ABB BALDOR RELIANCE

Customer information packet

ECTM2334T

20 AIR OVERHP, 1770RPM, 3PH, 60HZ, 256T, 0960
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEAO
Frame	256T
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	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	48.000 A @ 230.0 V
	52.000 A @ 208.0 V
	24.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	R
Type	AC
Mech. spec.	09L877
Base	
Status	PRD/A
Elec. spec.	09WGT459
Layout	09LYL877
Eff. date	11-14-2023
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	11-27-2017

Heater Indicator	No Heater
High Voltage Full Load Amps	24.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Vertical Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0960M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	23.00 IN
Power Factor	83
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1770 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

NP2178								
CAT.NO.	ECTM2334T							
SPEC.	09L877T459G1							
HP	20 AIR OVER							
VOLTS	230/460							
AMP	48/24							
RPM	1770							
FRAME	256T	**HZ**	60		**PH**	3		
SER.F.	1.15	**CODE**	J	**DES**	A	**CL**	F	
NEMA-NOM-EFF	93	**PF**	83					
RATING	40C AMB-CONT							
CC								
DE	6309	**ODE**	6208					
ENCL	TEAO	**SN**						
	1800 FPM @ 250CFM							

AC Induction Motor Performance Data
Record # 70816
Typical performance - not guaranteed values

Winding: 09WGT459-R007	**Type:** 0960M	**Enclosure:** TEAO

Nameplate Data			
Rated Output (HP)			20 AIR OVER
Volts			230/460
Full Load Amps			48/24
R.P.M.			1770
Hz	60	**Phase**	3
NEMA Design Code	A	**KVA Code**	J
Service Factor (S.F.)			1.15
NEMA Nom. Eff.	93	**Power Factor**	83
Rating - Duty			40C AMB-CONT
S.F. Amps			

460 V, 60 Hz: High Voltage Connection	
Full Load Torque	59.27 LB-FT
Start Configuration	direct on line
Breakdown Torque	232 LB-FT
Pull-up Torque	126 LB-FT
Locked-rotor Torque	141 LB-FT
Starting Current	198 A
No-load Current	10.4 A
Line-line Res. @ 25ºC	0.33814 Ω
Temp. Rise @ Rated Load	58°C
Temp. Rise @ S.F. Load	70°C
Locked-rotor Power Factor	26.9

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	45	67	78	83	86	87	85
Efficiency	89.2	93	93.7	93.6	93.1	92.4	93.3
Speed	1793.2	1786.4	1779.1	1771.9	1763.7	1755.3	1767
Line amperes	11.8	15	19.2	24	29.3	34.9	27.2

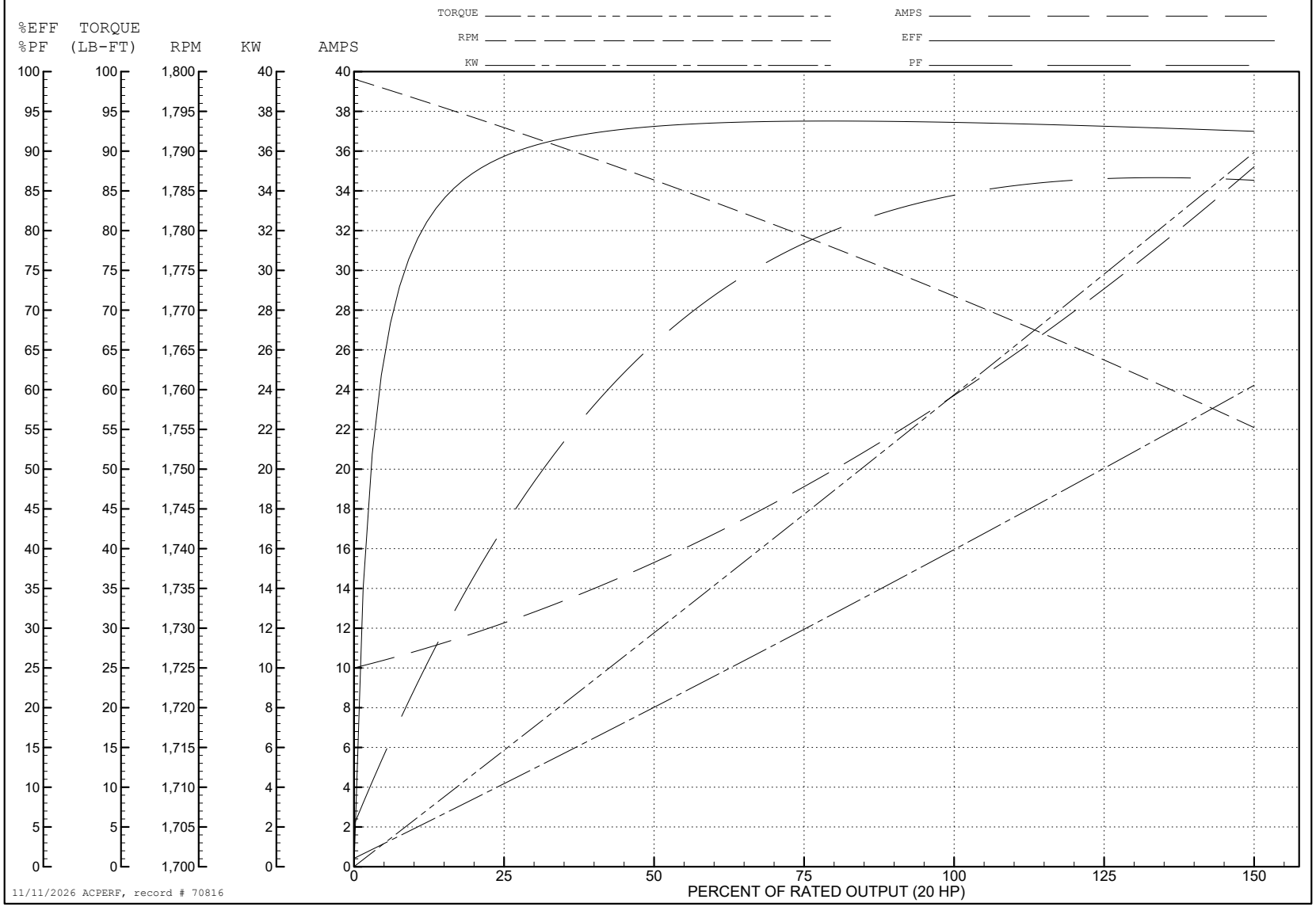
ABB Motors and Mechanical Inc.

