

ABB BALDOR RELIANCE III

Customer information packet

EBM4104TY

30HP, 1760RPM, 3PH, 60HZ, 286T, 1056M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	286T
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	30.000 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	CSA CSA EEV UR
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	76.000 A @ 230.0 V 78.000 A @ 208.0 V 38.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	T
Type	AC
Mech. spec.	10E507
Base	
Status	PRD/A
Elec. spec.	10WGY538
Layout	10LYE507
Eff. date	06-05-2026
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	03-09-2015

Heater Indicator	No Heater
High Voltage Full Load Amps	38.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	J
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	1056M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	39.13 IN
Power Factor	80
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	1.875 IN
Shaft Extension Location	Pulley End
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 (OLD)
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2

None

Nameplate

NP2138L																	
CAT.NO.	EBM4104TY				P/N						ENCLOSURE		TEFC				
SPEC.	10E507Y538G1			CC	010A		FRAME		286T		S/N						
HP	30				CLASS		F		HZ		60						
RPM	1760				PH		3		DES		A						
VOLT	230/460								KVA-CODE		J		ODE BRG		6211	DE BRG	6312
AMP	76/38																
RATING	40C AMB-CONT				GREASE		POLYREX EM										
NEMA-NOM-EFF	93.6	PF	80	SER.F.		1.15											
	SFA 84.8/42.4																
HTR-VOLTS	HTR-AMPS																

AC Induction Motor Performance Data

Record # 32189

Typical performance - not guaranteed values

Winding: 10WGY538-R004			Type: 1056M		Enclosure: TEFC		
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		30		Full Load Torque		88.7 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		76/38		Breakdown Torque		330 LB-FT	
R.P.M.		1760		Pull-up Torque		142 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		178 LB-FT	
NEMA Design Code		A	KVA Code	J	Starting Current		270 A
Service Factor (S.F.)		1.15		No-load Current		17.9 A	
NEMA Nom. Eff.		93.6	Power Factor	80	Line-line Res. @ 25°C		0.19377 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		64°C	
S.F. Amps				Temp. Rise @ S.F. Load		76°C	
				Locked-rotor Power Factor		30.9	
				Rotor inertia		4.47 LB-FT2	

Load Characteristics 460 V, 60 Hz, 30 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	41	63	73	80	82	85	81
Efficiency	87.6	92.3	93.5	93.7	93.4	92.9	93.5
Speed	1792.2	1787.6	1782.4	1776.5	1770.3	1762.1	1773
Line amperes	19.8	24.3	30.7	37.6	45.6	55.2	42.4

