

ABB BALDOR RELIANCE III

Customer information packet

VDRX050544

.5//.33HP, 1770//1475RPM, 3PH, 60//50HZ, 56C

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	TENV
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	.330 HP @ 50 HZ .500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 380.0 V @ 50 HZ 230.0 V @ 60 HZ 190.0 V @ 50 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	2.000 A @ 230.0 V 1.800 A @ 190.0 V 1.000 A @ 460.0 V .900 A @ 380.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT

Part Detail

Revision	-
Type	AC
Mech. spec.	35X727
Base	
Status	PRD/A
Elec. spec.	35WGK135
Layout	35LYX727
Eff. date	03-14-2025
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	03-13-2025

Efficiency @ 100% Load	78.5 %
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	0.9 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	M
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	3512M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	13.14 IN
Power Factor	62
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	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

NP1401XPSL											
NO.						CC					
S/N						TEMP CODE	T3C				
SPEC.	35X727K135G2					INV.TYPE	PWM				
CAT.NO.	VDRX050544					C HP FR	60	C HP TO	90		
HP	.5//.33					CT HZ FROM	6	CT HZ TO	60		
VOLTS	230/460//190/380					VT HZ FROM	6	VT HZ TO	60		
AMPS	2/1//1.8/.9				MAG CUR	1.6/.8					
RPM	1770//1475				MX RPM	2700					
HZ	60//50	PH	3	CL	F	NOM.EFF.	78.5				
SER.F.	1.00	DES	B	SL HZ	1	WK2	0.087				
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 # 111283

Preliminary Data Sheet

Winding: 35WGK135-R023			Type: 3512M		Enclosure: XPNV		
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		.5//.33		Full Load Torque		1.49 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		2/1//1.8/.9		Breakdown Torque		6.28 LB-FT	
R.P.M.		1770//1475		Pull-up Torque		3.26 LB-FT	
Hz	60//50	Phase	3	Locked-rotor Torque		4.04 LB-FT	
NEMA Design Code		B	KVA Code	M	Starting Current		6.71 A
Service Factor (S.F.)		1		No-load Current		0.792 A	
NEMA Nom. Eff.		78.5	Power Factor	62	Line-line Res. @ 25°C		43.2 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		58°C	
				Locked-rotor Power Factor		70.8	
				Rotor inertia		0.0866 lb-ft²	

Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	27	41	52	62	69	75
Efficiency	56.5	70.7	76.5	78.9	80	80
Speed	1792	1786	1779	1771	1763	1755
Line amperes	0.795	0.827	0.889	0.966	1.06	1.18

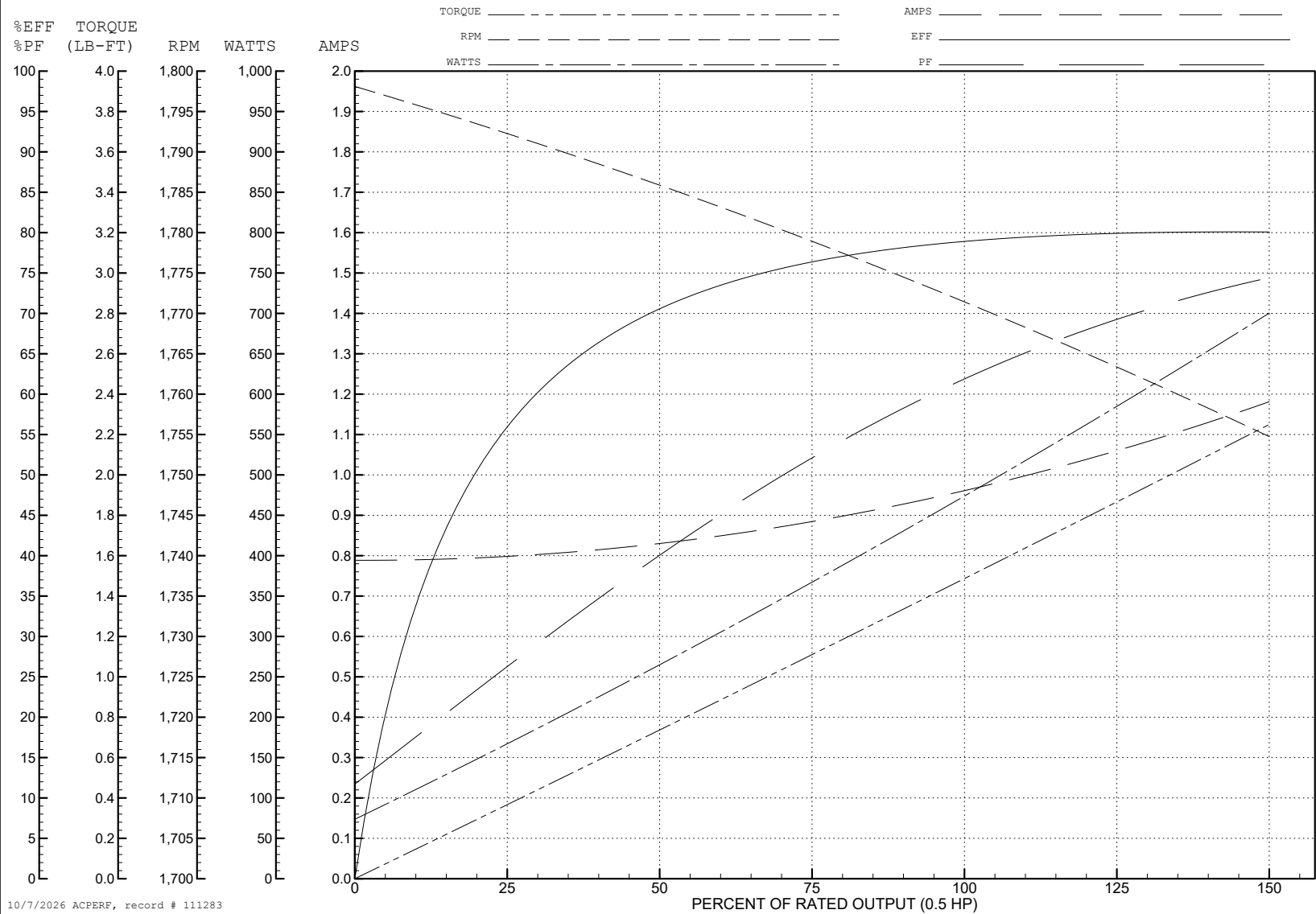
ABB Motors and Mechanical Inc.

WINDING # 35WGK135

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1771 RPM 460 V 3512M

TORQUES (LB-FT): PO=6.28 PU=3.26 LR=4.04 LRA=6.71



AC Induction Motor Performance Data

Record # 111284

Preliminary Data Sheet

Winding: 35WGK135-R023			Type: 3512M		Enclosure: XPNV		
Nameplate Data				380 V, 50 Hz: High Voltage Connection			
Rated Output (HP)		.5//.33		Full Load Torque		1.18 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		2/1//1.8/.9		Breakdown Torque		5.5 LB-FT	
R.P.M.		1770//1475		Pull-up Torque		2.98 LB-FT	
Hz	60//50	Phase	3	Locked-rotor Torque		3.69 LB-FT	
NEMA Design Code		B	KVA Code	M	Starting Current		6.08 A
Service Factor (S.F.)		1		No-load Current		0.775 A	
NEMA Nom. Eff.		78.5	Power Factor	62	Line-line Res. @ 25°C		43.2 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		49°C	
				Locked-rotor Power Factor		76	
				Rotor inertia		0.0866 lb-ft²	

Load Characteristics 380 V, 50 Hz, 0.33 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	26	37	48	57	65	71
Efficiency	48.8	64.7	71.8	75.2	77	77.5
Speed	1493	1488	1483	1476	1470	1463
Line amperes	0.771	0.789	0.828	0.875	0.938	1.02

ABB Motors and Mechanical Inc.

WINDING # 35WGK135

Typical performance - not guaranteed values.

0.33 HP 3 PH 50 HZ 1476 RPM 380 V 3512M

TORQUES (LB-FT): PO=5.5 PU=2.98 LR=3.69 LRA=6.08

