

ABB BALDOR RELIANCE III

Customer information packet

EM2543T-8

50HP, 1775RPM, 3PH, 60HZ, 326T, 4256M, OPSB, F1

Specifications

Enclosure	OPSB
Frame	326T
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	200.0 V @ 60 HZ
Agency Approvals	CURUSEEV NEMA PREMIUM (OLD LOGO) 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	131.000 A @ 208.0 V 132.000 A @ 200.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	132.0 a
Insulation Class	F
Inverter Code	Inverter Ready

Part Detail

Revision	AG
Type	AC
Mech. spec.	42F56
Base	
Status	PRD/A
Elec. spec.	42WGW479
Layout	42LYF056
Eff. date	06-27-2024
CD Diagram	CD0695
Poles	04
Leads	6#6
Proprietary	False
Created date	01-01-0001

KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 6 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4256M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	27.69 IN
Power Factor	87
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	2.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1775 rpm
Speed Code	Single Speed
Starting Method	Part Winding
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3554L											
CAT.NO.	EM2543T-8			P/N						ENCL	OPSB
SPEC.	42F056W479		CC	010A		FRAME	326T		SER.NO.		
HP	50			CLASS		F	HZ	60			
RPM	1775			PH	3	DES		A			
VOLTS	200			CODE		G		ODE BRG	6311	DE BRG	6312
AMPS	132										
RATING	40C AMB-CONT			NEMA-NOM-EFF				94.5	GREASE	POLYREX EM	
PF	87	SER.F.	1.15		VPWM INVERTER READY						
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.									

Parts List

Part number	Description	Quantity
SA049160	SA 42F056W479	1.000 ea
RA044174	RA 42F056W479	1.000 ea
HA6360	LIFTING LUG FOR 42 FRAME MOTORS.	2.000 ea
HA6017	CAST ADAPTER, 40,42 KOBX	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 ea
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 ea
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 ea
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
42EP3200A01	FR ENDPLATE, MACH	1.000 ea
HW5100A13	W4627-047 WVY WSHR	1.000 ea
42EP3200B02	PU ENDPLATE, MACH	1.000 ea
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	8.000 ea
10CB3500SP	CONDUIT BOX LID, CAST	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.030 lb
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA3151A03	THRUBOLT STUD 1/2-13 X 20.5	4.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.080 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea

LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0695	CONNECTION LABEL	1.000 ea
NP3554L	SS SUPER-E,CURUS-EEV,NEMA PREM,CC,300 SR	1.000 ea
40PA1000	PACKAGING GROUP	1.000 ea

Accessories

Part number	Description	Multiplier
42-1300	C FACE KIT	A8
42EP1601A01	SP'L D-FLANGE MTD. PU. E.P. MDL.42 W/BFL	P1

AC Induction Motor Performance Data

Record # 13698

Typical performance - not guaranteed values

Winding: 42WGW479-R001			Type: 4256M		Enclosure: OPSB		
Nameplate Data			200 V, 60 Hz: Single Voltage Motor				
Rated Output (HP)		50	Full Load Torque		148 LB-FT		
Volts		200	Start Configuration		direct on line		
Full Load Amps		132	Breakdown Torque		423 LB-FT		
R.P.M.		1775	Pull-up Torque		234 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		283 LB-FT	
NEMA Design Code		A	KVA Code	G	Starting Current		877 A
Service Factor (S.F.)		1.15	No-load Current		48 A		
NEMA Nom. Eff.		94.5	Power Factor	87	Line-line Res. @ 25°C		0.0235 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		36°C	
S.F. Amps				Temp. Rise @ S.F. Load		43°C	
				Locked-rotor Power Factor		27	
				Rotor inertia		7.46 LB-FT2	

Load Characteristics 200 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	47	70	80	87	86	86	86
Efficiency	90	93.6	94.4	94.5	94.1	94	94.3
Speed	1795	1790	1785	1779	1774	1768	1776
Line amperes	64	83	108	132	166	200	152.4

