

ABB BALDOR RELIANCE III

Customer information packet

XM051542

1.5//1HP, 1770//1475RPM, 3PH, 60//50HZ, 56, 3

Class - CLI GP D; CLII GP F,G

Division - Division I

Specifications

Enclosure	XPFC
Frame	56
Frame Material	Steel
Frequency	50.00 Hz 60.00 Hz
Haz Area Class and Group	CLI GP D; CLII GP F,G
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	1.000 HP @ 50 HZ 1.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	380.0 V @ 50 HZ 230.0 V @ 60 HZ 190.0 V @ 50 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV UL
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	1.3
Current @ Voltage	4.640 A @ 208.0 V 4.600 A @ 230.0 V 4.000 A @ 190.0 V 2.300 A @ 460.0 V 2.000 A @ 380.0 V
Design Code	B
Drip Cover	No Drip Cover

Part Detail

Revision	B
Type	AC
Mech. spec.	35E356
Base	
Status	PRD/A
Elec. spec.	35WGL955
Layout	35LYE356
Eff. date	07-10-2024
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	03-11-2022

Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	2.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	M
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	X3524M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	15.17 IN
Power Factor	72
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1475 rpm
	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

NP0887XPSLEV												
NO.							CC	010A				
S/N							TEMP CODE	T3C				
SPEC.	35E356L955G1						INV.TYPE	PWM				
CAT.NO.	XM051542						C HP FR	60	C HP TO	90		
HP	1.5//1						CT HZ FROM	1.3	CT HZ TO	60		
VOLTS	230/460//190/380						VT HZ FROM	1.3	VT HZ TO	60		
AMPS	4.6/2.3//4/2						MAG CUR	3/1.5				
RPM	1770//1475						MX RPM	2700				
HZ	60//50	PH	3	CL	F	NOM.EFF.	86.5					
SER.F.	1.00	DES	B	SL HZ	1	WK2	0.174					
FRAME	56	RATING		40C AMB-CONT								
	55C AMB AT 1.00 SF SINEWAVE											
	NEMA MG-1 PART 5, IP54						1.15 SF SINEWAVE					

AC Induction Motor Performance Data

Record # 95398

Typical performance - not guaranteed values

Winding: 35WGL955-R010			Type: 3524M			Enclosure: XPFC			
Nameplate Data						460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)			1.5//1			Full Load Torque		4.48 LB-FT	
Volts			230/460//190/380			Start Configuration		direct on line	
Full Load Amps			4.6/2.3//4/2			Breakdown Torque		18.8 LB-FT	
R.P.M.			1770//1475			Pull-up Torque		9.6 LB-FT	
Hz		60//50	Phase		3	Locked-rotor Torque		12.6 LB-FT	
NEMA Design Code		B		KVA Code		M	Starting Current		19.7 A
Service Factor (S.F.)			1			No-load Current		1.51 A	
NEMA Nom. Eff.		86.5	Power Factor		72	Line-line Res. @ 25°C		11.8 Ω	
Rating - Duty			40C AMB-CONT			Temp. Rise @ Rated Load		48°C	
						Locked-rotor Power Factor		58.4	
						Rotor inertia		0.173 lb-ft²	

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	31	49	63	72	78	81
Efficiency	75.1	83.5	86	86.5	85.8	84.8
Speed	1792	1785	1777	1769	1760	1750
Line amperes	1.56	1.72	1.97	2.28	2.65	3.06

