

ABB BALDOR RELIANCE III

Customer information packet

FPM2542T

50//40HP, 3520//2930RPM, 3PH, 60//50HZ, 324T

Specifications

Enclosure	OPSB
Frame	324TS
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	3000 RPM @ 50 HZ
Voltage @ Frequency	190.0 V @ 50 HZ 230.0 V @ 60 HZ 380.0 V @ 50 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV UL
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 @ 460.0 V 56.000 A @ 380.0 V 116.000 A @ 230.0 V 112.000 A @ 190.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK

Part Detail

Revision	G
Type	AC
Mech. spec.	40H07
Base	
Status	PRD/A
Elec. spec.	40WGX319
Layout	40LYH007
Eff. date	07-24-2023
CD Diagram	CD0104
Poles	02
Leads	12#8
Proprietary	False
Created date	09-17-2015

Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	56.0 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	G
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	4044M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	24.69 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	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	2930 rpm 3520 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.	FPM2542T				CUST P/N				I.P.				23			
SPEC.	40H007X319H2				SER.NO.				FRAME				324TS			
HZ	60	HP	50		RPM	3520		HZ	50		HP	40		RPM	2930	
VOLTS	230/460				CODE	G		VOLTS	190/380				CODE	G		
AMPS	116/58				DES	B		AMPS	112/56				DES	B		
EFF	92.4	SER.F.		1.15		PF	87			EFF	91.7		SER.F.	1.15	PF	87
RATING	40C AMB-CONT					DE BRG		6312			GREASE		POLYREX EM			
BLANK						ODE BRG		6309			MTR. WT.		331			
						CLASS	F			PH	3					
						ENCL	OPSB			CC	010A					
HTR-VOLTS			HTR-AMPS				HTR-WATTS									

AC Induction Motor Performance Data

Record # 52895

Typical performance - not guaranteed values

Winding: 40WGX319-R001				Type: 4044M		Enclosure: OPSB					
Nameplate Data				460 V, 60 Hz: High Voltage Connection							
Rated Output (HP)		50//40		Full Load Torque		74.2 LB-FT					
Volts		230/460//190/380		Start Configuration		direct on line					
Full Load Amps		116/58//112/56		Breakdown Torque		236.2 LB-FT					
R.P.M.		3520//2930		Pull-up Torque		86.9 LB-FT					
Hz		60//50 Phase		3		Locked-rotor Torque		126.3 LB-FT			
NEMA Design Code		B		KVA Code		G		Starting Current		353 A	
Service Factor (S.F.)				1.15		No-load Current				16.1 A	
NEMA Nom. Eff.		92.4		Power Factor		87		Line-line Res. @ 25°C		0.157 Ω	
Rating - Duty				40C AMB-CONT		Temp. Rise @ Rated Load				44°C	
S.F. Amps						Temp. Rise @ S.F. Load				59°C	
						Locked-rotor Power Factor				24	
						Rotor inertia				1.89 LB-FT2	

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	79	85	87	88	88	88
Efficiency	89.4	92.6	93	92.5	91.6	90.4	92
Speed	3583	3565	3547	3527	3505	3479	3514
Line amperes	21.8	32	44.3	57.9	72.6	88.2	66.7

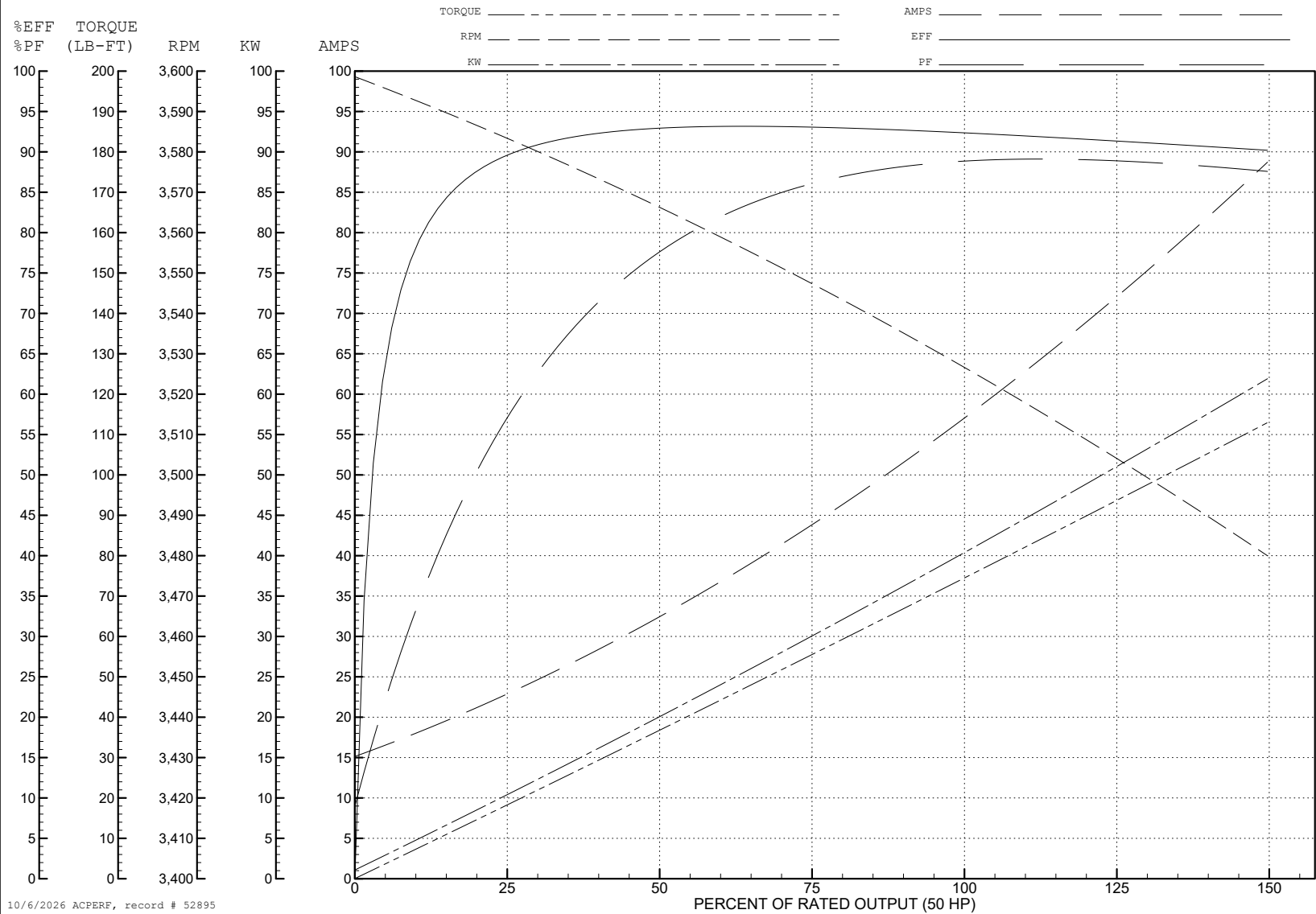
ABB Motors and Mechanical Inc.

WINDING # 40WGX319

Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 3527 RPM 460 V 4044M

TORQUES (LB-FT) : PO=236.2 PU=86.9 LR=126.3 LRA=353



AC Induction Motor Performance Data

Record # 52896

Typical performance - not guaranteed values

Winding: 40WGX319-R001			Type: 4044M		Enclosure: OPSB		
Nameplate Data				380 V, 50 Hz: High Voltage Connection			
Rated Output (HP)		50//40		Full Load Torque		71.4 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		116/58//112/56		Breakdown Torque		228 LB-FT	
R.P.M.		3520//2930		Pull-up Torque		92.3 LB-FT	
Hz	60//50	Phase	3	Locked-rotor Torque		134 LB-FT	
NEMA Design Code		B	KVA Code	G	Starting Current		346 A
Service Factor (S.F.)		1.15		No-load Current		15.7 A	
NEMA Nom. Eff.		92.4	Power Factor	87	Line-line Res. @ 25°C		0.171 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		42°C	
S.F. Amps				Temp. Rise @ S.F. Load		52°C	
				Locked-rotor Power Factor		27.5	
				Rotor inertia		1.89 LB-FT2	

Load Characteristics 380 V, 50 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	61	79	86	87	89	89	88
Efficiency	90.4	92.8	93.2	92	91.2	89.2	91.5
Speed	2984	2967	2950	2930	2909	2884	2917
Line amperes	21.1	30.9	42.9	56.2	70.5	85.9	64.8

ABB Motors and Mechanical Inc.

WINDING # 40WGx319

Typical performance - not guaranteed values.

40 HP 3 PH 50 HZ 2930 RPM 380 V 4044M

TORQUES (LB-FT): PO=228 PU=92.3 LR=134 LRA=346

