

ABB BALDOR RELIANCE III

Customer information packet

VECP4103T

25HP, 1775RPM, 3PH, 60HZ, 284TC, 1054M, TEFC, F

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	284TC
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	25.000 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	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	0.8
Current @ Voltage	64.000 A @ 208.0 V 62.000 A @ 230.0 V 31.000 A @ 460.0 V
Design Code	A
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated

Part Detail

Revision	L
Type	AC
Mech. spec.	10G312
Base	
Status	PRD/A
Elec. spec.	10WGZ651
Layout	10LYG312
Eff. date	09-29-2025
CD Diagram	CD0180
Poles	04
Leads	9#10 Y
Proprietary	False
Created date	10-19-2017

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	31.0 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	1054M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	30.70 IN
Power Factor	81
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1775 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.	VECP4103T			P/N						ENCLOSURE		TEFC					
SPEC.	10G312Z651G1		CC	010A	FRAME	284TC		S/N									
HP	25			CLASS		F	HZ	60	DES	A							
RPM	1775			RPM MAX		2700		PH	3	KVA-CODE		J					
VOLT	230/460			MOTOR WEIGHT			515										
AMP	62/31			SER.F.		1.15	PF	81	ODE BRG		6311	DE BRG		6311			
RATING	40C AMB-CONT			NEMA-NOM-EFF			93.6		GREASE		POLYREX EM						
							INV.TYPE		PWM								
TEMP CODE	T3C	INVERTER-TEMP-CODE			180												
TEMP =	160	C HP FR	60	C HP TO		90											
CT HZ FROM	0.8	CT HZ TO		60													
HTR-VOLTS		HTR-AMPS			HTR-WATTS			MAX. SPACE HEATER TEMP.					VT HZ FROM		O	VT HZ TO	60

Parts List

Part number	Description	Quantity
SA346620	SA 10G312Z651G1	1.000 ea
RA335155	RA 10G312Z651G1	1.000 ea
09FN3001C02	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
10CB1000A09P	KOBX, MACH W/1.50 NPT & PRIMER	1.000 ea
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 ea
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	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
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
HW4600B40	V-RING SLINGER 2.000 X 2.680 X .28 VITON	1.000 ea
HA1005A04	SLINGER, OD 3.620, ID 1.98,	1.000 ea
HW5100A13	W4627-047 WVY WSHER	1.000 ea
HA4017A11	1/8 X 2.75 GREASE EXT (F/S)	1.000 ea
HA4017A03	.125 X 1.75 GREASE EXT (F/S)	1.000 ea
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 ea
10XN3118K40	5/16-18 X 2.25" HEX HD, GRADE 5	4.000 ea
10EP1305A01P	PU ENDPLATE, MACH EPOXY	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
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
10FH1007A06P	FAN HOUSING MODEL 310 TEFC MOTORS W/EPOX	1.000 ea
10XN3118K24	5/16-18 X 1.50" HEX HD, GRADE 5	3.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	3.000 ea
12FH1500A01P	MACH DRIP COVER 310-312 MTRS	1.000 ea
10XN3816K36	3/8-16 X 2.25 HEX HD CAP SCREW, GRADE 5	4.000 ea
10CB1503P	CONDUIT BOX LIPPED, CAST W/EPOXY PRIMER	1.000 ea
14GS1003	GASKET CONDUIT BOX LID, NEOP	1.000 ea
10XN2520K16	1/4-20 X 1" HX HD SCRW GRADE 5, ZINC P	4.000 ea

HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
HW2501H28	KEY, 1/2 SQ X 3.250	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.026 ea
PK6014	STEEL STRAP FOR 309-312 BASELESS MOTORS	4.000 ea
10XN3816K10	BOLT, 3/8-16 X 5/8 HHCS YZ	4.000 ea
10EP1110A06LP5	FREP, MACH W/PRIMER & MG1025L14	1.000 ea
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.070 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3241	SS SUPER-E INV UL CSA-EEV PREM CC	1.000 ea
10PA1025	PACKAGING GROUP, PRINT PK1151A06	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

AC Induction Motor Performance Data

Record # 67465

Typical performance - not guaranteed values

Winding: 10WGZ651-R006			Type: 1054M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		25	Full Load Torque		74.02 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		62/31	Breakdown Torque		262 LB-FT		
R.P.M.		1775	Pull-up Torque		118 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		142 LB-FT	
NEMA Design Code		A	KVA Code	J	Starting Current		223 A
Service Factor (S.F.)		1.15	No-load Current		13.6 A		
NEMA Nom. Eff.		93.6	Power Factor	81	Line-line Res. @ 25°C		0.2345 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		51°C
S.F. Amps					Temp. Rise @ S.F. Load		61°C
					Locked-rotor Power Factor		30.6

Load Characteristics 460 V, 60 Hz, 25 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	43	65	76	81	84	85	83
Efficiency	88.3	92.8	93.9	94	93.7	93.1	93.8
Speed	1794.1	1789.3	1783.5	1777.8	1770.8	1763.8	1774
Line amperes	15.3	19.3	24.6	30.6	37.2	44.5	34.6

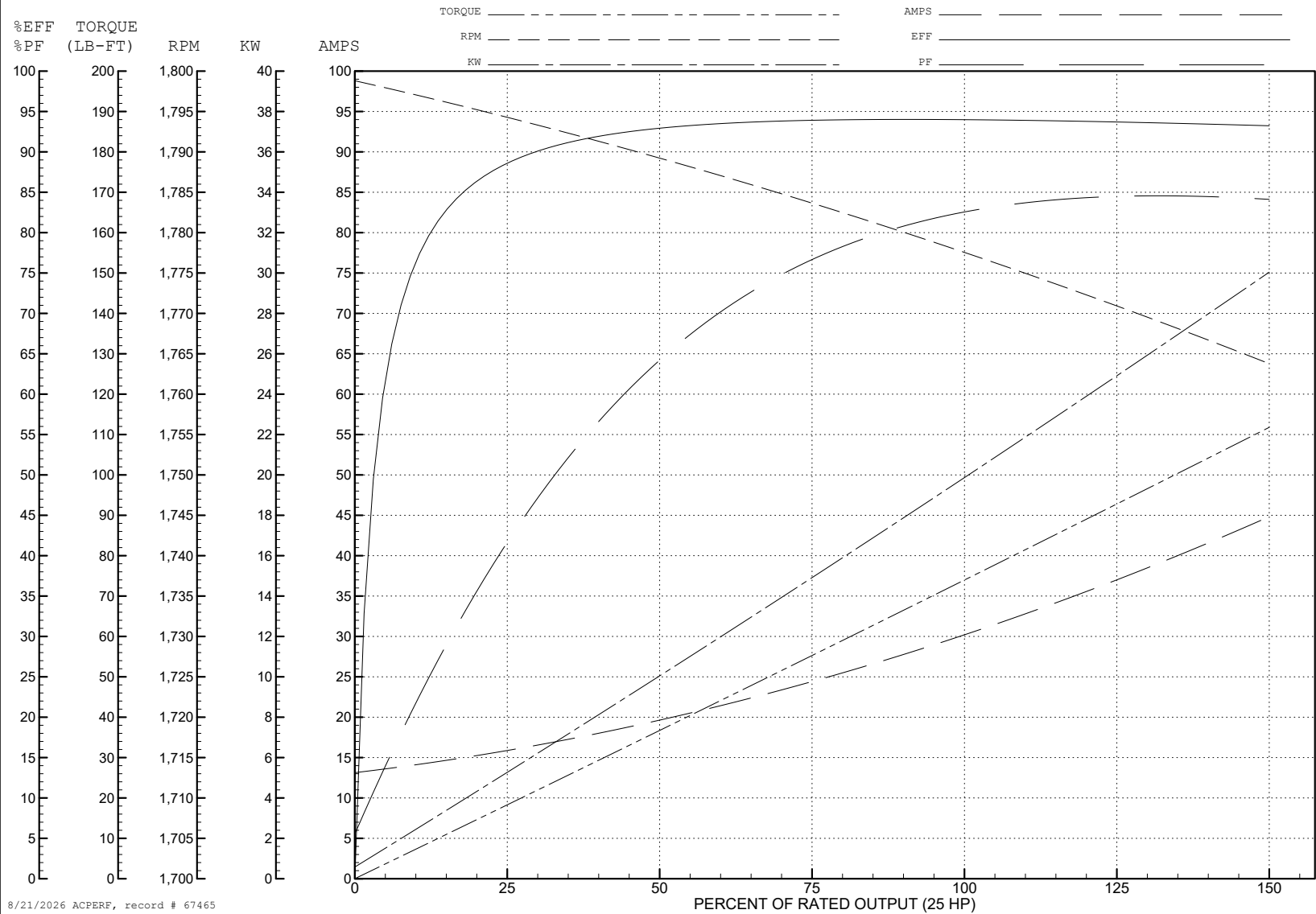
ABB Motors and Mechanical Inc.

WINDING # 10WGZ651

Typical performance - not guaranteed values.

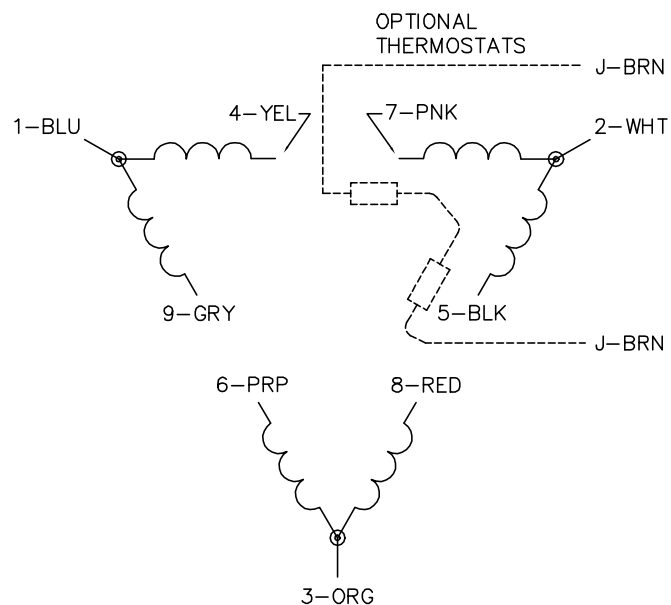
25 HP 3 PH 60 HZ 1775 RPM 460 V 1054M

TORQUES (LB-FT): PO=262 PU=118 LR=142 LRA=223

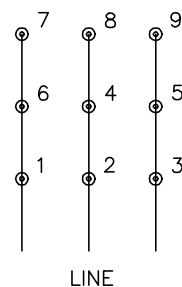




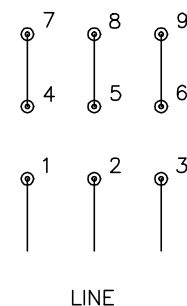
CD0180



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.

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: ENBRI0

MTL: -



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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