

ABB BALDOR RELIANCE III

Customer information packet

EMM4103

18.5KW, 1760RPM, 3PH, 60HZ, D180M, 1050M, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	D180M
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	18.500 KW @ 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	UR CSA
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	31.000 A @ 460.0 V 62.000 A @ 230.0 V 64.000 A @ 208.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Frame Prefix	D
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	Y
Type	AC
Mech. spec.	10E377
Base	
Status	PRD/A
Elec. spec.	10WGY546
Layout	10LYE377
Eff. date	06-20-2024
CD Diagram	CD0005
Poles	04
Leads	9#8
Proprietary	False
Created date	03-22-2010

Heater Indicator	No Heater
High Voltage Full Load Amps	31.0 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	IEC
Motor Type	1050M
Mounting Arrangement	B3
Number of Poles	4
Overall Length	27.48 IN
Power Factor	81
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	1.891 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1775 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

NP1159L									
CAT.NO.									
SPEC.	10E377Y546G1								
IEC FRAME	D180M		KW		18.5				
VOLTS	230/460								
AMP	62/31								
RPM	1775				ENCL			TEFC	
HZ	60		PH		3		CL		F
SER.F.	1.15		DES		A		CODE		H
NEMA-NOM-EFF	93.6	I.P.		54					
RATING	40C AMB-CONT								
CC	010A								
DE	6311	ODE		6309					
SER. #									

AC Induction Motor Performance Data

Record # 35487

Typical performance - not guaranteed values

Winding: 10WGY546-R002			Type: 1050M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (KW)		18.5	Full Load Torque		72.9 LB-FT		
Volts		208-230/460	Start Configuration		direct on line		
Full Load Amps		64-62/31	Breakdown Torque		275 LB-FT		
R.P.M.		1760	Pull-up Torque		119 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		138 LB-FT	
NEMA Design Code		A	KVA Code	Starting Current		212 A	
Service Factor (S.F.)		1.15	No-load Current		13.6 A		
NEMA Nom. Eff.		93.6	Power Factor	Line-line Res. @ 25°C		0.242 Ω	
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		52°C
S.F. Amps					Temp. Rise @ S.F. Load		61°C
					Locked-rotor Power Factor		31
					Rotor inertia		3.99 LB-FT2

Load Characteristics 460 V, 60 Hz, 18.5 KW

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	43	65	76	81	84	85	83
Efficiency	87.3	91.8	93.1	93.7	93.3	92.3	93.4
Speed	1793	1787	1782	1776	1769	1760	1772
Line amperes	15.3	19.1	24.4	30.6	36.9	45.4	34.3

ABB Motors and Mechanical Inc.

WINDING # 10WGY546

Typical performance - not guaranteed values.

18.5 KW 3 PH 60 HZ 1760 RPM 460 V 1050M

TORQUES (LB-FT): PO=275 PU=119 LR=138 LRA=212





