

ABB BALDOR RELIANCE III

Customer information packet

ZDWNM3546T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 3522M, TENV, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	143TC
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	CSA 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	1.670 A @ 460.0 V 3.300 A @ 208.0 V 3.340 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	ENCODER
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.7 a

Part Detail

Revision	C
Type	AC
Mech. spec.	35RR179
Base	
Status	PRD/A
Elec. spec.	35WZ818
Layout	35LYRR179
Eff. date	10-21-2025
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-10-2022

Insulation Class	H
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	3522M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	14.90 IN
Power Factor	66
Product Family	Wash Down
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1609L									
CAT NO	ZDWNM3546T								
SPEC.	35RR179Z818G1								
FRAME	143TC			HP	1 TE				
VOLTS	230/460								
MAG CUR	2.5/1.25			FLA		3.34/1.67			
RPM	1770		RPM MAX			6000			
HZ	60	PH	3	CLASS			H		
SER.F.	1.00	DES	B	SL HZ			1		
NEMA-NOM-EFF	85.5	WK2		0.159					
BLWR V		PH		HZ		A			
RATING	40C AMB-CONT								
DE BRG	6205	ODE BRG			6203				
CC	010A	SER.NO							

AC Induction Motor Performance Data

Record # 89787

Typical performance - not guaranteed values

Winding: 35WGZ818-R005			Type: 3522M		Enclosure: TENV			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		1	Full Load Torque		2.99 LB-FT			
Volts		230/460	Start Configuration		direct on line			
Full Load Amps		3.34/1.67	Breakdown Torque		16.6 LB-FT			
R.P.M.		1770	Pull-up Torque		7.42 LB-FT			
Hz	60	Phase	3	Locked-rotor Torque		10.32 LB-FT		
NEMA Design Code		B	KVA Code	M	Starting Current		16.1 A	
Service Factor (S.F.)		1	No-load Current		1.23 A			
NEMA Nom. Eff.		85.5	Power Factor		66	Line-line Res. @ 25°C		14.4 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		63°C	
					Locked-rotor Power Factor		59.3666	
					Rotor inertia		0.159 lb-ft²	

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	27	43	56	66	73	78
Efficiency	70.8	81.2	84.5	85.9	85.8	85.2
Speed	1793	1786	1781	1773	1766	1758
Line amperes	1.25	1.34	1.49	1.67	1.87	2.12

ABB Motors and Mechanical Inc.

WINDING # 35WGZ818

Typical performance - not guaranteed values.

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

TORQUES (LB-FT): PO=16.6 PU=7.42 LR=10.32 LRA=16.1





