ABB BALDOR RELIANCE

Customer information packet

EM3581T

1HP, 1760RPM, 3PH, 60HZ, 143T, 0520M, TEFC, F1
Class - None
Division - Not Applicable

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/17/2026 9:48:48 PM

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	460.0 V @ 60 HZ
	230.0 V @ 60 HZ
Agency Approvals	CURUSEEV
	NEMA PREMIUM
	NEMA PREMIUM (OLD LOGO)
Ambient Temperature	40 °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	3.200 A @ 208.0 V
	3.260 A @ 230.0 V
	1.630 A @ 460.0 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
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	P
Type	AC
Mech. spec.	05C001
Base	
Status	PRD/A
Elec. spec.	05WGX508
Layout	05LYC001
Eff. date	11-05-2025
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-15-2019

High Voltage Full Load Amps	1.6 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	N
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.54 IN
Power Factor	67
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1760 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

NP3441LUA										
CAT.NO.	EM3581T									
SPEC	05C001X508G1									
HP	1									
VOLTS	230/460									
AMPS	3.26/1.63									
RPM	1760									
FRAME	143T	**HZ**	60	**PH**	3					
SF	1.15	**CODE**	N	**DES**	B	**CLASS**	F			
NEMA NOM. EFF	85.5	**PF**	67							
RATING	40C AMB-CONT									
CC	010A									
ENCL	TEFC	**SER**								
DE	6205	**ODE**	6203							
VPWM INVERTER READY	SFA 3.52/1.76									
CT6-60H(10:1)VT3-60H(20:1										
	50HZ 1HP 190/380V 3.6/1.8A									SF1.0

Accessories

Part number	Description	Multiplier
35-1300	C FACE KIT	A8

AC Induction Motor Performance Data
Record # 82131
Typical performance - not guaranteed values

Winding: 05WGX508-R001	**Type:** 0520M	**Enclosure:** TEFC

Nameplate Data			**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)		1	**Full Load Torque**	2.979 LB-FT
Volts		230/460	**Start Configuration**	direct on line
Full Load Amps		3.2-3.2/1.6	**Breakdown Torque**	13.9 LB-FT
R.P.M.		1760	**Pull-up Torque**	8 LB-FT
Hz	60 **Phase**	3	**Locked-rotor Torque**	9.18 LB-FT
NEMA Design Code	B **KVA Code**	N	**Starting Current**	14.4 A
Service Factor (S.F.)		1.15	**No-load Current**	1.11 A
NEMA Nom. Eff.	0 **Power Factor**	0	**Line-line Res. @ 25ºC**	16.215 Ω
Rating - Duty		40C AMB-CONT	**Temp. Rise @ Rated Load**	24°C
S.F. Amps			**Temp. Rise @ S.F. Load**	28°C
			Locked-rotor Power Factor	62

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	29	46	59	68	74	79	72
Efficiency	71.2	81.4	84.6	85.5	85.4	84.7	85.4
Speed	1791.4	1784.2	1776.7	1768.6	1760	1750.7	1763
Line amperes	1.14	1.25	1.41	1.61	1.84	2.11	1.75

