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# Customer information packet

## ECTM2334T-G-AO

20 AIR OVERHP, 1770RPM, 3PH, 60HZ, 256T, 0960

Class - None

Division - Not Applicable

## 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	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV NEMA PREMIUM NEMA_PREMIUM 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	None
Current @ Voltage	52.000 A @ 208.0 V 48.000 A @ 230.0 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 Shaft Indicator	None

## Part detail

Revision	G
Type	AC
Mech. spec.	09N187
Base	
Status	PRD/A
Elec. spec.	09WGT459
Layout	09LYN187
Eff. date	02-19-2024
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	03-25-2022

Heater Indicator	Heater Included, 115 V
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 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	23.09 IN
Power Factor	83
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	1.625 IN
Shaft Ground Indicator	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**

<b>NP2178</b>									
<b>CAT.NO.</b>	ECTM2334T-G-AO								
<b>SPEC.</b>	09N187T459G1								
<b>HP</b>	20 AIR OVER								
<b>VOLTS</b>	230/460								
<b>AMP</b>	48/24								
<b>RPM</b>	1770								
<b>FRAME</b>	256T		<b>HZ</b>	60		<b>PH</b>	3		
<b>SER.F.</b>	1.15	<b>CODE</b>	J	<b>DES</b>	A	<b>CL</b>	F		
<b>NEMA-NOM-EFF</b>	93	<b>PF</b>	83						
<b>RATING</b>	40C AMB-CONT								
<b>CC</b>									
<b>DE</b>	6309	<b>ODE</b>	6208						
<b>ENCL</b>	TEAO	<b>SN</b>							
	INV DUT 20:1 VT								

**AC Induction Motor Performance Data**

Record # 70816

Typical performance - not guaranteed values

<b>Winding:</b> 09WGT459-R007		<b>Type:</b> 0960M		<b>Enclosure:</b> TEAO	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	20 AIR OVER		<b>Full Load Torque</b>	59.27 LB-FT	
<b>Volts</b>	230/460		<b>Start Configuration</b>	direct on line	
<b>Full Load Amps</b>	48/24		<b>Breakdown Torque</b>	232 LB-FT	
<b>R.P.M.</b>	1770		<b>Pull-up Torque</b>	126 LB-FT	
<b>Hz</b>	60	<b>Phase</b>	3	<b>Locked-rotor Torque</b>	141 LB-FT
<b>NEMA Design Code</b>	A	<b>KVA Code</b>	J	<b>Starting Current</b>	198 A
<b>Service Factor (S.F.)</b>	1.15		<b>No-load Current</b>	10.4 A	
<b>NEMA Nom. Eff.</b>	93	<b>Power Factor</b>	83	<b>Line-line Res. @ 25°C</b>	0.33814 Ω
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	58°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	70°C	
			<b>Locked-rotor Power Factor</b>	26.9	

**Load Characteristics 460 V, 60 Hz, 20 HP**

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

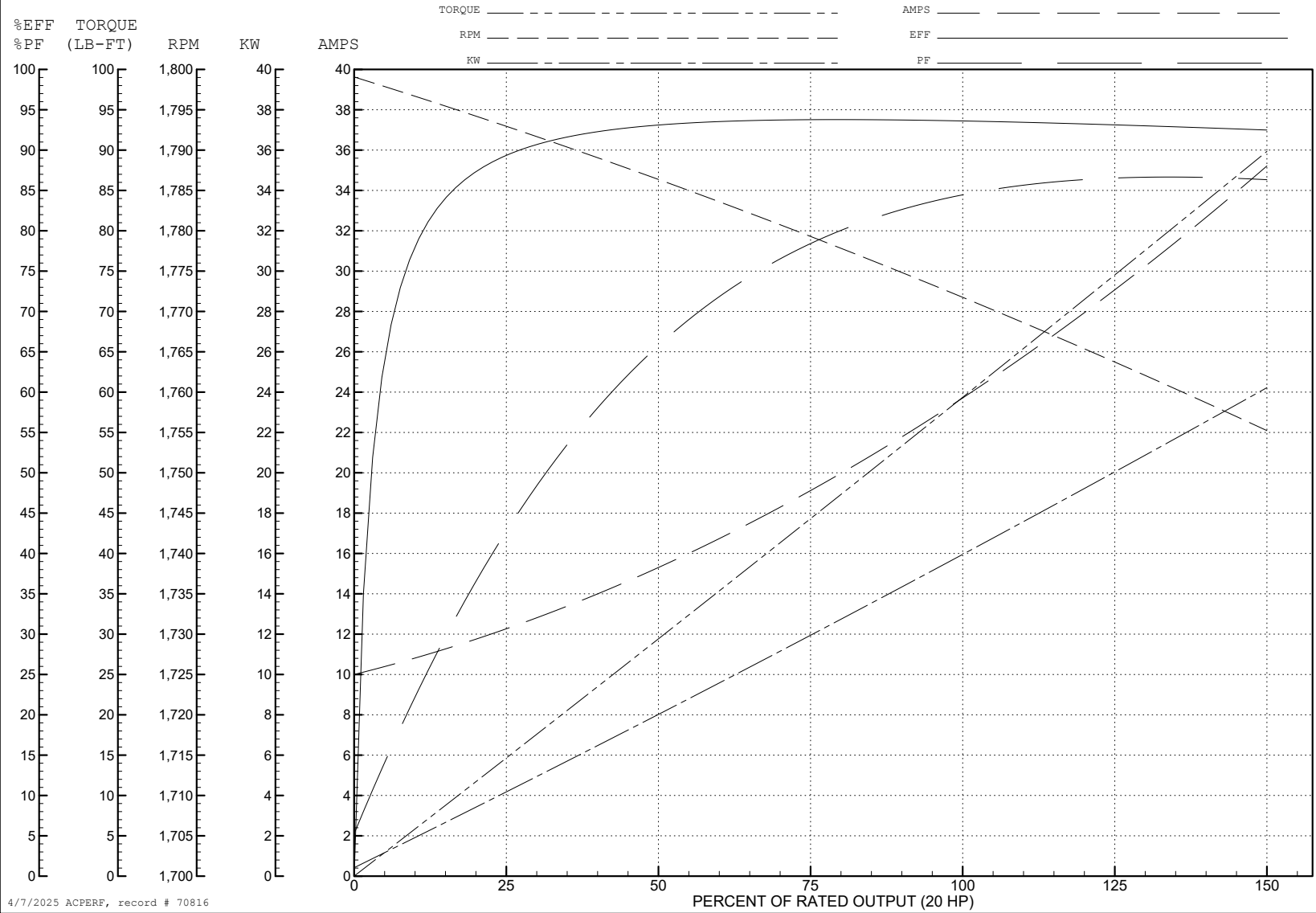
ABB Motors and Mechanical Inc.

