

ABB BALDOR RELIANCE III

Customer information packet

VDM3537

.5HP, 3450RPM, 3PH, 60HZ, 56C, 3414M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	56C
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CCSA US 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	6
Current @ Voltage	1.700 A @ 208.0 V 1.800 A @ 230.0 V .900 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	68.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	M
Type	AC
Mech. spec.	34M809
Base	
Status	PRD/A
Elec. spec.	34WGR421
Layout	34LYM809
Eff. date	03-02-2026
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	04-19-2016

Heater Indicator	No Heater
High Voltage Full Load Amps	0.9 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	P
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3414M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	11.35 IN
Power Factor	75
Product Family	Dirty Duty Plus
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.25
Shaft Diameter	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3450 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

NP3659									
CAT.NO.	VDM3537								
SPEC.	34M809R421G1				ENCL		TEFC		
FRAME	56C	H.P.		.5					
VOLTS	230/460								
AMPS	1.8/.9				IP		56		
R.P.M.	3450								
HZ.	60	PH.	3	CLASS		F			
SER.F.	1.25	DES.		B	CC				
NEMA NOM. EFF.	68								
RATING	40C AMB-CONT								
DE	6203	ODE		6203					
GREASE	POLYREX EM								
SN									
	50C AT 1.0SF								
	SFA 2/1								

AC Induction Motor Performance Data

Record # 58290

Typical performance - not guaranteed values

Winding: 34WGR421-R001			Type: 3414M		Enclosure: TEFC			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		.5	Full Load Torque		0.763 LB-FT			
Volts		230/460	Start Configuration		direct on line			
Full Load Amps		1.8/.9	Breakdown Torque		4.6 LB-FT			
R.P.M.		3450	Pull-up Torque		3.07 LB-FT			
Hz	60	Phase	3	Locked-rotor Torque		3.86 LB-FT		
NEMA Design Code		B	KVA Code	P	Starting Current		8.39 A	
Service Factor (S.F.)			1.25	No-load Current		0.626 A		
NEMA Nom. Eff.		68	Power Factor	75	Line-line Res. @ 25°C		26.14 Ω	
Rating - Duty			40C	AMB-CONT		Temp. Rise @ Rated Load		51°C
S.F. Amps			2/1			Temp. Rise @ S.F. Load		59°C
			Locked-rotor Power Factor				69.4	

Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	58	67	75	80	84	80
Efficiency	39.7	56.1	64.1	69.1	70.6	72.3	70.6
Speed	3536.7	3517.5	3497.4	3469	3451.9	3427.2	3452
Line amperes	0.674	0.731	0.817	0.915	1.04	1.15	1.04

