

# ABB BALDOR RELIANCE III

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## Customer information packet

### IDVSM3770T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 0738M, TEFC

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	213TC
<b>Frame Material</b>	Iron
<b>Frequency</b>	60.00 Hz
<b>Haz Area Class and Group</b>	None
<b>Haz Area Division</b>	Not Applicable
<b>Motor Letter Type</b>	Three Phase
<b>Output @ Frequency</b>	7.500 HP @ 60 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1800 RPM @ 60 HZ
<b>Voltage @ Frequency</b>	230.0 V @ 60 HZ 460.0 V @ 60 HZ
<b>Agency Approvals</b>	CSA UR
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Auxiliary Box Lead Termination</b>	None
<b>Base Indicator</b>	Rigid
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Blower</b>	None
<b>Current @ Voltage</b>	19.000 A @ 230.0 V 20.000 A @ 208.0 V 9.500 A @ 460.0 V
<b>Design Code</b>	A
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Efficiency @ 100% Load</b>	91.7 %
<b>Electrically Isolated Bearing</b>	Not Electrically Isolated
<b>Feedback Device</b>	NO FEEDBACK
<b>Front Shaft Indicator</b>	No Key Or Flat
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	9.5 a

**Part Detail**

<b>Revision</b>	B
<b>Type</b>	AC
<b>Mech. spec.</b>	07M288
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	07WGT510
<b>Layout</b>	07LYM288
<b>Eff. date</b>	09-30-2025
<b>CD Diagram</b>	CD0005
<b>Poles</b>	04
<b>Leads</b>	9#14
<b>Proprietary</b>	False
<b>Created date</b>	01-28-2021

<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Duty
<b>KVA Code</b>	J
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Max Speed</b>	4000 rpm
<b>Motor Lead Quantity/Wire Size</b>	9 @ 14 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	0738M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	24.59 IN
<b>Power Factor</b>	81
<b>Product Family</b>	General Purpose
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	C-Face
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>RoHS Status</b>	ROHS NON-COMPLIANT
<b>Service Factor</b>	1.00
<b>Shaft Diameter</b>	1.375 IN
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	1770 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	Normally Closed Thermostat
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

<b>NP4615L</b>	
<b>CAT NO</b>	IDVSM3770T
<b>SPEC.</b>	07M288T510G1 <b>ENCL</b> TEFC
<b>FRAME</b>	213TC <b>HP</b> 7.5
<b>VOLTS</b>	230/460
<b>MAG CUR</b>	8.6/4.3 <b>FLA</b> 19/9.5
<b>RPM</b>	1770 <b>RPM MAX</b> 4000
<b>HZ</b>	60 <b>PH</b> 3 <b>CLASS</b> F
<b>SER.F.</b>	1.00 <b>SL HZ</b> 1
<b>NEMA-NOM-EFF</b>	91.7 <b>WK2</b> 0.934
<b>RATING</b>	40C AMB-CONT
<b>DE BRG</b>	6307 <b>ODE BRG</b> 6206
<b>CC</b>	010A <b>SN</b>
	1.5:1 CHP PWM
	1000:1 CT/VT

NP VOLTS	230/460	Base Volt	460	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20c)				
NP AMPS	19/9.5		R1	0.784	X1	2.650		
HP	7.5		NL AMPS	4.07	R2	0.464	X2	2.040
BASE SPEED	1769		Slip (HZ)	1.03			XM	62.900
PHASE/HZ	3/60		WK <sup>2</sup> (lb-ft <sup>2</sup> )	0.934				

**Rated Full Load Data**


	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1769	7.5	22.3	460	60	9.4
Max Speed	2653	7.5	14.9	460	90	8.9
CT Min Speed	1.769	0.008	22.3	0.46	0.06	9.4

**Load Performance at Base Speed**

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.0	460	60	4.1
1/4	1792	1.9	5.5	460	60	4.6
1/2	1785	3.7	11.0	460	60	5.8
3/4	1777	5.6	16.6	460	60	7.5
Full Load	1769	7.5	22.3	460	60	9.4
O/L	1734	15.0	45.4	460	60	18.7

