ABB BALDOR RELIANCE

Customer information packet

ECTM4102T-G

20HP, 1180RPM, 3PH, 60HZ, 286T, 1054M, TEFC, F1
Class - None
Division - Not Applicable

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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	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 EEV
	NEMA PREMIUM
	NEMA_PREMIUM
	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	56.000 A @ 208.0 V
	54.000 A @ 230.0 V
	27.000 A @ 460.0 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	Tapped & Key

Part Detail

Revision	G
Type	AC
Mech. spec.	10T010
Base	
Status	PRD/A
Elec. spec.	10WGY730
Layout	10LYT010
Eff. date	11-03-2025
CD Diagram	CD0180
Poles	06
Leads	9#10
Proprietary	False
Created date	04-13-2022

Heater Indicator	Heater Included, 115 V
High Voltage Full Load Amps	27.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Vertical Lifting Lugs
Locked Bearing Indicator	Locked Bearing
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	27.57 IN
Power Factor	77
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	Standard
Pulley Shaft Indicator	Tapped & Key
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	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	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1260								
CAT.NO.	ECTM4102T-G							
SPEC.	10T010Y730G1							
HP	20							
VOLTS	230/460							
AMP	54/27							
RPM	1180							
FRAME	286T	**HZ**	60		**PH**	3		
SER.F.	1.15	**CODE**	H	**DES**	A	**CL**	F	
NEMA-NOM-EFF	91.7	**PF**	77					
RATING	40C AMB-CONT							
CC	010A							
DE	6311	**ODE**	6309					
ENCL	TEFC	**SN**						
	INV DUTY 20:1VT							

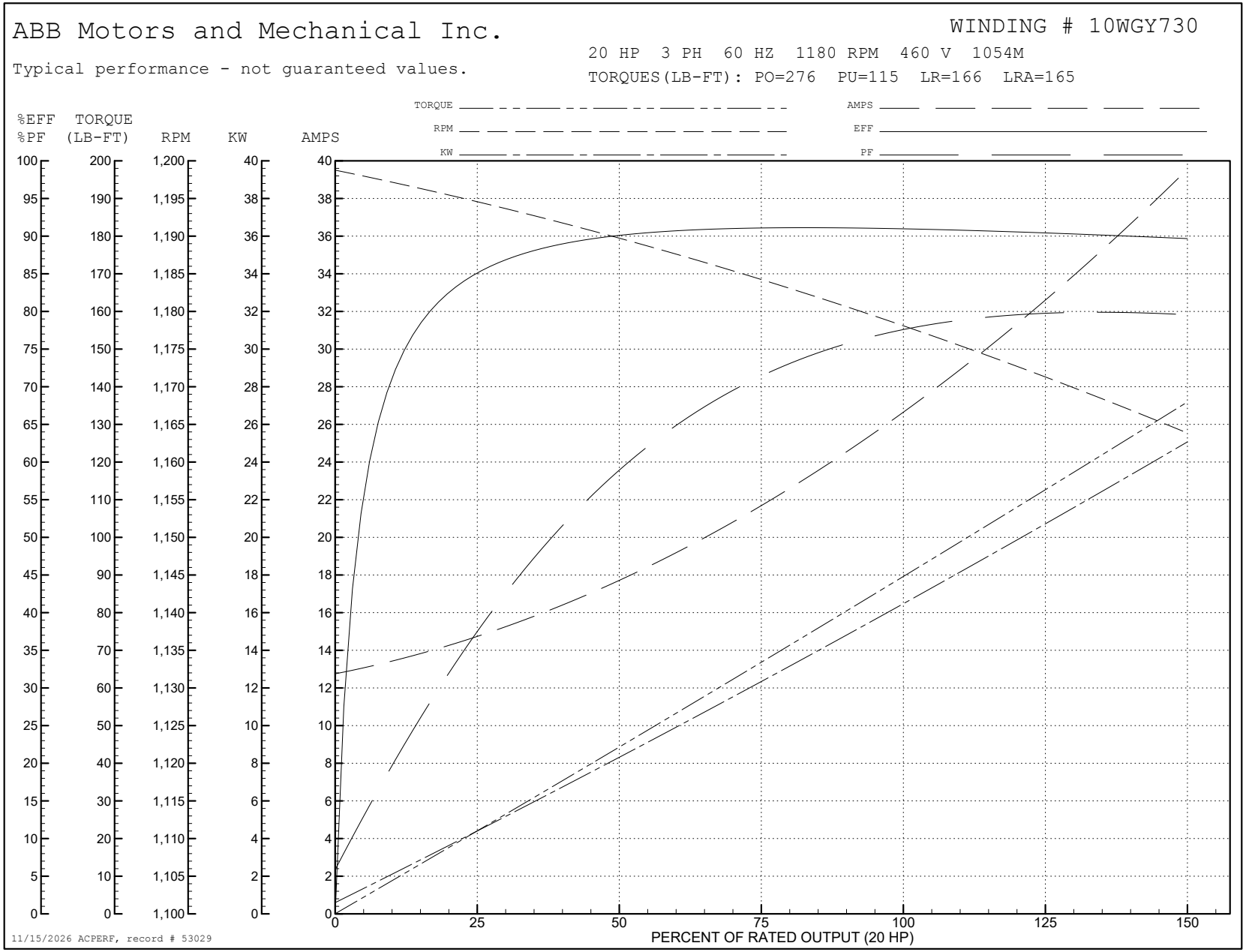
AC Induction Motor Performance Data
Record # 53029
Typical performance - not guaranteed values