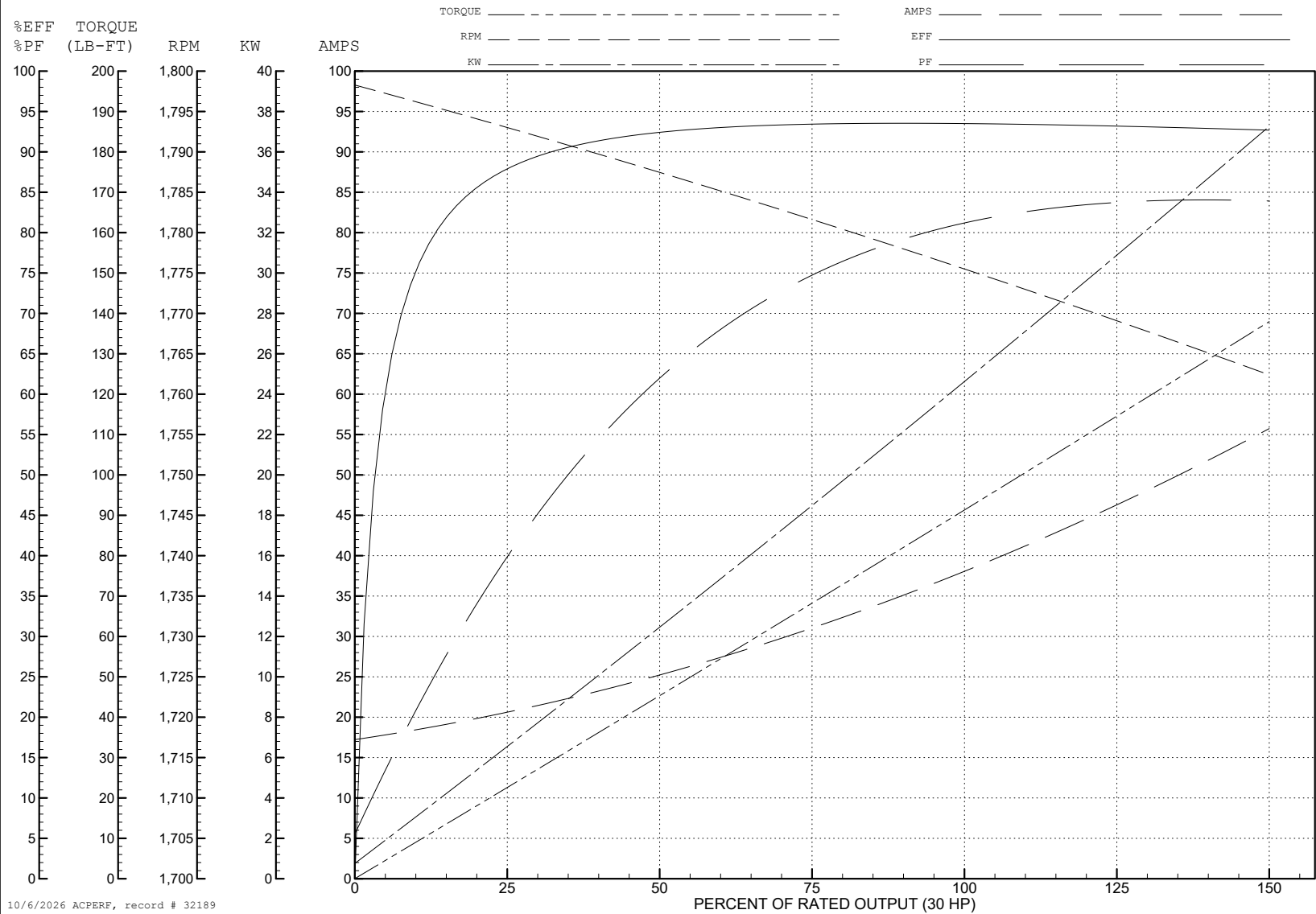
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WINDING # 10WGY538

Typical performance - not guaranteed values.

30 HP 3 PH 60 HZ 1760 RPM 460 V 1056M

TORQUES (LB-FT): PO=330 PU=142 LR=178 LRA=270



AC Induction Motor Performance Data

Record # 114688

Typical performance - not guaranteed values

Winding: 10WGY538-RXXX			Type: 1056M		Enclosure: TEFC		
Nameplate Data			400 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		25	Full Load Torque		73.94 LB-FT		
Volts		200/400	Start Configuration		direct on line		
Full Load Amps		66/33	Breakdown Torque		248 LB-FT		
R.P.M.		1760	Pull-up Torque		103 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		129 LB-FT	
NEMA Design Code		A	KVA Code	H	Starting Current		228 A
Service Factor (S.F.)		1.15		No-load Current		11.97 A	
NEMA Nom. Eff.		93.6	Power Factor	87	Line-line Res. @ 25°C		0.202 Ω
Rating - Duty		50C AMB-CONT		Temp. Rise @ Rated Load		52°C	
S.F. Amps				Temp. Rise @ S.F. Load		63°C	
				Locked-rotor Power Factor		30.7	
				Rotor inertia		4.47 lb-ft²	

Load Characteristics 400 V, 60 Hz, 25 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	54	76	83	87	87	88	87
Efficiency	88.2	92.3	93.4	93.6	93.2	92.3	93.4
Speed	1792	1787	1781	1775	1768	1758	1771
Line amperes	14.25	19.31	26.04	33.15	41.28	50.91	38

