

ABB BALDOR RELIANCE III

Customer information packet

ECP4104T

30HP, 1760RPM, 3PH, 60HZ, 286T, 1056M, TEFC, F1

Class - CLI GP A,B,C,D

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
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	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
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	1.3
Current @ Voltage	38.000 A @ 460.0 V 76.000 A @ 230.0 V 78.000 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

Part Detail

Revision	P
Type	AC
Mech. spec.	10H292
Base	
Status	PRD/A
Elec. spec.	10WGY538
Layout	10LYH292
Eff. date	06-05-2026
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	08-24-2017

Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	38.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1056M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	28.00 IN
Power Factor	80
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger

Speed	1760 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

NP3241																
CAT.NO.	ECP4104T			P/N						ENCLOSURE		TEFC				
SPEC.	10H292Y538G2		CC	010A	FRAME	286T		S/N								
HP	30			CLASS	F	HZ	60	DES	A							
RPM	1760			RPM MAX		2700		PH	3	KVA-CODE		J				
VOLT	230/460			MOTOR WEIGHT			475									
AMP	76/38			SER.F.	1.15	PF	80	ODE BRG		6311	DE BRG		6311			
RATING	40C AMB-CONT			NEMA-NOM-EFF			93.6		GREASE		POLYREX EM					
							INV.TYPE		PWM							
TEMP CODE	T3C	INVERTER-TEMP-CODE			180											
TEMP =	160	C HP FR	60	C HP TO	90											
CT HZ FROM	1.3	CT HZ TO		60												
HTR-VOLTS		HTR-AMPS		HTR-WATTS			MAX. SPACE HEATER TEMP.					VT HZ FROM		O	VT HZ TO	60

AC Induction Motor Performance Data

Record # 66469

Typical performance - not guaranteed values

Winding: 10WGY538-R042				Type: 1056M		Enclosure: TEFC		
Nameplate Data				460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		30		Full Load Torque		88.7 LB-FT		
Volts		230/460		Start Configuration		direct on line		
Full Load Amps		76/38		Breakdown Torque		330 LB-FT		
R.P.M.		1760		Pull-up Torque		142 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		178 LB-FT		
NEMA Design Code		A	KVA Code	Starting Current		270 A		
Service Factor (S.F.)		1.15		No-load Current		17.9 A		
NEMA Nom. Eff.		93.6	Power Factor	80		Line-line Res. @ 25°C		0.19377 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		64°C		
S.F. Amps				Temp. Rise @ S.F. Load		76°C		
				Locked-rotor Power Factor		30.9		
				Rotor inertia		4.47 LB-FT2		

Load Characteristics 460 V, 60 Hz, 30 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	41	63	73	80	82	85	81
Efficiency	87.6	92.3	93.5	93.7	93.4	92.9	93.5
Speed	1792.2	1787.6	1782.4	1776.5	1770.3	1762.1	1773
Line amperes	19.8	24.3	30.7	37.6	45.6	55.2	42.4

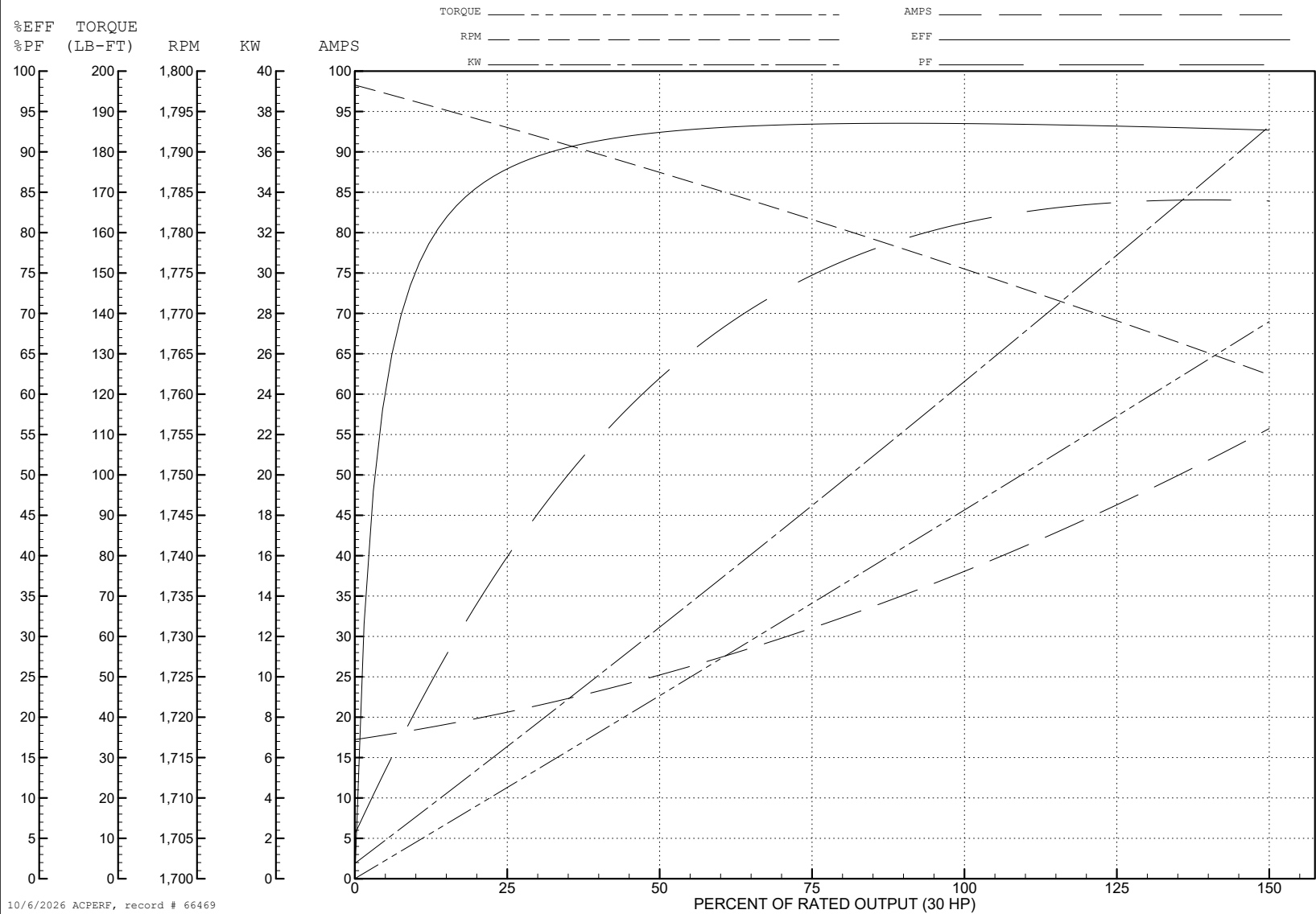
ABB Motors and Mechanical Inc.

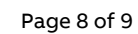
WINDING # 10WGY538

Typical performance - not guaranteed values.

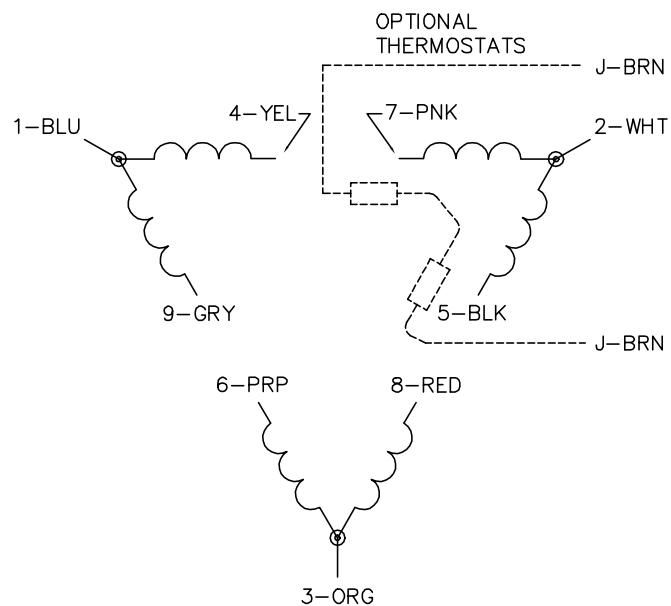
30 HP 3 PH 60 HZ 1760 RPM 460 V 1056M

TORQUES (LB-FT): PO=330 PU=142 LR=178 LRA=270

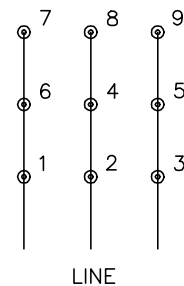




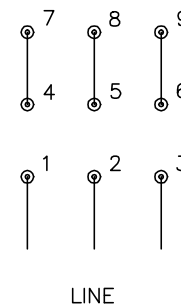
CD0180



LOW VOLTAGE
(2D)



HIGH VOLTAGE
(1D)



NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: —



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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