

ABB BALDOR RELIANCE III

Customer information packet

FPM2539TS

40//30HP, 1770//1470RPM, 3PH, 60//50HZ, 324T

Specifications

Enclosure	ODP
Frame	324TS
Frame Material	Steel
Frequency	50.00 Hz 60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	30.000 HP @ 50 HZ 40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1500 RPM @ 50 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
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	98.000 A @ 230.0 V 90.000 A @ 190.0 V 49.000 A @ 460.0 V 45.000 A @ 380.0 V 104.000 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated

Part Detail

Revision	G
Type	AC
Mech. spec.	40H07
Base	
Status	PRD/A
Elec. spec.	40WG486
Layout	40LYH007
Eff. date	07-24-2023
CD Diagram	CD0104
Poles	04
Leads	12#10
Proprietary	False
Created date	09-17-2015

Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	45.0 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 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4052M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	24.69 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.	FPM2539TS				CUST P/N				I.P.				23			
SPEC.	40H007W486H2				SER.NO.				FRAME				324TS			
HZ	60	HP	40		RPM	1770		HZ	50		HP	30		RPM	1470	
VOLTS	230/460				CODE	G		VOLTS	190/380				CODE	G		
AMPS	98/49				DES	B		AMPS	90/45				DES	B		
EFF	93	SER.F.		1.15		PF	83		EFF	92.4		SER.F.	1.15		PF	82
RATING	40C AMB-CONT					DE BRG		6312			GREASE		POLYREX EM			
BLANK						ODE BRG		6309			MTR. WT.		400			
						CLASS	F		PH	3						
						ENCL	ODP			CC	010A					
HTR-VOLTS					HTR-AMPS				HTR-WATTS							

AC Induction Motor Performance Data

Record # 52878

Typical performance - not guaranteed values

Winding: 40WGW486-R005				Type: 4052M		Enclosure: OPSB	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		40//30		Full Load Torque		119 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		98/49//90/45		Breakdown Torque		324 LB-FT	
R.P.M.		1770//1470		Pull-up Torque		158 LB-FT	
Hz	60//50	Phase	3	Locked-rotor Torque		196 LB-FT	
NEMA Design Code		B	KVA Code	Starting Current		286 A	
Service Factor (S.F.)		1.15		No-load Current		18.4 A	
NEMA Nom. Eff.		93	Power Factor	Line-line Res. @ 25°C		0.19 Ω	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		41°C	
S.F. Amps				Temp. Rise @ S.F. Load		54°C	
				Locked-rotor Power Factor		32	
				Rotor inertia		4.13 LB-FT2	

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	47	69	79	83	84	85	84
Efficiency	89	92.8	93.4	93.3	92.9	92.1	93.1
Speed	1793	1787	1780	1772	1764	1755	1767
Line amperes	22.6	29.3	38.2	48.5	59.7	72	55.2

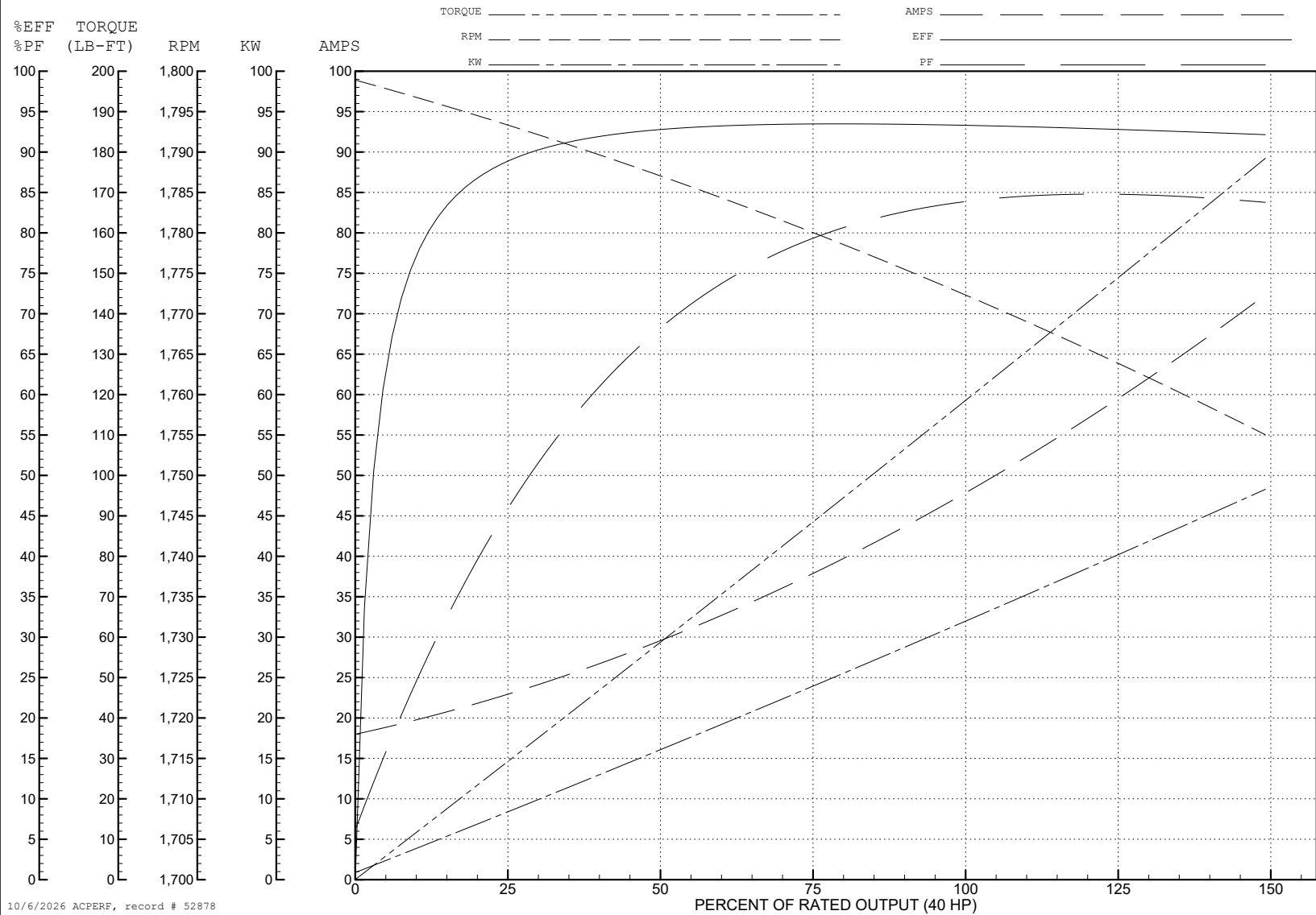
ABB Motors and Mechanical Inc.

WINDING # 40WG486

Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 1772 RPM 460 V 4052M

TORQUES (LB-FT): PO=324 PU=158 LR=196 LRA=286



AC Induction Motor Performance Data

Record # 52879

Typical performance - not guaranteed values

Winding: 40WGW486-R005			Type: 4052M		Enclosure: OPSB	
Nameplate Data				380 V, 50 Hz: High Voltage Connection		
Rated Output (HP)		40//30		Full Load Torque		107 LB-FT
Volts		230/460//190/380		Start Configuration		direct on line
Full Load Amps		98/49//90/45		Breakdown Torque		314 LB-FT
R.P.M.		1770//1470		Pull-up Torque		162 LB-FT
Hz	60//50	Phase	3	Locked-rotor Torque		201 LB-FT
NEMA Design Code		B	KVA Code	Starting Current		272 A
Service Factor (S.F.)		1.15		No-load Current		18.1 A
NEMA Nom. Eff.		93	Power Factor	Line-line Res. @ 25°C		0.185 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		36°C
S.F. Amps				Temp. Rise @ S.F. Load		43°C
				Locked-rotor Power Factor		35.1
				Rotor inertia		4.13 LB-FT2

Load Characteristics 380 V, 50 Hz, 30 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	68	78	82	84	85	83
Efficiency	87.8	92	92.8	92.5	92.1	91.5	92.3
Speed	1494	1488	1482	1475	1467	1460	1470
Line amperes	21.8	27.7	35.5	44.7	54.6	65.4	50.6

ABB Motors and Mechanical Inc.

WINDING # 40GW486

Typical performance - not guaranteed values.

30 HP 3 PH 50 HZ 1475 RPM 380 V 4052M

TORQUES (LB-FT): PO=314 PU=162 LR=201 LRA=272

