

ABB BALDOR RELIANCE III

Customer information packet

VLECP4106T

20HP, 3540RPM, 3PH, 60HZ, 256LP, 0944M, TEFC, F

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	256LP
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	230.0 V @ 60 HZ 460.0 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
Constant Torque Speed Range	6
Current @ Voltage	48.000 A @ 208.0 V 44.000 A @ 230.0 V 22.000 A @ 460.0 V
Design Code	A
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard

Part Detail

Revision	U
Type	AC
Mech. spec.	09T01
Base	
Status	PRD/A
Elec. spec.	09WGY799
Layout	09LYT001
Eff. date	02-01-2024
CD Diagram	CD0180
Poles	02
Leads	9#12
Proprietary	False
Created date	07-13-2015

Front Shaft Indicator	None
Haz Area Temp Code	T3
Heater Indicator	No Heater
High Voltage Full Load Amps	22.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Vertical Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
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	92
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Thrust
Pulley Face Code	P-Base
Pulley Shaft Indicator	P-Base Groove & Key
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	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
NP3241

CAT.NO.	VLECP4106T			P/N			ENCLOSURE			TEFC				
SPEC.	09T001Y799G1			CC	010A	FRAME	256LP		S/N					
HP	20			CLASS	F	HZ	60	DES	A					
RPM	3540			RPM MAX		5400		PH	3	KVA-CODE	J			
VOLT	230/460			MOTOR WEIGHT			335							
AMP	44/22			SER.F.	1.15	PF	92	ODE BRG		6208	DE BRG	QJ213		
RATING	40C AMB-CONT			NEMA-NOM-EFF			91.7		GREASE	POLYREX EM				
							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	3	VT HZ TO	60

AC Induction Motor Performance Data

Record # 47264

Typical performance - not guaranteed values

Winding: 09WGY799-R020				Type: 0944M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		20		Full Load Torque		29.76 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		44/22		Breakdown Torque		121 LB-FT	
R.P.M.		3540		Pull-up Torque		49.4 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		62.2 LB-FT	
NEMA Design Code		A	KVA Code	J	Starting Current		183 A
Service Factor (S.F.)		1.15		No-load Current		6.12 A	
NEMA Nom. Eff.		91.7	Power Factor	92	Line-line Res. @ 25°C		0.377 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		62°C	
S.F. Amps				Temp. Rise @ S.F. Load		76°C	
				Locked-rotor Power Factor		27.8	
				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	63	83	90	92	93	93	93
Efficiency	88.7	92.8	93.2	93.2	92.6	91.8	92.8
Speed	3583	3567	3551	3534	3516	3497	3523
Line amperes	8.14	12.12	16.69	21.89	27.18	33.06	25.1

