ABB BALDOR RELIANCE

Customer information packet

VXM05122

1HP, 3450//2885RPM, 3PH, 60HZ, 56C, XPFC, F1
Class - CLI GP D; CLII GP F,G
Division - Division I

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Specifications

Enclosure	XPFC
Frame	56C
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP D; CLII GP F,G
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	1.000 HP @ 60 HZ
	.750 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
	190.0 V @ 50 HZ
	230.0 V @ 60 HZ
	380.0 V @ 50 HZ
Agency Approvals	UL
	CSA EEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	6
Current @ Voltage	1.300 A @ 380.0 V
	1.400 A @ 460.0 V
	2.600 A @ 190.0 V
	2.800 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	82.5 %

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	35WGS921
Layout	35LYQ643
Eff. date	03-16-2022
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	08-11-2020

Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	1.3 a
Insulation Class	B
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3516M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	14.30 IN
Power Factor	82
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	3450 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2	None

Nameplate

NP0887XPSLEV											
NO.				**CC**	010A						
S/N				**TEMP CODE**	T3C						
SPEC.	35-0000-0882			**INV.TYPE**	PWM						
CAT.NO.	VXM05122			**C HP FR**	60	**C HP TO**	90				
HP	1//0.75			**CT HZ FROM**	6			**CT HZ TO**	60		
VOLTS	230/460//190/380			**VT HZ FROM**	6			**VT HZ TO**	60		
AMPS	2.8/1.4//2.6/1.3		**MAG CUR**	.67							
RPM	3450//2885		**MX RPM**	5400							
HZ	60//50	**PH**	3	**CL**	F	**NOM.EFF.**	82.5				
SER.F.	1.00	**DES**	B	**SL HZ**	2.5	**WK2**	0.05				
FRAME	56C	**RATING**	40C AMB-CONT								
	NEMA MG-1 PART 5, IP54										
	1.15 SF ON SINE WAVE										

AC Induction Motor Performance Data
Record # 58785
Typical performance - not guaranteed values

Winding: 35WGS921-R006	**Type:** 3516M	**Enclosure:** XPFC

Nameplate Data		
Rated Output (HP)		1
Volts		230/460
Full Load Amps		2.8/1.4
R.P.M.		3450
Hz	60 **Phase**	3
NEMA Design Code	B **KVA Code**	L
Service Factor (S.F.)		1
NEMA Nom. Eff.	84 **Power Factor**	82
Rating - Duty		40C AMB-CONT

460 V, 60 Hz: High Voltage Connection	
Full Load Torque	1.5 LB-FT
Start Configuration	direct on line
Breakdown Torque	6.5 LB-FT
Pull-up Torque	4.8 LB-FT
Locked-rotor Torque	5.7 LB-FT
Starting Current	12.1 A
No-load Current	0.68 A
Line-line Res. @ 25ºC	15.1 Ω
Temp. Rise @ Rated Load	33°C
Locked-rotor Power Factor	56.1
Rotor inertia	0.0443 LB-FT2

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	44	65	77	84	87	89
Efficiency	70.5	80.5	83.6	84.6	84.4	83.7
Speed	3567	3539	3510	3479	3446	3410
Line amperes	0.75	0.9	1.09	1.33	1.56	1.88

