



Customer information packet

EM2539T

40HP, 1770RPM, 3PH, 60HZ, 324T, 4064M, OPSB, F1

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	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	99.000 A @ 208.0 V 98.000 A @ 230.0 V 49.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.1 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater

Part detail

Revision	AG
Type	AC
Mech. spec.	40J002
Base	
Status	PRD/A
Elec. spec.	40WGX166
Layout	40LYJ002
Eff. date	04-25-2025
CD Diagram	CD0005
Poles	04
Leads	9#8
Proprietary	False
Created date	10-22-2010

High Voltage Full Load Amps	49.0 a
Insulation Class	F
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	F1
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

NP3554LUA											
CAT.NO.	EM2539T			P/N						ENCL	OPSB
SPEC.	40J002X166G1	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	CT30-60(2:1) VT3-60(20:1)							
USABLE AT	50HZ 40HP 190/380V 114/57A			SF 1.0							
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.									

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	
NEMA Design Code		A		KVA Code		H	
Service Factor (S.F.)		1.15		Locked-rotor Torque		246 LB-FT	
NEMA Nom. Eff.		94.1		Power Factor		82	
Rating - Duty		40C		AMB-CONT		Starting Current	
S.F. Amps						330 A	
						No-load Current	
						21.1 A	
						Line-line Res. @ 25°C	
						0.16236 Ω	
						Temp. Rise @ Rated Load	
						41°C	
						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