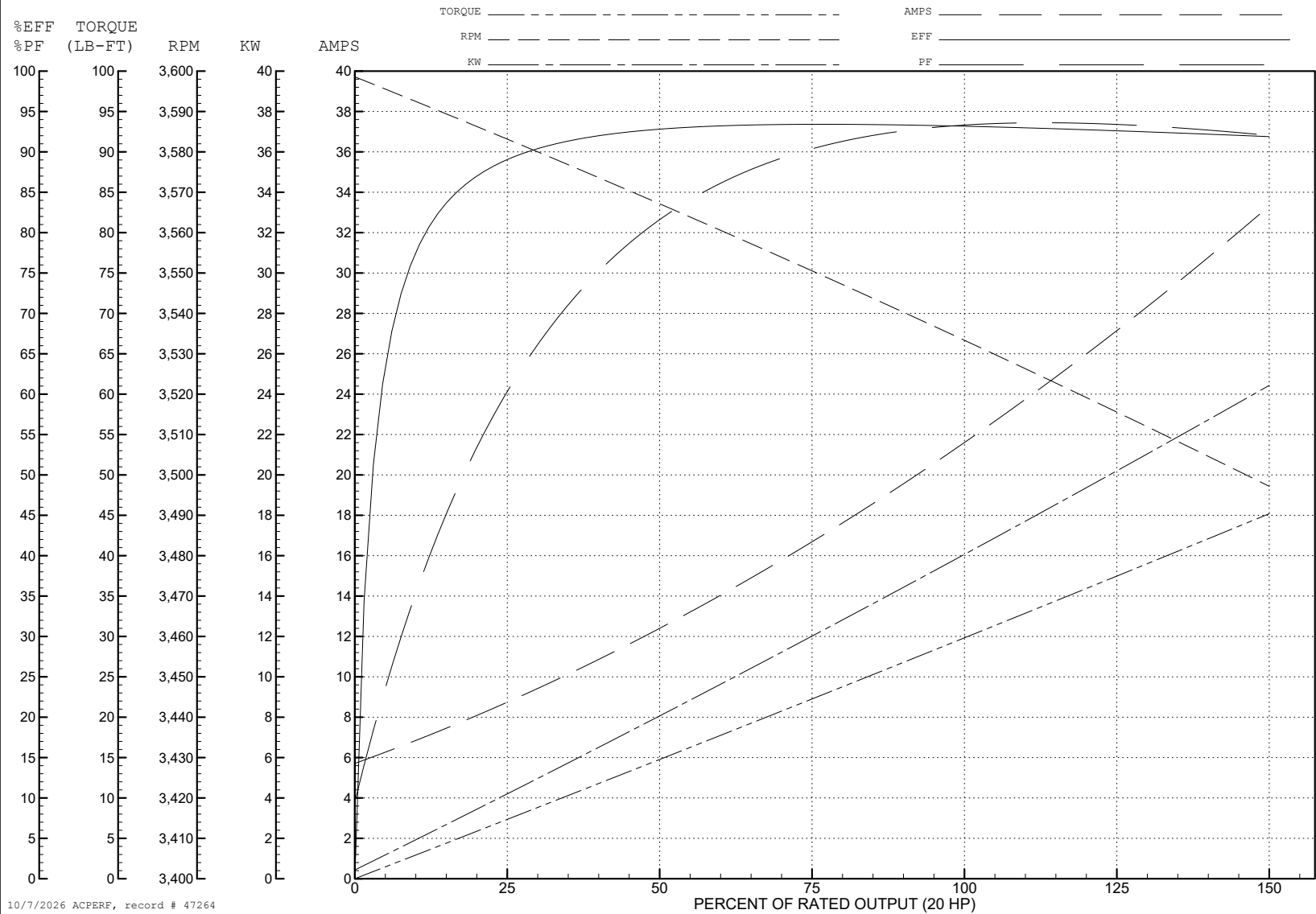
ABB Motors and Mechanical Inc.

