

ABB BALDOR RELIANCE III

Customer information packet

FPM2543TS

50//40HP, 1770//1470RPM, 3PH, 60//50HZ, 326T

Specifications

Enclosure	ODP
Frame	326TS
Frame Material	Steel
Frequency	50.00 Hz 60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ 40.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 190.0 V @ 50 HZ 460.0 V @ 60 HZ 380.0 V @ 50 HZ
Agency Approvals	CSA EEV UL UR CSA
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	60.000 A @ 460.0 V 58.000 A @ 380.0 V 120.000 A @ 230.0 V 116.000 A @ 190.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %

Part Detail

Revision	H
Type	AC
Mech. spec.	40H07
Base	
Status	PRD/A
Elec. spec.	40WGX317
Layout	40LYH007
Eff. date	07-24-2023
CD Diagram	CD0104
Poles	04
Leads	12#8
Proprietary	False
Created date	09-16-2015

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	58.0 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 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4064M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	25.69 IN
Power Factor	83
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	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1470 rpm 1770 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.	FPM2543TS				CUST P/N							I.P.	23		
SPEC.	40H007X317H2				SER.NO.							FRAME	326TS		
HZ	60	HP	50		RPM	1770		HZ	50		HP	40		RPM	1470
VOLTS	230/460				CODE	F		VOLTS	190/380				CODE	F	
AMPS	120/60				DES	B		AMPS	116/58				DES	B	
EFF	93	SER.F.	1.15		PF	83		EFF	92.4		SER.F.	1.15		PF	83
RATING	40C AMB-CONT					DE BRG	6312		GREASE			POLYREX EM			
BLANK						ODE BRG	6309		MTR. WT.			385			
						CLASS	F		PH	3					
						ENCL	ODP		CC	010A					
HTR-VOLTS	HTR-AMPS		HTR-WATTS												

AC Induction Motor Performance Data

Record # 54093

Typical performance - not guaranteed values

Winding: 40WGX317-R001		Type: 4064M	Enclosure: OPSB
Nameplate Data		460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	50//40	Full Load Torque	149 LB-FT
Volts	230/460//190/380	Start Configuration	direct on line
Full Load Amps	120/60//116/58	Breakdown Torque	374 LB-FT
R.P.M.	1770//1470	Pull-up Torque	190 LB-FT
Hz	60//50 Phase	Locked-rotor Torque	236 LB-FT
NEMA Design Code	B KVA Code	Starting Current	342 A
Service Factor (S.F.)	1.15	No-load Current	22.8 A
NEMA Nom. Eff.	93 Power Factor	Line-line Res. @ 25°C	0.16058 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	55°C
S.F. Amps		Temp. Rise @ S.F. Load	68°C

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	48	70	80	83	85	85	84
Efficiency	90.5	93.6	94	93.6	92.9	91.7	93.2
Speed	1794.3	1786.4	1778.8	1770.7	1762.3	1751.3	1766
Line amperes	26.6	35.8	47.1	60.1	74.7	90.7	68.9

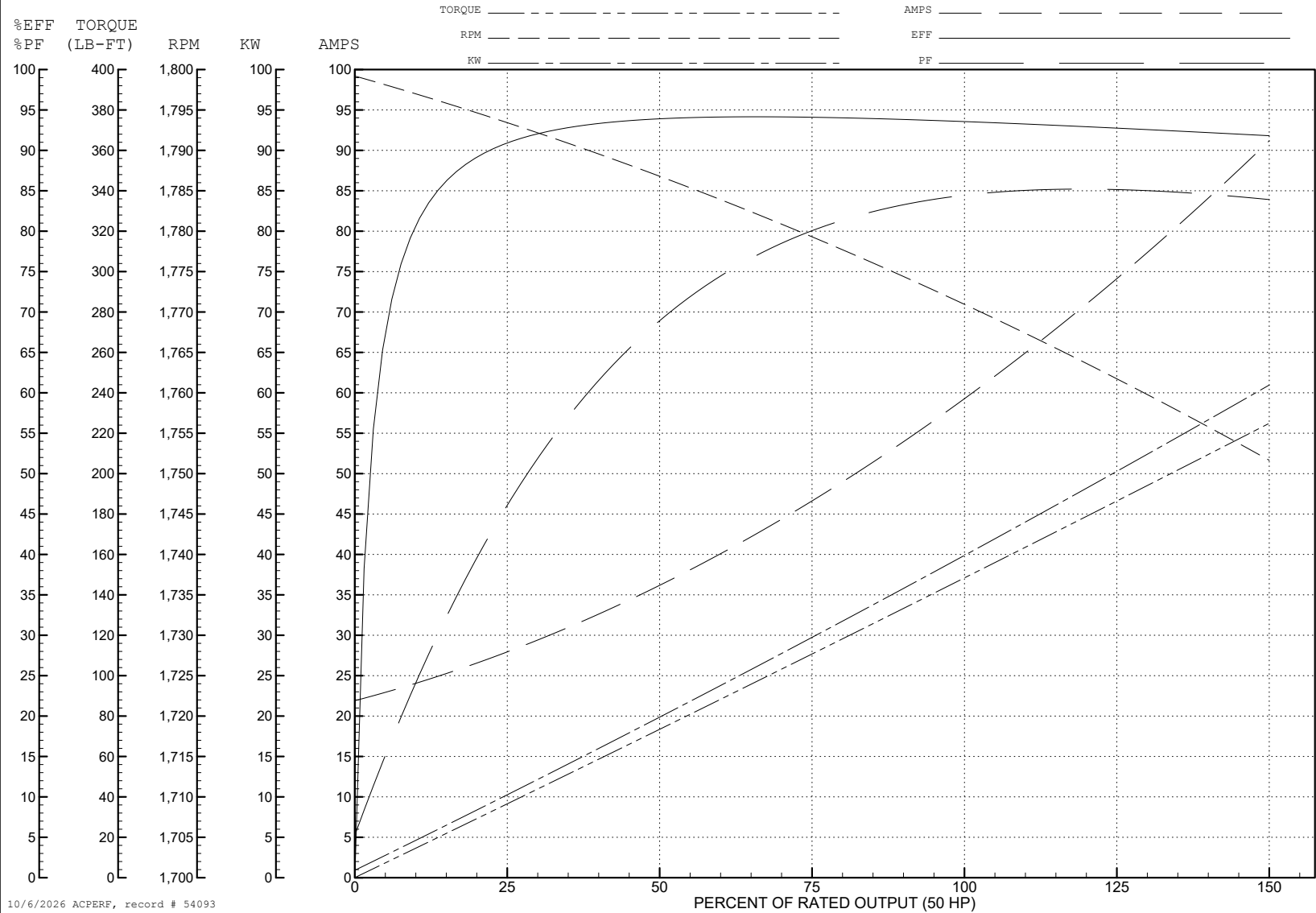
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WINDING # 40WGX317

Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 1770.7 RPM 460 V 4064M

TORQUES (LB-FT): PO=374 PU=190 LR=236 LRA=342



AC Induction Motor Performance Data

Record # 54094

Typical performance - not guaranteed values

Winding: 40WGX317-R001			Type: 4064M		Enclosure: OPSB	
Nameplate Data				380 V, 50 Hz: High Voltage Connection		
Rated Output (HP)		50//40		Full Load Torque		143 LB-FT
Volts		230/460//190/380		Start Configuration		direct on line
Full Load Amps		120/60//116/58		Breakdown Torque		363 LB-FT
R.P.M.		1770//1470		Pull-up Torque		194 LB-FT
Hz		60//50 Phase		Locked-rotor Torque		241 LB-FT
NEMA Design Code		B KVA Code		Starting Current		325 A
Service Factor (S.F.)		1.15		No-load Current		22 A
NEMA Nom. Eff.		93 Power Factor		Line-line Res. @ 25°C		0.155 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		53°C
S.F. Amps				Temp. Rise @ S.F. Load		67°C
				Locked-rotor Power Factor		34.2
				Rotor inertia		5.09 LB-FT2

Load Characteristics 380 V, 50 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	49	71	80	84	85	85	85
Efficiency	89.6	93.2	93.5	92.7	91.9	90.6	92.2
Speed	1494	1487	1479	1471	1463	1452	1466
Line amperes	25.7	34.7	45.6	58.3	72.6	88.3	66.9

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WINDING # 40WGX317

Typical performance - not guaranteed values.

40 HP 3 PH 50 HZ 1471 RPM 380 V 4064M

TORQUES (LB-FT): PO=363 PU=194 LR=241 LRA=325