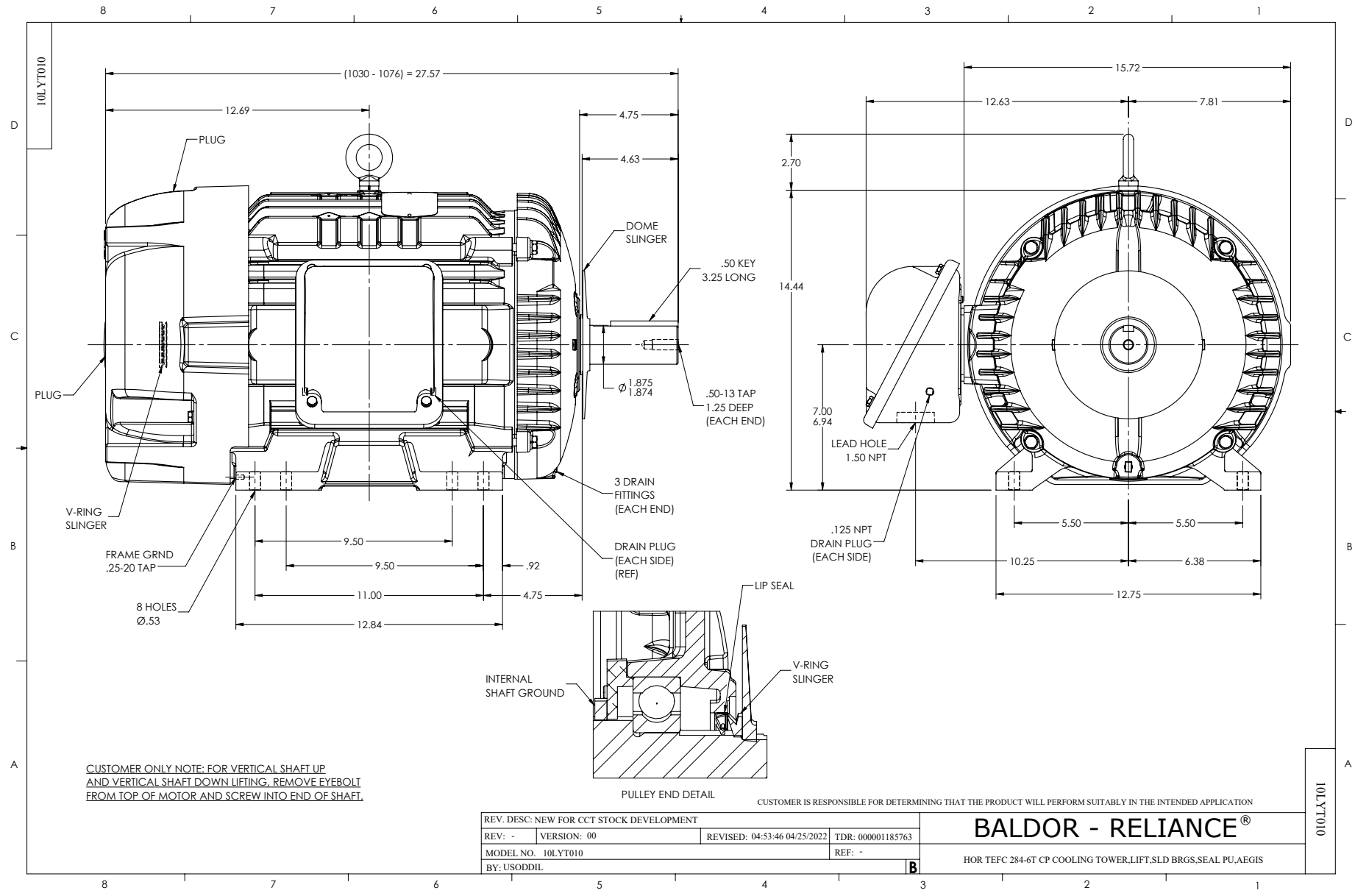
Winding: 10WGY730-R006	**Type:** 1054M	**Enclosure:** TEFC

