



Customer information packet

EM2542T

50HP, 3525RPM, 3PH, 60HZ, 324TS, 4058M, OPSB, F

Specifications

Enclosure	OPSB
Frame	324TS
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 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
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	56.000 A @ 460.0 V 124.000 A @ 208.0 V 112.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
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	V
Type	AC
Mech. spec.	40E213
Base	
Status	PRD/A
Elec. spec.	40WGW803
Layout	40LYE213
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	10-22-2010

High Voltage Full Load Amps	56.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	G
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	4058M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	25.69 IN
Power Factor	90
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	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3525 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.	EM2542T			P/N					ENCL	OPSE
SPEC.	40E213W803G1	CC	010A	FRAME		324TS	SER.NO.			
HP	50		CLASS		F	HZ	60			
RPM	3525		PH	3	DES		A			
VOLTS	230/460			CODE		G	ODE BRG	6309	DE BRG	6312
AMPS	112/56									
RATING	40C AMB-CONT		NEMA-NOM-EFF			93	GREASE	POLYREX EM		
PF	90	SER.F.	1.15	CT30-60(2:1) VT3-60(20:1)						
USABLE AT	50HZ 50HP 190/380V 138/69A			SF 1.0						
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.								

Accessories

Part number	Description	Multiplier
40-1401	C FACE KIT 40/324-6UC TC 6312 BRG	A8

AC Induction Motor Performance Data

Record # 52622

Typical performance - not guaranteed values

Winding: 40GW803-R005				Type: 4058M		Enclosure: OPSB	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		50		Full Load Torque		74.7 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		112/56		Breakdown Torque		168 LB-FT	
R.P.M.		3525		Pull-up Torque		115 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		135 LB-FT	
NEMA Design Code		A	KVA Code	G	Starting Current		376 A
Service Factor (S.F.)		1.15		No-load Current		14.2 A	
NEMA Nom. Eff.		93	Power Factor	90	Line-line Res. @ 25°C		0.1415 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		47°C	
S.F. Amps				Temp. Rise @ S.F. Load		60°C	
				Locked-rotor Power Factor		23.2	
				Rotor inertia		2.49 LB-FT2	

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	66	83	88	90	90	90	90
Efficiency	92.9	94.4	94.1	93.3	92.2	90.5	92.6
Speed	3581.7	3565.2	3545.9	3526.6	3505.2	3475.1	3514
Line amperes	20	30.4	42.8	56.3	70.7	89.9	64.9

ABB Motors and Mechanical Inc.

WINDING # 40WGW803

Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 3525 RPM 460 V 4058M

TORQUES (LB-FT): PO=168 PU=115 LR=135 LRA=376





