ABB BALDOR RELIANCE

Customer information packet

IM3540A-P

1HP, 1740//1430RPM, 3PH, 60//50HZ, 56YZ, 3523
Class - None
Division - Not Applicable

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Specifications

Enclosure	TENV
Frame	56YZ
Frame Material	Steel
Frequency	50.00 Hz
	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
	1.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
	380.0 V @ 50 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	1.700 A @ 460.0 V
	1.800 A @ 380.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	80.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	K
Type	AC
Mech. spec.	35K666
Base	
Status	NLA/A
Elec. spec.	35WGM584
Layout	35LYK666
Eff. date	03-08-2016
CD Diagram	CD0003
Poles	04
Leads	3#18 1-2-3 10"LG Y
Proprietary	False
Created date	01-03-2011

Heater Indicator	No Heater
High Voltage Full Load Amps	1.7 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	P
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Lead Hole
Motor Lead Quantity/Wire Size	3 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3523M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	11.02 IN
Power Factor	68
Product Family	General Purpose
Pulley End Bearing Type	No Bearing
Pulley Face Code	No Endplate
Pulley Shaft Indicator	Pump Coupling Shaft
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.00
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1430 rpm
	1740 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	Automatic Thermal Overload
Winding Thermal 1 Location	ES
Winding Thermal 2	None

Nameplate

NP1280L									
CAT.NO.									
SPEC.	35K666M584G1								
HP	1								
VOLTS	460//380								
AMP	1.7//1.8								
RPM	1740//1430								
FRAME	56YZ	**HZ**	60//50	**PH**	3				
SER.F.	1.00	**CODE**	P	**DES**	B	**CL**	F		
NEMA-NOM-EFF	80	**PF**	68						
RATING	40C AMB-CONT								
CC									
DE		**ODE**	6203						
ENCL	TENV	**SN**							

AC Induction Motor Performance Data
Record # 33185
Typical performance - not guaranteed values

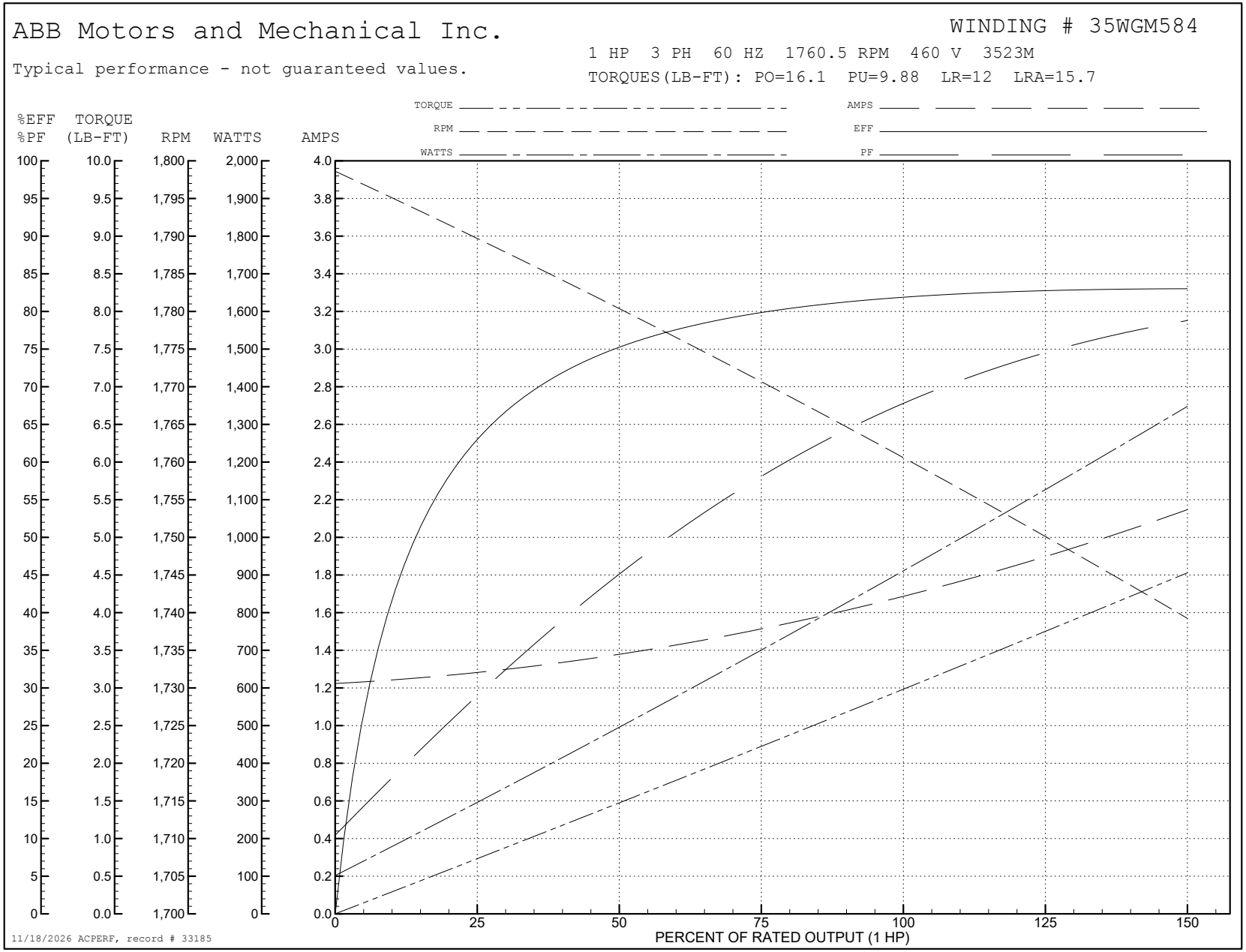
Winding: 35WGM584-R001	**Type:** 3523M	**Enclosure:** TENV

