ABB BALDOR RELIANCE

Customer information packet

IDVSWDM3546

1HP, 1770RPM, 3PH, 60HZ, 56C, 3522M, TENV, F1, N
Class - None
Division - Not Applicable

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Specifications

Enclosure	TENV
Frame	56C
Frame Material	Stainless Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	1.000 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
	UR
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
Current @ Voltage	1.670 A @ 460.0 V
	3.300 A @ 208.0 V
	3.340 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.7 a

Part Detail

Revision	B
Type	AC
Mech. spec.	35S639
Base	
Status	PRD/A
Elec. spec.	35WGZ818
Layout	35LYS639
Eff. date	10-21-2025
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	10-01-2021

Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	M
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	6000 rpm
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3522M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.06 IN
Power Factor	66
Product Family	Wash Down Paint Free
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 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

NP1608L								
CAT NO	IDVSWDM3546							
SPEC.	35S639Z818G1							
FRAME	56C		**HP**	1 TE				
VOLTS	230/460							
MAG CUR	2.5/1.25			**FLA**	3.34/1.67			
RPM	1770			**RPM MAX**	6000			
HZ	60	**PH**	3		**CLASS**	H		
SER.F.	1.00	**DES**	B		**SL HZ**	1		
NEMA-NOM-EFF	85.5	**WK2**	0.159					
BLWR V		**PH**		**HZ**		**A**		
RATING	40C AMB-CONT							
DE BRG	6205		**ODE BRG**	6203				
CC	010A	**SN**						

Parts List

Part number	Description	Quantity
SA398829	SA 35S639Z818G1	1.000 ea
RA389850	RA 35S639Z818G1	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB5001A03	CONDUIT BOX KIT, FOR SUPER II WASHDOWN	1.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
35EP3122D00U	MASTER ODE,203 BRG,.125NPT DRNS(BALL BUR	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	3.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3307E00U	MASTER DE,205 BRG,1.623SH,.125NPT DRNS,C	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	3.000 ea
HW4606A02	JM CLIPPER/SEAL (LWE-0938-1624-AL23)	1.000 ea
12XN1032S20	10-32 X 1-1/4 HEX M.S. , STAINLESS STEEL	2.000 ea
HA1049A01	DUBO LOK WASHER SIZE 10 (NYLON LOCK SEAL	2.000 ea
HA1049A01	DUBO LOK WASHER SIZE 10 (NYLON LOCK SEAL	4.000 ea
HW2502D13	SS KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
MJ5001A02	732 CL SEALANT 3 OZ DIXIE BEARING 289100	0.001 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1164	LABEL,WARNING AND DRAIN	1.000 ea
HA5027A02	HA4054 T-DRAIN X2 BAGGED WITH LABEL	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HA3100S24	THRUBOLT 8.625 LENGTH 1.250 TH LENGTH SS	4.000 ea
LC0145B01	CONNECTION LABEL	1.000 ea
NP1608L	SS WD INV UL CSA CC REV MTG	1.000 ea
35PA1066	PKG GRP, PRINT PK1008A07	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data
Record # 89787
Typical performance - not guaranteed values

Winding: 35WGZ818-R005	**Type:** 3522M	**Enclosure:** TENV

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	2.99 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			3.34/1.67	**Breakdown Torque**	16.6 LB-FT
R.P.M.			1770	**Pull-up Torque**	7.42 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	10.32 LB-FT
NEMA Design Code	B	**KVA Code**	M	**Starting Current**	16.1 A
Service Factor (S.F.)			1	**No-load Current**	1.23 A
NEMA Nom. Eff.	85.5	**Power Factor**	66	**Line-line Res. @ 25ºC**	14.4 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	63°C
				Locked-rotor Power Factor	59.3666
				Rotor inertia	0.159 lb-ft²

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	27	43	56	66	73	78
Efficiency	70.8	81.2	84.5	85.9	85.8	85.2
Speed	1793	1786	1781	1773	1766	1758
Line amperes	1.25	1.34	1.49	1.67	1.87	2.12