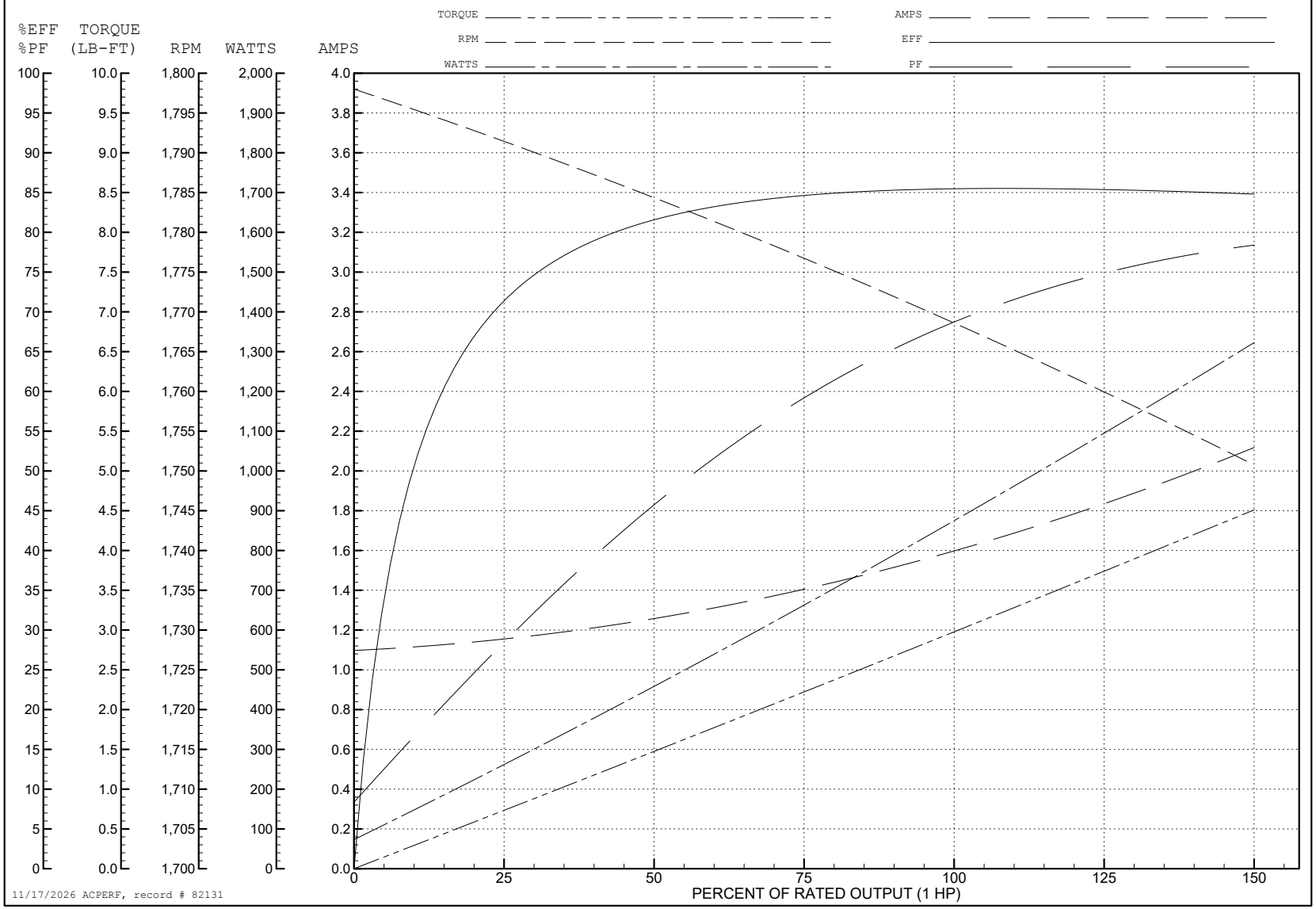
ABB Motors and Mechanical Inc.

