

ABB BALDOR RELIANCE III

Customer information packet

FPM2531TS

25//20HP, 1760//1460RPM, 3PH, 60//50HZ, 284T

Class -

Division - Not Applicable

Specifications

Enclosure	ODP
Frame	284TS
Frame Material	Steel
Frequency	50.00 Hz 60.00 Hz
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 50 HZ 25.000 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 CSA EEV UL UR
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
Current @ Voltage	58.000 A @ 230.0 V 58.000 A @ 190.0 V 29.000 A @ 460.0 V 29.000 A @ 380.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT

Part Detail

Revision	T
Type	AC
Mech. spec.	39R082
Base	
Status	PRD/A
Elec. spec.	39WGX929
Layout	39LYR082
Eff. date	11-14-2023
CD Diagram	CD0104
Poles	04
Leads	12#10
Proprietary	False
Created date	09-15-2015

Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	29.0 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	12 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3956M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	23.56 IN
Power Factor	87
Product Family	Fire Pump Motor
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1460 rpm 1760 rpm

Speed Code	Single Speed
Starting Method	Wye Start - Delta Run
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3454L													
CAT.NO.	FPM2531TS				CUST P/N					I.P.	23		
SPEC.	39R082X929H2				SER.NO.					FRAME	284TS		
HZ	60	HP	25		RPM	1760		HZ	50		HP	20	
												RPM	1460
VOLTS	230/460				CODE	F				VOLTS	190/380		
AMPS	58/29				DES	B				AMPS	58/29		
EFF	92.4	SER.F.	1.15		PF	87		EFF	91		SER.F.	1.15	
RATING	40C AMB-CONT				DE BRG	6311				GREASE	POLYREX EM		
BLANK					ODE BRG	6208				MTR. WT.	276		
					CLASS	F		PH	3				
					ENCL	ODP		CC	010A				
HTR-VOLTS		HTR-AMPS			HTR-WATTS								

AC Induction Motor Performance Data

Record # 54768

Typical performance - not guaranteed values

Winding: 39WGX929-R001			Type: 3956M		Enclosure: OPSB			
Nameplate Data				460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		25//20		Full Load Torque		75.1 LB-FT		
Volts		230/460//190/380		Start Configuration		direct on line		
Full Load Amps		58/29		Breakdown Torque		202 LB-FT		
R.P.M.		1760//1460		Pull-up Torque		99.1 LB-FT		
Hz		60//50	Phase	3	Locked-rotor Torque		120 LB-FT	
NEMA Design Code		B		KVA Code	F	Starting Current		172 A
Service Factor (S.F.)		1.15		No-load Current		8.92 A		
NEMA Nom. Eff.		92.4	Power Factor		87	Line-line Res. @ 25°C		0.4172 Ω
Rating - Duty		40C		AMB-CONT		Temp. Rise @ Rated Load		52°C
S.F. Amps						Temp. Rise @ S.F. Load		66°C
						Locked-rotor Power Factor		32.1

Load Characteristics 460 V, 60 Hz, 25 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	57	77	85	87	88	87	88
Efficiency	91.8	93.7	93.4	92.5	91.1	89.4	91.7
Speed	1790.4	1780.8	1771.1	1759.6	1746.7	1731.2	1752
Line amperes	11.3	16	22.5	29.2	36.4	45.1	33.5

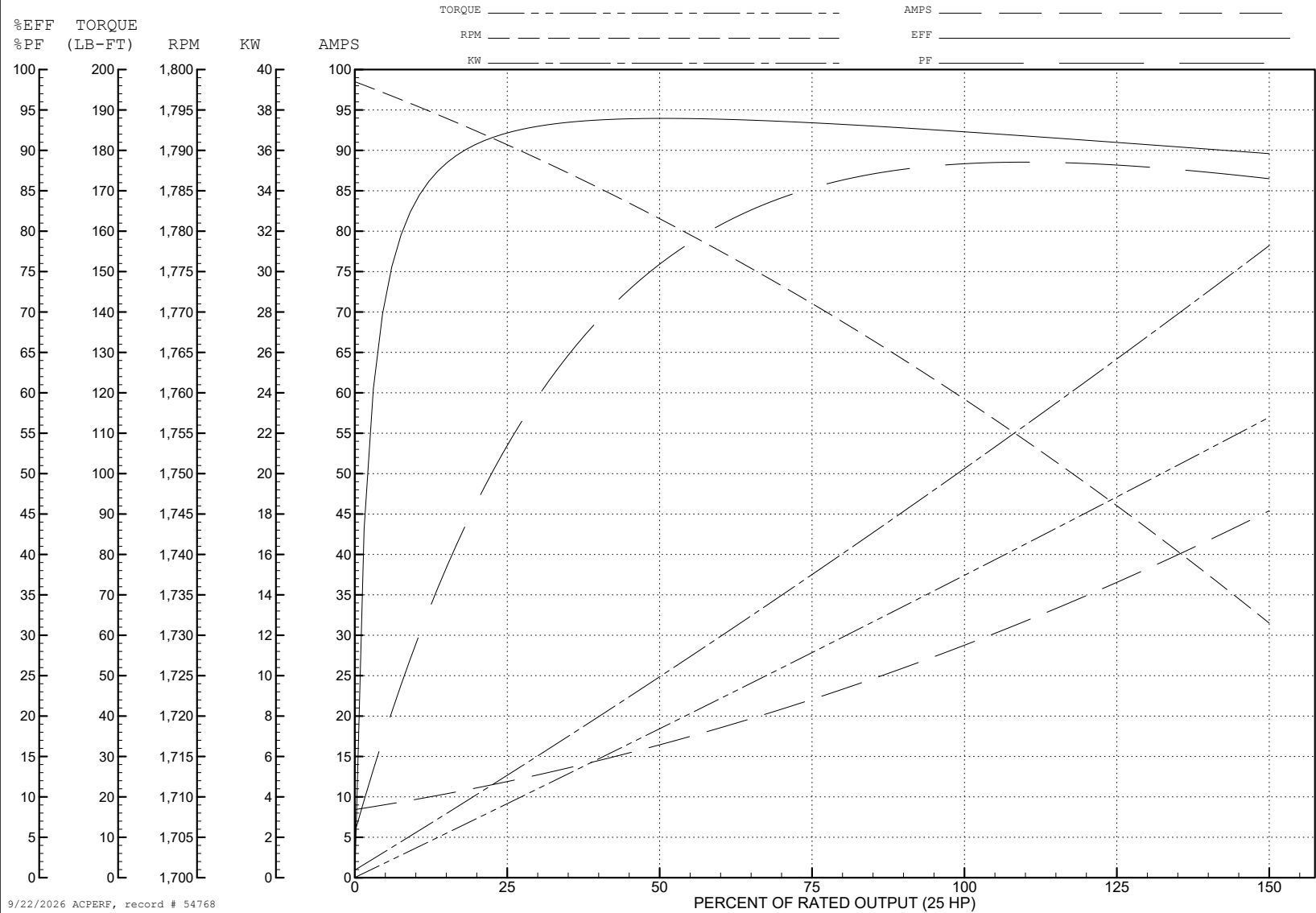
ABB Motors and Mechanical Inc.

WINDING # 39WGX929

Typical performance - not guaranteed values.

25 HP 3 PH 60 HZ 1759.6 RPM 460 V 3956M

TORQUES (LB-FT): PO=202 PU=99.1 LR=120 LRA=172



AC Induction Motor Performance Data

Record # 54786

Typical performance - not guaranteed values

Winding: 39WGX929-R001				Type: 3956M		Enclosure: OPSB				
Nameplate Data				380 V, 50 Hz: High Voltage Connection						
Rated Output (HP)		25//20		Full Load Torque		72.4 LB-FT				
Volts		230/460//190/380		Start Configuration		direct on line				
Full Load Amps		58/29		Breakdown Torque		194 LB-FT				
R.P.M.		1760//1460		Pull-up Torque		102 LB-FT				
Hz		60//50 Phase		3		Locked-rotor Torque		123 LB-FT		
NEMA Design Code		B		KVA Code		F		Starting Current	167 A	
Service Factor (S.F.)		1.15		No-load Current		8.77 A				
NEMA Nom. Eff.		92.4		Power Factor		87			Line-line Res. @ 25°C	0.392 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		51°C				
S.F. Amps				Temp. Rise @ S.F. Load		65°C				
				Locked-rotor Power Factor		35.4				
				Rotor inertia		2.45 LB-FT2				

Load Characteristics 380 V, 50 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	57	77	85	87	88	87	88
Efficiency	90.9	93.1	92.7	91.6	90.2	88.2	90.8
Speed	1491	1482	1472	1461	1449	1434	1454
Line amperes	11.1	15.6	21.9	28.5	35.6	44.2	32.8

ABB Motors and Mechanical Inc.

WINDING # 39WGX929

Typical performance - not guaranteed values.

20 HP 3 PH 50 HZ 1461 RPM 380 V 3956M

TORQUES (LB-FT): PO=194 PU=102 LR=123 LRA=167