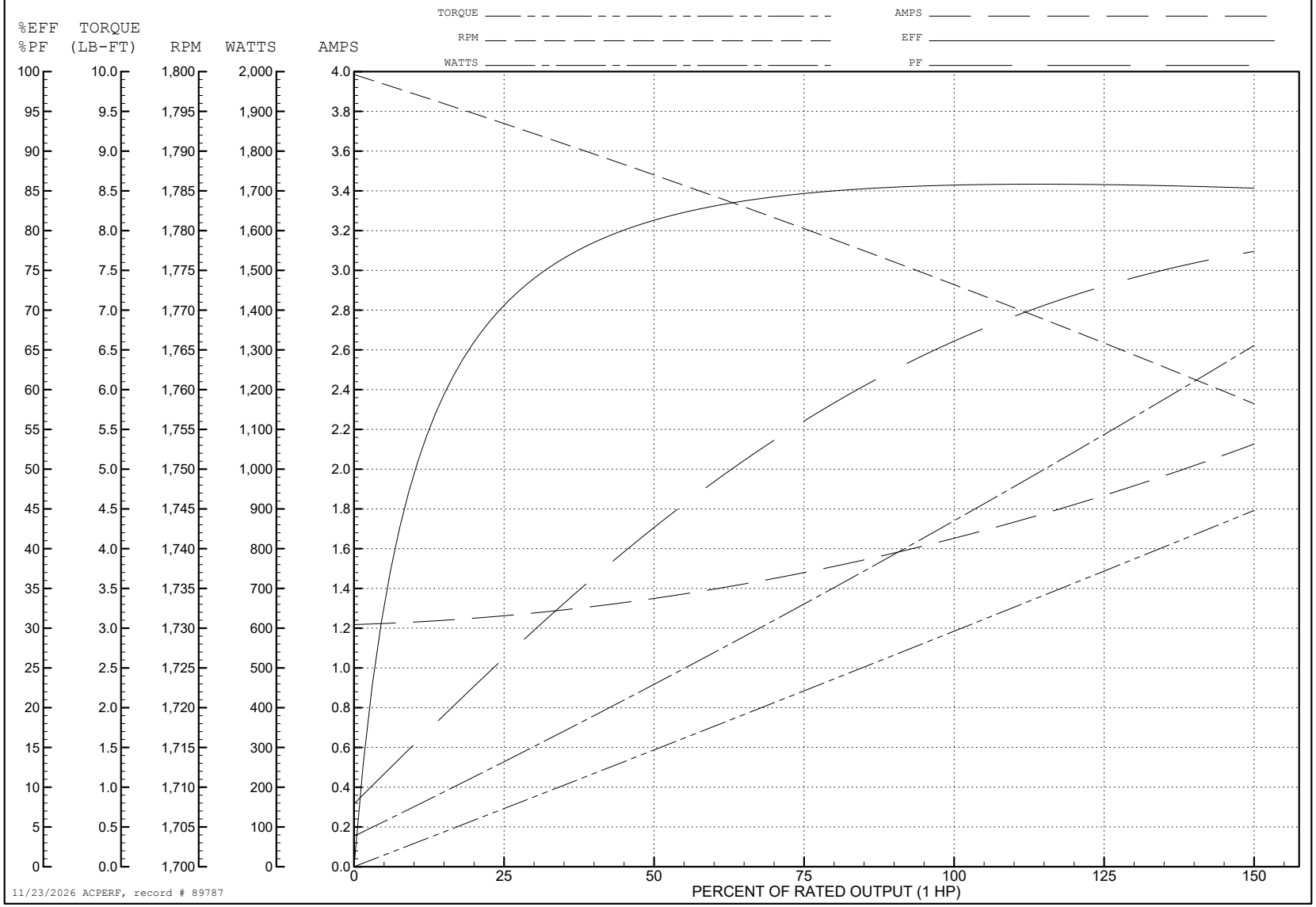
ABB Motors and Mechanical Inc.

