

**BALDOR® • RELIANCE** 

**Product Information Packet**

**ECP84106T-4**

**20HP,3510RPM,3PH,60HZ,256T,0954M,TEFC,F1**

Part Detail							
Revision:	AF	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	09WGT034	CD Diagram:	CD0006	Mfg Plant:	
Mech. Spec:	09G557	Layout:	09LYG557	Poles:	02	Created Date:	01-07-2014
Base:	RG	Eff. Date:	02-18-2022	Leads:	3#12		

Specs			
Catalog Number:	ECP84106T-4	Inverter Code:	Inverter Duty
Enclosure:	TEFC	IP Rating:	IP56
Frame:	256T	KVA Code:	G
Frame Material:	Ductile Iron	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	20.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	3 @ 12 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	CLI GP A,B,C,D	Motor Lead Termination:	Ring Terminals
XP Division:	Division II	Motor Type:	0952M
Agency Approvals:	CCSA US	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	91
	UR	Product Family:	Chem Process S/P 32-8 IEEE 841
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	Standard
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	RoHS Status:	ROHS COMPLIANT
Constant Torque Speed Range:	6	Shaft Extension Location:	Pulley End

<b>Current @ Voltage:</b>	22.500 A @ 460.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
<b>Design Code:</b>	B	<b>Shaft Rotation:</b>	Reversible
<b>Drip Cover:</b>	No Drip Cover	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Duty Rating:</b>	CONT	<b>Speed Code:</b>	Single Speed
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Motor Standards:</b>	NEMA
<b>Enclosure Modification:</b>	841	<b>Starting Method:</b>	Direct on line
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Bearing:</b>	None
<b>Front Face Code:</b>	Standard	<b>Thermal Device - Winding:</b>	None
<b>Front Shaft Indicator:</b>	None	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 1:</b>	None
<b>Insulation Class:</b>	F	<b>Winding Thermal 2:</b>	None
		<b>XP Temp Code:</b>	T3

Nameplate NP3190										
STK.NO.	ECP84106T-4		P/N			ENCLOSURE	TEFC			
SPEC.	09G557T034		CC	010A	FRAME	256T	S/N			
HP	20		CLASS	F	HZ	60	ODE BRG	6309	DE BRG	6309
RPM	3510	RPM MAX	5400	PH	3	DES	B	D.E. BRG.	45BC03X30X	
VOLT	460		KVA-CODE	G		O.D.E. BRG.	45BC03X30X			
AMP	22		MOTOR WEIGHT	305		GREASE	POLYREX EM			
RATING	40C AMB-CONT		MAX. KVAR	2		BLANK				
NEMA-NOM-EFF	91	# OF ROTOR BARS	28	SER.F.	1.15		IP	56		
G.MIN.EFF	89.5	# OF STATOR SLOTS	36	PF	91		INV.TYPE	PWM		
TEMP CODE	T3		INVERTER-TEMP-CODE	200						
TEMP =	200		C HP FR	60	C HP TO	90				
CT HZ FROM	6	CT HZ TO	60							
HTR-VOLTS			HTR-AMPS			HTR-WATTS			MAX. SPACE HEATER TEMP.	
							VT HZ FROM	0-	VT HZ TO	60

Parts List		
Part Number	Description	Quantity
SA274512	SA 09G557T034	1.000 EA
RA261097	RA 09G557T034	1.000 EA
37FN3002C02	EXFN, PLASTIC, 6.00 OD, 1.503 ID	1.000 EA
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 EA
10XN2520K06	1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P	1.000 EA
HW1002A63	WASHER, 5/8 HI-COLLAR SPRLCKWASHER	1.000 EA
80XN3118A10	5/16-18X5/8 HEX HEAD SET SCREW	4.000 EA
09CB1002A12P	KOBX W/1.25 NPT LEAD HOLE & 2.38 MTG HOL	1.000 EA
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 EA
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 EA
10XN2520K06	1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P	1.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	1.000 EA
HA3400A39	STUD- 3/8-16 X 6.44 OAL HEX	4.000 EA
12CB1503P	CONDUIT BOX LID, CAST W/EPOXY PRIMER	1.000 EA
12GS1002	GASKET, CONDUIT BOX LID, NEOP	1.000 EA
MJ5004A59	ADHESIVE LOCTITE #401 SURFACE INSENSITIV	0.010 EA
HW4601A61	INPRO SEAL #1698-A-17120-0, VBXX 309 BRG	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
HA4017A08	.125X3.50 GREASER EXTEN.	1.000 EA
HA4017A02	.125X2.50 GREASER EXTENS.F/S	1.000 EA
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 EA
HW4601A61	INPRO SEAL #1698-A-17120-0, VBXX 309 BRG	1.000 EA
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 EA
09EP1118A01P	PUEP MACH, 309 BRG.INPRO SEALS-EPOXY PRI	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 EA
XY3816A12	3/8-16 FINISHED NUT	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	2.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 EA
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 EA
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.023 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA
LD7020D03	LEAD SET, 12AWG, 3 LEAD, 20" LONG LEADS	1.000 EA
WD1000B49	T&B C73,RING TERMINAL 10-12 AWG 3/8 STUD	3.000 EA
09EP1118A02LP5	FREP MACH, 309 BRG. EPOXY PRIMER & BLACK	1.000 EA
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.080 LB
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA