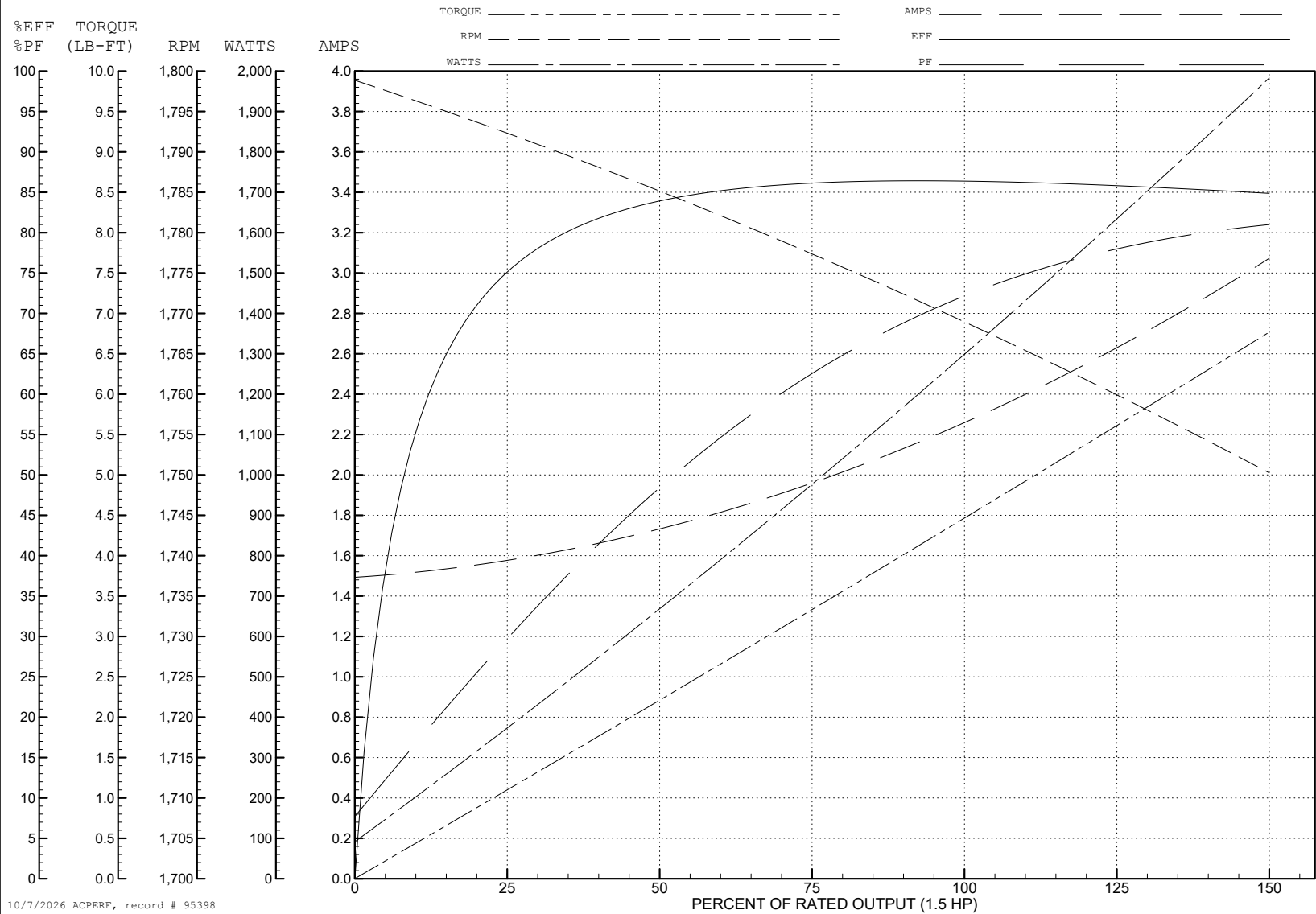
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WINDING # 35WGL955

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1769 RPM 460 V 3524M

TORQUES (LB-FT): PO=18.8 PU=9.6 LR=12.6 LRA=19.7



AC Induction Motor Performance Data

Record # 95399

Typical performance - not guaranteed values

Winding: 35WGL955-R010			Type: 3524M			Enclosure: XPFC				
Nameplate Data						380 V, 50 Hz: High Voltage Connection				
Rated Output (HP)			1.5//1			Full Load Torque			3.58 LB-FT	
Volts			230/460//190/380			Start Configuration			direct on line	
Full Load Amps			4.6/2.3//4/2			Breakdown Torque			17 LB-FT	
R.P.M.			1770//1475			Pull-up Torque			9.2 LB-FT	
Hz		60//50	Phase		3	Locked-rotor Torque			12.1 LB-FT	
NEMA Design Code		B		KVA Code		M	Starting Current			18.4 A
Service Factor (S.F.)			1			No-load Current			1.48 A	
NEMA Nom. Eff.		86.5	Power Factor		72	Line-line Res. @ 25°C			11.8 Ω	
Rating - Duty			40C AMB-CONT			Temp. Rise @ Rated Load			39°C	
						Locked-rotor Power Factor			63.9	
						Rotor inertia			0.173 lb-ft²	

Load Characteristics 380 V, 50 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	27	44	57	67	74	79
Efficiency	70.1	80.3	83.7	84.8	84.5	83.8
Speed	1493	1487	1481	1474	1467	1459
Line amperes	1.5	1.61	1.78	2	2.27	2.58

ABB Motors and Mechanical Inc.

WINDING # 35WGL955

Typical performance - not guaranteed values.

1 HP 3 PH 50 HZ 1474 RPM 380 V 3524M

TORQUES (LB-FT): PO=17 PU=9.2 LR=12.1 LRA=18.4

