



Customer information packet

CM3538

.5HP, 1720RPM, 3PH, 60HZ, 56C, 3416M, TEFC, F1

ABB Ltd Drives

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	56C
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	.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	C UR US
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	1.700 A @ 208.0 V 1.600 A @ 230.0 V .800 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	75.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	0.8 a
Insulation Class	B

Part detail

Revision	D
Type	AC
Mech. spec.	34A062
Base	
Status	PRD/A
Elec. spec.	34WGR706
Layout	34LYA062
Eff. date	12-30-2024
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	11-19-2020

Inverter Code	Not Inverter
KVA Code	J
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3416M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	11.35 IN
Power Factor	75
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.25
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1720 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

NP1256L											
CAT.NO.	CM3538										
SPEC.	34A062R706										
HP	.5										
VOLTS	230/460										
AMP	1.6/.8										
RPM	1720										
FRAME	56C		HZ	60			PH	3			
SER.F.	1.25	CODE	J	DES	B		CLASS	B			
NEMA-NOM-EFF	75.5	PF	75								
RATING	40C AMB-CONT										
CC											
DE	6203		ODE	6203							
ENCL	TEFC	SN									
	SFA 1.9/0.95										

Parts list

Part number	Description	Quantity
SA387926	SA 34A062R706	1.000 ea
RA378266	RA 34A062R706	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
34CB3002A	CB CAST W/.88 DIA HOLE	1.000 ea
34GS1029A01	GASKET, CONDUIT BOX	1.000 ea
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
34EP3102A01SP	FR ENDPLATE, MACH	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
34EP3300A24SP	PU ENDPLATE, MACH	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
34FH4002A01SP	IEC FH NO GREASER PRIMED	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
34CB4517	CB LID 4 MTG HOLES .22 DIA STAMPED, FOR	1.000 ea
34GS1031A01	GASKET, FLAT CONDUIT BOX LID (LEXIDE)	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.014 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
HA3100A12	THRUBOLT 10-32 X 7.375	4.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/22	1.000 ea
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 ea
NP1256L	ALUM UL CC INDUSTRIAL MOTOR A60	1.000 ea
34PA1002	PKG GRP, PRINT PK1001A01	1.000 ea

AC Induction Motor Performance Data

Record # 110334

Typical performance - not guaranteed values

Winding: 34WGR706-R002			Type: 3416M		Enclosure: TEFC			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		.5	Full Load Torque		1.53 LB-FT			
Volts		230/460	Start Configuration		direct on line			
Full Load Amps		1.6/.8	Breakdown Torque		5.15 LB-FT			
R.P.M.		1720	Pull-up Torque		2.87 LB-FT			
Hz	60	Phase	3	Locked-rotor Torque		3.94 LB-FT		
NEMA Design Code		B	KVA Code	J	Starting Current		5 A	
Service Factor (S.F.)		1.25	No-load Current		0.577 A			
NEMA Nom. Eff.		75.5	Power Factor		75	Line-line Res. @ 25°C		48.9 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		50°C	
S.F. Amps		1.9/0.95	Temp. Rise @ S.F. Load		70°C			
			Locked-rotor Power Factor		66.6			
			Rotor inertia		0.0381 lb-ft²			

Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	34	53	66	75	81	84	81
Efficiency	58.6	70.6	74.6	75.5	74.8	72.9	74.8
Speed	1779	1761	1741	1718	1692	1662	1692
Line amperes	0.583	0.631	0.712	0.824	0.962	1.14	0.962

ABB Motors and Mechanical Inc.

WINDING # 34WGR706

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1720 RPM 460 V 3416M

TORQUES (LB-FT): PO=5.15 PU=2.87 LR=3.94 LRA=5





