

ABB BALDOR RELIANCE III

Customer information packet

HBEM3546T

20M 4P TEFC HOR 143T

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
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	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CURUSEEV NEMA PREMIUM WEEE
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	3.200 A @ 208.0 V 3.260 A @ 230.0 V 1.630 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Electrically Isolated Bearings
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	H
Type	AC
Mech. spec.	35E5738
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYE5738
Eff. date	08-04-2025
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	12-23-2021

High Voltage Full Load Amps	1.6 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.29 IN
Power Factor	67
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
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	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1760 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

AC Induction Motor Performance Data

Record # 86922

Typical performance - not guaranteed values

Winding: 35WGG004-R004			Type: 3520M		Enclosure: TEFC	
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		3.26/1.63	Breakdown Torque			13.68 LB-FT
R.P.M.		1760	Pull-up Torque			7.85 LB-FT
Hz	60	Phase	3	Locked-rotor Torque		9.01 LB-FT
NEMA Design Code	B	KVA Code	N	Starting Current		14.13 A
Service Factor (S.F.)		1.15	No-load Current			1.08 A
NEMA Nom. Eff.	85.5	Power Factor	67	Line-line Res. @ 25°C		16.9 Ω
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load			24°C
S.F. Amps		3.52/1.76	Temp. Rise @ S.F. Load			27°C
			Locked-rotor Power Factor			61.5
			Rotor inertia			0.144 lb-ft²

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	30	47	60	69	76	79	73
Efficiency	72.1	81.7	84.7	85.7	85.5	84.7	85.6
Speed	1791	1784	1776	1768	1759	1750	1763
Line amperes	1.11	1.22	1.38	1.59	1.82	2.09	1.73

ABB Motors and Mechanical Inc.

WINDING # 35WGG004

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1760 RPM 460 V 3520M

TORQUES (LB-FT): PO=13.68 PU=7.85 LR=9.01 LRA=14.13