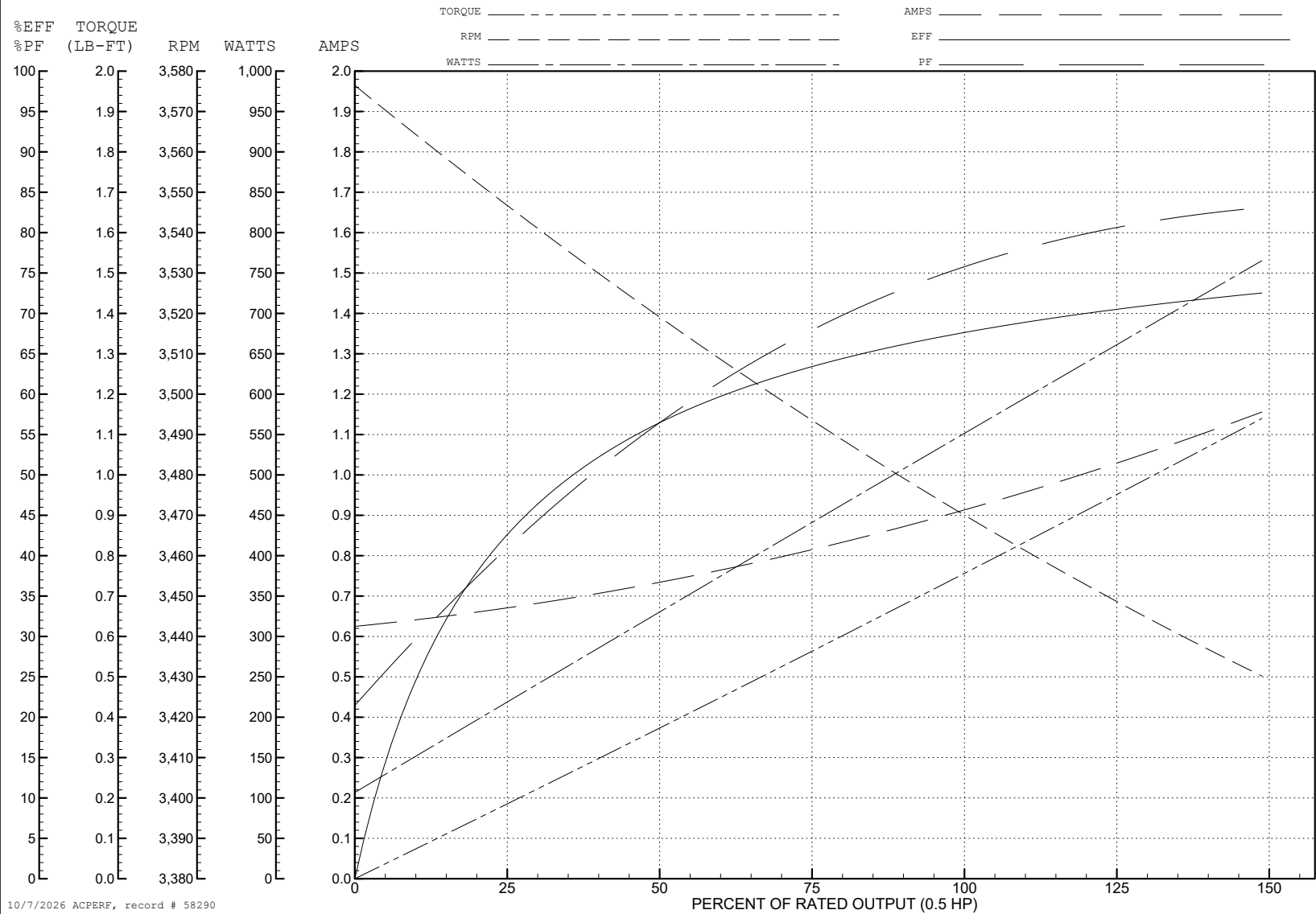
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WINDING # 34WGR421

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 3450 RPM 460 V 3414M

TORQUES (LB-FT): PO=4.6 PU=3.07 LR=3.86 LRA=8.39



AC Induction Motor Performance Data

Record # 73819

Typical performance - not guaranteed values

Winding: 34WGR421-R001			Type: 3414M		Enclosure: TEFC		
Nameplate Data			230 V, 60 Hz: Low Voltage Connection				
Rated Output (HP)		.5	Full Load Torque		0.763 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		1.8/.9	Breakdown Torque		4.6 LB-FT		
R.P.M.		3450	Pull-up Torque		3.07 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque		3.86 LB-FT		
NEMA Design Code		B	KVA Code		P	Starting Current	16.78 A
Service Factor (S.F.)		1.25	No-load Current		1.25 A		
NEMA Nom. Eff.		68	Power Factor		75	Line-line Res. @ 25°C	6.46 Ω
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		51°C		
S.F. Amps		2/1	Temp. Rise @ S.F. Load		57°C		
			Locked-rotor Power Factor		69.4		
			Rotor inertia		0.013 LB-FT2		

Load Characteristics 230 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	58	68	75	80	84	80
Efficiency	39.6	56.2	64.1	69.1	70.6	71.9	70.6
Speed	3537	3518	3497	3469	3452	3427	3452
Line amperes	1.35	1.46	1.63	1.83	2.08	2.3	2.08

ABB Motors and Mechanical Inc.

WINDING # 34WGR421

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 3450 RPM 230 V 3414M

TORQUES (LB-FT): PO=4.6 PU=3.07 LR=3.86 LRA=16.78

