ABB BALDOR RELIANCE

Customer information packet

VHECP4106T

20HP, 3540RPM, 3PH, 60HZ, 256HP, 0944M, TEFC
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	256HP
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	3600 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	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	46.000 A @ 230.0 V
	51.000 A @ 208.0 V
	23.000 A @ 460.0 V
Design Code	A
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	AM
Type	AC
Mech. spec.	09G604
Base	
Status	PRD/A
Elec. spec.	09WGY613
Layout	09LYG604
Eff. date	02-01-2024
CD Diagram	CD0180
Poles	02
Leads	9#12
Proprietary	False
Created date	01-01-0001

Heater Indicator	No Heater
High Voltage Full Load Amps	23.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	K
Lifting Lugs	Vertical Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0944M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	25.73 IN
Power Factor	89
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	P-Base
Pulley Shaft Indicator	P-Base Groove & Key
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3540 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.	VHECP4106T							
SPEC.	09G604Y613G1							
HP	20							
VOLTS	230/460							
AMP	46/23							
RPM	3540							
FRAME	256HP	**HZ**	60		**PH**	3		
SER.F.	1.15	**CODE**	K	**DES**	A	**CL**	F	
NEMA-NOM-EFF	92.4	**PF**	89					
RATING	40C AMB-CONT							
CC	010A							
DE	6311	**ODE**	6208					
ENCL	TEFC	**SN**						

AC Induction Motor Performance Data
Record # 38114
Typical performance - not guaranteed values

Winding: 09WGY613-R001	**Type:** 0944M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			20	**Full Load Torque**	29.7 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			46/23	**Breakdown Torque**	147 LB-FT
R.P.M.			3540	**Pull-up Torque**	60.6 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	76.3 LB-FT
NEMA Design Code	A	**KVA Code**	K	**Starting Current**	223 A
Service Factor (S.F.)			1.15	**No-load Current**	8.26 A
NEMA Nom. Eff.	92.4	**Power Factor**	89	**Line-line Res. @ 25ºC**	0.32708 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	60°C
S.F. Amps				**Temp. Rise @ S.F. Load**	71°C
				Locked-rotor Power Factor	28
				Rotor inertia	1.12 LB-FT2

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	53	75	85	88	91	91	90
Efficiency	87.7	92.3	93.3	93.4	93	92.4	93.2
Speed	3584.9	3571.9	3557.8	3543.8	3528.7	3512.5	3535
Line amperes	9.98	13.5	17.8	22.7	27.7	33.3	25.7

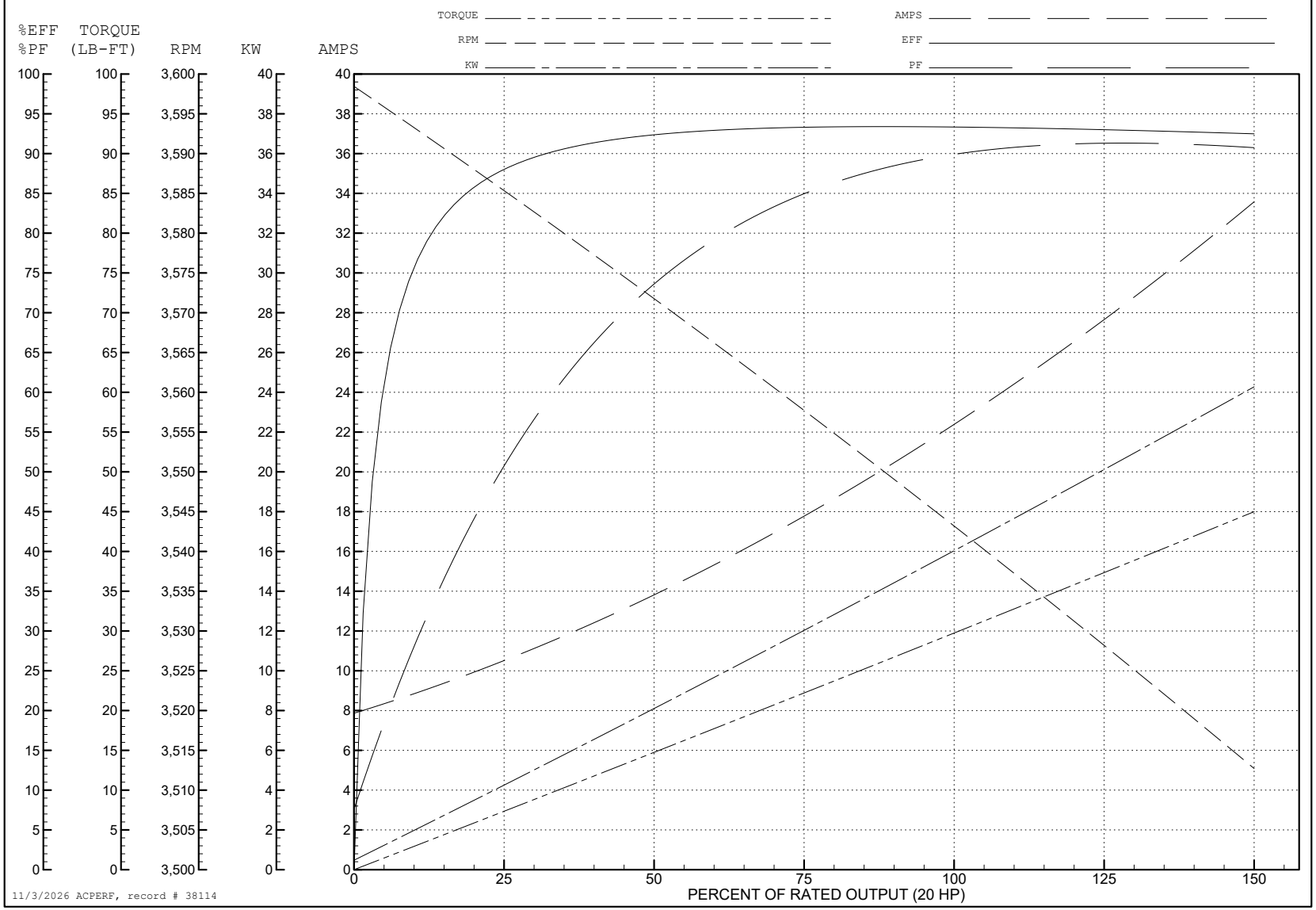
ABB Motors and Mechanical Inc.

