

ABB BALDOR RELIANCE III

Customer information packet

VECP3581

1HP, 1770RPM, 3PH, 60HZ, 56C, 0522M, TEFC, F1, N

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	56C
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	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ 208.0 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	1.2
Current @ Voltage	3.400 A @ 230.0 V 3.300 A @ 208.0 V 3.200 A @ 208.0 V 1.700 A @ 460.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT

Part Detail

Revision	C
Type	AC
Mech. spec.	05F005
Base	
Status	PRD/A
Elec. spec.	05WGX903
Layout	05LYF005
Eff. date	10-01-2025
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	07-21-2022

Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Haz Area Temp Code	T4
Heater Indicator	No Heater
High Voltage Full Load Amps	1.7 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0522M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	14.50 IN
Power Factor	69
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1770 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

NP3258									
CAT.NO.	VECP3581								
SPEC.	05F005X903G1								
HP	1 TE								
VOLTS	208-230/460								
AMP	3.3-3.4/1.7								
RPM	1770								
FRAME	56C	HZ	60		PH		3		
SER.F.	1.15	CODE	N	DES	B		CL		F
RATING	40C AMB-CONT								
SN									
DE	6205	ODE		6205					
NEMA-NOM-EFF	85.5	PF	69						
G.MIN.EFF	82.5	CC		010A					
T. CODE	T4	T=	135						

NP3261			
SPEC.	05F005X903G1		
D.E. BRG.	25BC02XP30X		
O.D.E. BRG.	25BC02XP30X		
GREASE	POLYREX EM		
RPM MAX	2700	MAX. KVAR	0.49
BLANK	SFA 3.6/1.8		
INV.TYPE	PWM		
T=	135		
C HP FR	60	C HP TO	90
CT HZ FROM	1.2	CT HZ TO	60
VT HZ FROM	0-	VT HZ TO	60
HTR-VOLTS		HTR-AMPS	
HTR-WATTS		MAX. SPACE HEATER TEMP.	

Parts List

Part number	Description	Quantity
SA409024	SA 05F005X903G1	1.000 ea
RA400571	RA 05F005X903G1	1.000 ea
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
06CB1000A02G	CONDUIT BOX, MACH GRAY	1.000 ea
RM1016	LEAD SEPARATOR GASKET - 305/306 C.P.MOTO	1.000 ea
51XW2520A12	SCREW, HEX SER SLT HD, ZN, 1/4-20 X .75	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 ea
10XN2520S06	1/4 20X3/8 HX HD CAP S.S.	2.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
35EP1102B03G	FREP TEFC 205 BRG,GRSR,RLF,.125 NPT DRAI	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 ea
35EP1329A16G	PUEP ENCL 143-5TC 205 BRG,GRSR,RLF,NPT D	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
HA3100A28	THRUBOLT 10-32 X 8.187	4.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
35FH1000A04G	FAN COVER 35FH1000 - (GRAY)	1.000 ea
10XN2520A16	1/4-20 X 1 HEX HEAD CAP SCR, ZINC PLATED	3.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	3.000 ea
WD4100A03	DE-750 HEYCO PLUG 62MP0750 MICRO PLASTIC	1.000 ea
35FH4500A01	DRIP COVER, STAMPED X - W/PRIMED	1.000 ea
HA2001A13	35-10103 SPACER WELKER	3.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	3.000 ea
06CB1502G	LIPPED CONDUIT BOX LID CAST, GRAY EPOXY	1.000 ea

06GS1003	GASKET, KOBX LID, 1/8" THICK BLACK NEOPR	1.000 ea
10XN2520A12	1/4-20 X 3/4 HEX HEAD CAP	2.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
HW4600B32SP	V-RING SLINGER 1.000 X 1.540 X .24 VITON	1.000 ea
HA1005A03SP	SLINGER, OD 1.750, ID .938, 205 BRG	1.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.001 qt
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.022 ga
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
NP3258	SS CP SUPER-E DIV-2 UL CSA-C US EEV CC	1.000 ea
NP3261	SS CP SUPER-E AUX DATA INFORMATION	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
36PA1000	PKG GRP, PRINT PK1016A08	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 87075

