

ABB BALDOR RELIANCE III

Customer information packet

EM3581T-G

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
Auxiliary Box	NO AUXILLARY BOX
Auxiliary 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	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	05WGX508
Layout	05LYG784
Eff. date	01-02-2026
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	10-28-2021

High Voltage Full Load Amps	1.6 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
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	68
Product Family	General Purpose
Pulley Face Code	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 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-G								
SPEC	05-0000-1049								
HP	1								
VOLTS	230/460								
AMPS	3.2/1.6								
RPM	1770								
FRAME	143T		HZ	60			PH	3	
SF	1.15		CODE	N	DES	B	CLASS	H	
NEMA NOM. EFF	85.5		PF	68					
RATING	40C AMB-CONT								
CC	010A								
ENCL	TEFC		SER						
DE	6205		ODE	6203					
VPWM INVERTER READY			SFA 3.5/1.75						
CT6-60H(10:1)VT3-60H(20:1									
	50HZ 1HP 190/380V 3.6/1.8A							SF1.0	

AC Induction Motor Performance Data

Record # 75455

Typical performance - not guaranteed values

Winding: 05WGX122-R005			Type: 0518M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
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-FT2

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

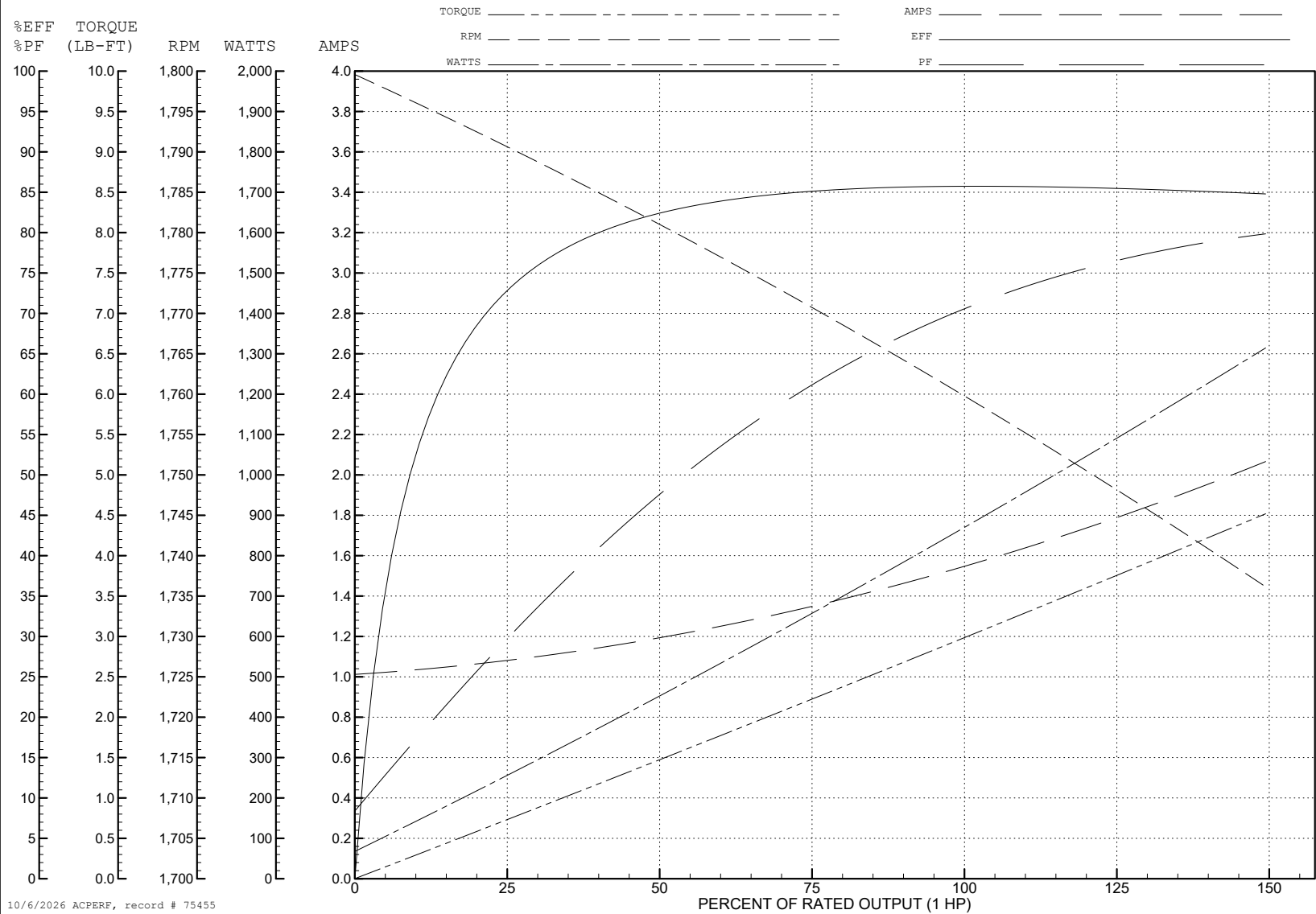
ABB Motors and Mechanical Inc.