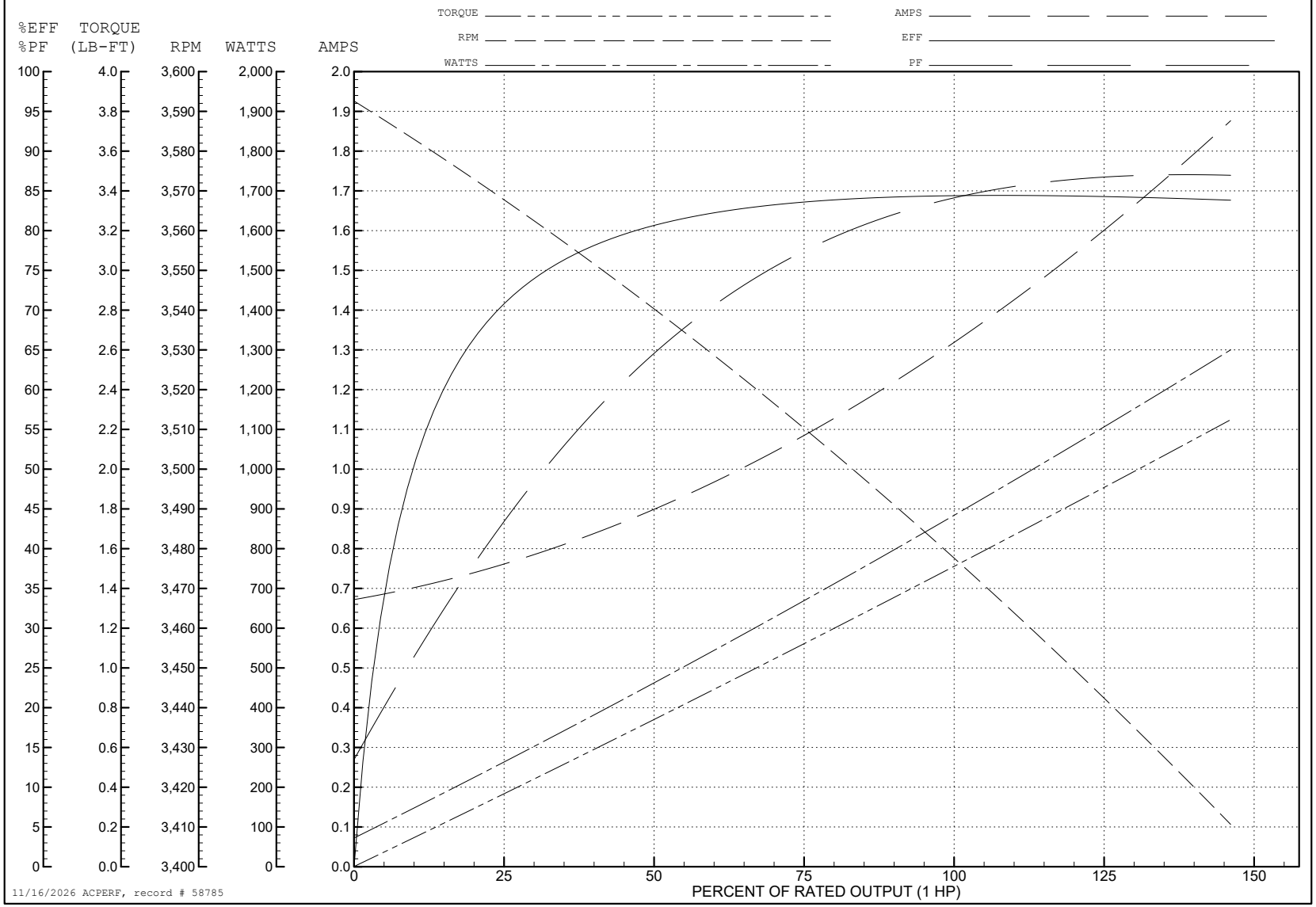
ABB Motors and Mechanical Inc.

WINDING # 35WGS921

1 HP 3 PH 60 HZ 3450 RPM 460 V 3516M

Typical performance - not guaranteed values.

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



AC Induction Motor Performance Data
Record # 84243
Typical performance - not guaranteed values