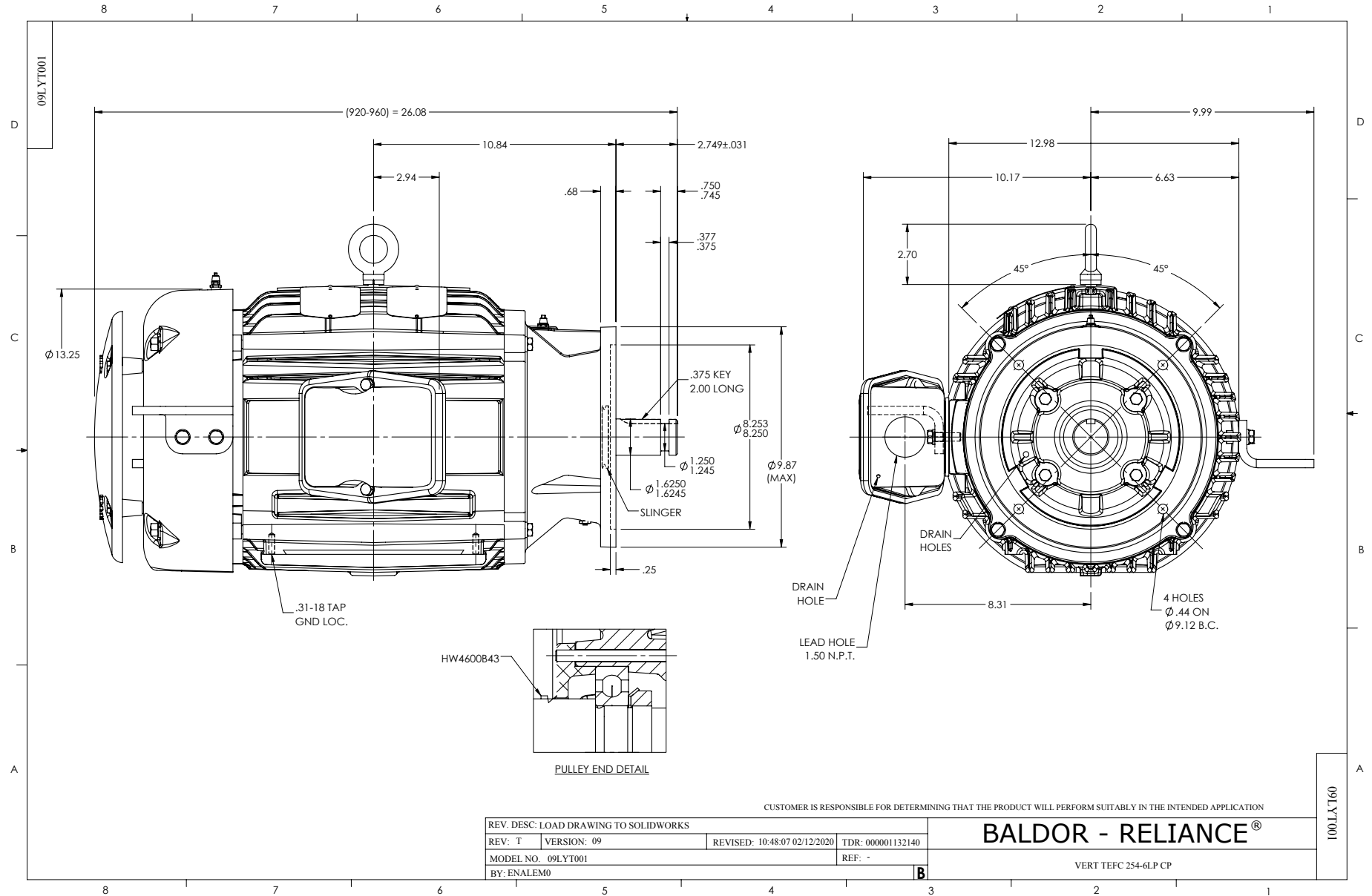
WINDING # 09WGY799

Typical performance - not guaranteed values.

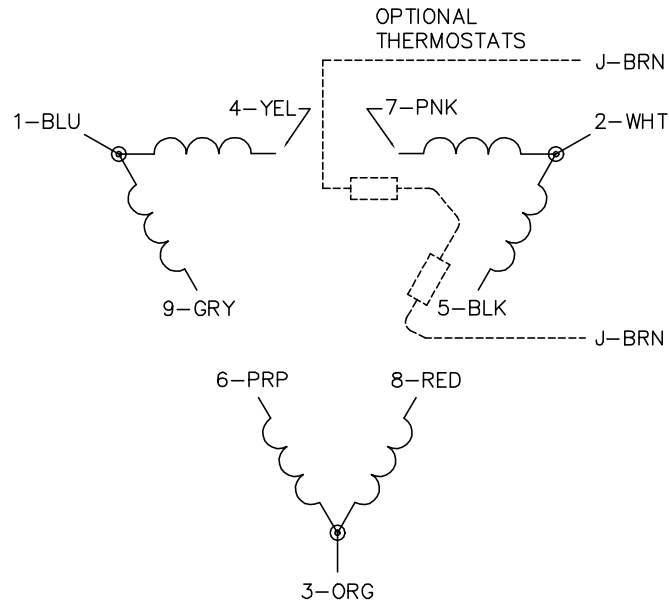
20 HP 3 PH 60 HZ 3540 RPM 460 V 0944M

TORQUES (LB-FT): PO=121 PU=49.4 LR=62.2 LRA=183

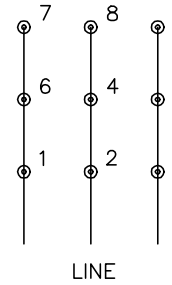




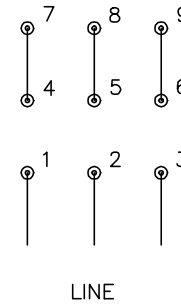
CD0180



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.

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

SH 1 of 1

CD0180