WINDING # 35WGZ818

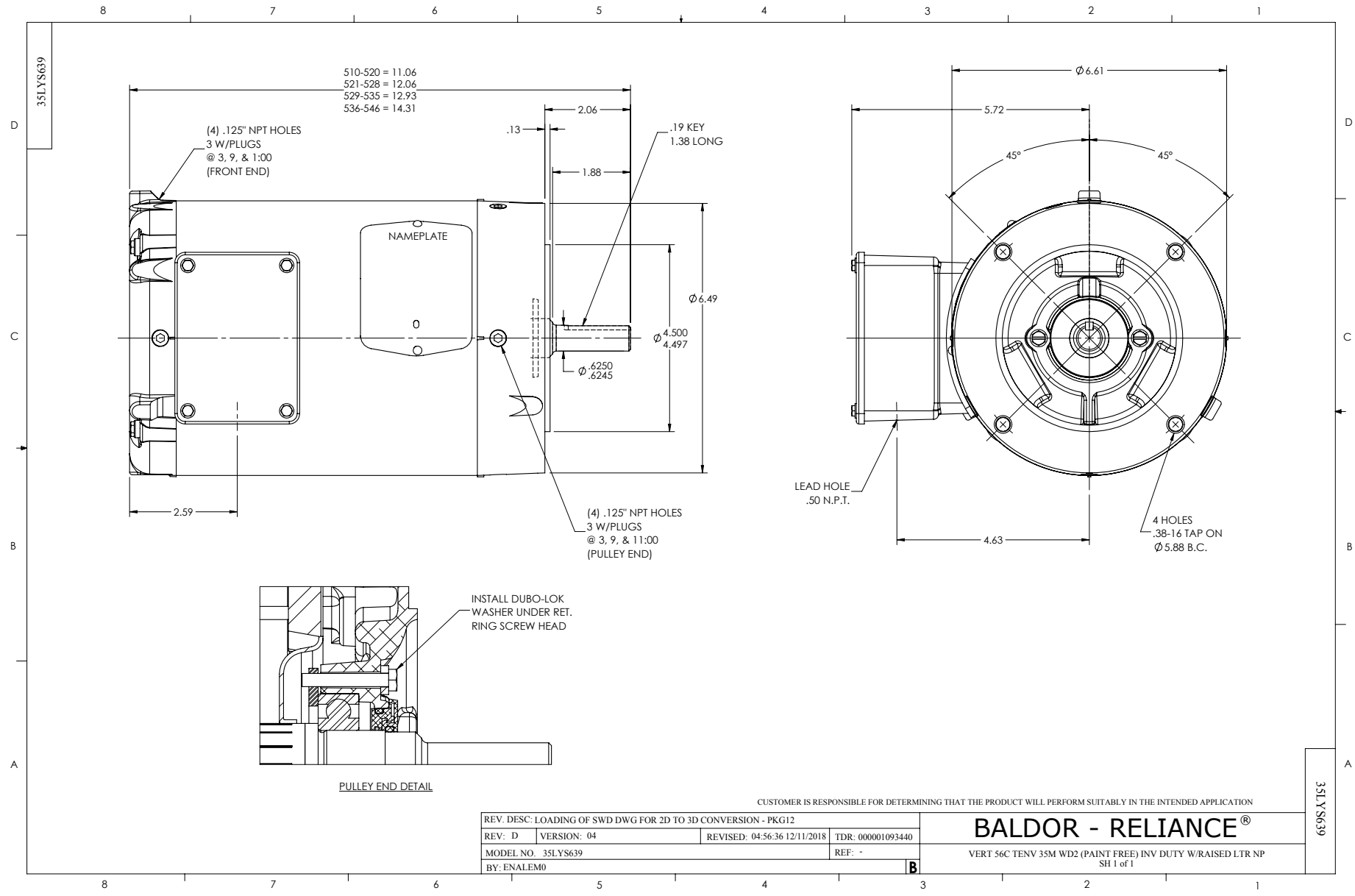
1 HP 3 PH 60 HZ 1770 RPM 460 V 3522M

Typical performance - not guaranteed values.