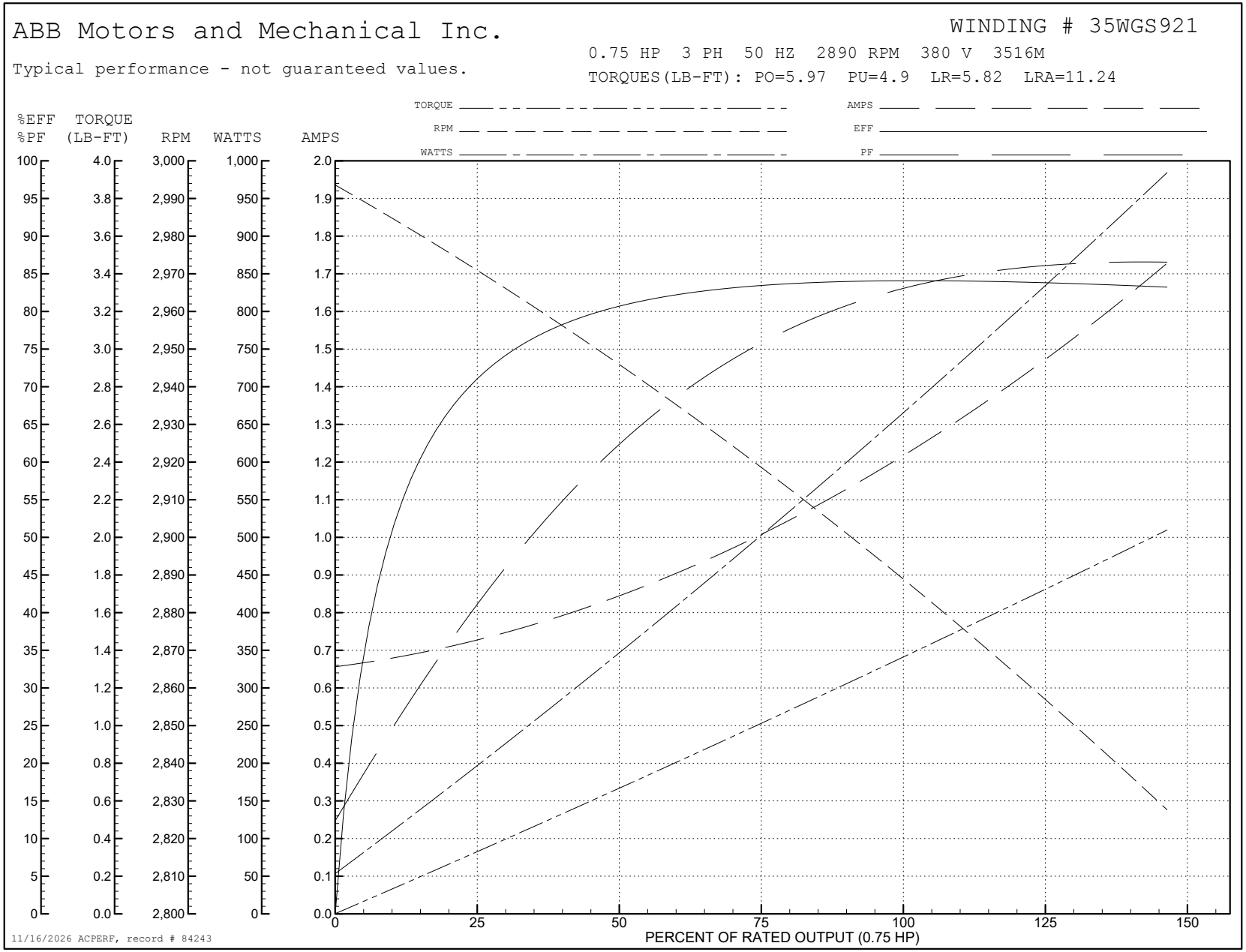
Winding: 35WGS921-R020	**Type:** 3516M	**Enclosure:** XPFC