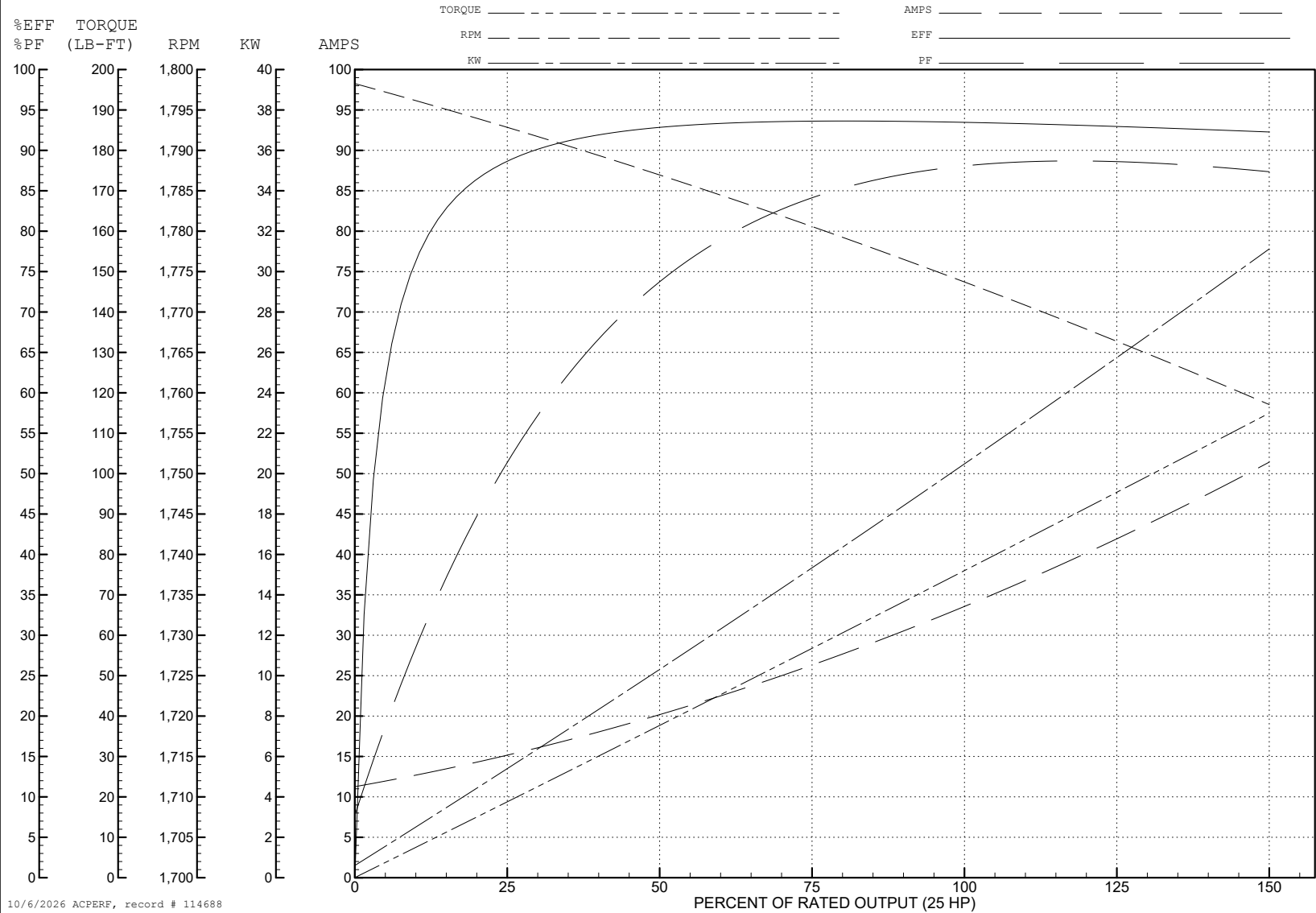
ABB Motors and Mechanical Inc.