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.)			1.15	**No-load Current**	13.1 A
NEMA Nom. Eff.	91.7	**Power Factor**	77	**Line-line Res. @ 25ºC**	0.425 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	65°C
S.F. Amps				**Temp. Rise @ S.F. Load**	79°C
				Locked-rotor Power Factor	32
				Rotor inertia	6.61 LB-FT2

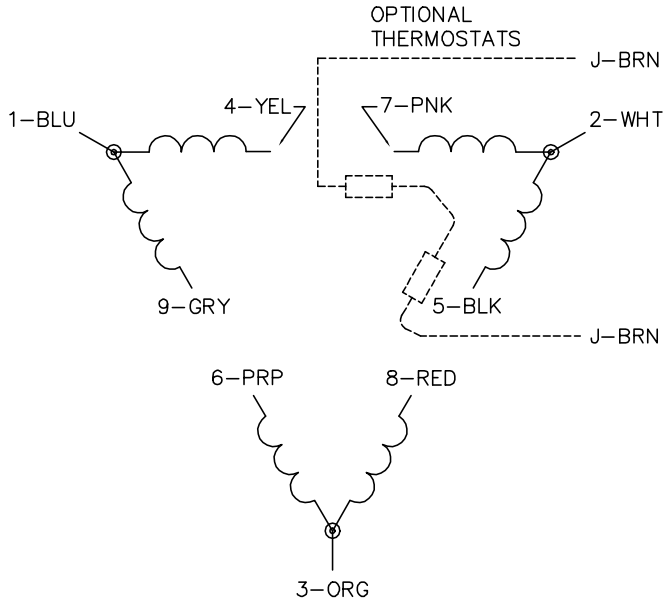
Load Characteristics 460 V, 60 Hz, 20 HP

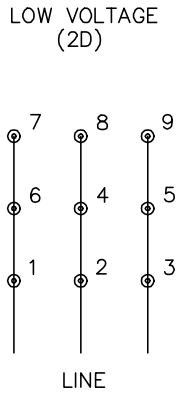
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	39	60	71	77	79	80	78
Efficiency	86.6	91.1	91.9	91.7	90.9	89.8	91.2
Speed	1194.6	1189.5	1184.1	1178.3	1171.4	1163.8	1174
Line amperes	14.3	17.5	21.9	26.9	32.7	39.3	30.4

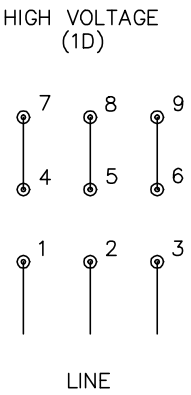

ABB Motors and Mechanical Inc.
WINDING # 10WGY730
20 HP 3 PH 60 HZ 1180 RPM 460 V 1054M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=276 PU=115 LR=166 LRA=165
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (20 HP)
11/15/2026 ACPERF, record # 53029


10LYT010
(1030 - 1076) = 27.57
12.69
4.75
4.63
PLUG
DOME SLINGER
.50 KEY 3.25 LONG
PLUG
Ø 1.875 1.874
.50-13 TAP 1.25 DEEP (EACH END)
3 DRAIN FITTINGS (EACH END)
V-RING SLINGER
FRAME GRND .25-20 TAP
DRAIN PLUG (EACH SIDE) (REF)
9.50
9.50
.92
11.00
4.75
8 HOLES Ø.53
12.84
15.72
12.63
7.81
2.70
14.44
7.00 6.94
LEAD HOLE 1.50 NPT
.125 NPT DRAIN PLUG (EACH SIDE)
5.50
5.50
10.25
6.38
12.75
LIP SEAL
V-RING SLINGER
INTERNAL SHAFT GROUND
PULLEY END DETAIL
CUSTOMER ONLY NOTE: FOR VERTICAL SHAFT UP AND VERTICAL SHAFT DOWN LIFTING, REMOVE EYEBOLT FROM TOP OF MOTOR AND SCREW INTO END OF SHAFT.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: NEW FOR CCT STOCK DEVELOPMENT
REV: - VERSION: 00 REVISED: 04:53:46 04/25/2022 TDR: 000001185763
MODEL NO. 10LYT010 REF: -
BY: USODDIL B
BALDOR - RELIANCE®
HOR TEFC 284-6T CP COOLING TOWER,LIFT,SLD BRGS,SEAL PU,AEGIS
10LYT010

CD0180







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: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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