

**BALDOR • RELIANCE**

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# Customer information packet

## CESSWDM23934T

20HP, 1765RPM, 3PH, 60HZ, 256TC, 3960M, TEFC, F

Class -

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	256TC
Frame Material	Stainless Steel
Frequency	60.00 Hz
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	24.000 A @ 460.0 V 48.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
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	24.0 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	J

## Part detail

Revision	P
Type	AC
Mech. spec.	39E119
Base	
Status	PRD/A
Elec. spec.	39WGY400
Layout	39LYE119
Eff. date	08-02-2024
CD Diagram	CD0180
Poles	04
Leads	9#12
Proprietary	False
Created date	01-30-2018

Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3960M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	24.67 IN
Power Factor	84
Product Family	Wash Down All Stainless Steel
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1765 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****NP1953D02**

<b>CAT.NO.</b>	CESSWDM23934T						
<b>SPEC.</b>	39E119Y400G1						
<b>HP</b>	20						
<b>VOLTS</b>	230/460						
<b>AMP</b>	48/24						
<b>RPM</b>	1765						
<b>FRAME</b>	256TC		<b>HZ</b>	60		<b>PH</b>	3
<b>SER.F.</b>	1.00	<b>CODE</b>	J	<b>DES</b>	A	<b>CLASS</b>	H
<b>NEMA-NOM-EFF</b>	93	<b>PF</b>	84				
<b>RATING</b>	40C AMB-CONT						
<b>CC</b>	010A	<b>USABLE AT 208V</b>				N/A	
<b>DE</b>	6309	<b>ODE</b>	6208				
<b>ENCL</b>	TEFC	<b>SN</b>					
	2:1 CT/10:1 VT						

**AC Induction Motor Performance Data**

Record # 69070

Typical performance - not guaranteed values

<b>Winding: 39WGY400-R001</b>		<b>Type: 3960M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	20	<b>Full Load Torque</b>	59.38 LB-FT		
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	48/24	<b>Breakdown Torque</b>	226 LB-FT		
<b>R.P.M.</b>	1765	<b>Pull-up Torque</b>	109 LB-FT		
<b>Hz</b>	60	<b>Phase</b>	3	<b>Locked-rotor Torque</b>	139 LB-FT
<b>NEMA Design Code</b>	A	<b>KVA Code</b>	J	<b>Starting Current</b>	188 A
<b>Service Factor (S.F.)</b>	1	<b>No-load Current</b>	9.7 A		
<b>NEMA Nom. Eff.</b>	93	<b>Power Factor</b>	84	<b>Line-line Res. @ 25°C</b>	0.371 Ω
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	92°C	
			<b>Locked-rotor Power Factor</b>	30.4	

**Load Characteristics 460 V, 60 Hz, 20 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>
<b>Power Factor</b>	47	69	79	84	86	87
<b>Efficiency</b>	89.8	93.1	93.5	93.1	92.4	91.3
<b>Speed</b>	1792	1784.5	1776.1	1767.4	1758.1	1747.4
<b>Line amperes</b>	11.2	14.5	18.9	23.9	29.3	35.2

