

ABB BALDOR RELIANCE III

Customer information packet

VDRX05144

1//.75HP, 1770//1475RPM, 3PH, 60//50HZ, 56C

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	XPFC
Frame	56C
Frame Material	Steel
Frequency	50.00 Hz 60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	.750 HP @ 50 HZ 1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 190.0 V @ 50 HZ 460.0 V @ 60 HZ 380.0 V @ 50 HZ
Agency Approvals	CSA EEV UL
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	3.200 A @ 208.0 V 3.200 A @ 230.0 V 3.080 A @ 190.0 V 1.600 A @ 460.0 V 1.540 A @ 380.0 V
Design Code	B
Drip Cover	No Drip Cover

Part Detail

Revision	B
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYX748
Eff. date	01-10-2023
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-20-2022

Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	1.5 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	14.28 IN
Power Factor	69
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2

None

Nameplate

NP1401XPSLEV												
NO.							CC	010A				
S/N							TEMP CODE	T3C				
SPEC.	35-0000-1330						INV.TYPE	PWM				
CAT.NO.	VDRX05144						C HP FR	60	C HP TO	90		
HP	1//.75						CT HZ FROM	6	CT HZ TO	60		
VOLTS	230/460//190/380						VT HZ FROM	6	VT HZ TO	60		
AMPS	3.2/1.6//3.08/1.54						MAG CUR	2.2/1.1				
RPM	1770//1475						MX RPM	2700				
HZ	60//50	PH	3	CL	F	NOM.EFF.	85.5					
SER.F.	1.00	DES	B	SL HZ	1	WK2	0.144					
FRAME	56C	RATING	40C AMB-CONT									
	55C AMB @ 1.0 SF											
	1.15 SF SINEWAVE						NEMA MG-1 PT 5,IP55					

AC Induction Motor Performance Data

Record # 86931

Typical performance - not guaranteed values

Winding: 35WGG004-R010			Type: 3520M		Enclosure: XPFC			
Nameplate Data					460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		1//.75		Full Load Torque		2.97 LB-FT		
Volts		230/460//190/380		Start Configuration		direct on line		
Full Load Amps		3.26/1.63//3.08/1.54		Breakdown Torque		13.68 LB-FT		
R.P.M.		1760//1475		Pull-up Torque		7.85 LB-FT		
Hz		60//50	Phase	3	Locked-rotor Torque		9.01 LB-FT	
NEMA Design Code		B		KVA Code	N		Starting Current	14.13 A
Service Factor (S.F.)		1		No-load Current		1.08 A		
NEMA Nom. Eff.		85.5	Power Factor		67		Line-line Res. @ 25°C	16.9 Ω
Rating - Duty		40C		AMB-CONT		Temp. Rise @ Rated Load		24°C
						Locked-rotor Power Factor		61.5
						Rotor inertia		0.144 lb-ft²

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	30	47	60	69	76	79
Efficiency	72.1	81.7	84.7	85.7	85.5	84.7
Speed	1791	1784	1776	1768	1759	1750
Line amperes	1.11	1.22	1.38	1.59	1.82	2.09