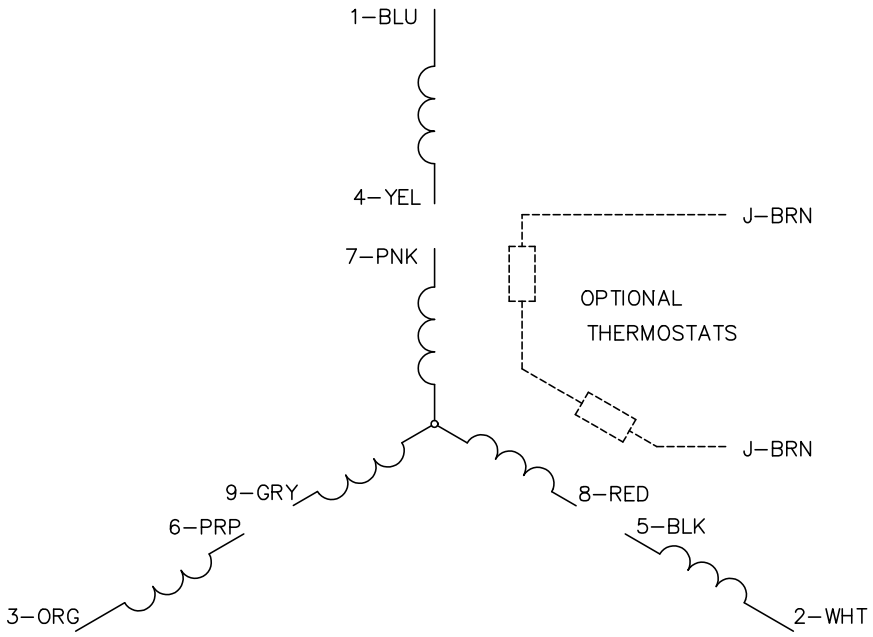
TORQUES(LB-FT): PO=16.6 PU=7.42 LR=10.32 LRA=16.1

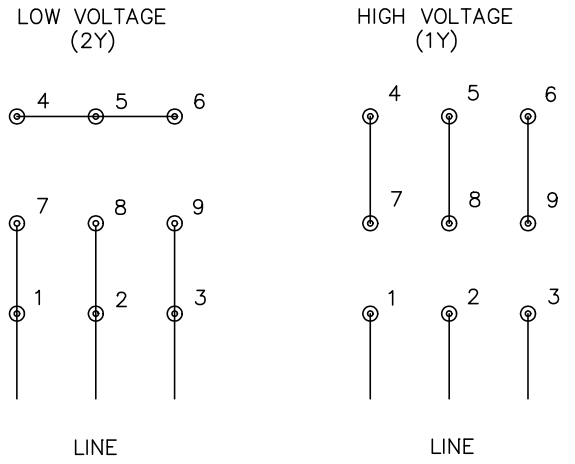


11/23/2026 ACPERF, record # 89787


35LYS639
510-520 = 11.06
521-528 = 12.06
529-535 = 12.93
536-546 = 14.31
2.06
.13
.19 KEY
1.38 LONG
1.88
(4) .125" NPT HOLES
3 W/PLUGS
@ 3, 9, & 1:00
(FRONT END)
NAMEPLATE
Ø6.49
Ø4.500
4.497
Ø.6250
.6245
2.59
(4) .125" NPT HOLES
3 W/PLUGS
@ 3, 9, & 11:00
(PULLEY END)
Ø6.61
5.72
45°
45°
LEAD HOLE
.50 N.P.T.
4.63
4 HOLES
.38-16 TAP ON
Ø5.88 B.C.
INSTALL DUBO-LOK
WASHER UNDER RET.
RING SCREW HEAD
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOADING OF SWD DWG FOR 2D TO 3D CONVERSION - PKG12
REV: D
VERSION: 04
REVISED: 04:56:36 12/11/2018
TDR: 000001093440
MODEL NO. 35LYS639
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
VERT 56C TENV 35M WD2 (PAINT FREE) INV DUTY W/RAISED LTR NP
SH 1 of 1
35LYS639

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