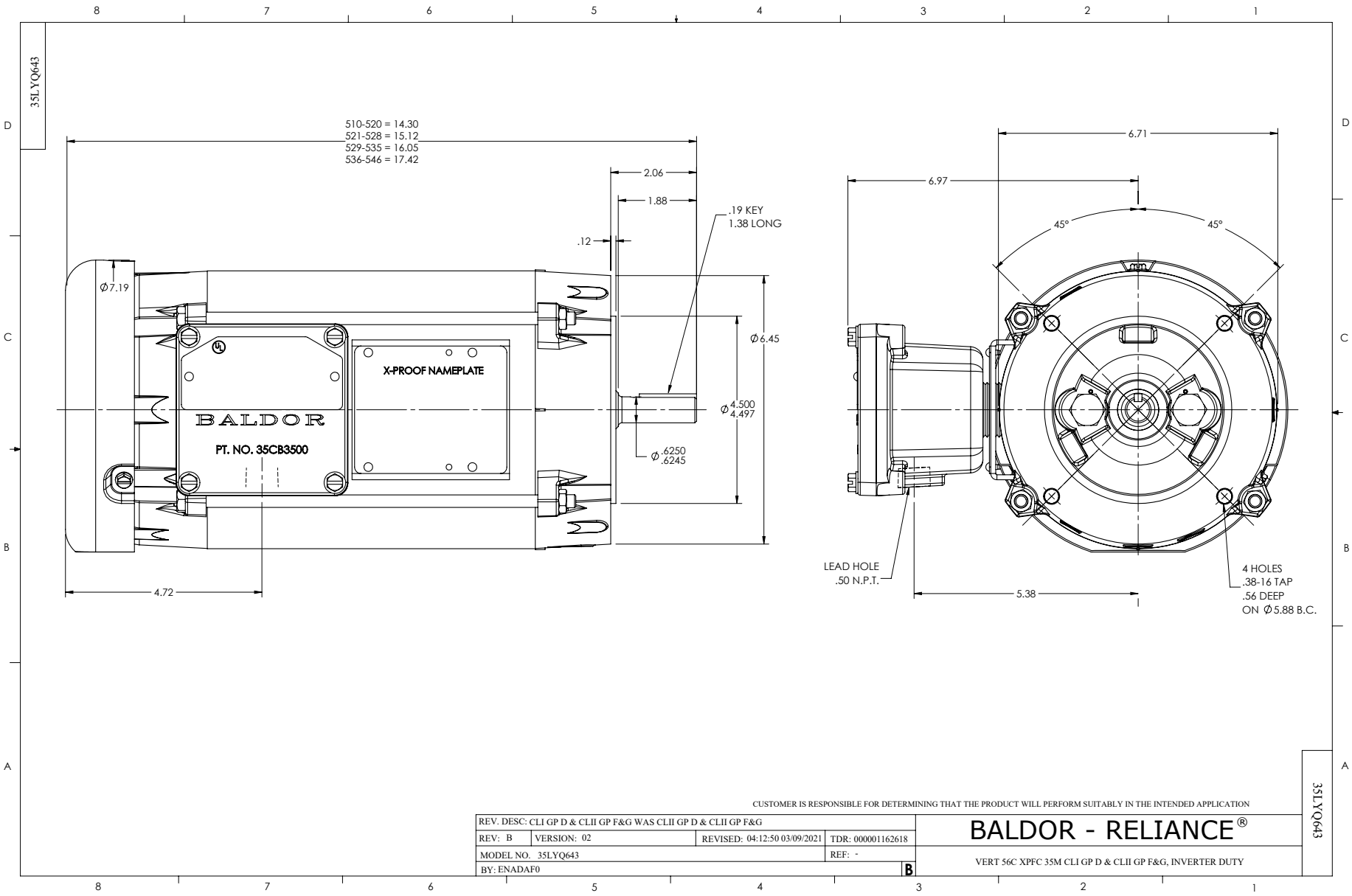
Nameplate Data			
Rated Output (HP)			1//.75
Volts			230/460//190/380
Full Load Amps			2.8/1.4//2.6/1.3
R.P.M.			3450//2885
Hz	60//50	**Phase**	3
NEMA Design Code	B	**KVA Code**	L
Service Factor (S.F.)			1
NEMA Nom. Eff.	84	**Power Factor**	82
Rating - Duty			40C AMB-CONT

380 V, 50 Hz: High Voltage Connection	
Full Load Torque	1.35 LB-FT
Start Configuration	direct on line
Breakdown Torque	5.97 LB-FT
Pull-up Torque	4.9 LB-FT
Locked-rotor Torque	5.82 LB-FT
Starting Current	11.24 A
No-load Current	0.664 A
Line-line Res. @ 25ºC	15.2 Ω
Temp. Rise @ Rated Load	29°C
Locked-rotor Power Factor	56.1
Rotor inertia	0.0443 lb-ft²