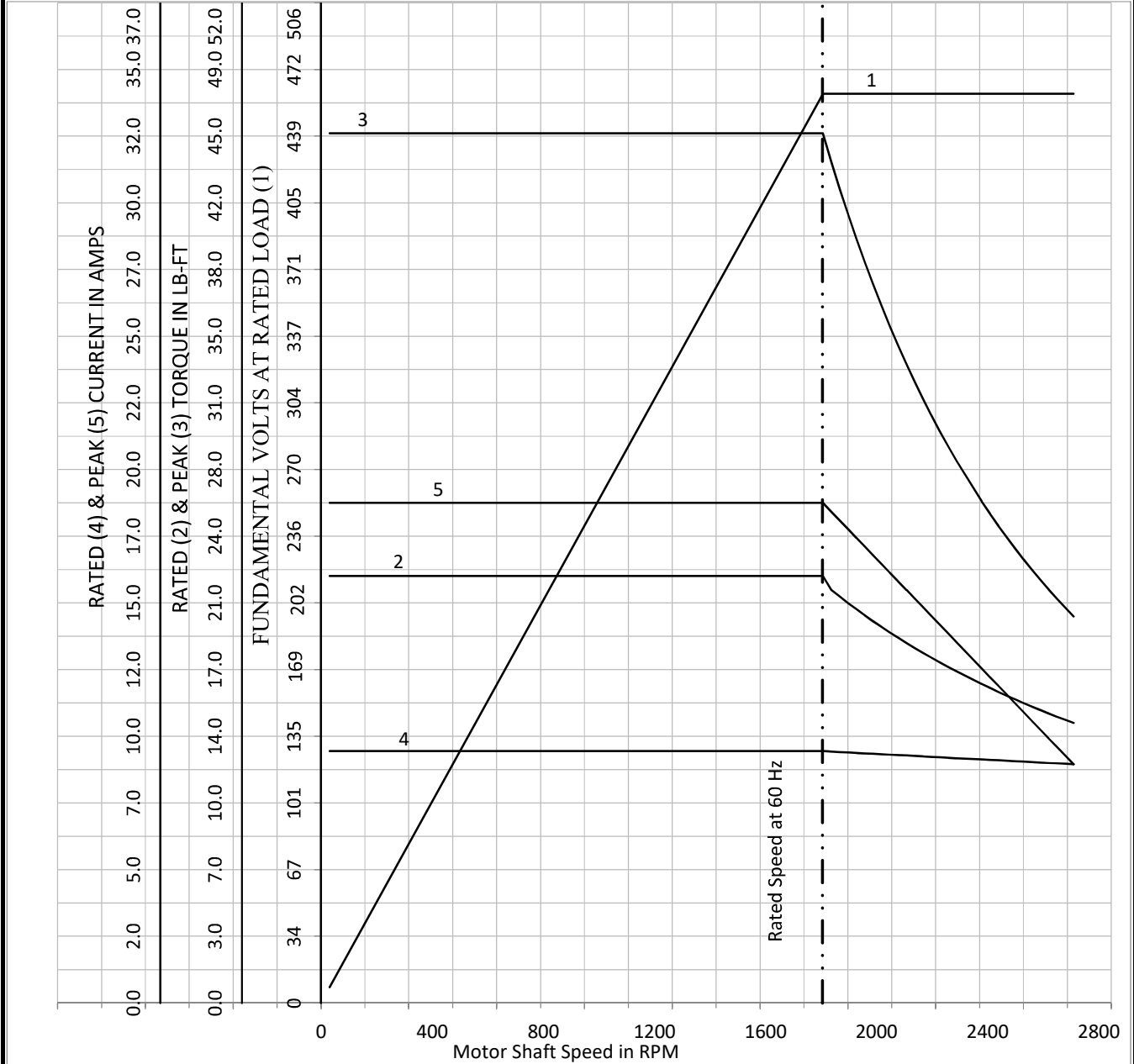
<b>Blower Data</b>	Volts	Ph/Hz	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data

	DR BY <u>USBRRAN1</u>	<b>A-C MOTOR PERFORMANCE CURVES</b>	<b>07WGT510</b>
	CK BY <u>CD</u>		
	APP BY <u>USBRRAN1</u>		
	DATE <u>3/21/2025</u>		
			Record: 86626

NP VOLTS	230/460	Base Volt	460	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	19/9.5		R1	0.784	X1	2.650	
HP	7.5	NL AMPS	4.07	R2	0.464	X2	2.040
BASE SPEED	1769	Slip (HZ)	1.03			XM	62.900
PHASE/HZ	3/60	WK <sup>2</sup> (lb-ft <sup>2</sup> )	0.934				

Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only



DR BY USBRRAN1  
 CK BY CD  
 APP BY USBRRAN1  
 DATE 3/21/2025

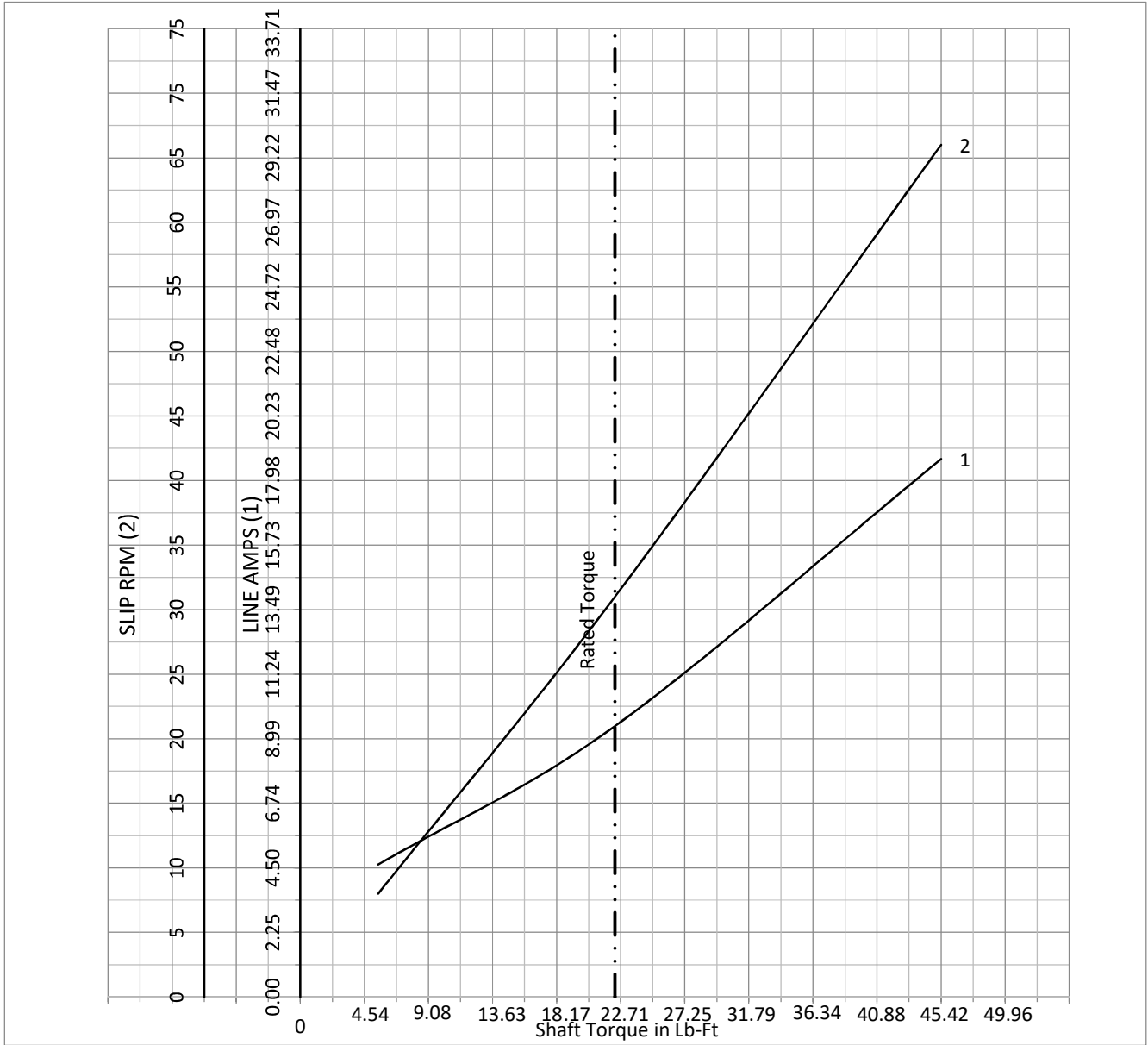
**A-C MOTOR  
 PERFORMANCE  
 CURVES**

**07WGT510**

Record: 86626

NP VOLTS	230/460	0	0	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	19/9.5	Base Volt	460	R1	0.784	X1	2.650
HP	7.5	NL AMPS	4.07	R2	0.464	X2	2.040
BASE SPEED	1769	Slip (HZ)	1.03			XM	62.900
PHASE/HZ	3/60	WK2 (lb-ft <sup>2</sup> )	0.934				

