ABB BALDOR RELIANCE

Customer information packet

ECP2334T

20HP, 1770RPM, 3PH, 60HZ, 256T, 0960M, TEFC, F1
Class - CLI GP A,B,C,D
Division - Division II

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Specifications

Enclosure	TEFC
Frame	256T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D
Haz Area Division	Division II
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	CCSA US
	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
Constant Torque Speed Range	1.0
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

Part Detail

Revision	S
Type	AC
Mech. spec.	09J371
Base	
Status	PRD/A
Elec. spec.	09WGT459
Layout	09LYJ371
Eff. date	09-16-2025
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	11-27-2017

Enclosure Modification	Severe Duty Features
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	24.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
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	24.78 IN
Power Factor	83
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
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

NP3995ABEL

CAT #	ECP2334T			**SER**				**CC**	010A										
SPEC	09J371T459G1			**RATING**	40C AMB-CONT														
HZ	**VOLTS**		**AMPS**		**RPM**	**HP**	**CODE**		**SF**	**DES**	**PF**		**NEMA NOM. EFF**						
60	230/460		48/24		1770	20	J		1.15	A	83	%	93	%					
												%		%					
PH	3	**CL**	F	**MAX RPM**	2700	**MAX CORR KVAR**	5.35			**USABLE AT 208V**	N/A								
IP55		**FR**	256T	**ENCL**	TEFC	**DE BRG**	6309			**ODE BRG**	6309								
GREASE	POLYREX EM								**MTR WT**	334	**LBS**								
USABLE AT	50HZ 15HP 190/380V 44/22A								SF1.0										
CL I DIV 2 GRPS A,B,C,D				**CL I ZONE 2 GRPS**					**IIA,IIB,IIC**		**TEMP T**	160	C						
1.0 SF ON PWM INVERTER				**POWER**		**INV TEMP CL**	180	C											
CHP	60-90	**HZ**	1.5:1	**CT**	1.0-60	**HZ**	60:1	**VT**	0-60	**HZ**	1000:1								
SPACE HEATER LEADS H1-H2:				**TIE LIKE NUMBERS**				**TOGETHER**											
V		**A**		**W**		**MAX SPACE HEATER TEMP**													

Accessories

Part number	Description	Multiplier
09-1309	C FACE KIT	A8

AC Induction Motor Performance Data
Record # 68075
Typical performance - not guaranteed values

Winding: 09WGT459-R011	**Type:** 0960M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			20	**Full Load Torque**	59.27 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			48/24	**Breakdown Torque**	232 LB-FT
R.P.M.			1770	**Pull-up Torque**	126 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	141 LB-FT
NEMA Design Code	A	**KVA Code**	J	**Starting Current**	198 A
Service Factor (S.F.)			1.15	**No-load Current**	10.4 A
NEMA Nom. Eff.	93	**Power Factor**	83	**Line-line Res. @ 25ºC**	0.33814 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	58°C
S.F. Amps				**Temp. Rise @ S.F. Load**	70°C
				Locked-rotor Power Factor	26.5

