

ABB BALDOR RELIANCE III

Customer information packet

VDRX050744

.75//.5HP, 1765//1470RPM, 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	.500 HP @ 50 HZ .750 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 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	2.420 A @ 208.0 V 2.400 A @ 230.0 V 2.200 A @ 190.0 V 1.200 A @ 460.0 V 1.100 A @ 380.0 V
Design Code	B
Drip Cover	No Drip Cover

Part Detail

Revision	-
Type	AC
Mech. spec.	35X748
Base	
Status	PRD/A
Elec. spec.	35WGG069
Layout	35LYX748
Eff. date	06-04-2025
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	06-04-2025

Duty Rating	CONT
Efficiency @ 100% Load	82.5 %
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	1.1 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	K
Lifting Lugs	No 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	X3514M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	14.31 IN
Power Factor	74
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
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	1470 rpm
	1765 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

NP1401XPSL											
NO.						CC					
S/N						TEMP CODE	T3C				
SPEC.	35X748G069G3					INV.TYPE	PWM				
CAT.NO.	VDRX050744					C HP FR	60	C HP TO	90		
HP	.75//.5					CT HZ FROM	6	CT HZ TO	60		
VOLTS	230/460//190/380					VT HZ FROM	6	VT HZ TO	60		
AMPS	2.4/1.2//2.2/1.1				MAG CUR	1.7/.85					
RPM	1765//1470				MX RPM	2700					
HZ	60//50	PH	3	CL	F	NOM.EFF.	82.5				
SER.F.	1.00	DES	B	SL HZ	1.2	WK2	0.101				
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 # 89842

Typical performance - not guaranteed values

Winding: 35WGG069-R027				Type: 3514M		Enclosure: XPFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		.75//.5		Full Load Torque		2.24 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		2.4/1.2//2.2/1.1		Breakdown Torque		8 LB-FT	
R.P.M.		1765//1470		Pull-up Torque		4.4 LB-FT	
Hz	60//50	Phase	3	Locked-rotor Torque		5.1 LB-FT	
NEMA Design Code		B	KVA Code	K	Starting Current		8.4 A
Service Factor (S.F.)		1		No-load Current		0.85 A	
NEMA Nom. Eff.		82.5	Power Factor	74	Line-line Res. @ 25°C		30.3 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		25°C	
				Locked-rotor Power Factor		66.8	
				Rotor inertia		0.101 lb-ft²	

Load Characteristics 460 V, 60 Hz, 0.75 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	30	48	61	70	77	81
Efficiency	68.4	79.2	82.1	82.9	82.4	81.1
Speed	1791	1783	1775	1766	1757	1745
Line amperes	0.87	0.95	1.06	1.21	1.4	1.61

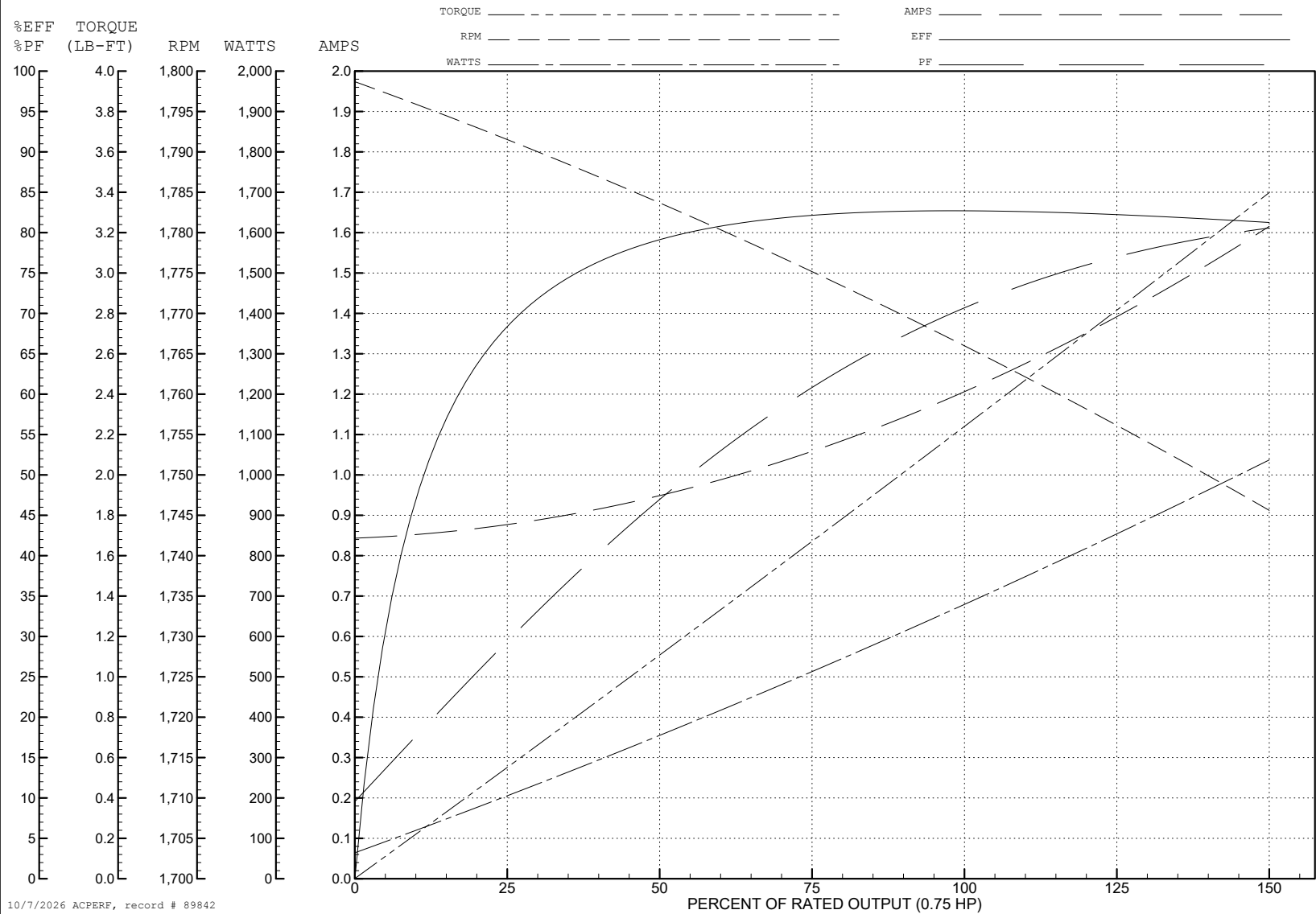
ABB Motors and Mechanical Inc.

WINDING # 35WGG069

0.75 HP 3 PH 60 HZ 1766 RPM 460 V 3514M

Typical performance - not guaranteed values.

TORQUES (LB-FT) : PO=8 PU=4.4 LR=5.1 LRA=8.4



AC Induction Motor Performance Data

Record # 89843

Typical performance - not guaranteed values

Winding: 35WGG069-R027			Type: 3514M		Enclosure: XPFC		
Nameplate Data			380 V, 50 Hz: High Voltage Connection				
Rated Output (HP)		.75//.5	Full Load Torque		1.79 LB-FT		
Volts		230/460//190/380	Start Configuration		direct on line		
Full Load Amps		2.4/1.2//2.2/1.1	Breakdown Torque		7.1 LB-FT		
R.P.M.		1765//1470	Pull-up Torque		4.1 LB-FT		
Hz		60//50	Phase		3	Locked-rotor Torque	4.8 LB-FT
NEMA Design Code		B	KVA Code		K	Starting Current	7.7 A
Service Factor (S.F.)					1	No-load Current	0.83 A
NEMA Nom. Eff.		82.5	Power Factor		74	Line-line Res. @ 25°C	30.3 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		21°C	
				Locked-rotor Power Factor		72.2	
				Rotor inertia		0.101 lb-ft²	

Load Characteristics 380 V, 50 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	28	43	56	66	73	78
Efficiency	63.5	75.7	79.7	81.1	81.1	80.2
Speed	1492	1486	1480	1472	1465	1456
Line amperes	0.84	0.89	0.97	1.07	1.21	1.37

ABB Motors and Mechanical Inc.

WINDING # 35WGG069

0.5 HP 3 PH 50 HZ 1472 RPM 380 V 3514M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=7.1 PU=4.1 LR=4.8 LRA=7.7