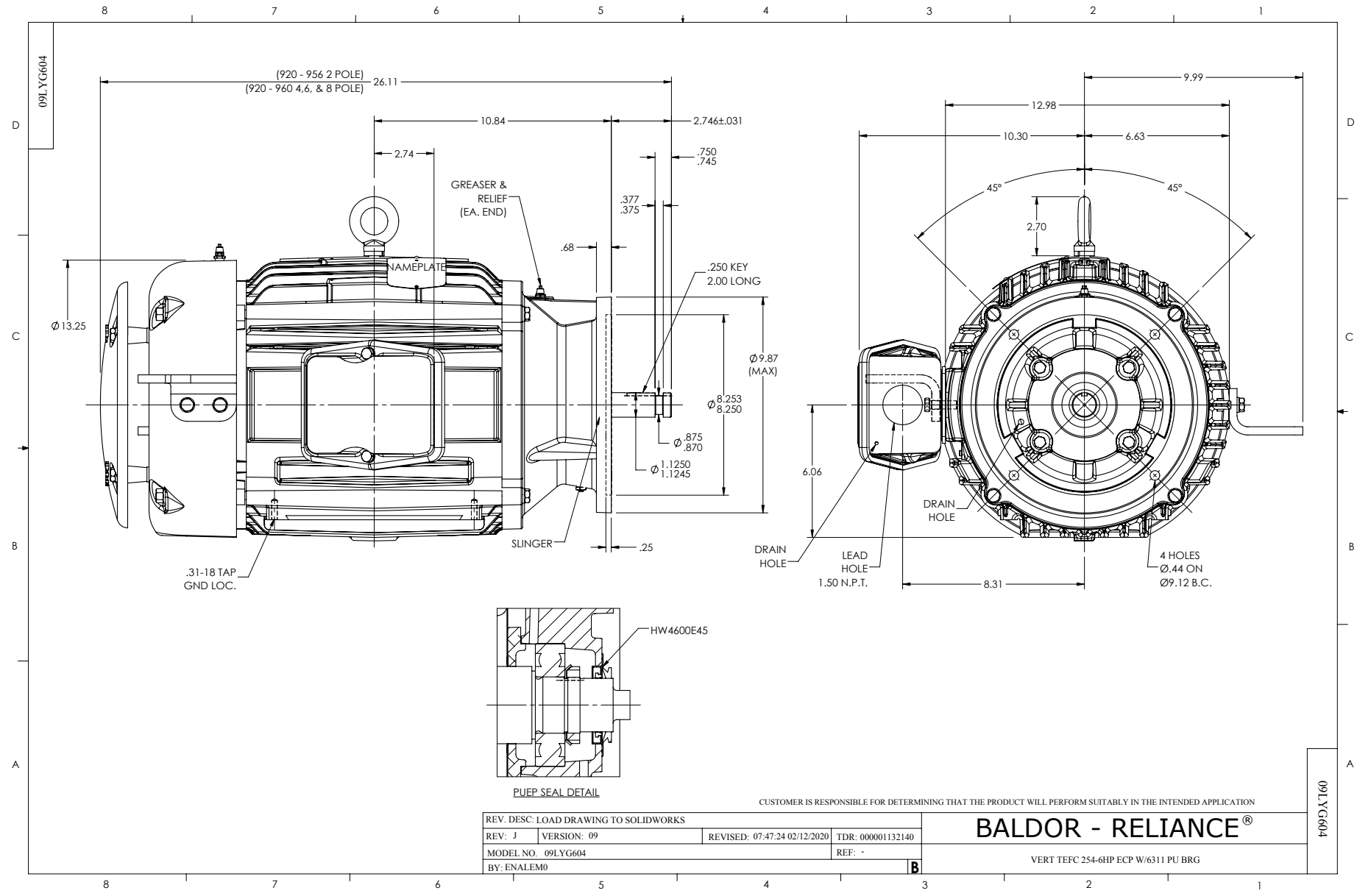
WINDING # 09WGY613

20 HP 3 PH 60 HZ 3540 RPM 460 V 0944M

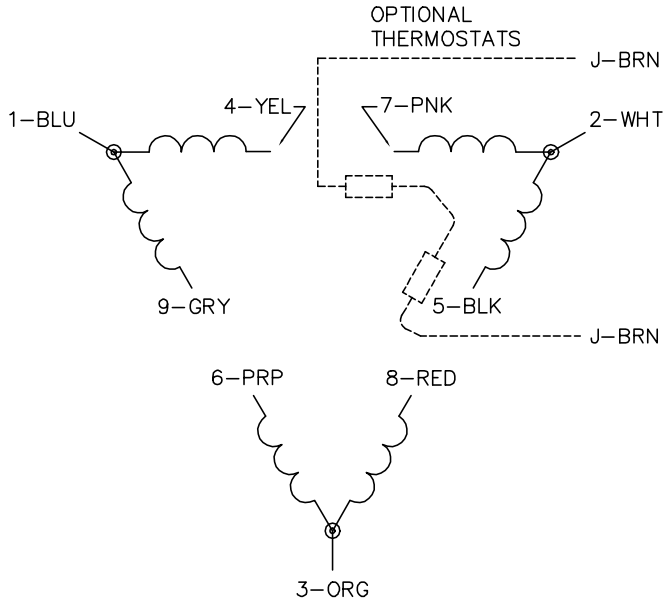
Typical performance - not guaranteed values.

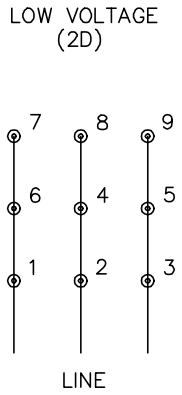
TORQUES(LB-FT): PO=147 PU=60.6 LR=76.3 LRA=223

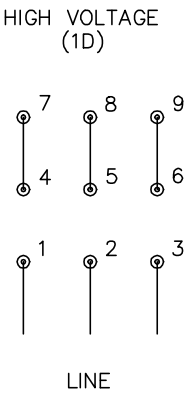



09LYG604
(920 - 956 2 POLE)
(920 - 960 4,6, & 8 POLE)
26.11
10.84
2.746±.031
2.74
.750
.745
GREASER &
RELIEF
(EA. END)
.377
.375
.68
NAMEPLATE
.250 KEY
2.00 LONG
Ø13.25
Ø9.87
(MAX)
Ø8.253
8.250
Ø.875
.870
Ø1.1250
1.1245
SLINGER
.25
.31-18 TAP
GND LOC.
9.99
12.98
10.30
6.63
45°
45°
2.70
6.06
DRAIN
HOLE
DRAIN
HOLE
LEAD
HOLE
1.50 N.P.T.
8.31
4 HOLES
Ø.44 ON
Ø9.12 B.C.
HW4600E45
PUEP SEAL DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD DRAWING TO SOLIDWORKS
REV: J
VERSION: 09
REVISED: 07:47:24 02/12/2020
TDR: 000001132140
MODEL NO. 09LYG604
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
VERT TEFC 254-6HP ECP W/6311 PU BRG
09LYG604

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
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BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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