

ABB BALDOR RELIANCE III

Customer information packet

ECP3580T

1HP, 3450RPM, 3PH, 60HZ, 143T, 0516M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	143T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV NEMA PREMIUM NEMA_PREMIUM UR CCSA 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
Constant Torque Speed Range	6
Current @ Voltage	2.800 A @ 230.0 V 1.400 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	84.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	Severe Duty Features

Part Detail

Revision	AB
Type	AC
Mech. spec.	05F008
Base	
Status	PRD/A
Elec. spec.	05WGW546
Layout	05LYF008
Eff. date	08-05-2026
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	02-24-2009

Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Haz Area Temp Code	T4
Heater Indicator	No Heater
High Voltage Full Load Amps	1.4 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	L
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Max Speed	5400 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0516M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	12.88 IN
Power Factor	82
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft 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

NP3258									
CAT.NO.	ECP3580T								
SPEC.	05F008W546G1								
HP	1 TE								
VOLTS	230/460								
AMP	2.8/1.4								
RPM	3450								
FRAME	143T	HZ		60		PH		3	
SER.F.	1.15	CODE		L	DES		B	CL	F
RATING	40C AMB-CONT								
SN									
DE	6205	ODE		6205					
NEMA-NOM-EFF	84	PF		82					
G.MIN.EFF	81.5	CC		010A					
T. CODE	T4	T=		135					

NP3261			
SPEC.	05F008W546G1		
D.E. BRG.	25BC02XP30X		
O.D.E. BRG.	25BC02XP30X		
GREASE	POLYREX EM		
RPM MAX	5400	MAX. KVAR	0.2
BLANK			
INV.TYPE	PWM		
T=	135		
C HP FR	60	C HP TO	90
CT HZ FROM	6	CT HZ TO	60
VT HZ FROM	3	VT HZ TO	60
HTR-VOLTS		HTR-AMPS	
HTR-WATTS		MAX. SPACE HEATER TEMP.	

Parts List

Part number	Description	Quantity
SA179865	SA 05F008W546G1	1.000 ea
RA167856	RA 05F008W546G1	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
06CB1000A02G	CONDUIT BOX, MACH GRAY	1.000 ea
RM1016	LEAD SEPARATOR GASKET - 305/306 C.P.MOTO	1.000 ea
51XW2520A12	SCREW, HEX SER SLT HD, ZN, 1/4-20 X .75	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B02	BRASS CUP WASHER W/GROUND SYMBOL TAB,	1.000 ea
10XN2520S06	1/4 20X3/8 HX HD CAP S.S.	2.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	2.000 ea
35EP1102B03G	FREP TEFC 205 BRG,GRSR,RLF,.125 NPT DRAI	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 ea
35EP1102A67G	PUEP ENCL 205 BRG W/GRSR,REL F&.125 NPT D	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA3100A37	THRUBOLT 10-32 X 8.500	4.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
35FH1000A01G	35FH1000A01 W/GRAY FLUIDIZ	1.000 ea
WD4100A03	DE-750 HEYCO PLUG 62MP0750 MICRO PLASTIC	1.000 ea
10XN2520A18	1/4-20 X 1-1/8 HEX CAP SCREW.	3.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	3.000 ea
06CB1502G	LIPPED CONDUIT BOX LID CAST, GRAY EPOXY	1.000 ea
06GS1003	GASKET, KOBX LID, 1/8" THICK BLACK NEOPR	1.000 ea
10XN2520A12	1/4-20 X 3/4 HEX HEAD CAP	2.000 ea

HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
HW4600B32SP	V-RING SLINGER 1.000 X 1.540 X .24 VITON	1.000 ea
HA1005A03SP	SLINGER, OD 1.750, ID .938, 205 BRG	1.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.001 qt
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.022 ga
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
NP3258	SS CP SUPER-E DIV-2 UL CSA-C US EEV CC	1.000 ea
NP3261	SS CP SUPER-E AUX DATA INFORMATION	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
36PA1001	PKG GRP, PRINT PK1017A07	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

AC Induction Motor Performance Data

Record # 47147

Typical performance - not guaranteed values

Winding: 05WGW546-R015		Type: 0516M	Enclosure: TEFC
Nameplate Data		460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	1	Full Load Torque	1.5 LB-FT
Volts	230/460	Start Configuration	direct on line
Full Load Amps	2.8/1.4	Breakdown Torque	6.5 LB-FT
R.P.M.	3450	Pull-up Torque	4.8 LB-FT
Hz	60 Phase	Locked-rotor Torque	5.7 LB-FT
NEMA Design Code	B KVA Code	Starting Current	12.1 A
Service Factor (S.F.)	1.15	No-load Current	0.68 A
NEMA Nom. Eff.	84 Power Factor	Line-line Res. @ 25°C	15.3 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	33°C
S.F. Amps		Temp. Rise @ S.F. Load	38°C
		Rotor inertia	0.0442 LB-FT ²

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	65	77	83	87	87	85
Efficiency	70.4	80.6	84	84.6	84.7	83.7	84.7
Speed	3567	3539	3510	3479	3446	3410	3459
Line amperes	0.75	0.9	1.09	1.33	1.56	1.88	1.47

ABB Motors and Mechanical Inc.

WINDING # 05WGW546

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 3450 RPM 460 V 0516M

TORQUES (LB-FT): PO=6.5 PU=4.8 LR=5.7 LRA=12.1