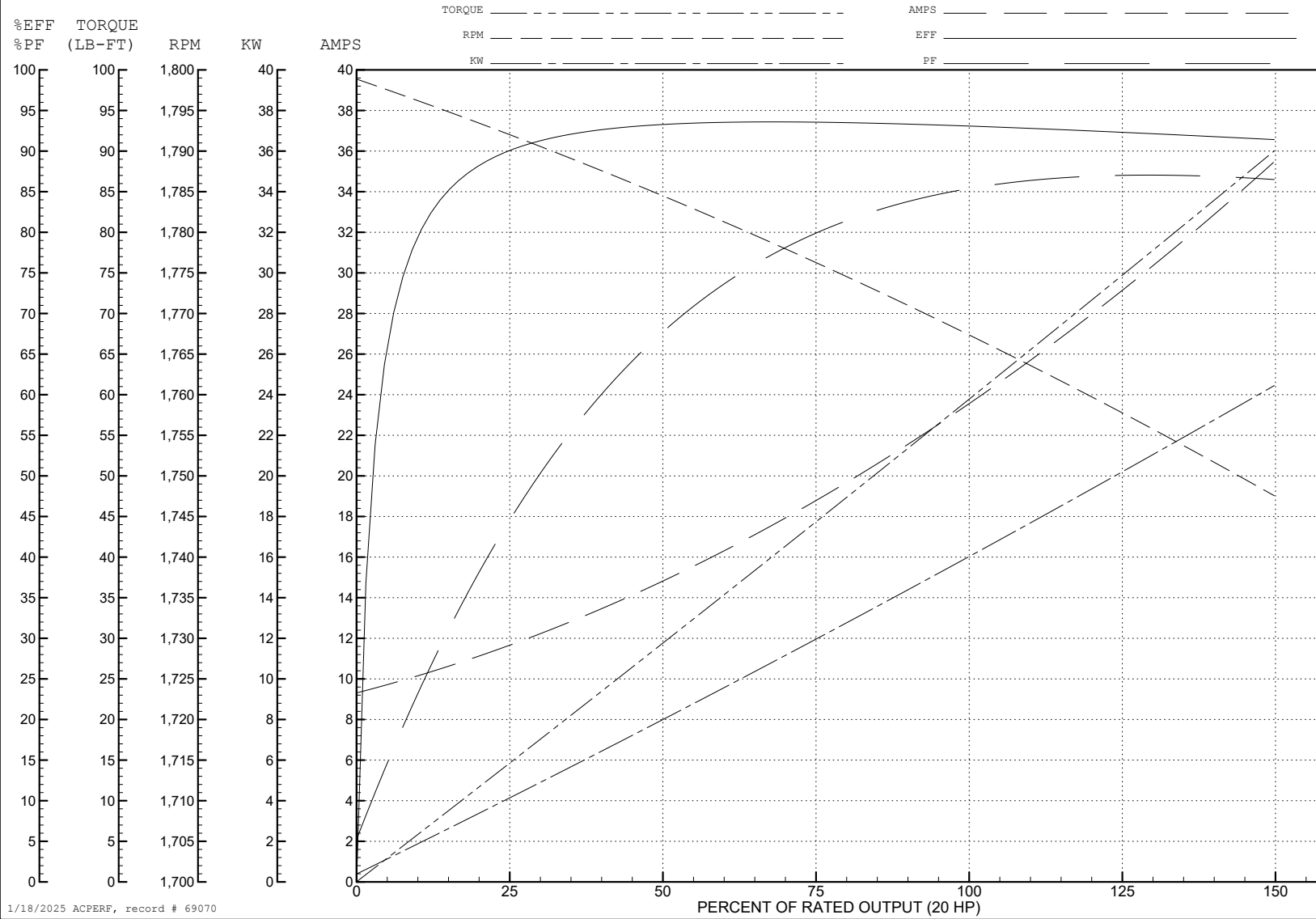
ABB Motors and Mechanical Inc.

