

BALDOR • RELIANCE

Customer information packet

HBEM4104T

56M 4P TEFC HOR 286T

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	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM WEEE CURUSEEV
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	38.000 A @ 460.0 V 76.000 A @ 208.0 V 76.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Electrically Isolated Bearings
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater

Part detail

Revision	F
Type	AC
Mech. spec.	10T007
Base	
Status	PRD/A
Elec. spec.	10WGY538
Layout	10LYT007
Eff. date	08-03-2023
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	01-05-2022

High Voltage Full Load Amps	38.0 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
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	27.63 IN
Power Factor	80
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft 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

NP4312A05A01L

CAT #	HBEM4104T		SER			CC	010A	WGT		LBS				
SPEC	10T007Y538G1		RATING	40C AMB-CONT										
HZ	VOLTS		AMPS	RPM	HP	SF	NEMA NOM EFF							
60	230/460		76/38			1760	30HP	1.15	93.6					
PH	3	CL	H	CODE	J	DES	A	ENCL	TEFC	IP	54	PF	80	%
DE BRG	6311		ODE BRG	6309		FRAME	286T							
INV TYPE:	VPWM	SL HZ	1	CHP	60	TO	90	1.5:1						
WK2	4.46	LB FT2	MAX RPM	2700	CT	6	TO	60	10:1					
	35.8/17.9		VT	3	TO	60	20:1							
SFA 84.8/42.4														

YR

AC Induction Motor Performance Data

Record # 28318

Typical performance - not guaranteed values

Winding: 10WGY538-R001		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	208-230/460	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	31		
		Rotor inertia	4.47 lb-ft ²		

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	91.9	93.2	93.6	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

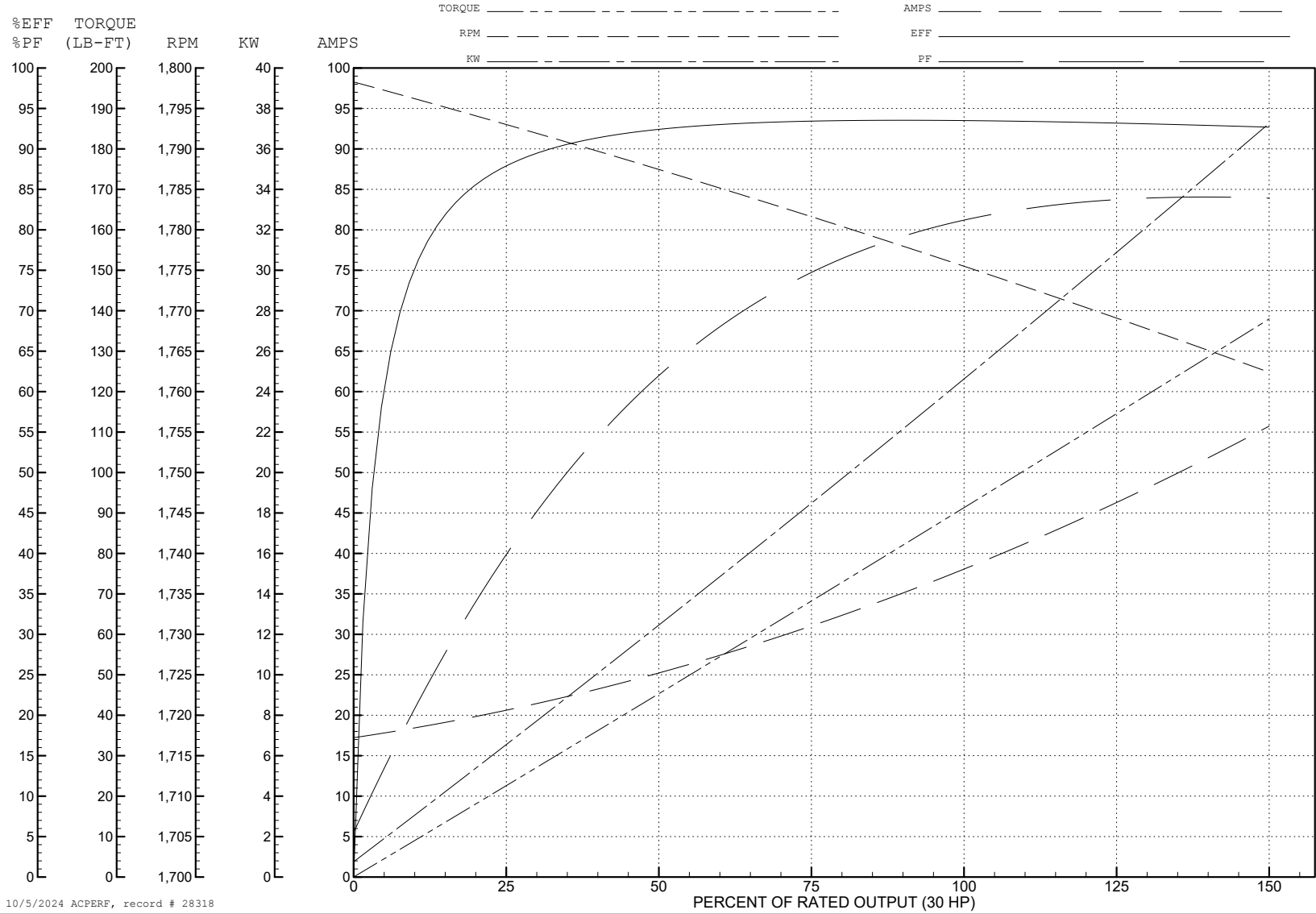
ABB Motors and Mechanical Inc.

WINDING # 10WGY538

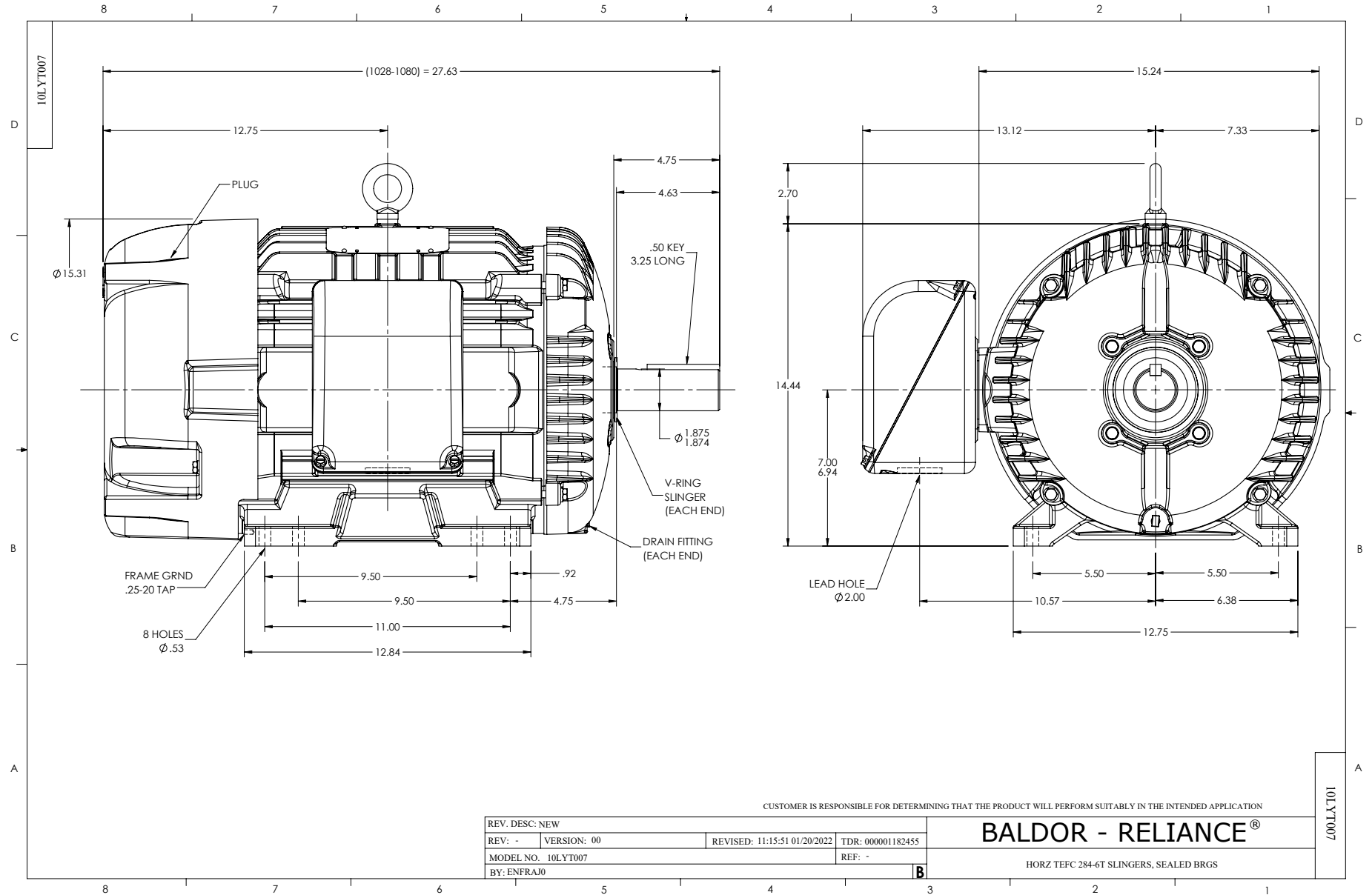
Typical performance - not guaranteed values.

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

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



10/5/2024 ACPERF, record # 28318



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

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3PH, DV, 9 LEADS, DELTA CONNECTION

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