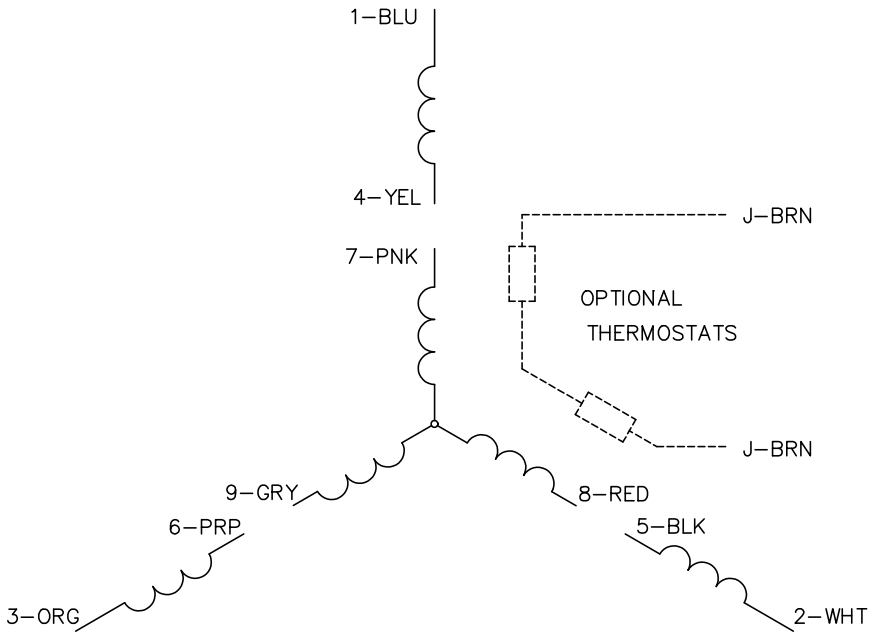
Load Characteristics 380 V, 50 Hz, 0.75 HP

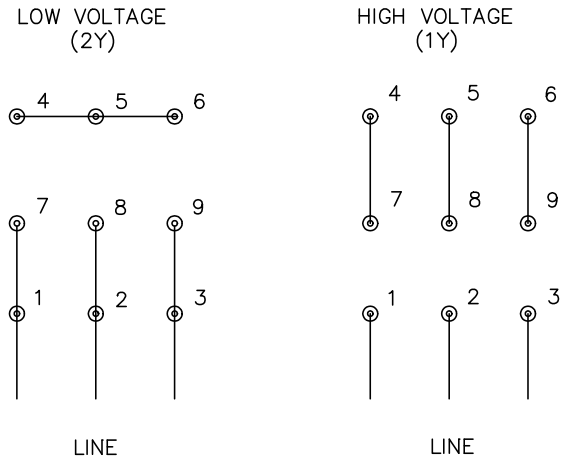
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	43	63	76	82	87	87
Efficiency	70.4	80.7	83.7	83.9	84.1	83
Speed	2970	2945	2918	2890	2860	2827
Line amperes	0.717	0.846	1.01	1.23	1.44	1.73


ABB Motors and Mechanical Inc.
WINDING # 35WGS921
0.75 HP 3 PH 50 HZ 2890 RPM 380 V 3516M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=5.97 PU=4.9 LR=5.82 LRA=11.24
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (0.75 HP)
11/16/2026 ACPERF, record # 84243


35LYQ643
510-520 = 14.30
521-528 = 15.12
529-535 = 16.05
536-546 = 17.42
2.06
1.88
.19 KEY
1.38 LONG
.12
Ø7.19
Ø6.45
Ø4.500
4.497
Ø.6250
.6245
X-PROOF NAMEPLATE
BALDOR
PT. NO. 35CB3500
4.72
6.71
6.97
45°
45°
LEAD HOLE
.50 N.P.T.
5.38
4 HOLES
.38-16 TAP
.56 DEEP
ON Ø5.88 B.C.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CLI GP D & CLII GP F&G WAS CLII GP D & CLII GP F&G
REV: B
VERSION: 02
REVISED: 04:12:50 03/09/2021
TDR: 000001162618
MODEL NO. 35LYQ643
REF: -
BY: ENADAF0
B
BALDOR - RELIANCE®
VERT 56C XPFC 35M CLI GP D & CLII GP F&G, INVERTER DUTY
35LYQ643

CD0005





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			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS