

BALDOR • RELIANCE

Customer information packet

IDM4102T

54M 6P TEBC HOR 286T TSTAT INVERTER DTY

Class - None

Division - Not Applicable

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Specifications

Enclosure	TEBC
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	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA UR
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	BLOWER
Current @ Voltage	27.000 A @ 460.0 V 54.000 A @ 230.0 V 56.000 A @ 208.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	27.0 a

Part detail

Revision	D
Type	AC
Mech. spec.	10T004
Base	
Status	PRD/A
Elec. spec.	10WGY730
Layout	10LYT004
Eff. date	07-19-2023
CD Diagram	CD0180
Poles	06
Leads	9#10
Proprietary	False
Created date	03-19-2019

Insulation Class	H
Inverter Code	Inverter Duty
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	1800 rpm
Motor Lead Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1054M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	34.48 IN
Power Factor	77
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	1.00
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1180 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1163L	
CAT NO	IDM4102T
SPEC.	10T004Y730G1
FRAME	286T HP 20 TE
VOLTS	230/460
MAG CUR	26.2/13.1 FLA 54/27
RPM	1180 RPM MAX 1800
HZ	60 PH 3 CLASS H
SER.F.	1.00 DES A SL HZ 1
NEMA-NOM-EFF	91.7 WK2 6.61
BLWR V	PH HZ A
RATING	40C AMB-CONT
DE BRG	6311 ODE BRG 6309
CC	010A SN

AC Induction Motor Performance Data

Record # 66239

Typical performance - not guaranteed values

Winding: 10WGY730-R028		Type: 1054M	Enclosure: TEBC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)	20	Full Load Torque	90.1 LB-FT		
Volts	230/460	Start Configuration	direct on line		
Full Load Amps	54/27	Breakdown Torque	276 LB-FT		
R.P.M.	1180	Pull-up Torque	115 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque	166 LB-FT	
NEMA Design Code	A	KVA Code	H	Starting Current	165 A
Service Factor (S.F.)	1	No-load Current	13.1 A		
NEMA Nom. Eff.	91.7	Power Factor	77	Line-line Res. @ 25°C	0.425 Ω
Rating - Duty	40C AMB-CONT		Temp. Rise @ Rated Load	65°C	
			Locked-rotor Power Factor	31.8	
			Rotor inertia	6.61 LB-FT ²	

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	39	60	71	77	79	80
Efficiency	86.6	91.1	91.9	91.7	90.9	89.8
Speed	1194.6	1189.5	1184.1	1178.3	1171.4	1163.8
Line amperes	14.3	17.5	21.9	26.9	32.7	39.3

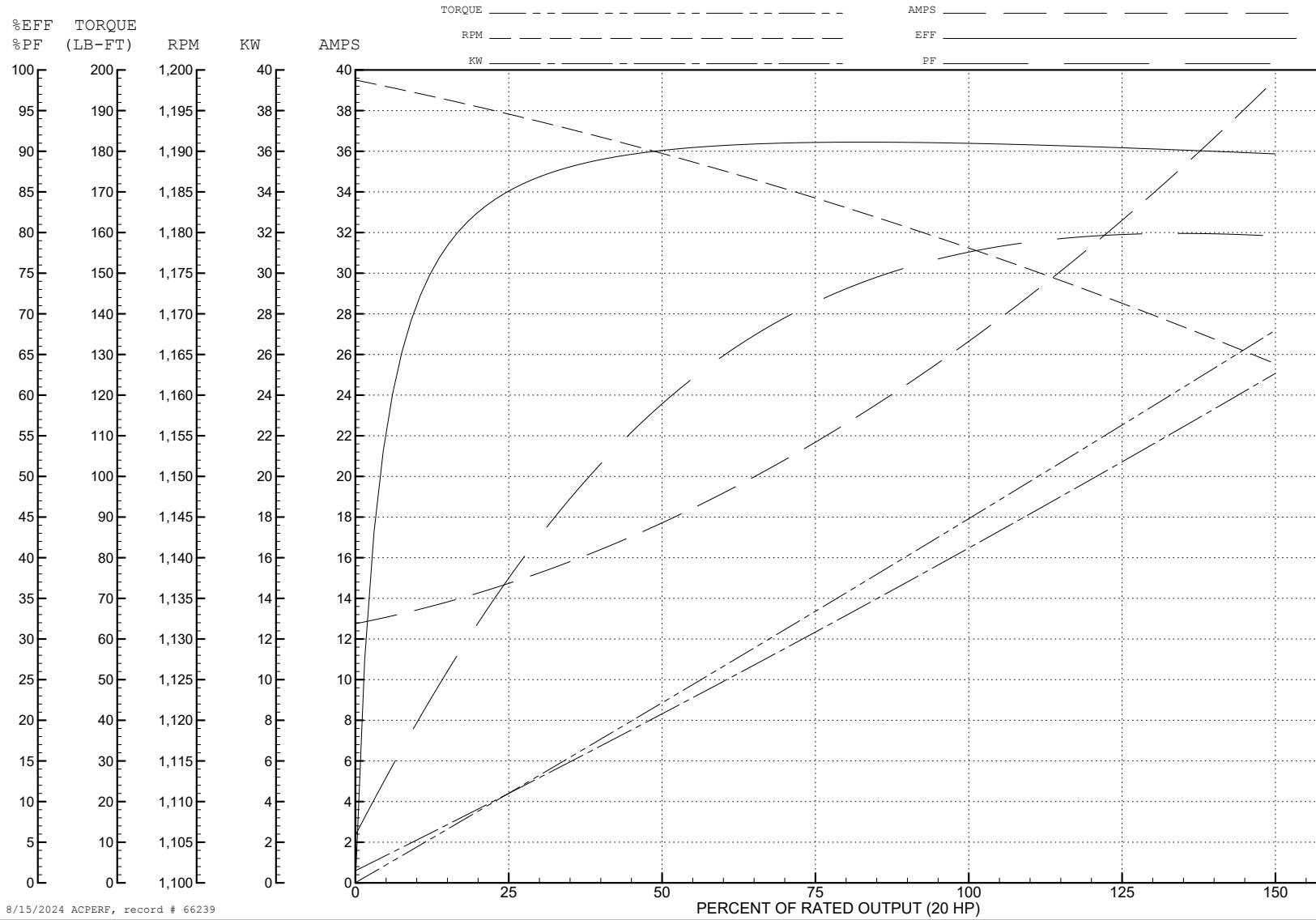
ABB Motors and Mechanical Inc.

WINDING # 10WGY730

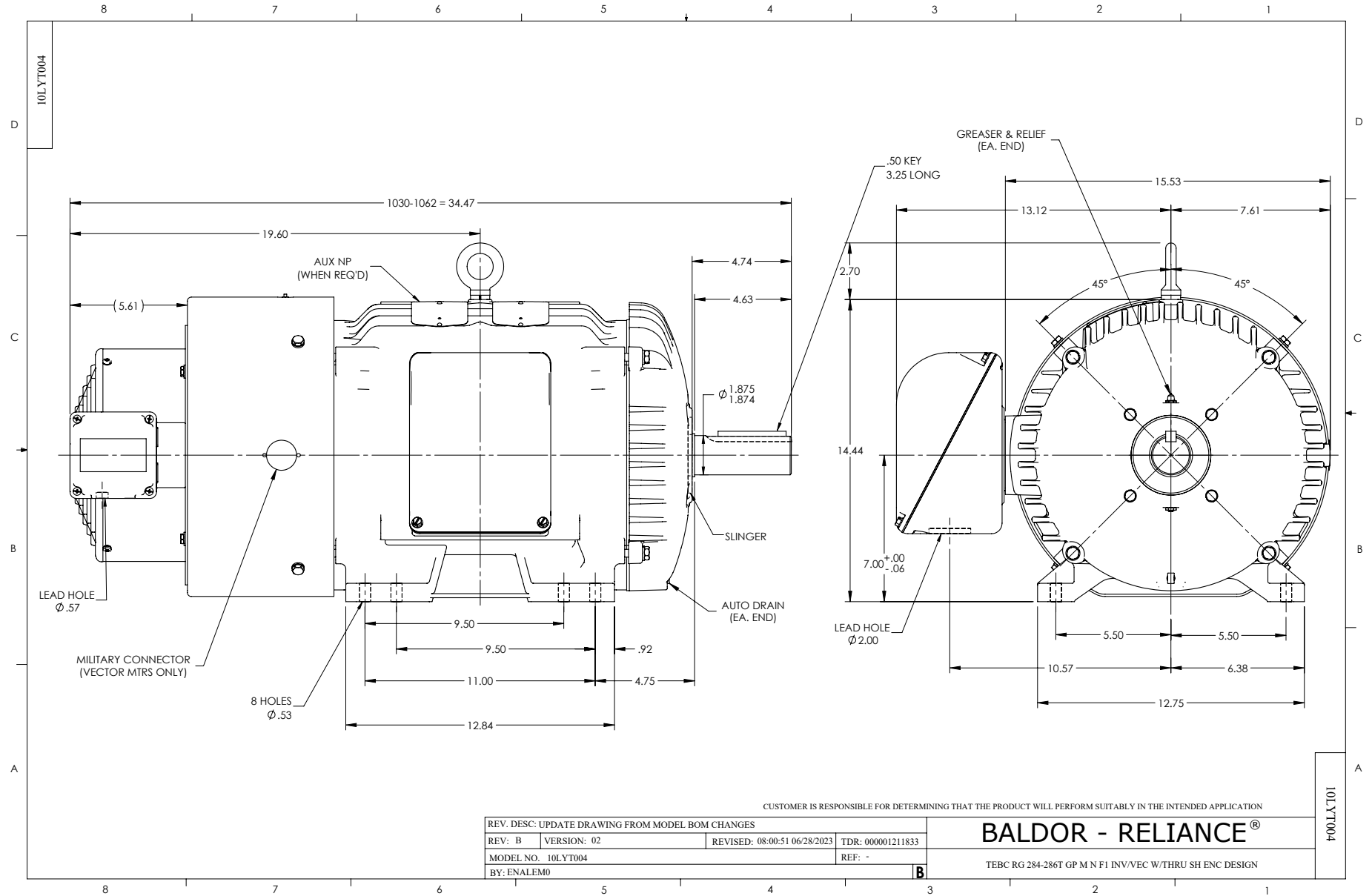
20 HP 3 PH 60 HZ 1180 RPM 460 V 1054M

Typical performance - not guaranteed values.

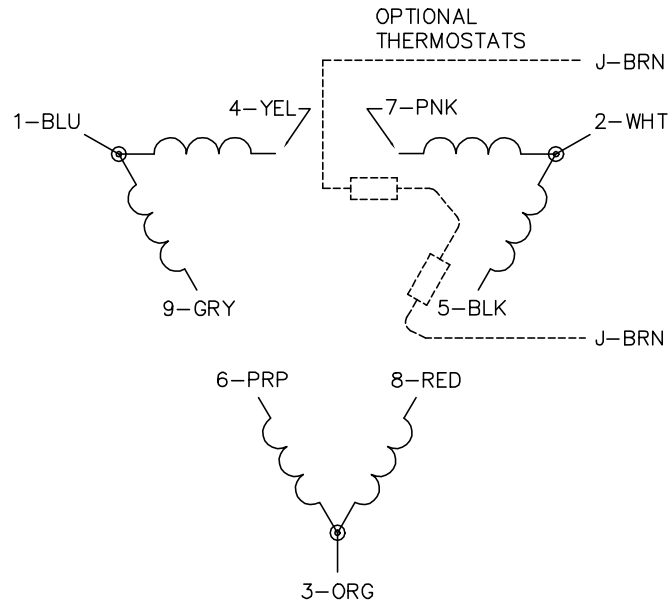
TORQUES (LB-FT): PO=276 PU=115 LR=166 LRA=165



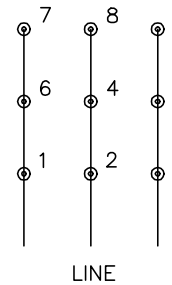
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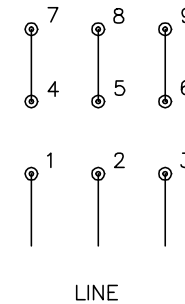
CD0180



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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FILE: \AAA\00005\148	REVISED: 10:25:29 02/19/2019	BY: ENBRIRO
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3PH, DV, 9 LEADS, DELTA CONNECTION

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