

ABB BALDOR RELIANCE III

Customer information packet

CEM3710T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 3738M, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	213TC
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	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CURUSEEV NEMA PREMIUM
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	19.000 A @ 230.0 V 20.000 A @ 208.0 V 9.500 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.5 a

Part Detail

Revision	B
Type	AC
Mech. spec.	37G814
Base	
Status	PRD/A
Elec. spec.	37WGL864
Layout	37LYG814
Eff. date	05-02-2024
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	11-11-2020

Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3738M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.76 IN
Power Factor	80
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.375 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

NP3441LUA									
CAT.NO.	CEM3710T								
SPEC	37G814L864G1								
HP	7.5								
VOLTS	230/460								
AMPS	19/9.5								
RPM	1770								
FRAME	213TC		HZ	60		PH	3		
SF	1.15	CODE	J	DES	A	CLASS	F		
NEMA NOM. EFF	91.7	PF	80						
RATING	40C AMB-CONT								
CC	010A								
ENCL	TEFC	SER							
DE	6307		ODE	6206					
VPWM INVERTER READY									
CT6-60H(10:1)VT3-60H(20:1									
	50HZ 7.5HP 190/380V 22.4/11.2A							SF1.0	

AC Induction Motor Performance Data

Record # 85467

Preliminary Data Sheet

Winding: 37WGL864-R001			Type: 3738M		Enclosure: TEFC		
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		7.5		Full Load Torque		22.2 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		19.0/9.5		Breakdown Torque		69.8 LB-FT	
R.P.M.		1770		Pull-up Torque		31.5 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		41 LB-FT	
NEMA Design Code		A	KVA Code	J	Starting Current		70.7 A
Service Factor (S.F.)		1.15		No-load Current		4.32 A	
NEMA Nom. Eff.		91.7	Power Factor	80	Line-line Res. @ 25°C		1.48 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		64°C	
S.F. Amps		21.4/10.7		Temp. Rise @ S.F. Load		84°C	
				Locked-rotor Power Factor		41.9	
				Rotor inertia		0.934 lb-ft²	

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	42	64	75	80	83	84	83
Efficiency	87.1	91.4	92	91.7	90.7	89.6	90.7
Speed	1793	1786	1778	1770	1760	1750	1761
Line amperes	4.83	6.03	7.64	9.5	11.6	13.9	10.7

ABB Motors and Mechanical Inc.

WINDING # 37WGL864

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1770 RPM 460 V 3738M

TORQUES (LB-FT): PO=69.8 PU=31.5 LR=41 LRA=70.7



