

ABB BALDOR RELIANCE III

Customer information packet

VECP84106T-4

20HP, 3510RPM, 3PH, 60HZ, 256TC, 0954M, TEFC, F

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	256TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CL I 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	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 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	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	1.5
Current @ Voltage	22.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	AF
Type	AC
Mech. spec.	09K208
Base	
Status	PRD/A
Elec. spec.	09WGT034
Layout	09LYK208
Eff. date	12-02-2025
CD Diagram	CD0006
Poles	02
Leads	3#12
Proprietary	False
Created date	07-16-2014

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	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 12 AWG
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	0954M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	25.28 IN
Power Factor	91
Product Family	Chem Process S/P 32-8 IEEE 841
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
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	No Slinger
Speed	3510 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
NP4332

CAT.NO.	VECP84106T-4			P/N			ENCLOSURE			TEFC	
SPEC.	09K208T034			CC	010A	FRAME	256TC		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			342	GREASE	POLYREX EM		
RATING	40C AMB-CONT			MAX. KVAR			2	BLANK			
NEMA-NOM-EFF	91	# OF ROTOR BARS			28	SER.F.	1.15	IP			
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	1.5	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
SA283954	SA 09K208T034	1.000 ea
RA270228	RA 09K208T034	1.000 ea
37FN3002C02	EXFN, PLASTIC, 6.00 OD, 1.503 ID	1.000 ea
HW1002A63	WASHER, 5/8 HI-COLLAR SPRLOCKWASHER	1.000 ea
10XN3118K08	5/16-18 X .50 GRADE #5, STL, ZINC PLATE	1.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	1.000 ea
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.070 ga
09EP1118A02LP5	FREP MACH, 309 BRG. EPOXY PRIMER & BLACK	1.000 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
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 ea
HA3400A39	STUD- 3/8-16 X 6.44 OAL HEX	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
12CB1503P	CONDUIT BOX LID, CAST W/EPOXY PRIMER	1.000 ea
12GS1002	GASKET, CONDUIT BOX LID, NEOP	1.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4017A08	.125 X 3.50 LGTH GREASER EXTEN.	1.000 ea
HA4017A10	1/8X1.25 GREASE EXT (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
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 ea
09EP1318A01P	ENDPLATE, MACH EPOXY PRIMER	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
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HW4601A61	INPRO SEAL #1698-A-17120-0, VBXX 309 BRG	1.000 ea
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 ea

XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
MJ5004A59	ADHESIVE LOCTITE #401 MSC #88545264	0.010 ea
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 ea
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.023 ea
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 ea
PK6014	STEEL STRAP FOR 309-312 BASELESS MOTORS	4.000 ea
19XW3118A08	.31-18 X .50 HEX WASHER HEAD TAPTITE II	4.000 ea
WD1000B49	T&B C73,RING TERMINAL 10-12 AWG 3/8 STUD	3.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	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, POLYREX EM EXXON	0.080 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	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
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
09FH1000LP5	FAN COVER, CAST W/EPOXY PRIMER & PAINT	1.000 ea
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	2.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
LC0006	CONNECTION LABEL	1.000 ea
NP4332	SS IEEE841-2021 INV DIV-2 UL CSA-C US EE	1.000 ea
40PA1017	PACKAGING GROUP, 09 VERT LARGE FLANGE	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LD7020D03	LEAD SET, 12AWG, 3 LEAD, 20" LONG LEADS	1.000 ea

AC Induction Motor Performance Data

Record # 92412

Typical performance - not guaranteed values

Winding: 09WGT034-R003			Type: 0954M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: Single Voltage Motor				
Rated Output (HP)		20	Full Load Torque		30.1 LB-FT		
Volts		460	Start Configuration		direct on line		
Full Load Amps		22	Breakdown Torque		101 LB-FT		
R.P.M.		3510	Pull-up Torque		33.7 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		43.9 LB-FT	
NEMA Design Code		B	KVA Code	G	Starting Current		145 A
Service Factor (S.F.)		1.15	No-load Current		4.81 A		
NEMA Nom. Eff.		91	Power Factor	91	Line-line Res. @ 25°C		0.45009 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		68°C
S.F. Amps					Temp. Rise @ S.F. Load		87°C
					Locked-rotor Power Factor		27
					Rotor inertia		1.38 lb-ft²

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	72	87	91	91	92	92	92
Efficiency	91.4	93.3	93	91	90.6	88.9	91.2
Speed	3579.7	3560.2	3538.1	3514.3	3486.6	3454.4	3498
Line amperes	7.42	11.8	16.7	22.4	28.4	34.7	26