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

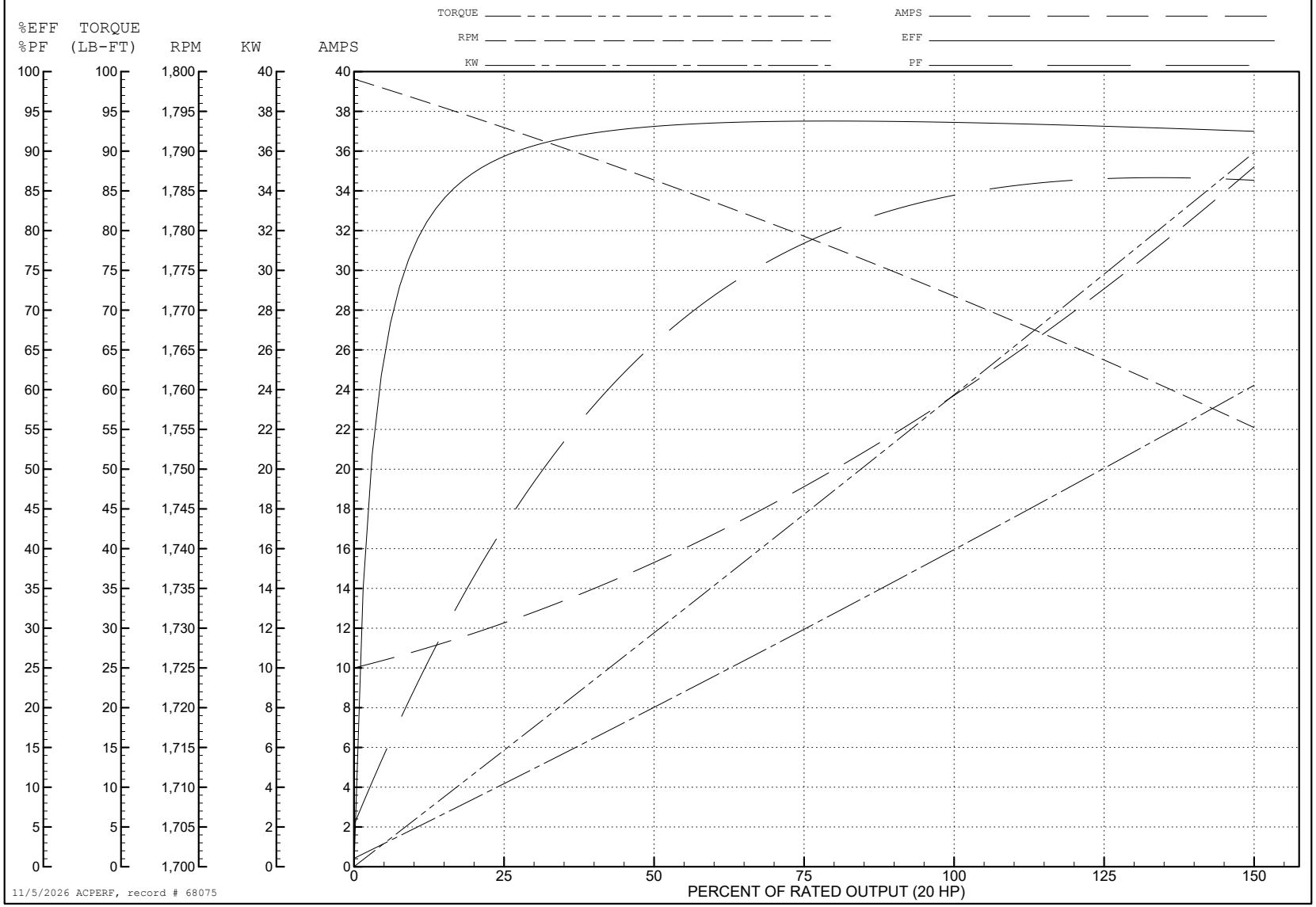
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WINDING # 09WGT459

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



AC Induction Motor Performance Data
Record # 114686
Typical performance - not guaranteed values

Winding: 09WGT459-RXXX	**Type:** 0960M	**Enclosure:** TEFC

Nameplate Data				**400 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			15	**Full Load Torque**	44.44 LB-FT
Volts			200/400	**Start Configuration**	direct on line
Full Load Amps			40.6/20.3	**Breakdown Torque**	172 LB-FT
R.P.M.			1770	**Pull-up Torque**	91 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	102 LB-FT
NEMA Design Code	A	**KVA Code**	J	**Starting Current**	168 A
Service Factor (S.F.)			1.15	**No-load Current**	7.96 A
NEMA Nom. Eff.	92.4	**Power Factor**	83	**Line-line Res. @ 25ºC**	0.332 Ω
Rating - Duty			50C AMB-CONT	**Temp. Rise @ Rated Load**	43°C
S.F. Amps				**Temp. Rise @ S.F. Load**	51°C
				Locked-rotor Power Factor	27
				Rotor inertia	2.65 lb-ft²