Nameplate Data			
Rated Output (HP)			1
Volts			460//380
Full Load Amps			1.7//1.8
R.P.M.			1740//1430
Hz	60//50	**Phase**	3
NEMA Design Code	B	**KVA Code**	P
Service Factor (S.F.)			1
NEMA Nom. Eff.	80	**Power Factor**	68
Rating - Duty			40C AMB-CONT

460 V, 60 Hz: Single Voltage Motor	
Full Load Torque	3.02 LB-FT
Start Configuration	direct on line
Breakdown Torque	16.1 LB-FT
Pull-up Torque	9.88 LB-FT
Locked-rotor Torque	12 LB-FT
Starting Current	15.7 A
No-load Current	1.23 A
Line-line Res. @ 25ºC	13.901 Ω
Temp. Rise @ Rated Load	
Locked-rotor Power Factor	68
Rotor inertia	0.136 LB-FT2

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	29	46	59	68	74	79
Efficiency	63.1	75.6	80.2	81.9	82.9	83
Speed	1789.1	1779.9	1770.1	1760.5	1750	1738.9
Line amperes	1.28	1.37	1.52	1.71	1.91	2.14


ABB Motors and Mechanical Inc.
WINDING # 35WGM584
1 HP 3 PH 60 HZ 1760.5 RPM 460 V 3523M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=16.1 PU=9.88 LR=12 LRA=15.7
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1 HP)
11/18/2026 ACPERF, record # 33185

AC Induction Motor Performance Data
Record # 33186
Typical performance - not guaranteed values