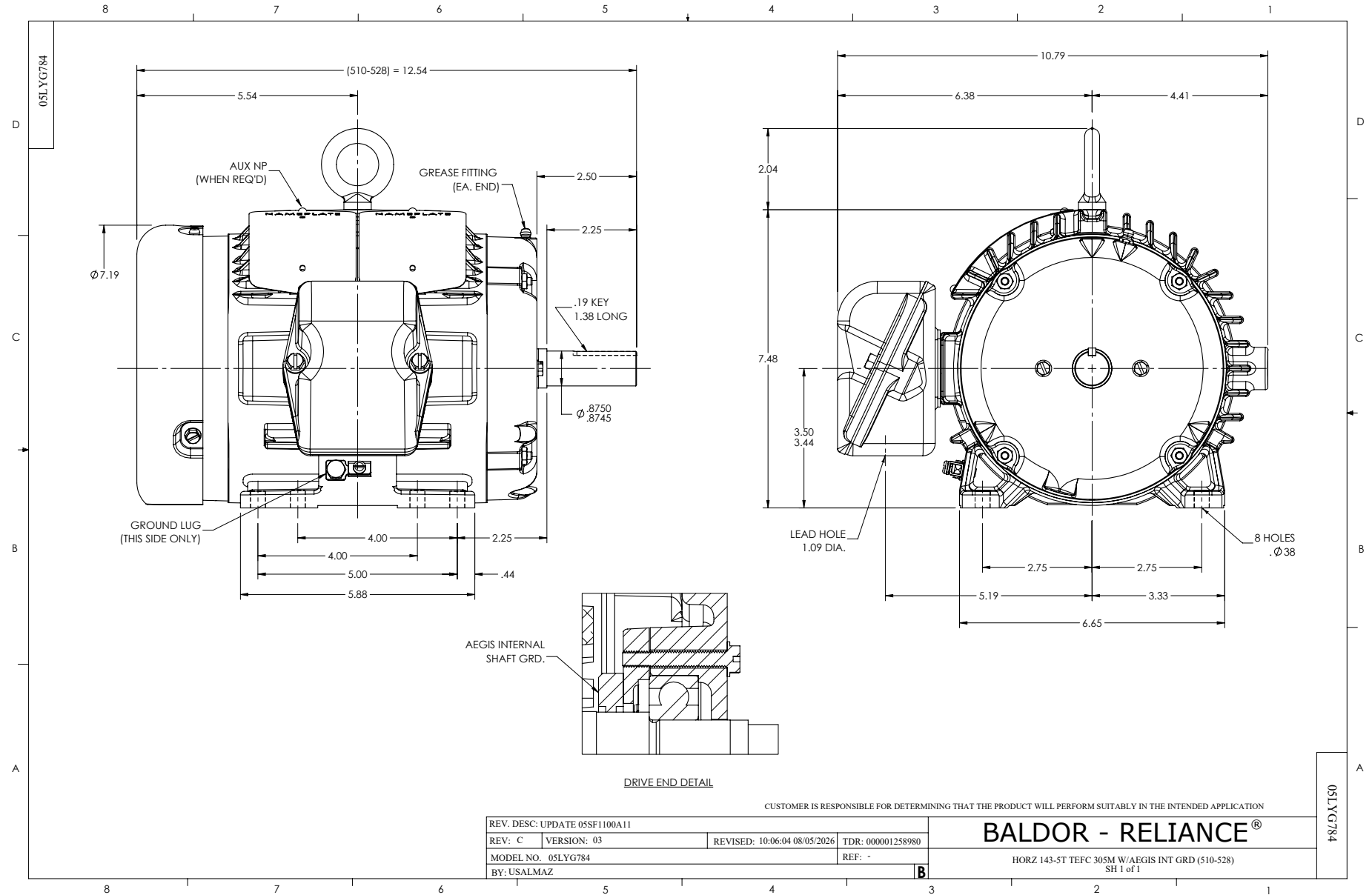
WINDING # 05WGX122

Typical performance - not guaranteed values.

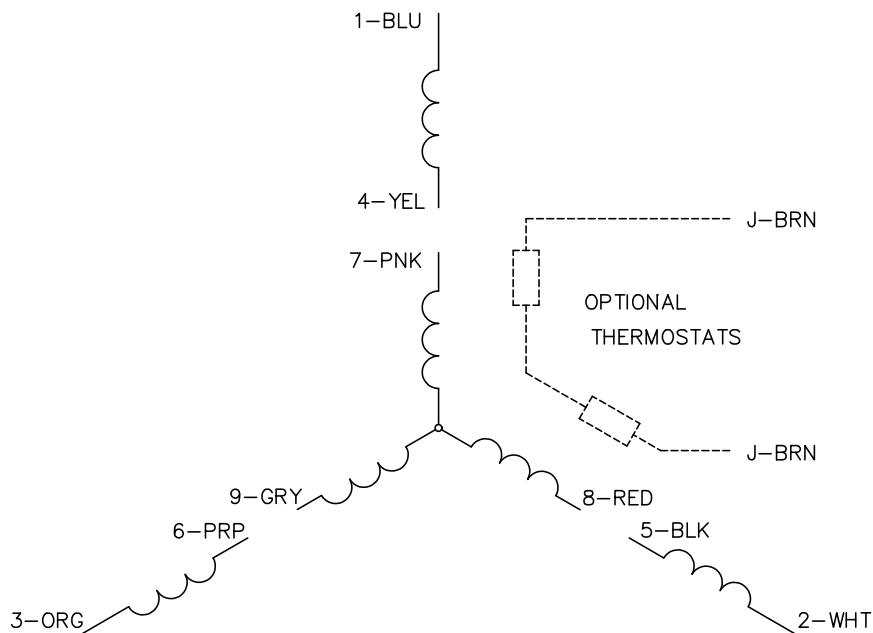
1 HP 3 PH 60 HZ 1760 RPM 460 V 0518M

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

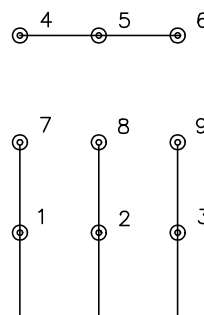




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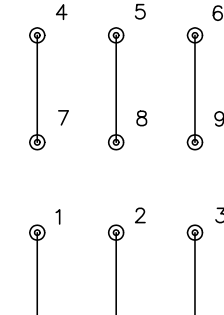


LOW VOLTAGE
(2Y)



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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: E

BY: JLP

REVISED: 01/19/99 10:15

TDR: 0171435

900000

FILE: AAA00005140

MDL: -

MTL: -

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005