

ABB BALDOR RELIANCE III

Customer information packet

VFSWDNM3610T-E

3HP, 3500RPM, 3PH, 60HZ, 182TC, 3646M, TENV, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	182TC
Frame Material	Stainless Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	3.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA 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
Current @ Voltage	3.500 A @ 460.0 V 7.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	89.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	3.5 a

Part Detail

Revision	Q
Type	AC
Mech. spec.	36R540
Base	
Status	PRD/A
Elec. spec.	36WGR690
Layout	36LYR540
Eff. date	04-06-2026
CD Diagram	CD0005
Poles	02
Leads	9#16
Proprietary	False
Created date	07-14-2017

Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	P
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 16 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3646M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	17.05 IN
Power Factor	92
Product Family	WD All SS Encapsulated
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3500 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

NP4427AAA01															
CAT #	VFSWDNM3610T-E					WT	96		LBS						
SPEC	36R540R690G1					ENCL	TENV								
SER #						CC	010A		IP	69					
HP	3		MAG CUR			2.4/1.2									
VOLTS	230/460					NEMA NOM. EFF				89.5					
AMPS	7/3.5					PF		92							
RATING	40C AMB-CONT														
RPM	3500					MAX RPM		5400							
FRAME	182TC	HZ		60		CODE	P	CLASS		H					
SER.F.	1.15	SF AMP		8/4		PH		3	DES		A				
DE	6206		ODE		6206										
LUBRICATION	POLYREX EM														
ID LOGO	INVERTER TYPE			VPWM		CHP	60		TO		90		1.5:1		
ID LOGO	WK2	0.207	CT	15	TO	60	4:1								
ID LOGO	SL HZ	1.7	VT	3	TO	60	20:1								
							QR								
YR															

AC Induction Motor Performance Data

Record # 72109

Typical performance - not guaranteed values

Winding: 36WGR690-R001			Type: 3646M		Enclosure: TENV			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		3	Full Load Torque		4.536 LB-FT			
Volts		230/460	Start Configuration		direct on line			
Full Load Amps		7/3.5	Breakdown Torque		29.7 LB-FT			
R.P.M.		3500	Pull-up Torque		22 LB-FT			
Hz	60	Phase	3	Locked-rotor Torque		27.7 LB-FT		
NEMA Design Code		A	KVA Code	P	Starting Current		51.1 A	
Service Factor (S.F.)		1.15	No-load Current		1.21 A			
NEMA Nom. Eff.		89.5	Power Factor		92	Line-line Res. @ 25°C		2.4383 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		99°C	
S.F. Amps					Temp. Rise @ S.F. Load		108°C	
					Locked-rotor Power Factor		41.4	

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	80	87	91	93	94	92
Efficiency	76.2	85.4	88	88.8	89.5	89	89.2
Speed	3576.9	3559.8	3542	3522	3503.1	3482.1	3511
Line amperes	1.53	2.09	2.77	3.52	4.23	5.02	3.95

ABB Motors and Mechanical Inc.

WINDING # 36WGR690

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 3500 RPM 460 V 3646M

TORQUES (LB-FT): PO=29.7 PU=22 LR=27.7 LRA=51.1