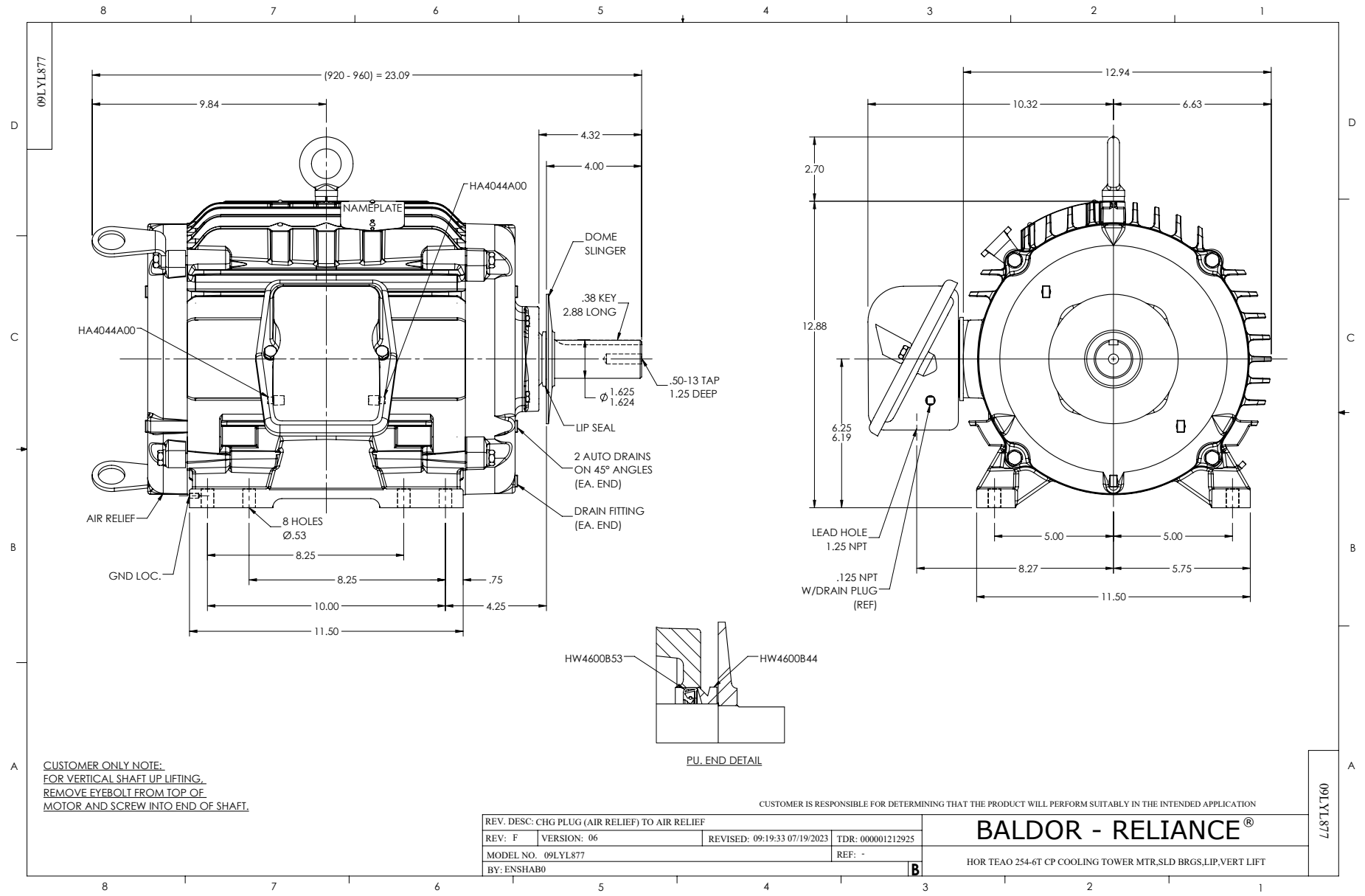
WINDING # 09WGT459

20 HP 3 PH 60 HZ 1770 RPM 460 V 0960M

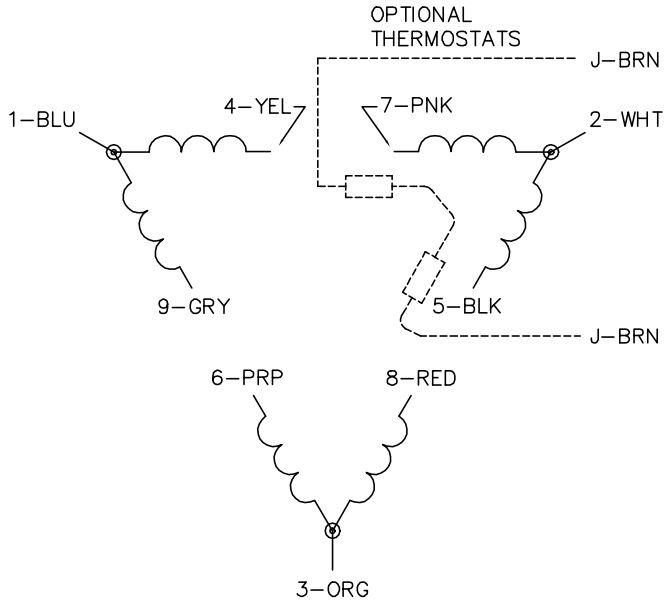
Typical performance - not guaranteed values.

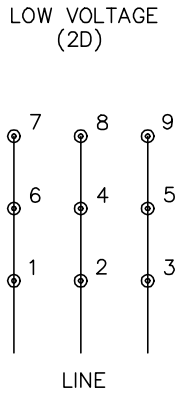
TORQUES(LB-FT): PO=232 PU=126 LR=141 LRA=198

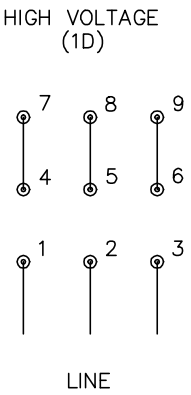



09LYL877
(920 - 960) = 23.09
9.84
4.32
4.00
HA4044A00
NAMEPLATE
DOME SLINGER
.38 KEY
2.88 LONG
HA4044A00
.50-13 TAP
1.25 DEEP
Ø 1.625
1.624
LIP SEAL
2 AUTO DRAINS
ON 45° ANGLES
(EA. END)
DRAIN FITTING
(EA. END)
AIR RELIEF
8 HOLES
Ø.53
GND LOC.
8.25
8.25
.75
10.00
4.25
11.50
12.94
10.32
6.63
2.70
12.88
6.25
6.19
LEAD HOLE
1.25 NPT
.125 NPT
W/DRAIN PLUG
(REF)
5.00
5.00
8.27
5.75
11.50
HW4600B53
HW4600B44
PU. END DETAIL
CUSTOMER ONLY NOTE:
FOR VERTICAL SHAFT UP 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: CHG PLUG (AIR RELIEF) TO AIR RELIEF
REV: F
VERSION: 06
REVISED: 09:19:33 07/19/2023
TDR: 000001212925
MODEL NO. 09LYL877
REF: -
BY: ENSHAB0
B
BALDOR - RELIANCE®
HOR TEAO 254-6T CP COOLING TOWER MTR,SLD BRGS,LIP,VERT LIFT
09LYL877

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

SH 1 of 1