

ABB BALDOR RELIANCE III

Customer information packet

SPM4104T

30HP, 1780RPM, 3PH, 60HZ, 286T, 1076M, TEFC, F1

Class - CLI GP A,B,C,D; CLII GP F,G

Division - Division II

Specifications

Enclosure	TEFC
Frame	286T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D; CLII GP F,G
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	30.000 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	CSA CURUSEEV NEMA PREMIUM NEMA_PREMIUM WEEE
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	70.000 A @ 230.0 V 35.000 A @ 460.0 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 Shaft Indicator	None

Part Detail

Revision	G
Type	AC
Mech. spec.	10T012
Base	
Status	PRD/A
Elec. spec.	10WGZ889
Layout	10LYT012
Eff. date	04-17-2026
CD Diagram	CD0005
Poles	04
Leads	9#10 Y
Proprietary	False
Created date	10-03-2023

Haz Area Temp Code	T3A
Heater Indicator	No Heater
High Voltage Full Load Amps	35.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1076M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	28.00 IN
Power Factor	83
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1780 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

NP4439B01C23L																													
CAT #		SPM4104T										SER #								CC	010A		WGT	490	LBS				
SPEC		10T012Z889										FRAME		286T						ENCL	TEFC		IP	55					
RATING		40C AMB-CONT																				NEMA NOM. EFF		94.5					
HP		30										VOLTS		230/460															
AMPS		70/35										RPM		1780										HZ		60			
PH	3	CL	F	CODE		J	DES	A	PF	83	%	SER.F.		1.15	SF AMP														
DE BRG		6311						ODE BRG		6311						LUBE		POLYREX EM											
INV TYPE:			VPWM			SL HZ		0.8	CHP		60	TO	90	1.5:1															
WK2		6.97		LBFT2			MAX RPM		2700	CT	6	TO	60	10:1															
MAG CUR		24.4/12.2										VT		3	TO	60	20:1												
										MEETS INTENT OF IEEE-45										FOR WEATHER PROTECTION									
CL I DIV 2 GRPS A,B,C,D										TEMP CODE		T3C		CL I INV TEMP CODE				T3A		TEMP=		180							
CL I ZONE 2 GRPS							IIA,IIB,IIC			TEMP =		160		CL II INV TEMP CODE				T3b		TEMP =		165		C					
CL II DIV 2 GRPS F&G							TEMP CODE		T3B		1.0 SF ON PWM INVERTER				POWER														
CL II ZONE 22 GRPS IIIB							TEMP=		165																				
YR																													

AC Induction Motor Performance Data

Record # 105265

Typical performance - not guaranteed values

Winding: 10WGZ889-R001				Type: 1076M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		30		Full Load Torque		88.47 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		72/36		Breakdown Torque		319 LB-FT	
R.P.M.		1780		Pull-up Torque		187 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		212 LB-FT	
NEMA Design Code		A	KVA Code	Starting Current		316 A	
Service Factor (S.F.)		1.15		No-load Current		14.6 A	
NEMA Nom. Eff.		94.5	Power Factor	Line-line Res. @ 25°C		0.20701 Ω	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		43°C	
S.F. Amps				Temp. Rise @ S.F. Load		51°C	
				Locked-rotor Power Factor		30.9	

Load Characteristics 460 V, 60 Hz, 30 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	46	68	78	83	85	86	84
Efficiency	90.4	93.9	94.7	94.6	94.3	93.7	94.4
Speed	1794.6	1790.2	1785	1779.9	1775.2	1770.3	1777
Line amperes	16.9	21.9	28.4	35.7	43.6	52.1	40.4

ABB Motors and Mechanical Inc.

WINDING # 10WZ889

Typical performance - not guaranteed values.

30 HP 3 PH 60 HZ 1780 RPM 460 V 1076M

TORQUES (LB-FT): PO=319 PU=187 LR=212 LRA=316