Preliminary Data Sheet

Winding: 05WGX903-R001			Type: 0522M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		1	Full Load Torque		2.97 LB-FT	
Volts		208-230/460	Start Configuration		direct on line	
Full Load Amps		3.3-3.4/1.7	Breakdown Torque		15.85 LB-FT	
R.P.M.		1770	Pull-up Torque		9.1 LB-FT	
Hz		60	Phase		3	
NEMA Design Code		B	KVA Code		N	
Service Factor (S.F.)		1.15	Starting Current		15.67 A	
NEMA Nom. Eff.		85.5	Power Factor		69	
Rating - Duty		40C	AMB-CONT			
S.F. Amps		3.6/1.8	Temp. Rise @ Rated Load		24°C	
			Temp. Rise @ S.F. Load		27°C	
			Locked-rotor Power Factor		60.1	
			Rotor inertia		0.159 lb-ft²	

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	27	43	56	65	72	76	69
Efficiency	70.7	81	84.4	85.8	85.9	85.5	85.9
Speed	1792	1785	1778	1771	1763	1755	1766
Line amperes	1.23	1.34	1.49	1.68	1.89	2.15	1.81

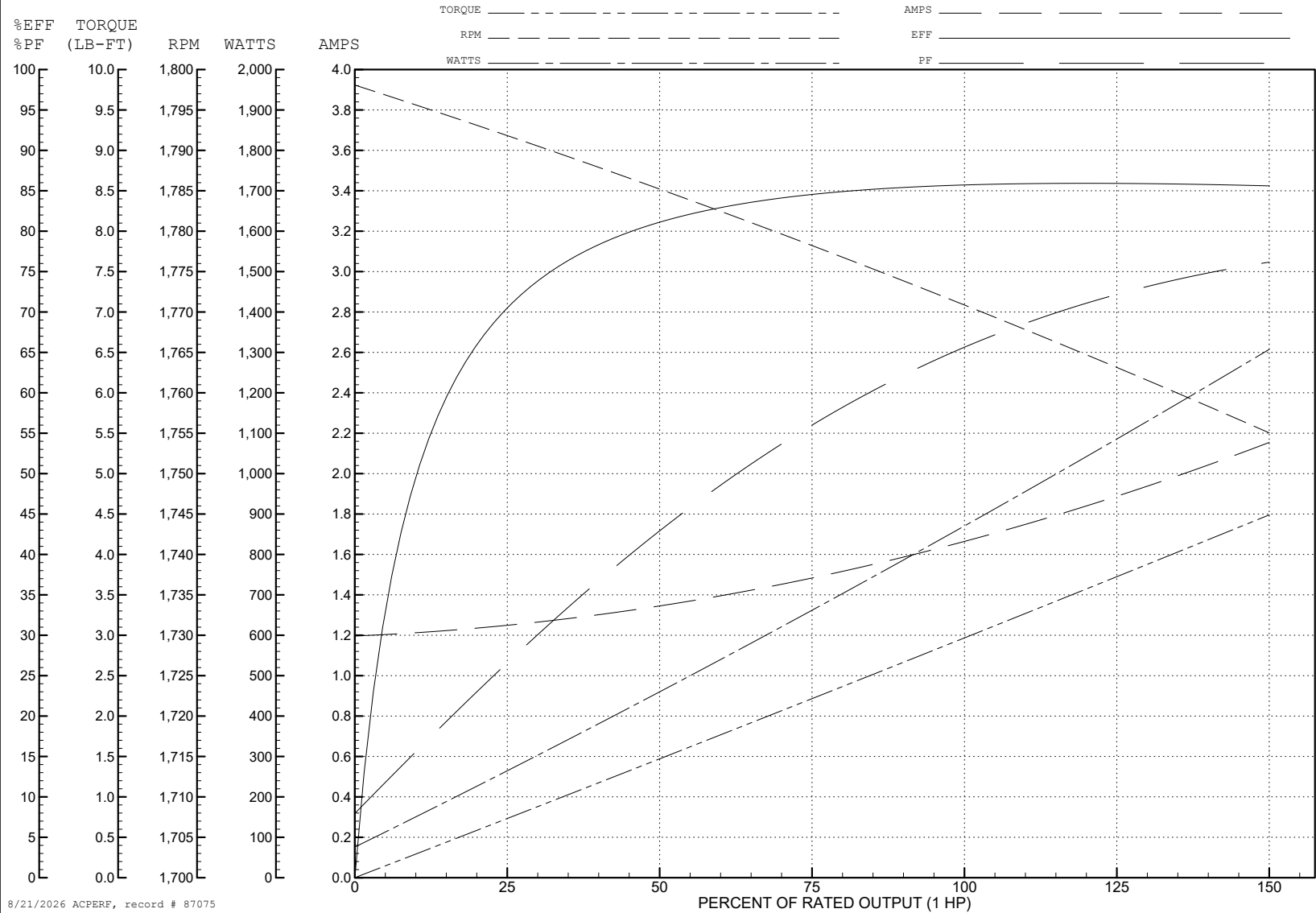
ABB Motors and Mechanical Inc.