Vector PWM Inverter Duty  
Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

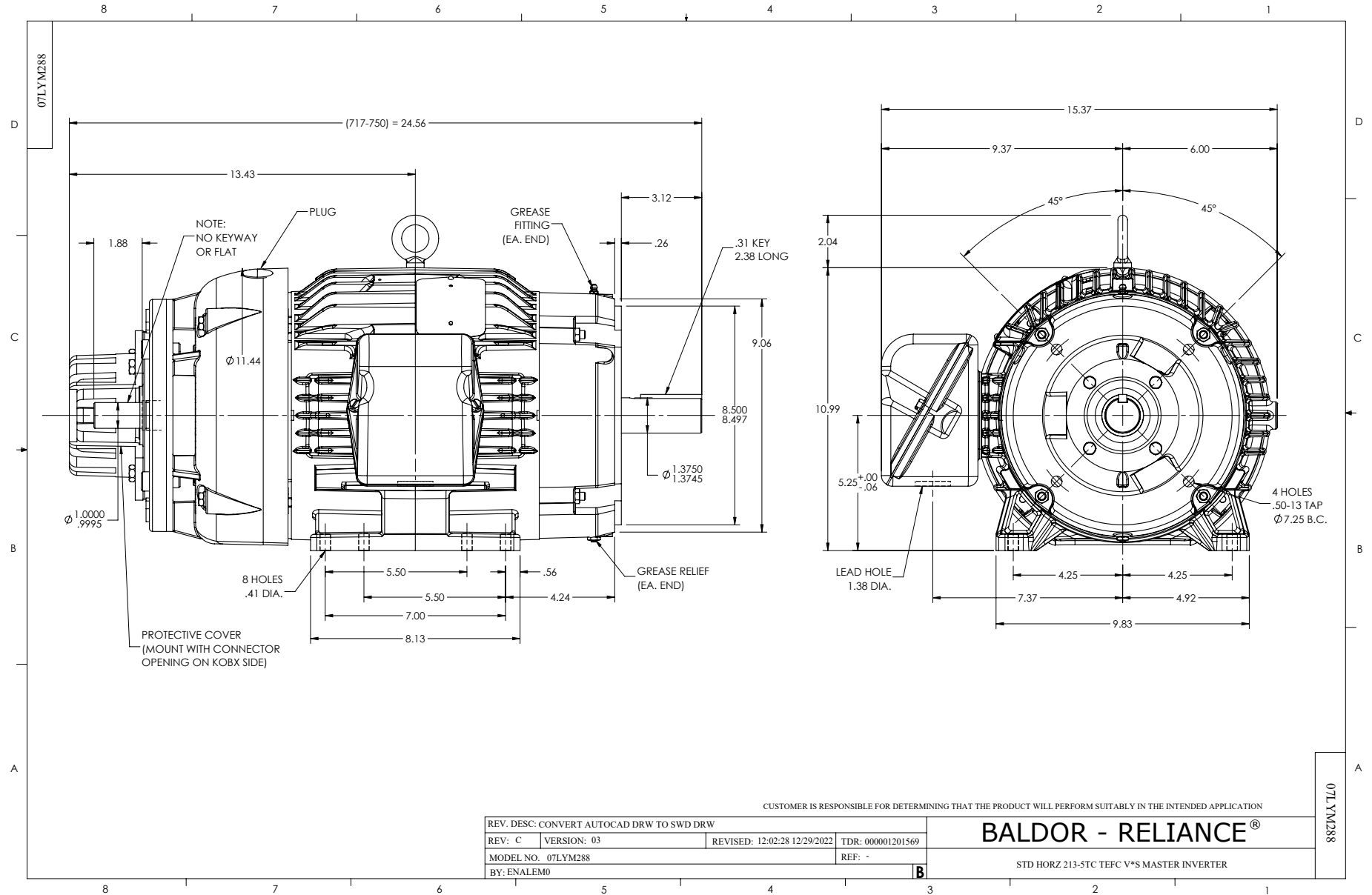


DR BY USBRRAN1  
 CK BY CD  
 APP BY USBRRAN1  
 DATE 3/21/2025

**A-C MOTOR  
PERFORMANCE  
CURVES**

**07WGT510**

Record: 86626



CD0005

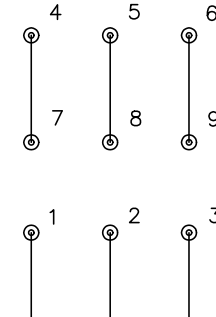


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: E BY: JLP REVISED: 01/19/99 10:15 TDR: 0171435

500000

FILE: AAA00005140

MDL: -

MTL: -

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS