

ABB BALDOR RELIANCE III

Customer information packet

VNEDM3554T

1.5HP, 1770RPM, 3PH, 60HZ, 145TC, 3530M, TENV

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	145TC
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	1.500 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	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	6
Current @ Voltage	4.600 A @ 230.0 V 4.400 A @ 208.0 V 2.300 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated

Part Detail

Revision	E
Type	AC
Mech. spec.	35E4321
Base	
Status	PRD/A
Elec. spec.	35WGG178
Layout	35LYE4321
Eff. date	05-03-2024
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-10-2022

Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	2.3 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	M
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3530M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.99 IN
Power Factor	72
Product Family	Dirty Duty Plus
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.875 IN
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

NP3504											
CAT NO	VNEDM3554T										
SPEC.	35E4321G178G1					ENCL	TENV				
FRAME	145TC	HP	1.5								
VOLTS	230/460										
FLA	4.6/2.3			I.P.	56						
RPM	1770	RPM MAX			2700						
HZ	60	PH	3	CLASS		F					
SER.F.	1.15	DES	B	CC	010A						
NEMA-NOM-EFF	87.5										
RATING	40C AMB-CONT										
DE BRG	6205	ODE BRG			6203						
GREASE	POLYREX EM										
INV.TYPE		C HP FR		60	C HP TO		90				
CT HZ FROM	6	CT HZ TO		60	VT HZ FROM		6	VT HZ TO		60	
SER.NO	SFA 4.66/2.33										

AC Induction Motor Performance Data

Record # 82076

Typical performance - not guaranteed values

Winding: 35WGG178-R001			Type: 3530M		Enclosure: TENV	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		1.5	Full Load Torque		4.46 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		4.2/2.1	Breakdown Torque		21 LB-FT	
R.P.M.		1770	Pull-up Torque		12.2 LB-FT	
Hz	60 Phase	3	Locked-rotor Torque		14.8 LB-FT	
NEMA Design Code		B KVA Code	Starting Current		21.4 A	
Service Factor (S.F.)		1.15	No-load Current		1.3 A	
NEMA Nom. Eff.		86.5 Power Factor	Line-line Res. @ 25°C		10.1 Ω	
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		80°C	
S.F. Amps			Temp. Rise @ S.F. Load		95°C	
			Locked-rotor Power Factor		55.2	
			Rotor inertia		0.217 LB-FT2	

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	29	49	63	72	78	82	79
Efficiency	78.6	86.1	87.9	88.2	87.5	86.4	87.9
Speed	1792	1785	1778	1770	1762	1753	1764
Line amperes	1.36	1.53	1.79	2.11	2.47	2.9	2.33

ABB Motors and Mechanical Inc.

WINDING # 35WGG178

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 3530M

TORQUES (LB-FT): PO=21 PU=12.2 LR=14.8 LRA=21.4