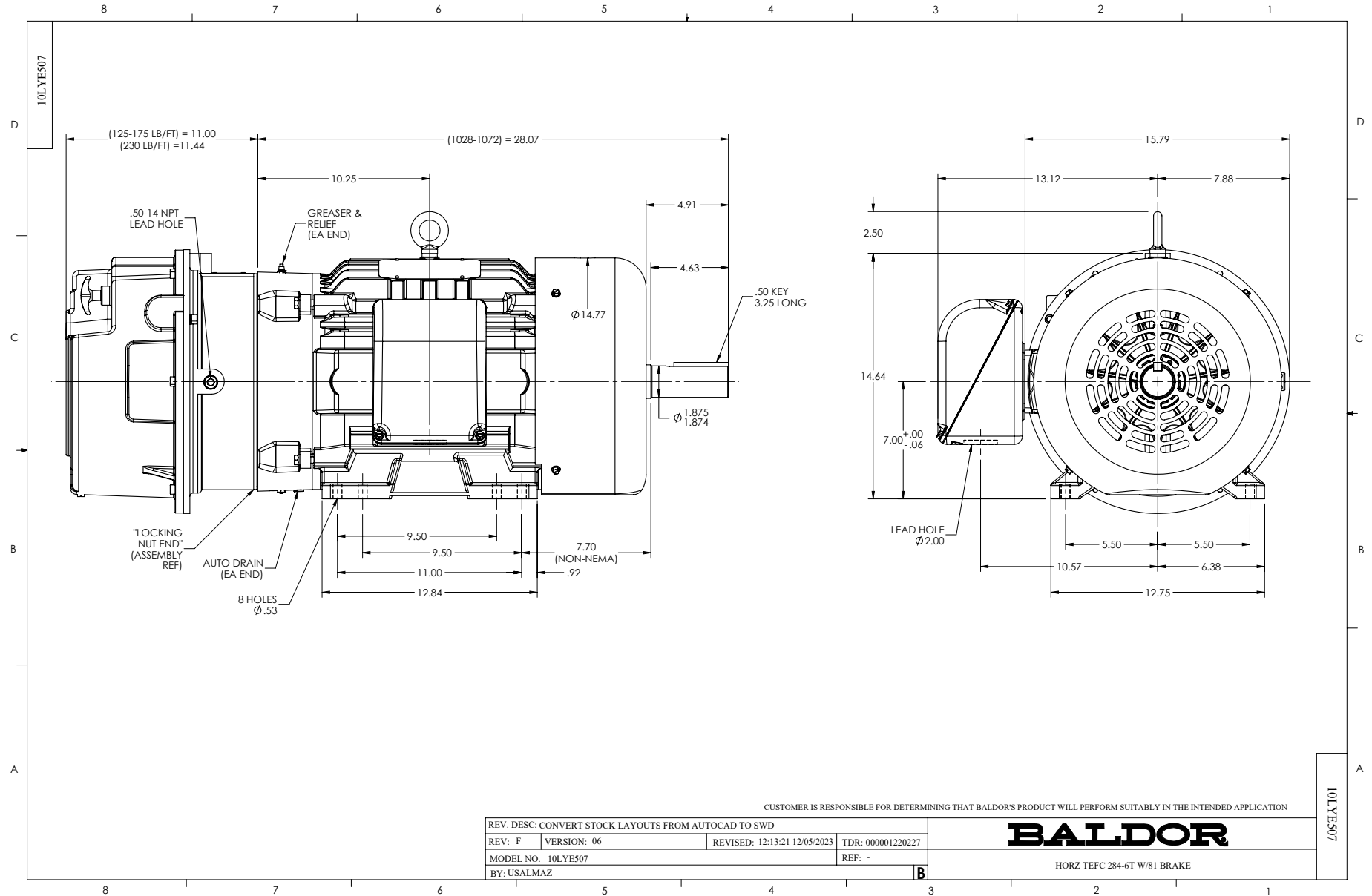
WINDING # 10WGY538

Typical performance - not guaranteed values.

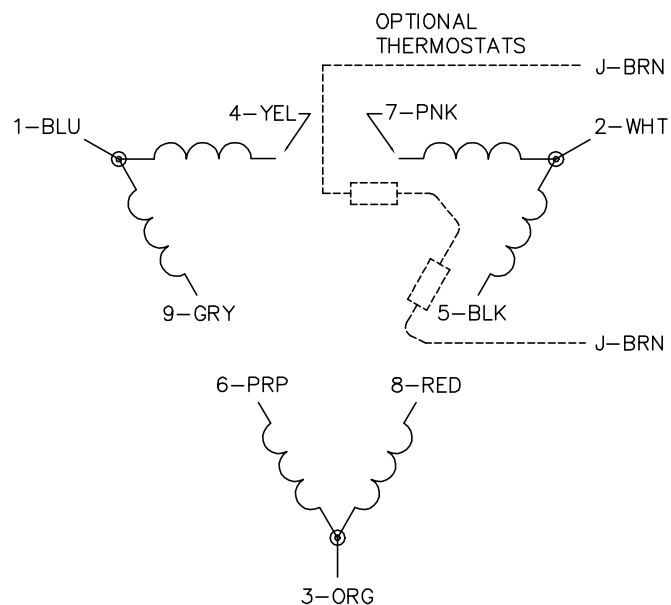
25 HP 3 PH 60 HZ 1760 RPM 400 V 1056M

TORQUES (LB-FT): PO=248 PU=103 LR=129 LRA=228

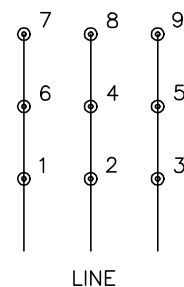




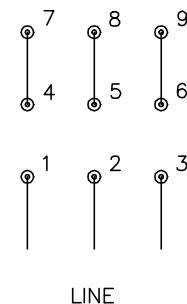
CD0180



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

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