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HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 EA
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
09FH1000LP5	FAN COVER, CAST W/EPOXY PRIMER & PAINT	1.000 EA
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 QT
MG1025N19	WILKOFASST, 778.50, RELIANCE BLUE-GREEN	0.050 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
LB1449	DIV-2/NEC WARNING LABEL	1.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0006	CONNECTION LABEL	1.000 EA
NP3190	SS IEEE841 INV DIV-2 UL CSA-C US EEV	1.000 EA
40PA1005	PACKAGING GROUP, 09 STD	1.000 EA

**AC Induction Motor Performance Data**

Record # 46537

Typical performance - not guaranteed values

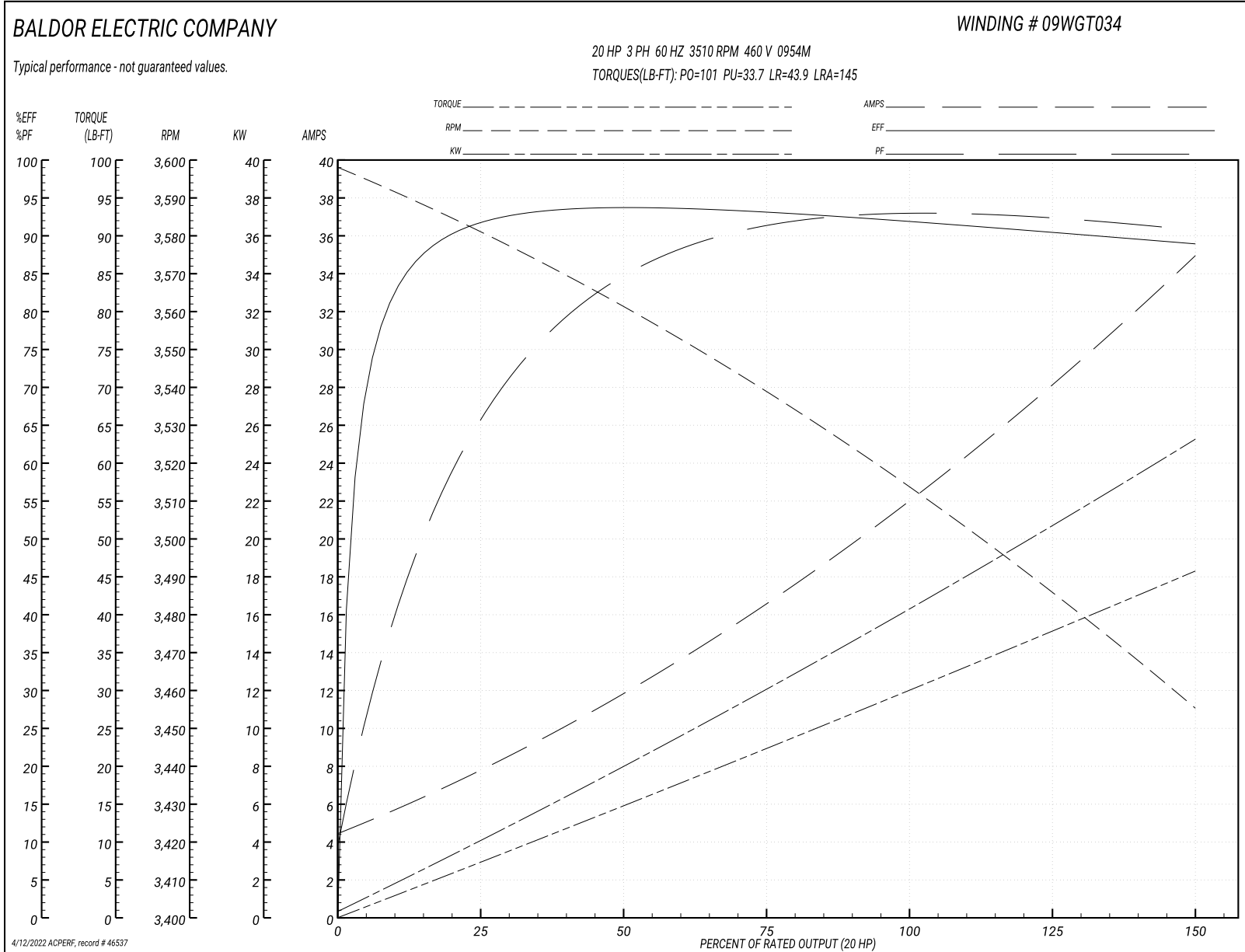
<b>Winding: 09WGT034-R003</b>		<b>Type: 0954M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: Single Voltage Motor</b>		
<b>Rated Output (HP)</b>	20	<b>Full Load Torque</b>	30.1 LB-FT		
<b>Volts</b>	460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	22	<b>Breakdown Torque</b>	101 LB-FT		
<b>R.P.M.</b>	3510	<b>Pull-up Torque</b>	33.7 LB-FT		
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	43.9 LB-FT	
<b>NEMA Design Code</b>	<b>B KVA Code</b>	G	<b>Starting Current</b>	145 A	
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	4.81 A		
<b>NEMA Nom. Eff.</b>	91 <b>Power Factor</b>	91	<b>Line-line Res. @ 25°C</b>	0.45009 Ω	
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	68°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	87°C	
			<b>Locked-rotor Power Factor</b>	27	
			<b>Rotor inertia</b>	1.38 LB-FT <sup>2</sup>	