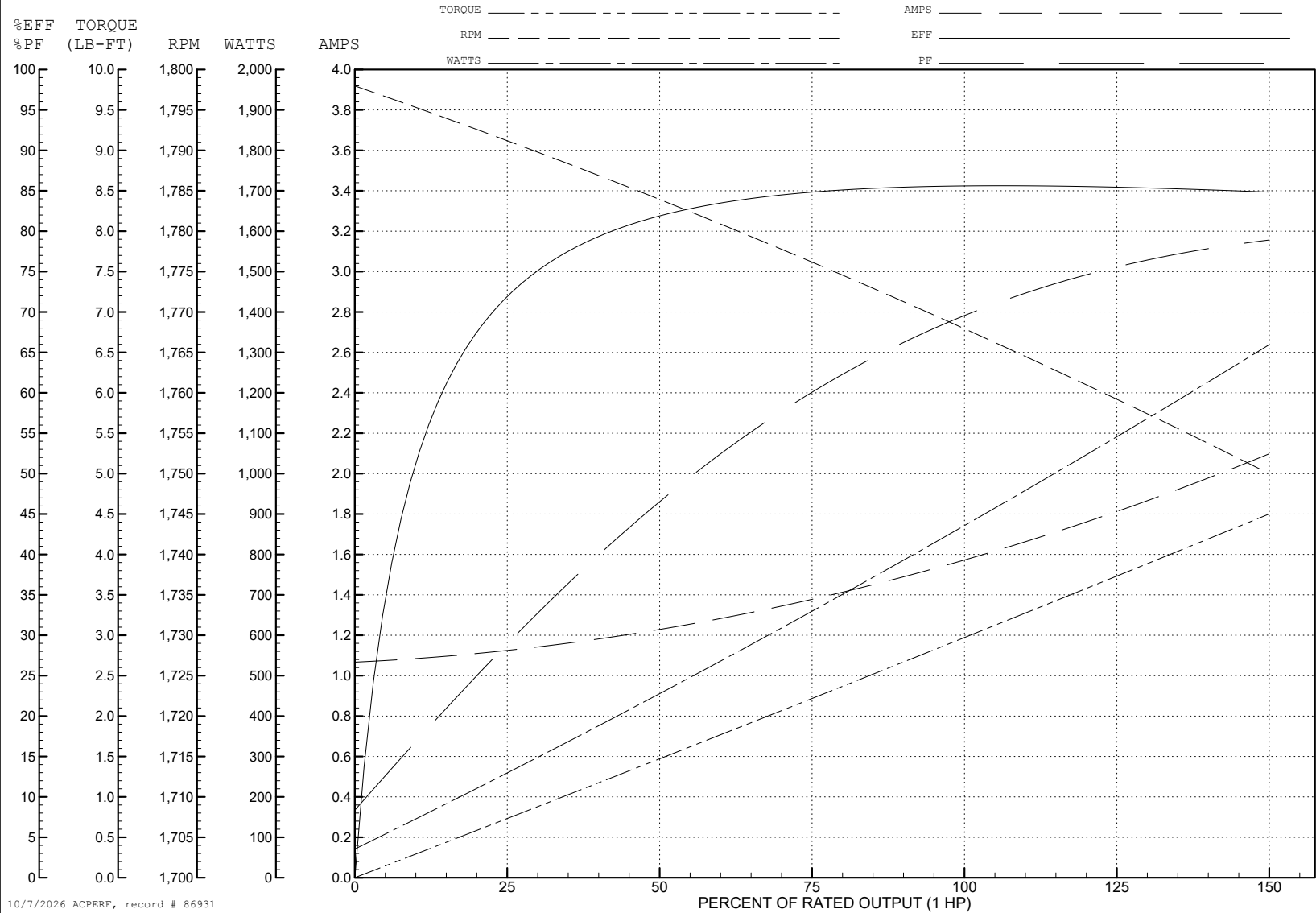
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WINDING # 35WGG004

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1768 RPM 460 V 3520M

TORQUES (LB-FT): PO=13.68 PU=7.85 LR=9.01 LRA=14.13



AC Induction Motor Performance Data

Record # 86932

Typical performance - not guaranteed values

Winding: 35WGG004-R010			Type: 3520M		Enclosure: XPFC			
Nameplate Data				380 V, 50 Hz: High Voltage Connection				
Rated Output (HP)		1//.75		Full Load Torque		2.68 LB-FT		
Volts		230/460//190/380		Start Configuration		direct on line		
Full Load Amps		3.26/1.63//3.08/1.54		Breakdown Torque		12.31 LB-FT		
R.P.M.		1760//1475		Pull-up Torque		7.45 LB-FT		
Hz		60//50	Phase	3	Locked-rotor Torque		8.55 LB-FT	
NEMA Design Code		B		KVA Code	N	Starting Current		13.12 A
Service Factor (S.F.)		1		No-load Current		1.06 A		
NEMA Nom. Eff.		85.5	Power Factor		67	Line-line Res. @ 25°C		16.9 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		22°C		
				Locked-rotor Power Factor		67.1		
				Rotor inertia		0.144 lb-ft²		

Load Characteristics 380 V, 50 Hz, 0.75 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	29	46	58	67	74	79
Efficiency	68.3	79	82.7	84	83.7	83.2
Speed	1492	1486	1479	1471	1463	1455
Line amperes	1.08	1.18	1.32	1.5	1.71	1.95

ABB Motors and Mechanical Inc.

WINDING # 35WGG004

0.75 HP 3 PH 50 HZ 1471 RPM 380 V 3520M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=12.31 PU=7.45 LR=8.55 LRA=13.12