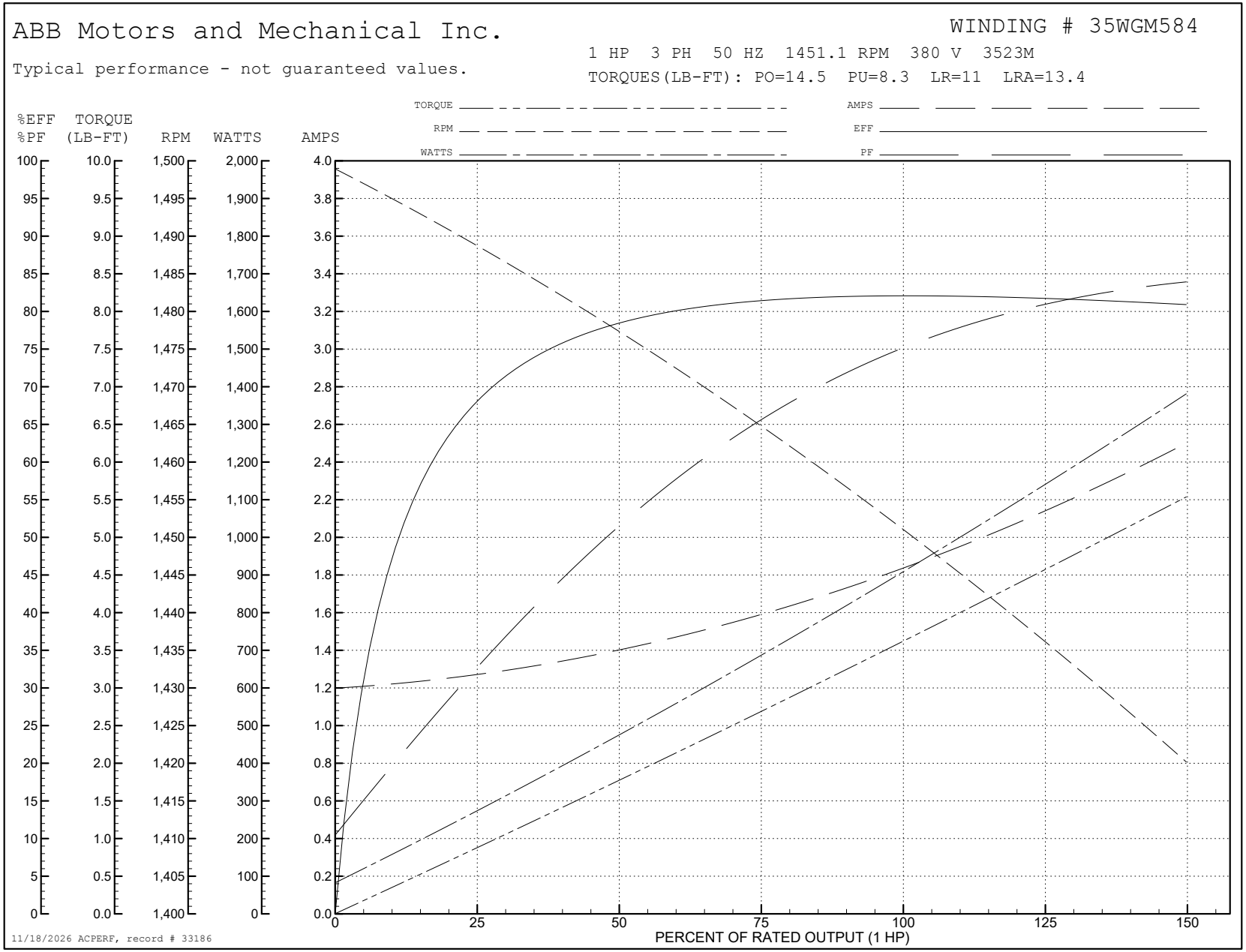
Winding: 35WGM584-R001	**Type:** 3523M	**Enclosure:** TENV

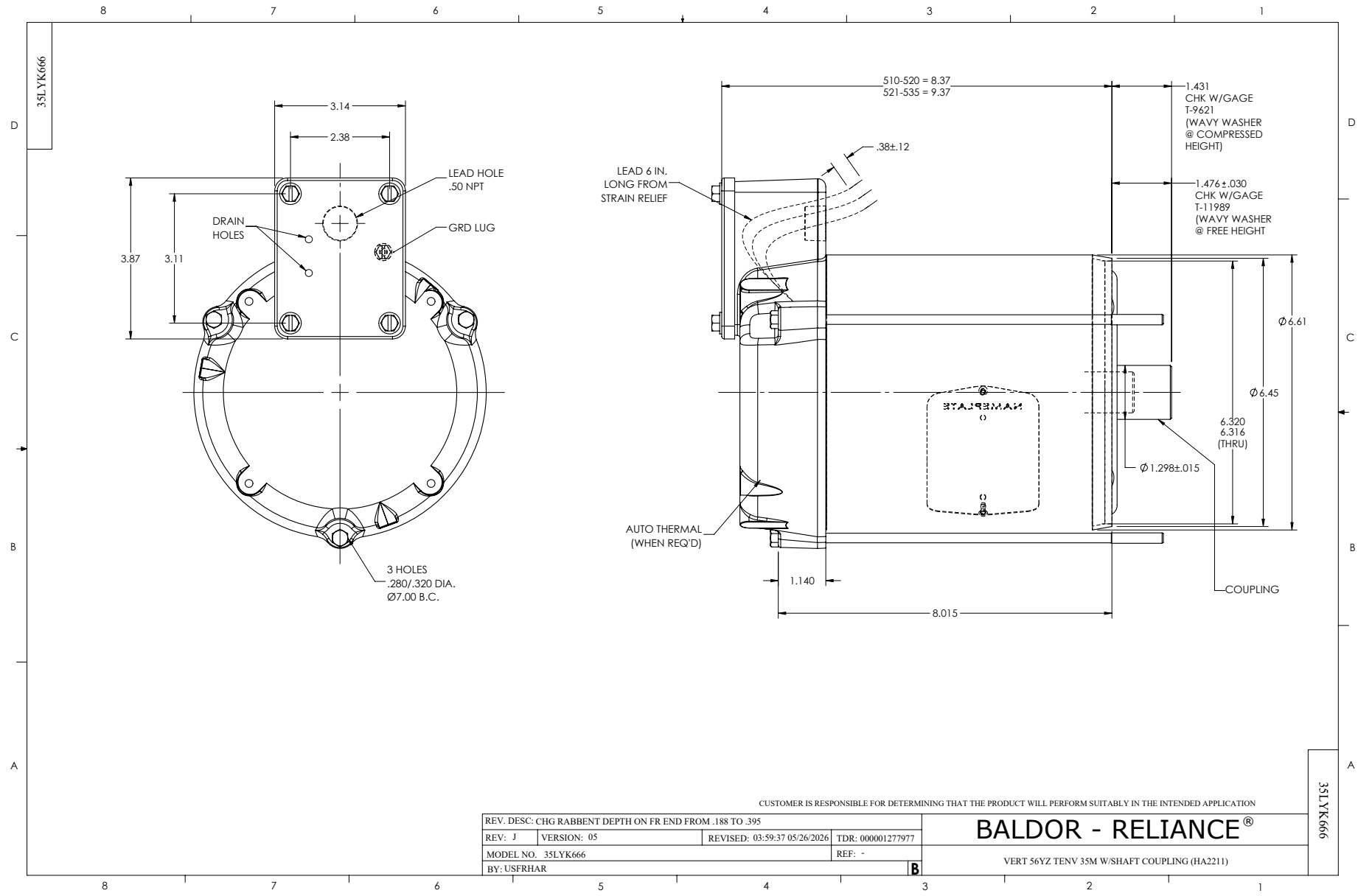
Nameplate Data			
Rated Output (HP)			1
Volts			460//380
Full Load Amps			1.7//1.8
R.P.M.			1740//1430
Hz	60//50	**Phase**	3
NEMA Design Code	B	**KVA Code**	P
Service Factor (S.F.)			1
NEMA Nom. Eff.	80	**Power Factor**	68
Rating - Duty			40C AMB-CONT

380 V, 50 Hz: Single Voltage Motor	
Full Load Torque	3.62 LB-FT
Start Configuration	direct on line
Breakdown Torque	14.5 LB-FT
Pull-up Torque	8.3 LB-FT
Locked-rotor Torque	11 LB-FT
Starting Current	13.4 A
No-load Current	1.2 A
Line-line Res. @ 25ºC	13.901 Ω
Temp. Rise @ Rated Load	
Locked-rotor Power Factor	74
Rotor inertia	0.136 LB-FT2

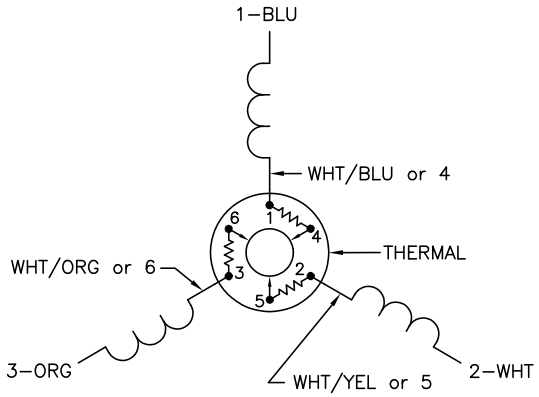
Load Characteristics 380 V, 50 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	33	52	66	75	81	84
Efficiency	68.1	78.5	81.5	82.1	81.8	80.9
Speed	1488.7	1477.3	1464.8	1451.1	1436.2	1420.1
Line amperes	1.27	1.4	1.59	1.84	2.14	2.5


ABB Motors and Mechanical Inc.
WINDING # 35WGM584
1 HP 3 PH 50 HZ 1451.1 RPM 380 V 3523M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=14.5 PU=8.3 LR=11 LRA=13.4
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1 HP)
11/18/2026 ACPERF, record # 33186


35LYK666
3.14
2.38
LEAD HOLE
.50 NPT
DRAIN
HOLES
GRD LUG
3.87
3.11
3 HOLES
.280/.320 DIA.
Ø7.00 B.C.
510-520 = 8.37
521-535 = 9.37
1.431
CHK W/GAGE
T-9621
(WAVY WASHER
@ COMPRESSED
HEIGHT)
.38±.12
LEAD 6 IN.
LONG FROM
STRAIN RELIEF
1.476±.030
CHK W/GAGE
T-11989
(WAVY WASHER
@ FREE HEIGHT
Ø6.61
Ø6.45
6.320
6.316
(THRU)
Ø1.298±.015
NAMEPLATE
AUTO THERMAL
(WHEN REQ'D)
1.140
8.015
COUPLING
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CHG RABBENT DEPTH ON FR END FROM .188 TO .395
REV: J
VERSION: 05
REVISED: 03:59:37 05/26/2026
TDR: 000001277977
MODEL NO. 35LYK666
REF: -
BY: USFRHAR
B
BALDOR - RELIANCE®
VERT 56YZ TENV 35M W/SHAFT COUPLING (HA2211)
35LYK666

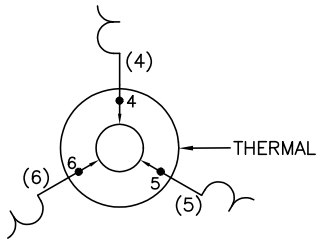
CD0003



1 2 3

LINE

INTERNAL CONNECTION FOR THREE TERMINAL THERMAL



NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0003

REV. DESC: CORRECT LEAD MARKING			BALDOR ELECTRIC Co.
REV. LTR: F	BY: JLP	REVISED: 04/14/99 8:23	TDR: 0178963
CD0003		FILE: AAA00008369	MDL: –
		MTL: –	3PH, SV, THERMAL, 3 LEADS