

ABB BALDOR RELIANCE III

Customer information packet

EFM3616T-G

7.5HP, 3450RPM, 3PH, 60HZ, 184T, 3646M, TEFC, F

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	184T
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	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CSA EEV NEMA PREMIUM 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	18.500 A @ 208.0 V 8.400 A @ 460.0 V 16.800 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

Part Detail

Revision	C
Type	AC
Mech. spec.	36N439
Base	
Status	PRD/A
Elec. spec.	36WGS428
Layout	36LYN439
Eff. date	05-01-2024
CD Diagram	CD0005
Poles	02
Leads	9#16
Proprietary	False
Created date	08-11-2022

High Voltage Full Load Amps	8.4 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	L
Lifting Lugs	No 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	F2
Number of Poles	2
Overall Length	18.04 IN
Power Factor	93
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.125 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3450 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

NP3441LUA									
CAT.NO.	EFM3616T-G								
SPEC	36N439S428G1								
HP	7.5								
VOLTS	230/460								
AMPS	16.8/8.4								
RPM	3450								
FRAME	184T		HZ	60		PH	3		
SF	1.15	CODE	L	DES	A	CLASS	F		
NEMA NOM. EFF	89.5	PF	93						
RATING	40C AMB-CONT								
CC	010A								
ENCL	TEFC	SER							
DE	6206		ODE	6205					
VPWM INVERTER READY									
CT6-60H(10:1)VT3-60H(20:1									
50HZ 7.5HP 190/380V 21/10.5A									SF1.0

AC Induction Motor Performance Data

Record # 52145

Typical performance - not guaranteed values

Winding: 36WGS428-R020			Type: 3646M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		7.5	Full Load Torque		11.4 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		16.8/8.4	Breakdown Torque		57.9 LB-FT		
R.P.M.		3450	Pull-up Torque		39.9 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		48.2 LB-FT	
NEMA Design Code		A	KVA Code	L	Starting Current		91 A
Service Factor (S.F.)		1.15	No-load Current		2.33 A		
NEMA Nom. Eff.		89.5	Power Factor	93	Line-line Res. @ 25°C		1.43 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		74°C	
S.F. Amps				Temp. Rise @ S.F. Load		92°C	
				Locked-rotor Power Factor		44.4	
				Rotor inertia		0.205 LB-FT2	

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	64	85	90	93	94	94	94
Efficiency	86.9	90.6	91	90.1	88.8	86.5	89.3
Speed	3571	3539	3505	3468	3429	3385	3445
Line amperes	3.14	4.59	6.43	8.43	10.5	12.9	9.67

ABB Motors and Mechanical Inc.

WINDING # 36WGS428

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 3450 RPM 460 V 3646M

TORQUES (LB-FT): PO=57.9 PU=39.9 LR=48.2 LRA=91