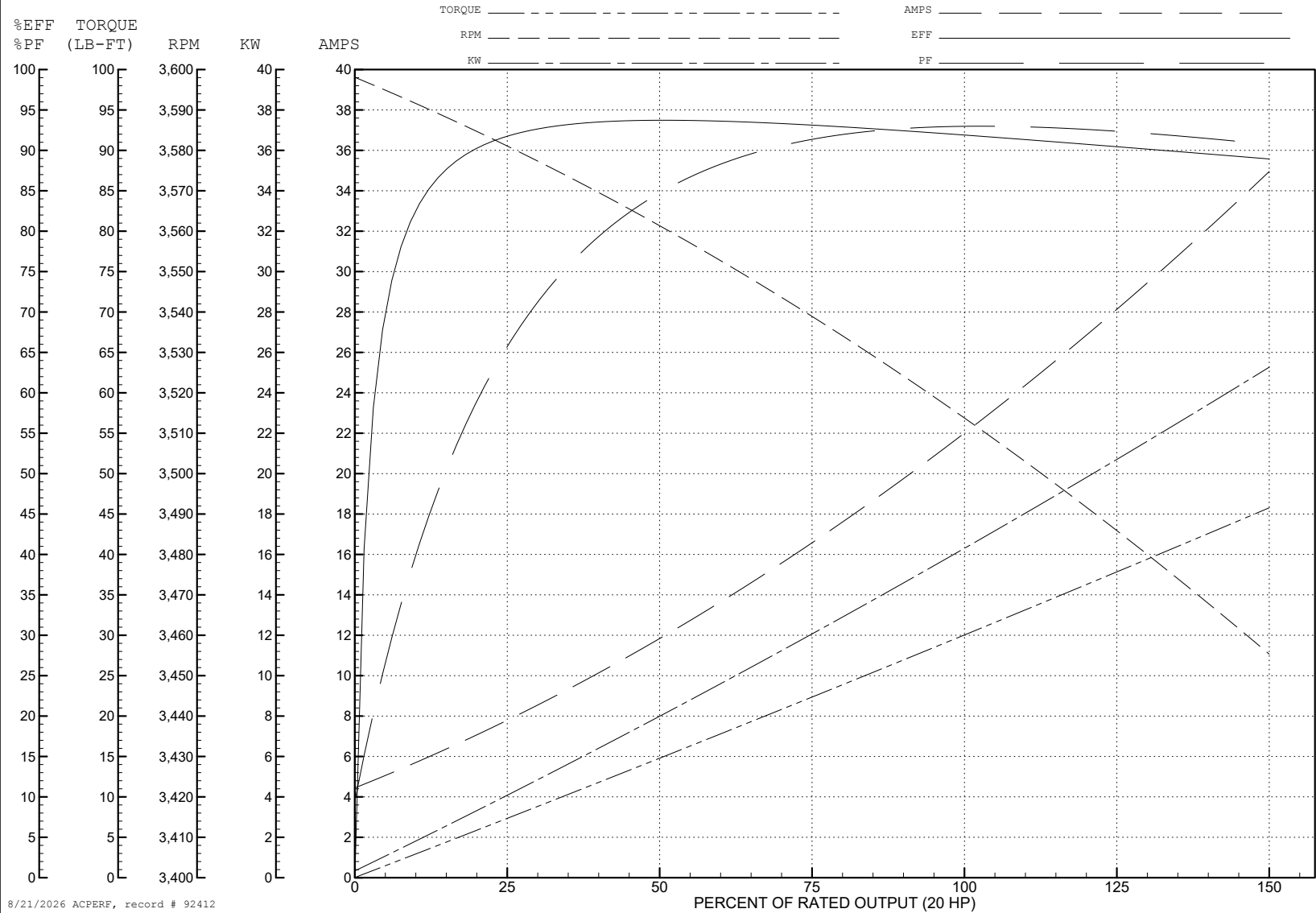
ABB Motors and Mechanical Inc.

WINDING # 09WGT034

Typical performance - not guaranteed values.

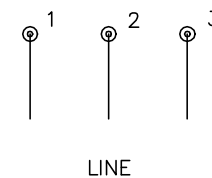
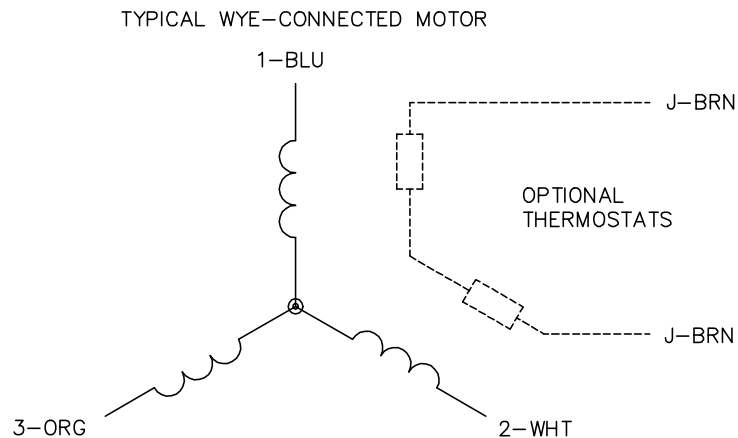
20 HP 3 PH 60 HZ 3510 RPM 460 V 0954M

TORQUES (LB-FT): PO=101 PU=33.7 LR=43.9 LRA=145





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

REV. DESC: ADD CLASS CONN00000007

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

REVISED: 10:24:49 02/19/2019

BY: ENBRIRO

MTL: -


BALDOR - RELIANCE®

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

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