WINDING # 39WGY400

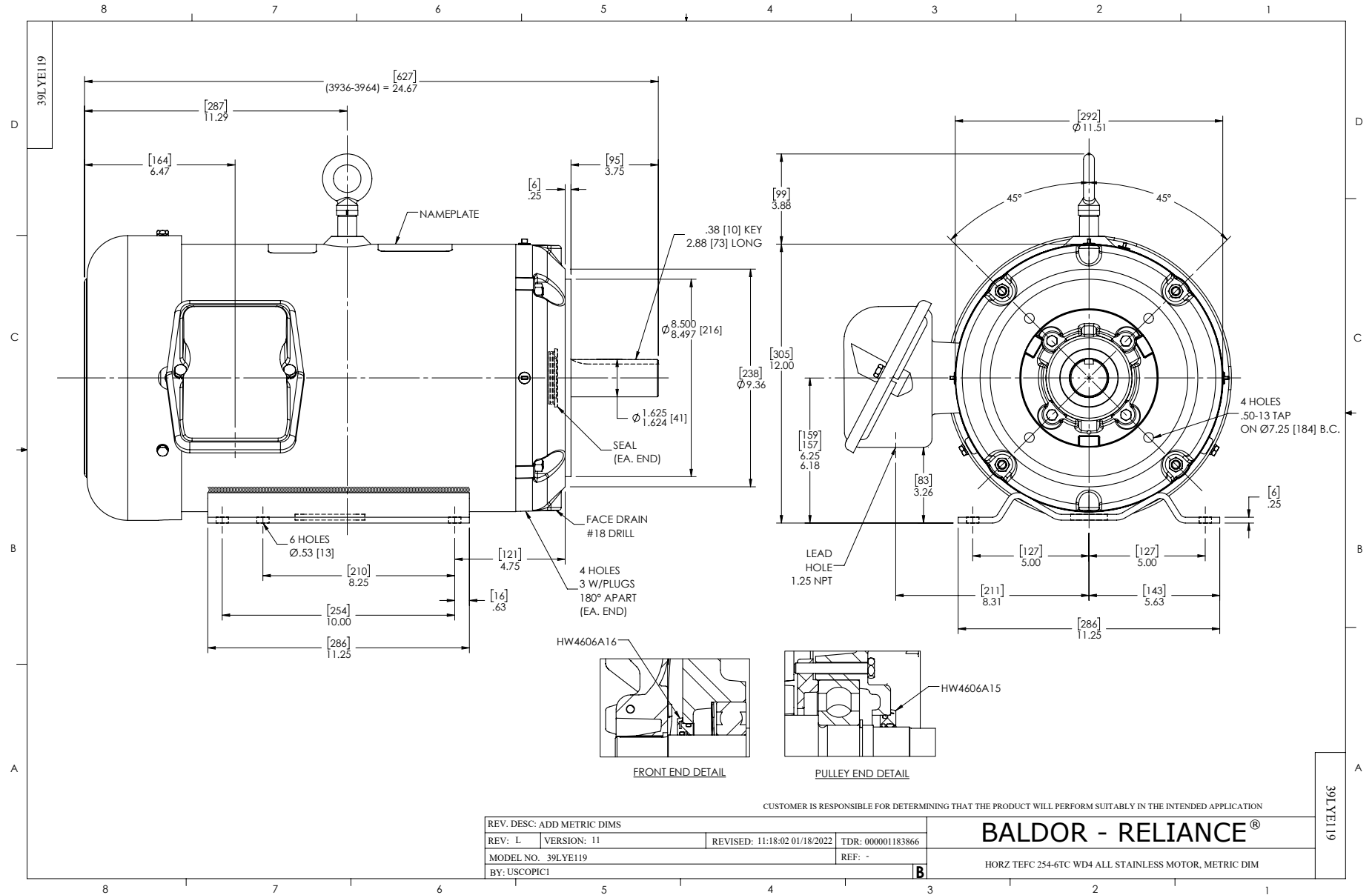
Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 1765 RPM 460 V 3960M

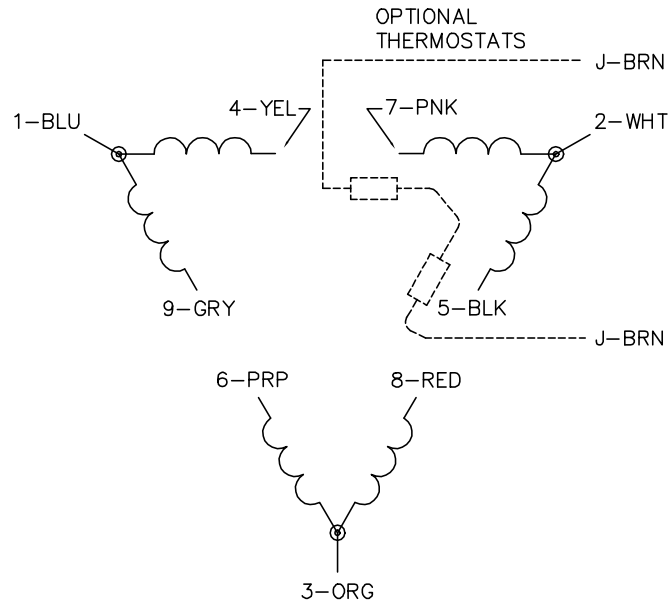
TORQUES (LB-FT): PO=226 PU=109 LR=139 LRA=188



1/18/2025 ACPERF, record # 69070



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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