

ABB BALDOR RELIANCE III

Customer information packet

EM3116T-BG

1HP, 1770RPM, 3PH, 60HZ, 143T, 3522M, OPSB, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	OPSB
Frame	143T
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	1.000 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 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	1.700 A @ 460.0 V 3.400 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.7 a
Insulation Class	H

Part Detail

Revision	B
Type	AC
Mech. spec.	35E2261
Base	
Status	PRD/A
Elec. spec.	35WGZ805
Layout	35LYE2261
Eff. date	08-20-2026
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	10-03-2024

Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3522M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	11.63 IN
Power Factor	66
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Ground Indicator	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

NP3553LUA									
CAT.NO.	EM3116T-BG								
SPEC.	35E2261Z805								
HP	1								
VOLTS	230/460								
AMPS	3.4/1.7								
RPM	1770								
FRAME	143T		HZ	60			PH	3	
SF	1.15	CODE	N	DES	B	CLASS	H		
NEMA NOM. EFF	85.5	PF	66						
RATING	40C AMB-CONT								
CC	010A								
ENCL	OPSB	SN							
DE	6205		ODE	6203					
VPWM INVERTER READY		SFA 3.6/1.8							
CT30-60(2:1) VT3-60(20:1)									
USABLE AT									

AC Induction Motor Performance Data

Record # 107042

Preliminary Data Sheet

Winding: 35WGZ805-R057			Type: 3522M		Enclosure: OPSB		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		1	Full Load Torque		2.97 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		3.4/1.7	Breakdown Torque		15.9 LB-FT		
R.P.M.		1770	Pull-up Torque		9.1 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		10.4 LB-FT	
NEMA Design Code		B	KVA Code		N		
Service Factor (S.F.)		1.15	Starting Current		15.7 A		
NEMA Nom. Eff.		85.5	Power Factor		66		
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		24°C
S.F. Amps		3.6/1.8	Temp. Rise @ S.F. Load		28°C		
			Locked-rotor Power Factor		58.6		
			Rotor inertia		0.159 lb-ft²		

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	27	43	56	65	72	76	69
Efficiency	70.7	81	84.4	85.8	85.9	85.5	85.9
Speed	1792	1785	1778	1771	1763	1755	1766
Line amperes	1.23	1.34	1.49	1.68	1.89	2.15	1.81

ABB Motors and Mechanical Inc.

WINDING # 35WGZ805

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1770 RPM 460 V 3522M

TORQUES (LB-FT): PO=15.9 PU=9.1 LR=10.4 LRA=15.7