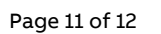
WINDING # 05WGX903

Typical performance - not guaranteed values.

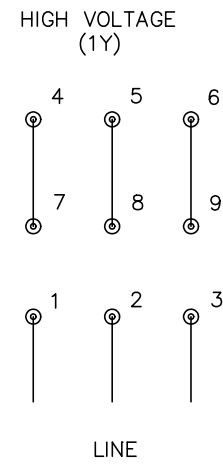
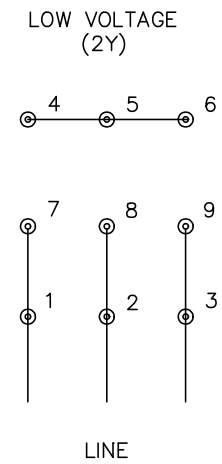
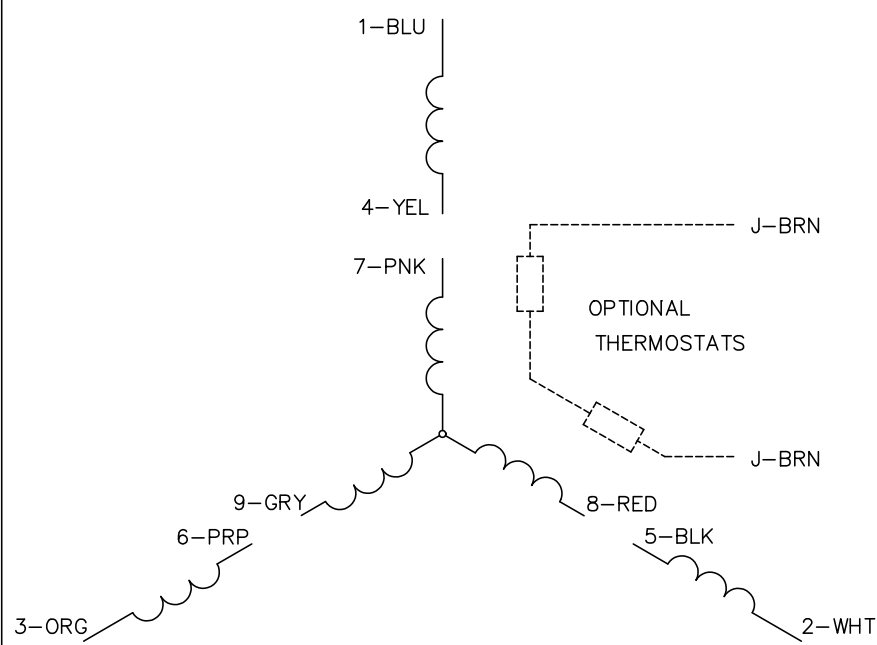
1 HP 3 PH 60 HZ 1770 RPM 460 V 0522M

TORQUES (LB-FT): PO=15.85 PU=9.1 LR=10.45 LRA=15.67





CD0005



- 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: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
900000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005