WINDING # 09WGT459

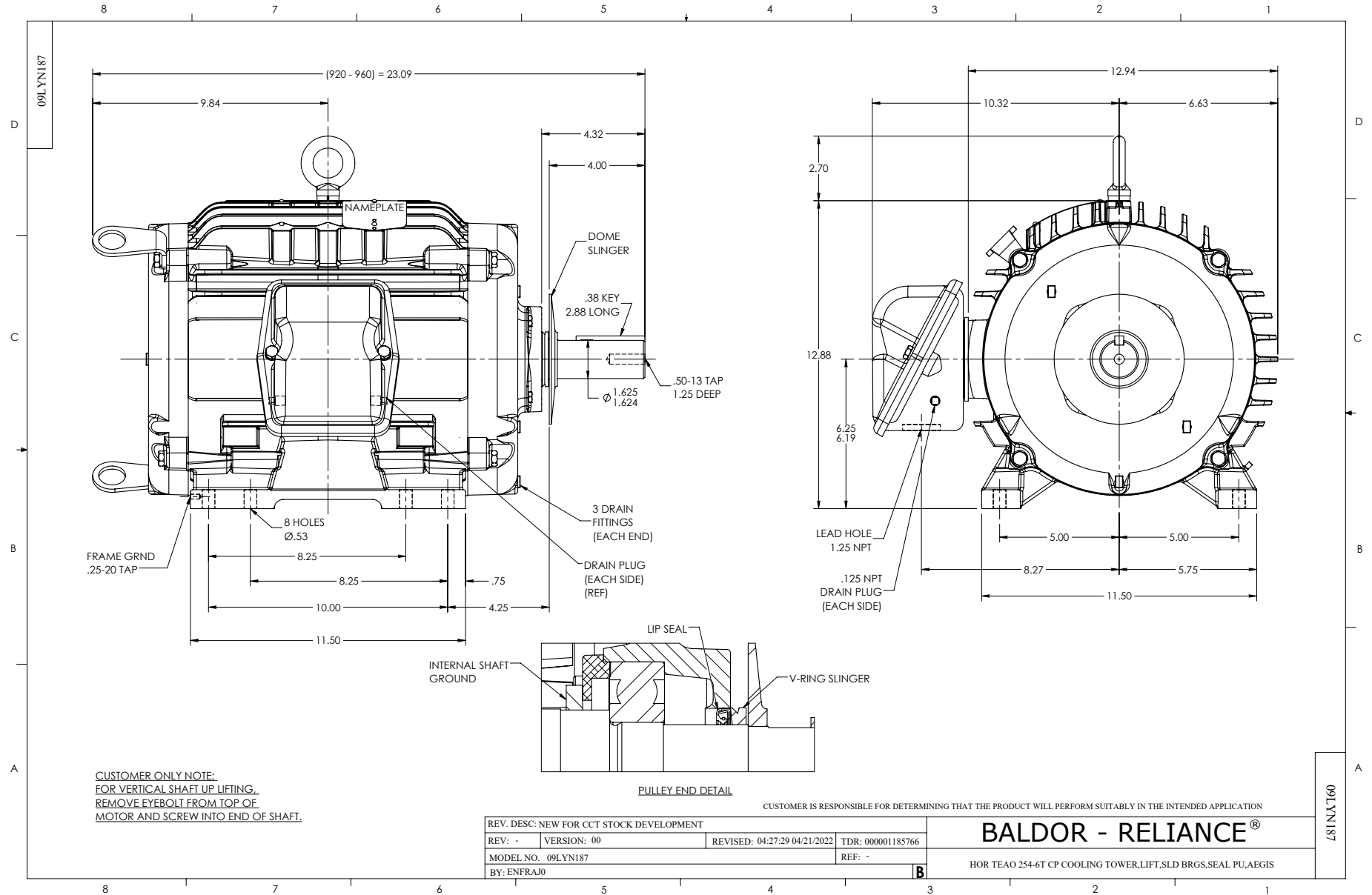
Typical performance - not guaranteed values.

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

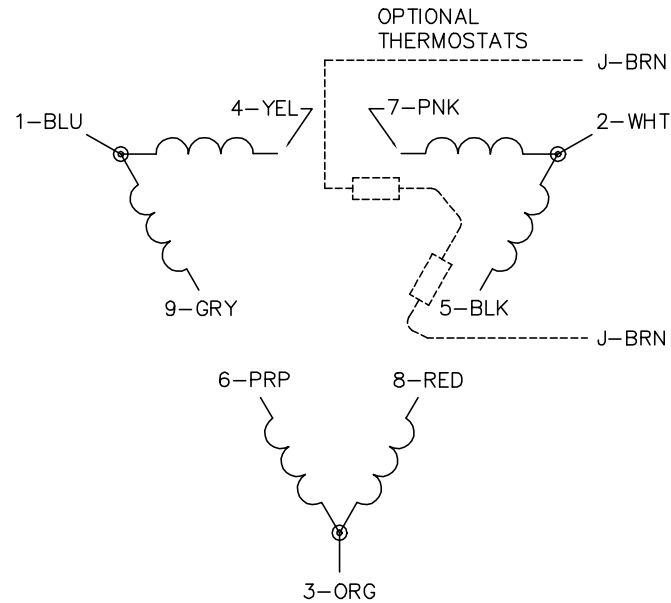
TORQUES (LB-FT): PO=232 PU=126 LR=141 LRA=198



4/7/2025 ACPERF, record # 70816



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

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

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