Load Characteristics 400 V, 60 Hz, 15 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	49	70	80	85	87	88	86
Efficiency	88.6	92.6	93.5	93.5	93	92.4	93.2
Speed	1793	1787	1779	1772	1764	1756	1767
Line amperes	9.41	12.38	16.14	20.34	24.94	29.8	23.1

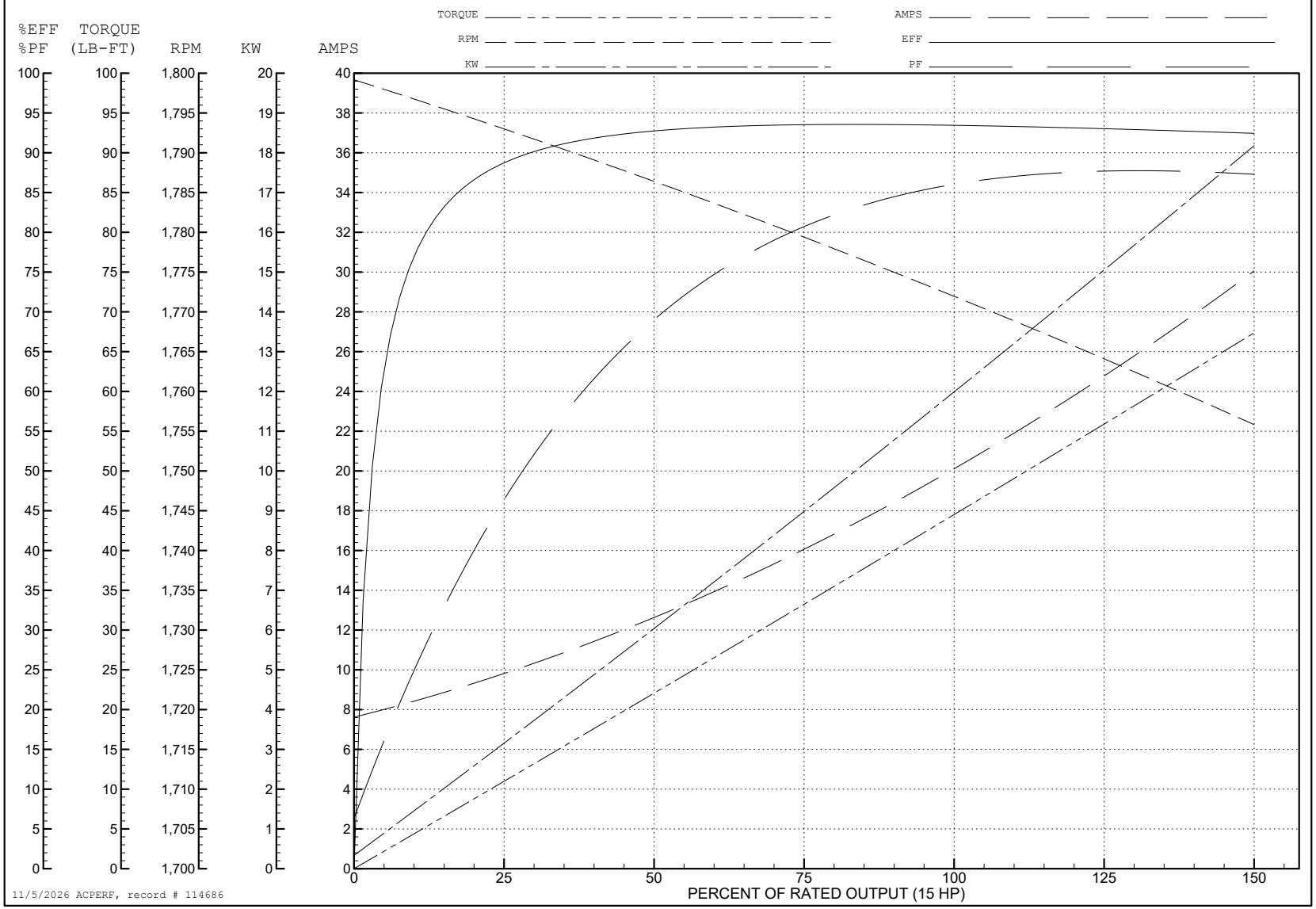
ABB Motors and Mechanical Inc.

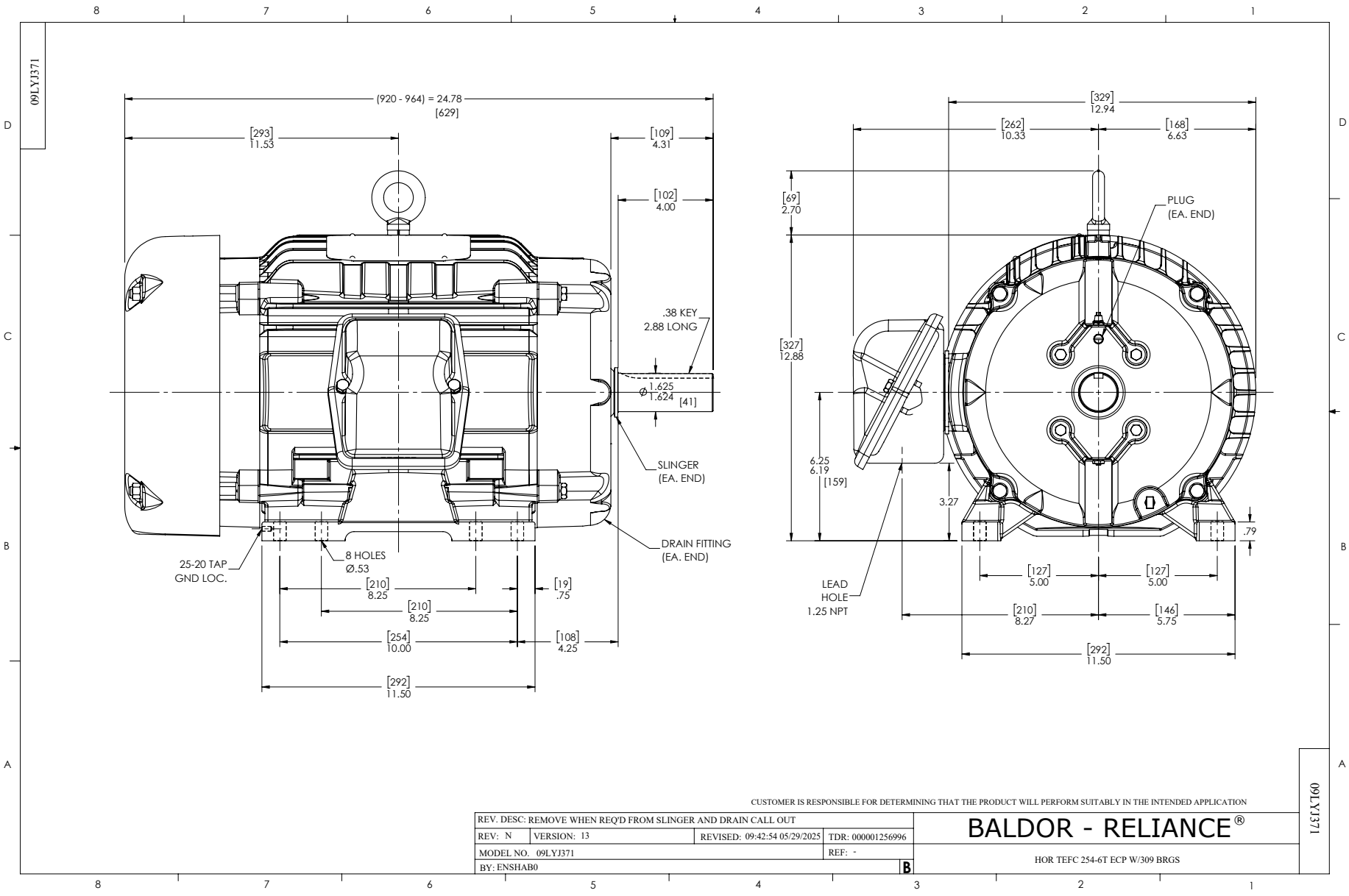
WINDING # 09WGT459

15 HP 3 PH 60 HZ 1770 RPM 400 V 0960M

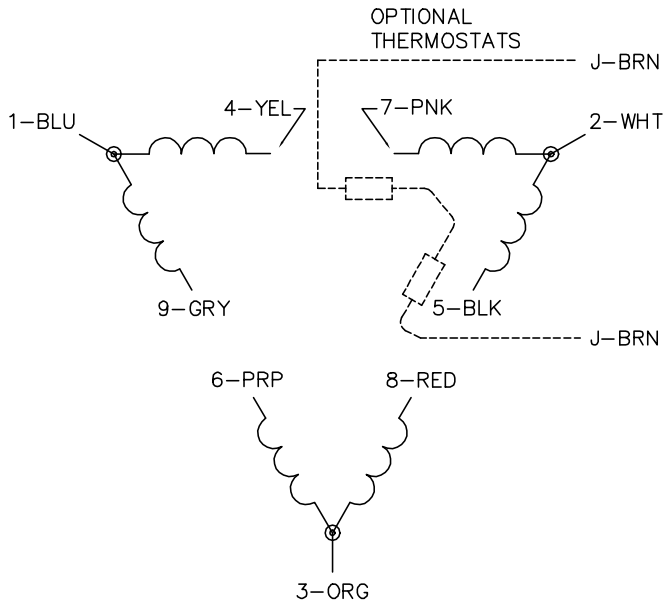
Typical performance - not guaranteed values.

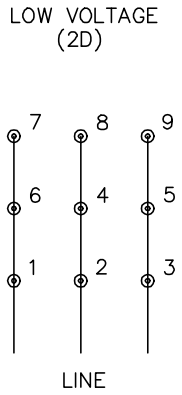
TORQUES(LB-FT): PO=172 PU=91 LR=102 LRA=168

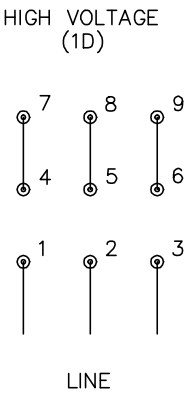



09LYJ371
(920 - 964) = 24.78
[629]
[293]
11.53
[109]
4.31
[102]
4.00
.38 KEY
2.88 LONG
Ø 1.625
1.624
[41]
SLINGER
(EA. END)
DRAIN FITTING
(EA. END)
25-20 TAP
GND LOC.
8 HOLES
Ø.53
[210]
8.25
[210]
8.25
[19]
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10.00
[108]
4.25
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11.50
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2.70
PLUG
(EA. END)
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12.88
6.25
6.19
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3.27
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LEAD
HOLE
1.25 NPT
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8.27
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5.75
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11.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: REMOVE WHEN REQ'D FROM SLINGER AND DRAIN CALL OUT
REV: N
VERSION: 13
REVISED: 09:42:54 05/29/2025
TDR: 000001256996
MODEL NO. 09LYJ371
REF: -
BY: ENSHAB0
B
BALDOR - RELIANCE®
HOR TEFC 254-6T ECP W/309 BRGS
09LYJ371

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: –		

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3PH, DV, 9 LEADS, DELTA CONNECTION

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