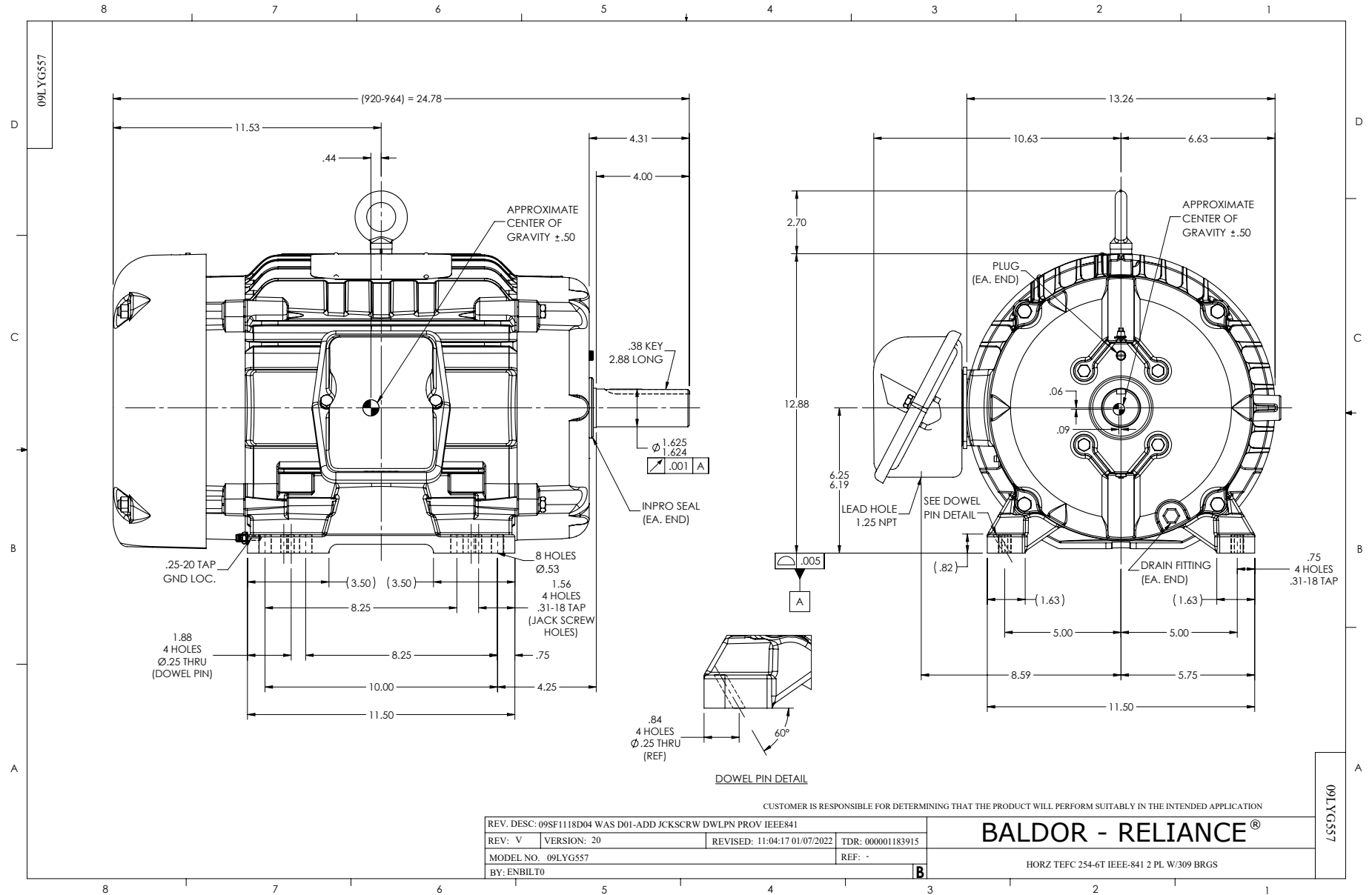
**Load Characteristics 460 V, 60 Hz, 20 HP**

<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>	72	87	91	91	92	92	92
<b>Efficiency</b>	91.4	93.3	93	92	90.6	88.9	91.2
<b>Speed</b>	3579.7	3560.2	3538.1	3514.3	3486.6	3454.4	3498
<b>Line amperes</b>	7.42	11.8	16.7	22.4	28.4	34.7	26



Performance Graph at 460V, 60Hz, 20.0HP Typical performance - Not guaranteed values





CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

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MTL: -	© □	

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3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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