

ABB BALDOR RELIANCE III

Customer information packet

EFM2539T

40HP, 1770RPM, 3PH, 60HZ, 324T, 4064M, OPSB, F2

Specifications

Enclosure	OPSB
Frame	324T
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM NEMA PREMIUM (OLD LOGO) CURUSEEV
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	49.000 A @ 460.0 V 98.000 A @ 230.0 V 99.000 A @ 208.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.1 %
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	49.0 a
Insulation Class	F

Part Detail

Revision	AA
Type	AC
Mech. spec.	40H24
Base	
Status	PRD/A
Elec. spec.	40WGX166
Layout	40LYH024
Eff. date	05-21-2026
CD Diagram	CD0005
Poles	04
Leads	9#8
Proprietary	False
Created date	10-25-2010

Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4064M
Mounting Arrangement	F2
Number of Poles	4
Overall Length	27.19 IN
Power Factor	82
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3554L											
CAT.NO.	EFM2539T			P/N						ENCL	OPSB
SPEC.	40H024X166G1	CC	010A	FRAME		324T	SER.NO.				
HP	40		CLASS		F	HZ	60				
RPM	1770		PH	3			DES	A			
VOLTS	230/460			CODE		H	ODE BRG		6309	DE BRG	6312
AMPS	98/49										
RATING	40C AMB-CONT			NEMA-NOM-EFF			94.1	GREASE	POLYREX EM		
PF	82	SER.F.	1.15	VPWM INVERTER READY							
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.									

Accessories

Part number	Description	Multiplier
42-1300	C FACE KIT	A8
42EP1601A01	SP'L D-FLANGE MTD. PU. E.P. MDL.42 W/BFL	P1

AC Induction Motor Performance Data

Record # 31313

Typical performance - not guaranteed values

Winding: 40WGX166-R002			Type: 4064M		Enclosure: OPSB		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		40	Full Load Torque		119 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		98/49	Breakdown Torque		427 LB-FT		
R.P.M.		1770	Pull-up Torque		187 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		246 LB-FT	
NEMA Design Code		A	KVA Code	H	Starting Current		330 A
Service Factor (S.F.)		1.15	No-load Current		21.1 A		
NEMA Nom. Eff.		94.1	Power Factor	82	Line-line Res. @ 25°C		0.16236 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		41°C
S.F. Amps					Temp. Rise @ S.F. Load		51°C
					Locked-rotor Power Factor		31.9
					Rotor inertia		5.09 LB-FT2

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	43	65	76	82	85	85	84
Efficiency	91.1	94	94.5	94.2	93.6	92.8	93.8
Speed	1792.4	1785	1777.8	1770.2	1762.1	1752.8	1765
Line amperes	24.1	30.7	39.2	48.7	59.3	71.3	55.1

ABB Motors and Mechanical Inc.

WINDING # 40WGX166

Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 1770 RPM 460 V 4064M

TORQUES (LB-FT): PO=427 PU=187 LR=246 LRA=330