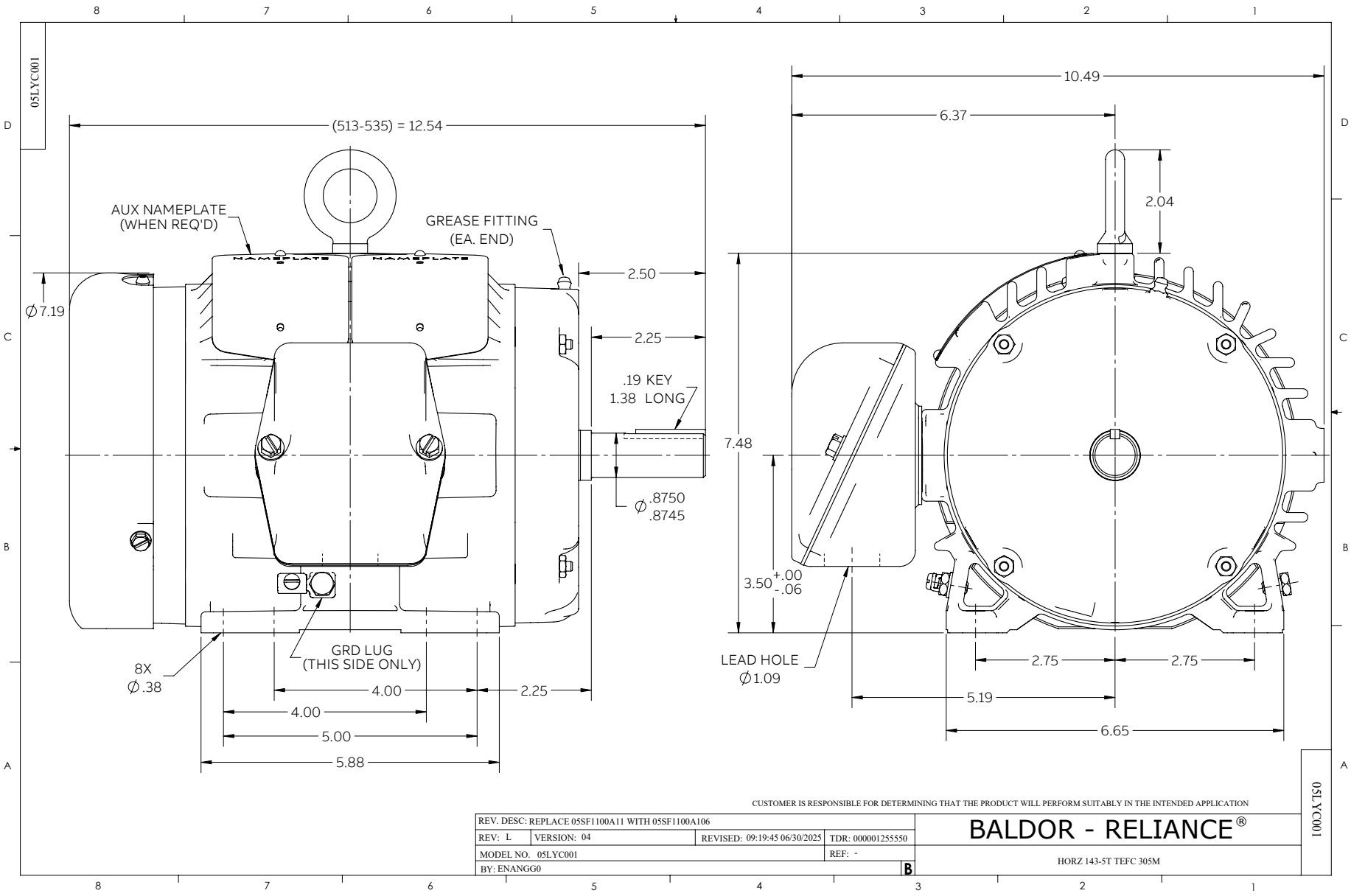
WINDING # 05WGX508

1 HP 3 PH 60 HZ 1760 RPM 460 V 0520M

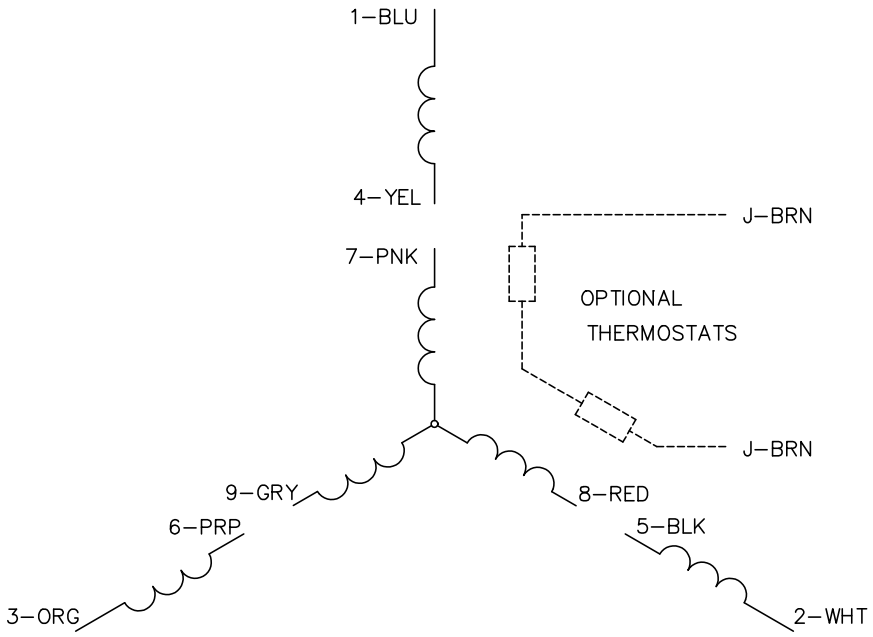
Typical performance - not guaranteed values.

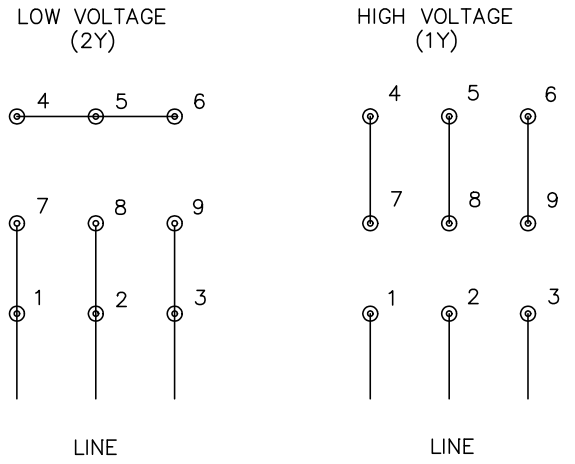
TORQUES(LB-FT): PO=13.9 PU=8 LR=9.18 LRA=14.4




05LYC001
(513-535) = 12.54
AUX NAMEPLATE
(WHEN REQ'D)
GREASE FITTING
(EA. END)
∅7.19
2.50
2.25
.19 KEY
1.38 LONG
∅.8750
.8745
8X
∅.38
GRD LUG
(THIS SIDE ONLY)
4.00
2.25
4.00
5.00
5.88
10.49
6.37
2.04
7.48
3.50 +.00 -.06
LEAD HOLE
∅1.09
2.75
2.75
5.19
6.65
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: REPLACE 05SF1100A11 WITH 05SF1100A106
REV: L
VERSION: 04
REVISED: 09:19:45 06/30/2025
TDR: 000001255550
MODEL NO. 05LYC001
REF: -
BY: ENANGG0
B
BALDOR - RELIANCE®
HORZ 143-5T TEFC 305M
05LYC001

CD0005





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			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS