

ABB BALDOR RELIANCE III

Customer information packet

EM2543TS-12

50HP, 1775RPM, 3PH, 60HZ, 326TS, 4256M, OPSB, F

Specifications

Enclosure	OPSB
Frame	326TS
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 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	122.000 A @ 230.0 V 61.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	61.0 a
Insulation Class	F

Part Detail

Revision	V
Type	AC
Mech. spec.	42F58
Base	
Status	PRD/A
Elec. spec.	42WGW480
Layout	42LYF058
Eff. date	06-27-2024
CD Diagram	CD0104
Poles	04
Leads	12#8
Proprietary	False
Created date	08-03-2010

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	12 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4256M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	26.19 IN
Power Factor	81
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	1775 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

NP3554LUA													
CAT.NO.	EM2543TS-12				P/N				ENCL				OPSB
SPEC.	42F058W480		CC	010A		FRAME		326TS		SER.NO.			
HP	50			CLASS		F	HZ		60				
RPM	1775			PH	3	DES		B					
VOLTS	230/460				CODE		H		ODE BRG		6311	DE BRG	6312
AMPS	122/61												
RATING	40C AMB-CONT			NEMA-NOM-EFF				94.5		GREASE		POLYREX EM	
PF	81		SER.F.	1.15		CT30-60(2:1) VT3-60(20:1)							
USABLE AT	50HZ 50HP 190/380V 136/68A					SF 1.0							
HTR-VOLTS	HTR-AMPS		MAX. SPACE HEATER TEMP.										

AC Induction Motor Performance Data

Record # 13699

Typical performance - not guaranteed values

Winding: 42WGW480-R001				Type: 4256M		Enclosure: OPSB	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		50		Full Load Torque		148 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		122/61		Breakdown Torque		524 LB-FT	
R.P.M.		1775		Pull-up Torque		357 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		328 LB-FT	
NEMA Design Code		B	KVA Code	H	Starting Current		422 A
Service Factor (S.F.)		1.15		No-load Current		25.9 A	
NEMA Nom. Eff.		94.5	Power Factor	81	Line-line Res. @ 25°C		0.112 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		18°C	
S.F. Amps				Temp. Rise @ S.F. Load		21°C	
				Locked-rotor Power Factor		27	
				Rotor inertia		7.46 LB-FT2	

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	67	77	82	84	84	83
Efficiency	89.6	93.5	94.4	94.5	94.1	93.7	94.3
Speed	1794	1789	1784	1779	1772	1767	1775
Line amperes	29.4	37.6	48.4	60.8	74.3	88.9	68.9

ABB Motors and Mechanical Inc.

WINDING # 42GW480

Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 1775 RPM 460 V 4256M

TORQUES (LB-FT): PO=524 PU=357 LR=328 LRA=422