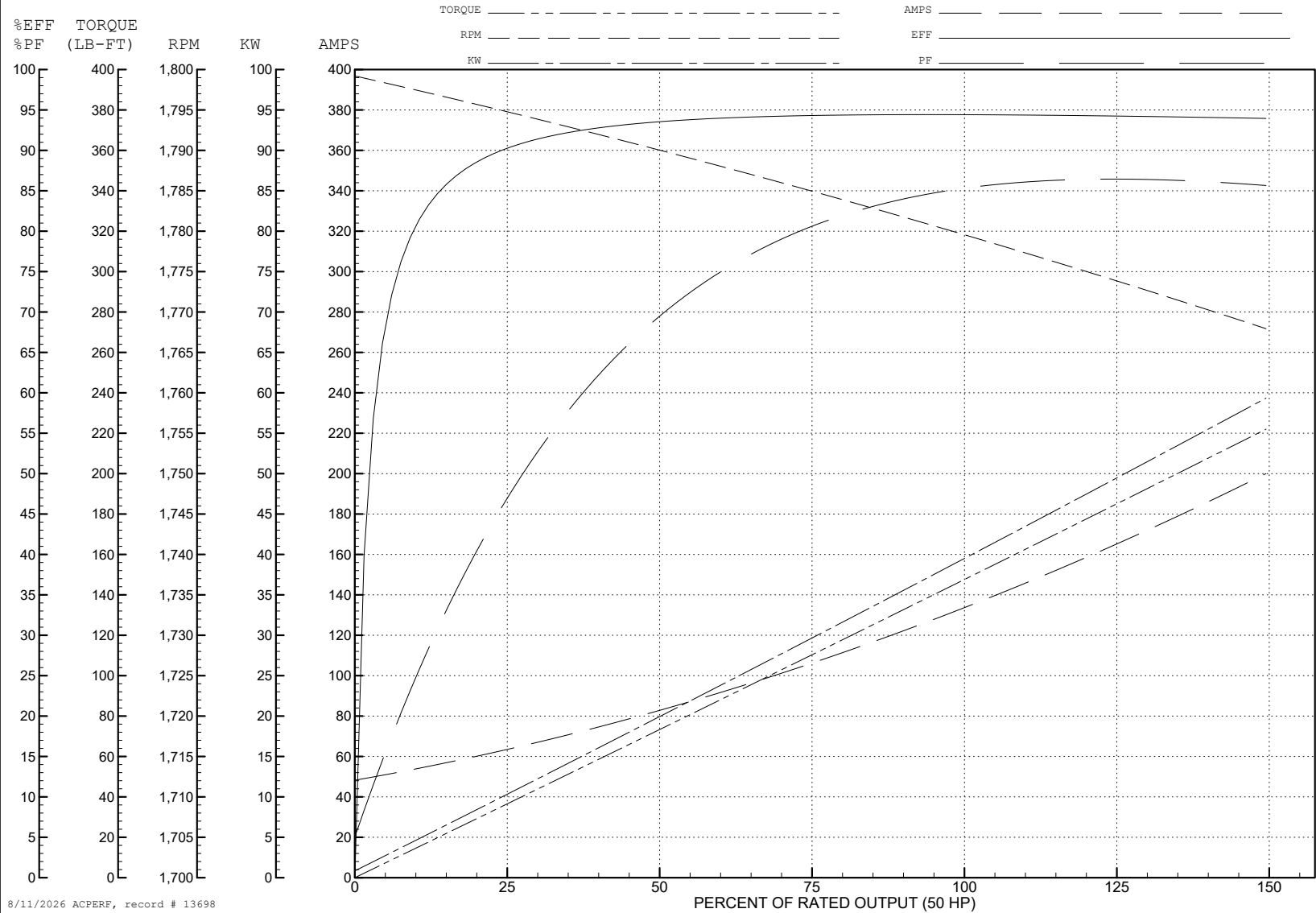
ABB Motors and Mechanical Inc.

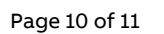
WINDING # 42WGW479

Typical performance - not guaranteed values.

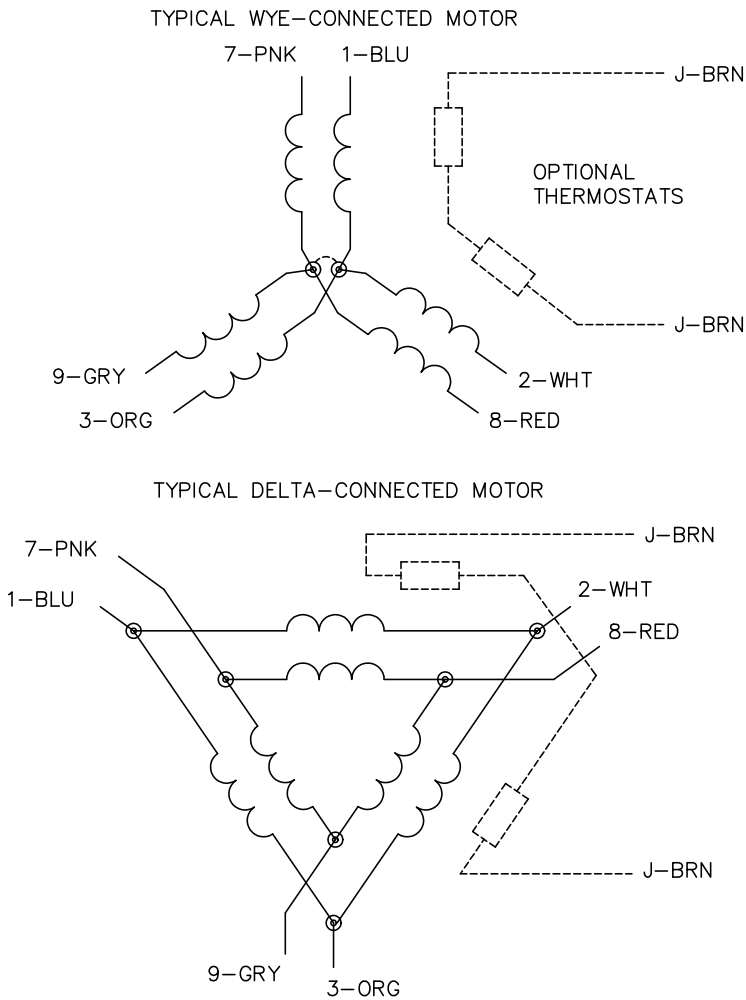
50 HP 3 PH 60 HZ 1775 RPM 200 V 4256M

TORQUES (LB-FT): PO=423 PU=234 LR=283 LRA=877

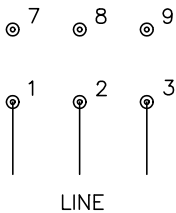




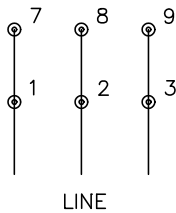
CD0695



START CONNECTION



RUN CONNECTION



NOTES:

1. MOTOR MAY BE WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: C

BY: JLP

REVISED: 01/21/99 3:19

TDR: 0171435

S69000

FILE: AAA00005151

MDL: -

MTL: -

BALDOR ELECTRIC Co.

3PH, SV, 6 LEADS, PART WINDING START

CD0695