V 3.200 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater

## Part detail

Revision	B
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	05WGX508
Layout	05LYH015
Eff. date	04-29-2024
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	10-28-2021

<b>High Voltage Full Load Amps</b>	1.6 a
<b>Insulation Class</b>	H
<b>Inverter Code</b>	Inverter Ready
<b>KVA Code</b>	N
<b>Lifting Lugs</b>	No Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	0520M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	12.54 IN
<b>Power Factor</b>	68
<b>Product Family</b>	General Purpose
<b>Pulley Face Code</b>	Standard
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	0.875 IN
<b>Shaft Ground Indicator</b>	Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Speed</b>	1770 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
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate****NP3441LUA**

<b>CAT.NO.</b>	EM3581T-BG						
<b>SPEC</b>	05-0000-1053						
<b>HP</b>	1						
<b>VOLTS</b>	230/460						
<b>AMPS</b>	3.2/1.6						
<b>RPM</b>	1770						
<b>FRAME</b>	143T		<b>HZ</b>	60		<b>PH</b>	3
<b>SF</b>	1.15	<b>CODE</b>	N	<b>DES</b>	B	<b>CLASS</b>	H
<b>NEMA NOM. EFF</b>	85.5	<b>PF</b>	68				
<b>RATING</b>	40C AMB-CONT						
<b>CC</b>	010A						
<b>ENCL</b>	TEFC	<b>SER</b>					
<b>DE</b>	6205	<b>ODE</b>	6203				
<b>VPWM INVERTER READY</b>	SFA 3.5/1.75						
<b>CT6-60H(10:1)VT3-60H(20:1)</b>							

**AC Induction Motor Performance Data**

Record # 75455

Typical performance - not guaranteed values

Winding: 05WGX122-R005		Type: 0518M		Enclosure: TEFC	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
Rated Output (HP)		1	Full Load Torque		2.98 LB-FT
Volts		230/460	Start Configuration		direct on line
Full Load Amps		3/1.5	Breakdown Torque		12.7 LB-FT
R.P.M.		1760	Pull-up Torque		7.92 LB-FT
Hz	60 Phase	3	Locked-rotor Torque		8.7 LB-FT
NEMA Design Code	B KVA Code	L	Starting Current		12.2 A
Service Factor (S.F.)		1.15	No-load Current		1.02 A
NEMA Nom. Eff.	85.5 Power Factor	71	Line-line Res. @ 25°C		15.4 Ω
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		29°C
S.F. Amps			Temp. Rise @ S.F. Load		34°C
			Locked-rotor Power Factor		54.1
			Rotor inertia		0.106 LB-FT <sup>2</sup>

**Load Characteristics 460 V, 60 Hz, 1 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	30	48	61	70	76	80	74
Efficiency	72.1	82.1	85.1	85.9	85.5	84.7	85.7
Speed	1790	1781	1771	1760	1748	1736	1753
Line amperes	1.07	1.19	1.35	1.55	1.8	2.06	1.7

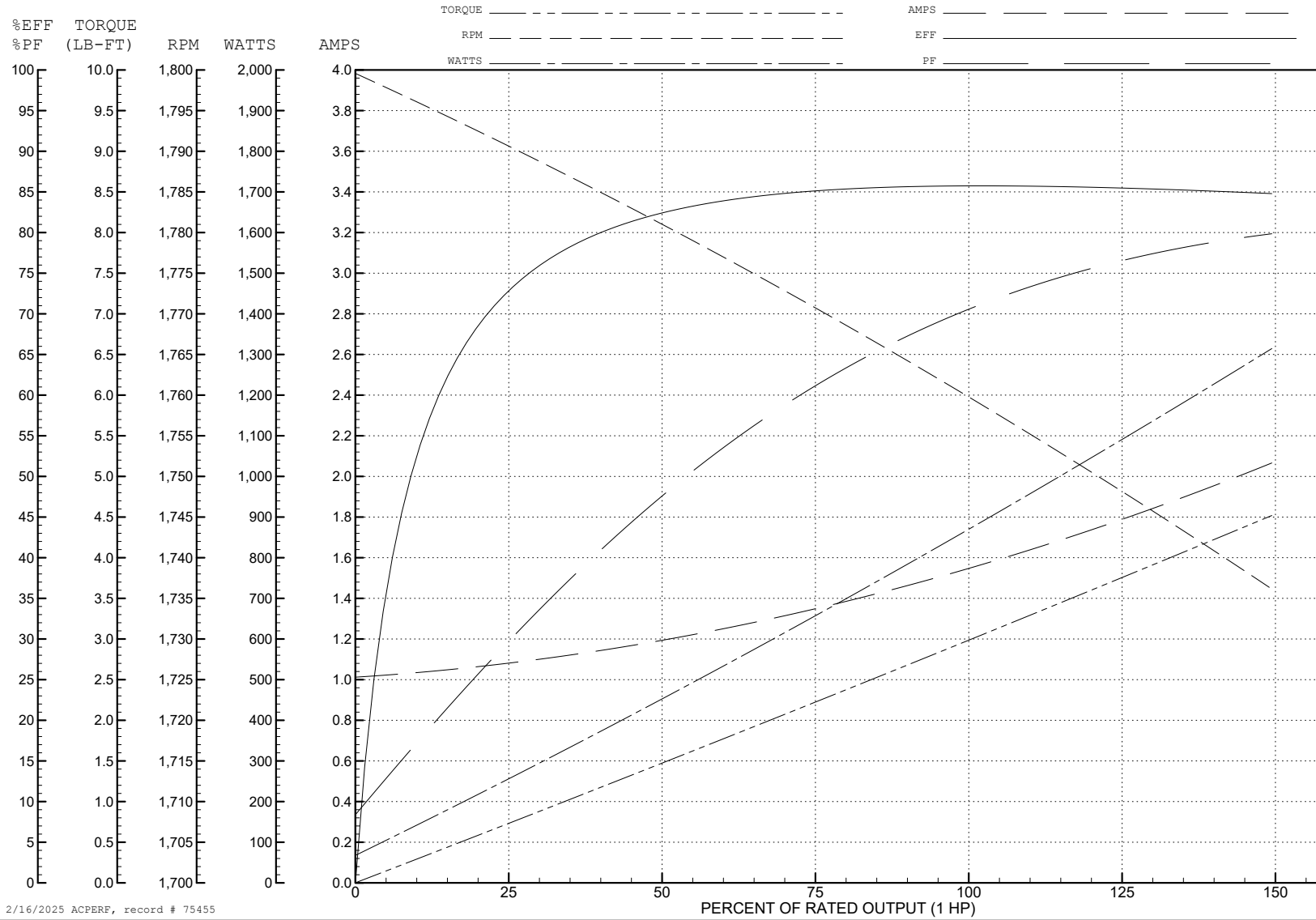
ABB Motors and Mechanical Inc.

WINDING # 05WGX122

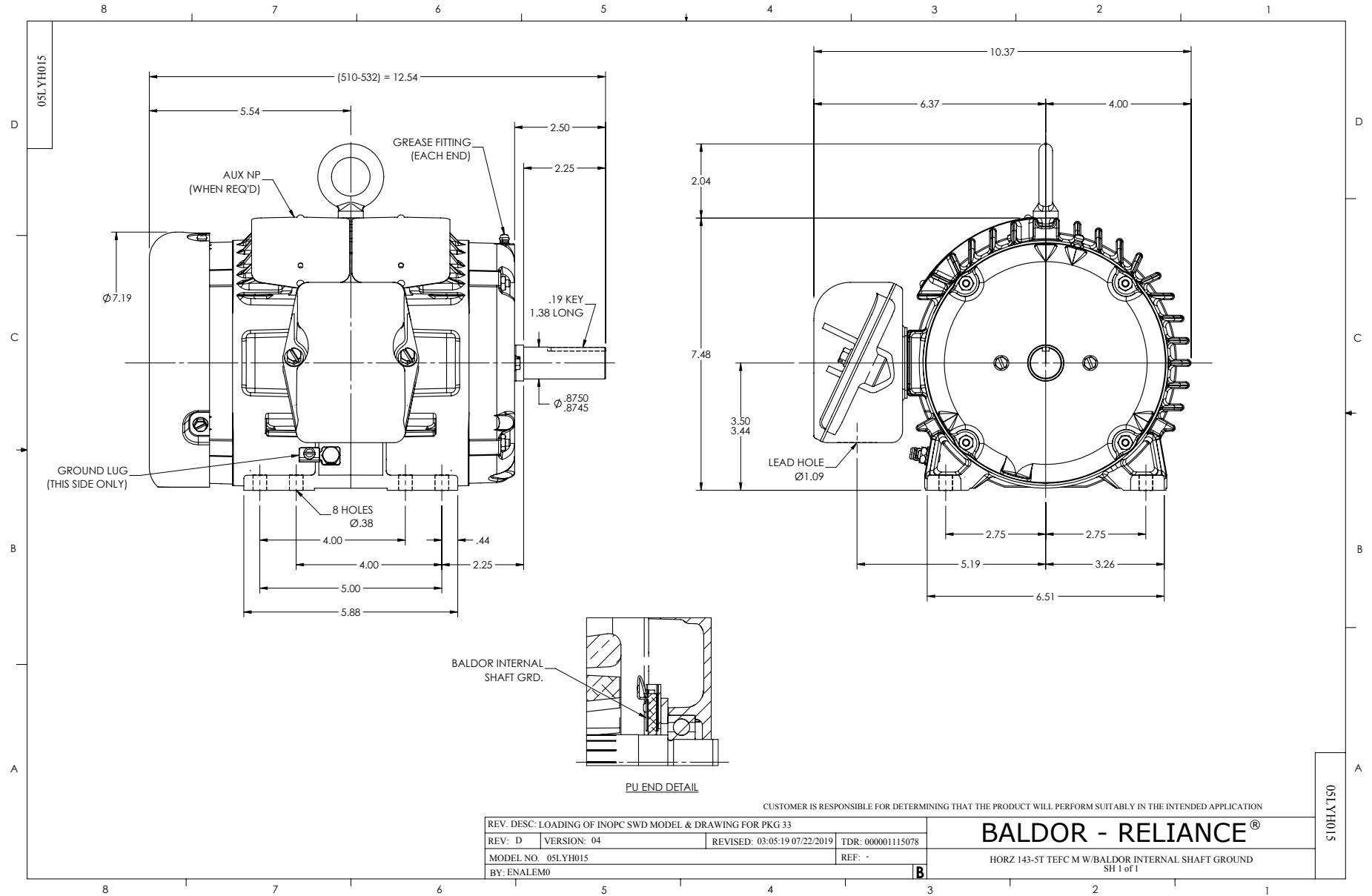
Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1760 RPM 460 V 0518M

TORQUES (LB-FT): PO=12.7 PU=7.92 LR=8.7 LRA=12.2



2/16/2025 ACPERF, record # 75455



CD0005



LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS