

ABB BALDOR RELIANCE III

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
Auxiliary Box	NO AUXILLARY BOX
Auxiliary 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	H
Type	AC
Mech. spec.	10T007
Base	
Status	PRD/A
Elec. spec.	10WGY538
Layout	10LYT007
Eff. date	06-05-2026
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-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	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

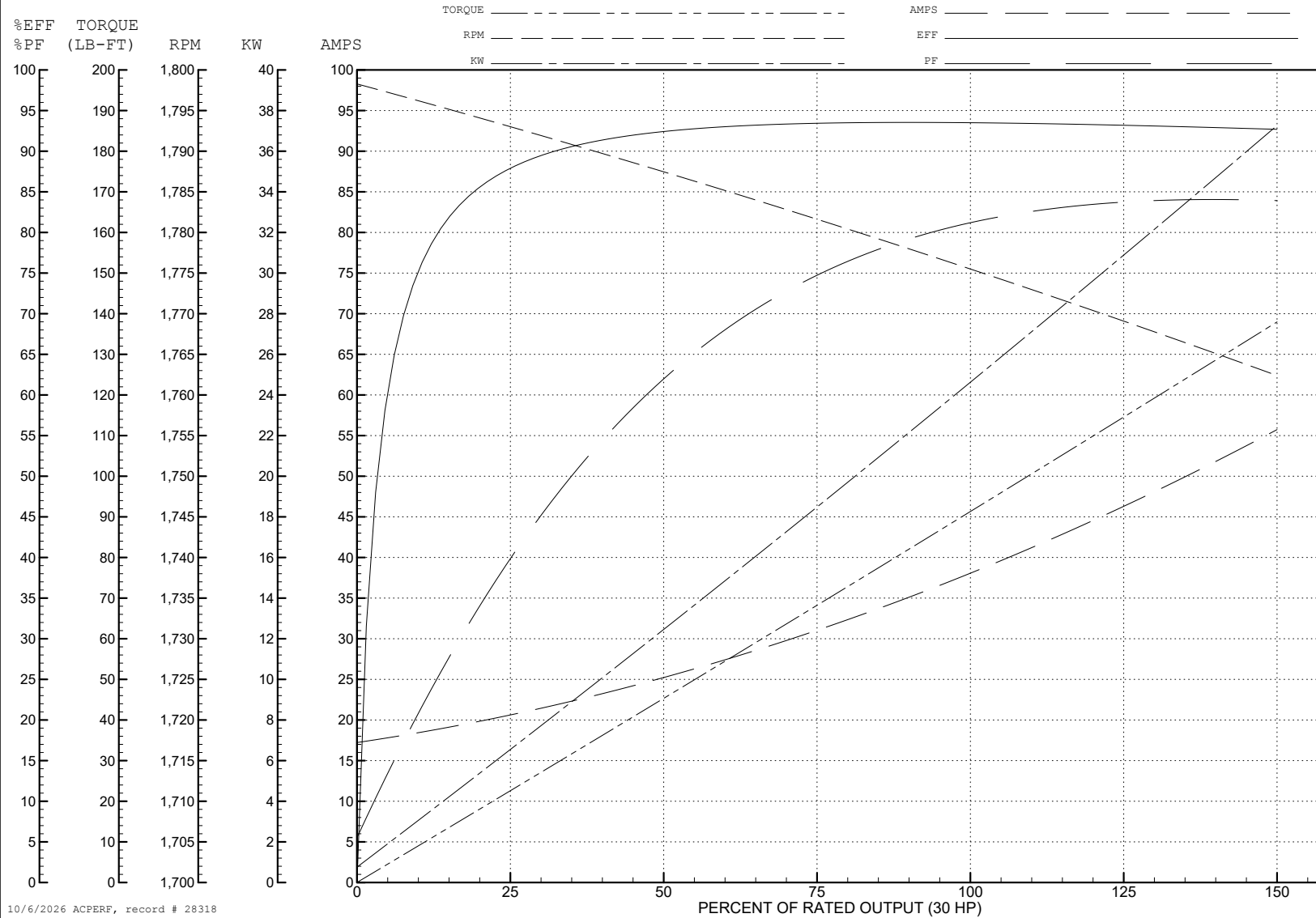
ABB Motors and Mechanical Inc.

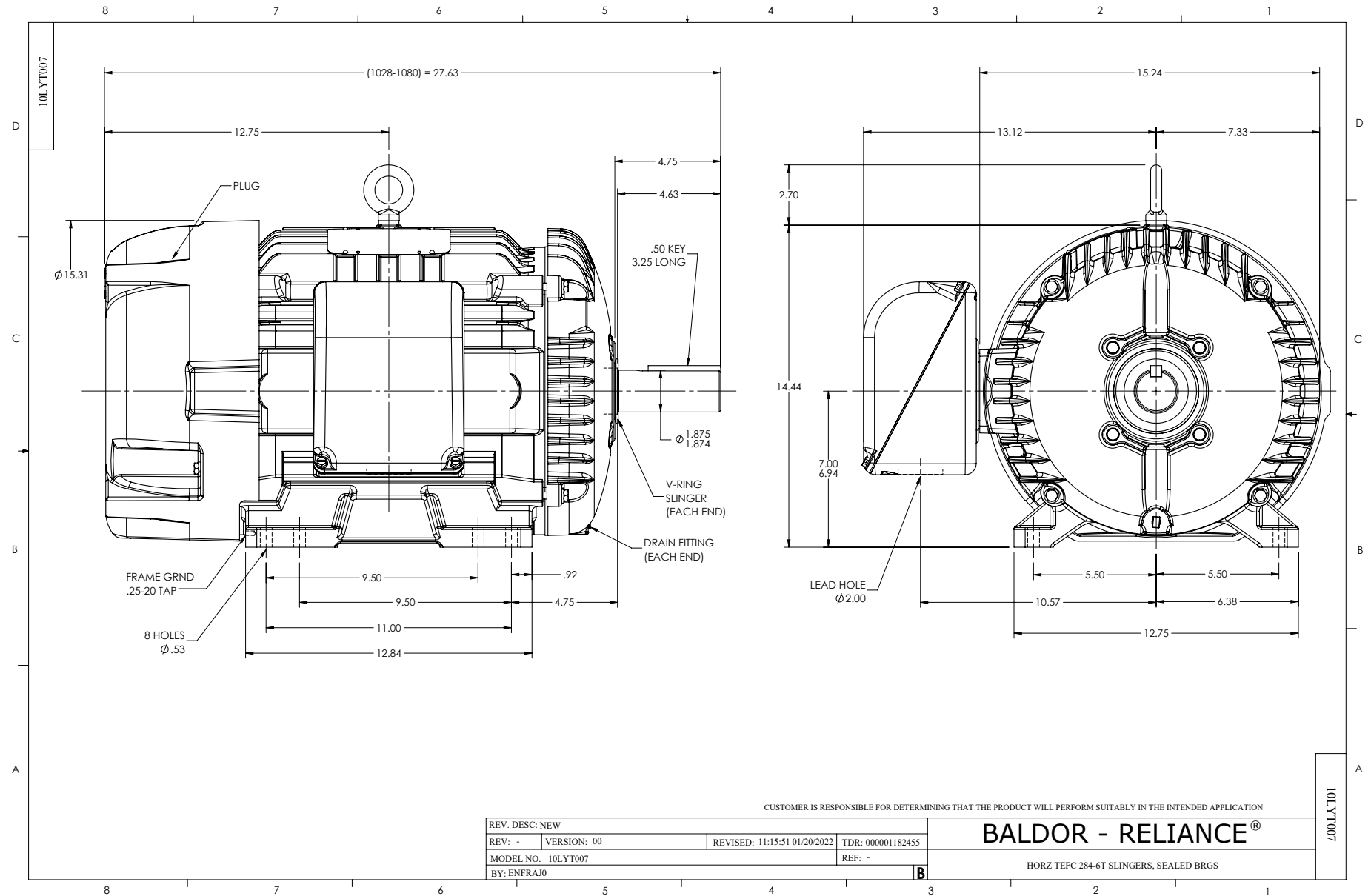
WINDING # 10WGY538

Typical performance - not guaranteed values.

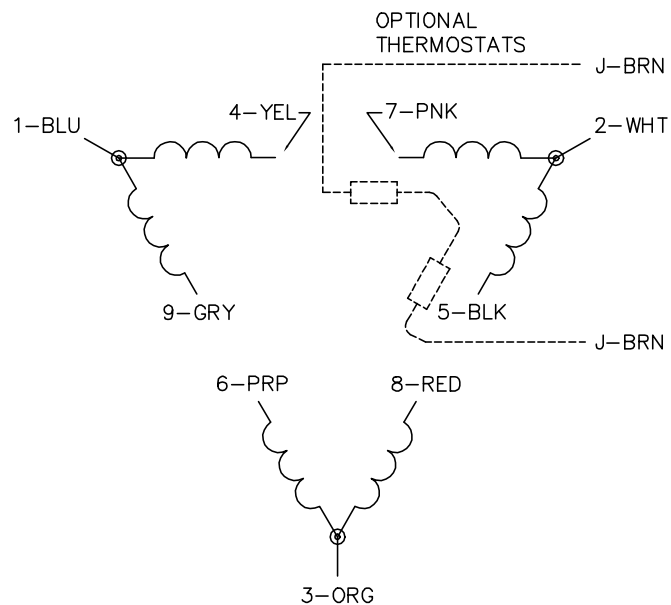
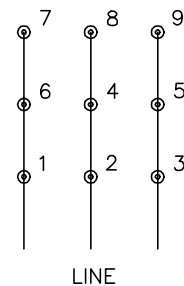
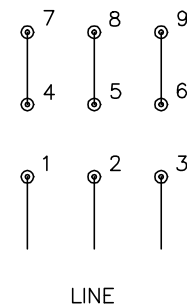
30 HP 3 PH 60 HZ 1760 RPM 460 V 1056M

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





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.

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

SH 1 of 1

CD0180