

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VHEM2542T**

**50HP,3550RPM,3PH,60HZ,324HP,1250M,OPEN,F**

Part Detail							
Revision:	J	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	12WGY320	CD Diagram:	CD0104	Mfg Plant:	
Mech. Spec:	12E671	Layout:	12LYE671	Poles:	02	Created Date:	07-13-2015
Base:	N	Eff. Date:	10-22-2019	Leads:	12#8		

Specs			
Catalog Number:	VHEM2542T	Insulation Class:	F
Enclosure:	OPEN	Inverter Code:	Inverter Ready
Frame:	324HP	KVA Code:	J
Frame Material:	Iron	Lifting Lugs:	Vertical Lifting Lugs
Output @ Frequency:	50.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	12 @ 8 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	1250M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	86
	CSA EEV	Product Family:	General Purpose
	UR	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	P-Base
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	P-Base Groove & Key
Base Indicator:	No Mounting	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	Shaft Extension Location:	Pulley End
Blower:	None	Shaft Ground Indicator:	No Shaft Grounding

<b>Current @ Voltage:</b>	116.000 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
	58.000 A @ 460.0 V	<b>Shaft Slinger Indicator:</b>	Shaft Slinger
<b>Design Code:</b>	A	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Wye Start - Delta Run
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	None
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	None
<b>Front Face Code:</b>	Drip Cover Mounting	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	None
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 2:</b>	None

Nameplate NP2138L												
CAT.NO.	VHEM2542T			P/N				ENCLOSURE	OPEN			
SPEC.	12E671Y320G1		CC	010A		FRAME	324HP		S/N			
HP	50			CLASS	F		HZ	60				
RPM	3550			PH	3		DES	A				
VOLT	230/460				KVA-CODE	J		ODE BRG	6311		DE BRG	6313
AMP	116/58			USABLE AT 208V								
RATING	40C AMB-CONT			GREASE	POLYREX EM							
NEMA-NOM-EFF	93	PF	86	SER.F.	1.15							
HTR-VOLTS				HTR-AMPS								

Parts List		
Part Number	Description	Quantity
SA303707	SA 12E671Y320G1	1.000 EA
RA290849	RA 12E671Y320G1	1.000 EA
10CB3000A52	KOBX,MACH W/3.50 MTG PAT, 2.00 NPT, #26	1.000 EA
14GS1000SP	GASKET, CONDUIT BOX	1.000 EA
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 EA
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 EA
12EP1205A01	FREP, MACH - 311 BRG	1.000 EA
12AD2000A01	AIR DEFLECTOR	1.000 EA
51XF2520A08	SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L	3.000 EA
10XN5013K64	HEX HD SCREW, 1/2-13X4.00GRADE 5, ZINC P	4.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I	4.000 EA
HW4600B42	V-RING SLINGER 2.375 X 3.070 X .28 VITON	1.000 EA
HW5100A13	W4627-047 WVY WSHER	1.000 EA
10XN3816K80	3/8-16 X 5.00 HEX HD CAP SCREW GRADE 5 Z	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
12EP1506A02	PUEP, MACH - 313 BRG	1.000 EA
10XN5013K44	1/2-13 X 2.75 HEX HD GRADE 5	4.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I	4.000 EA
12FH1501A01	DRIP COVER, MACH	1.000 EA
HW3201A13	.62-11 EYEBOLT W/2.00 SHANK	2.000 EA
HW1000A62	WASHER, 5/8" FLAT USS	2.000 EA
HW1001A63	WASHER, 5/8 SPLIT LK, ZN	2.000 EA

Parts List (continued)		
Part Number	Description	Quantity
10CB3500SP	CONDUIT BOX LID, CAST	1.000 EA
10GS1000SP	GASKET, CONDUIT BOX LID	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
HW2501G32	KEY, 3/8 SQ X 3.750	1.000 EA
LB1182	WARNING LABEL FOR MOTORS WITH EYENUTS	2.000 EA
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
MG1025G05	WILKOFAS, 789.227, MED. GRAY CHAR. MET.	0.080 GA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.200 LB
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0104A01	CONNECTION DIAGRAM	1.000 EA
NP2138L	ALUM SUPER-E UL CSA-EEV PREM CC (300	1.000 EA
10PA1020	PACKAGING GROUP, BLANK PK1151	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA

**AC Induction Motor Performance Data**

Record # 31723 - Typical performance - not guaranteed values

<b>Winding:</b> 12WGY320-R001	<b>Type:</b> 1250M	<b>Enclosure:</b> OPEN
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	50			Full Load Torque	74 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	116/58			Breakdown Torque	293 LB-FT
R.P.M.	3550			Pull-up Torque	81.1 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	118 LB-FT
NEMA Design Code	A	KVA Code	J	Starting Current	458 A
Service Factor (S.F.)	1.15			No-load Current	18.3 A
NEMA Nom. Eff.	93	Power Factor	86	Line-line Res. @ 25°C	0.0947 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	19°C
S.F. Amps				Temp. Rise @ S.F. Load	23°C
				Locked-rotor Power Factor	22
				Rotor inertia	3.89 LB-FT <sup>2</sup>

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	54	74	82	86	88	86	87
Efficiency	89.5	92.9	93.4	93.3	92.6	92.8	92.9
Speed	3584	3573	3563	3551	3538	3524	3543
Line amperes	24.2	34.3	46.1	58.3	71.5	87	66.2

Performance Graph at 460V, 60Hz, 50.0HP Typical performance - Not guaranteed values

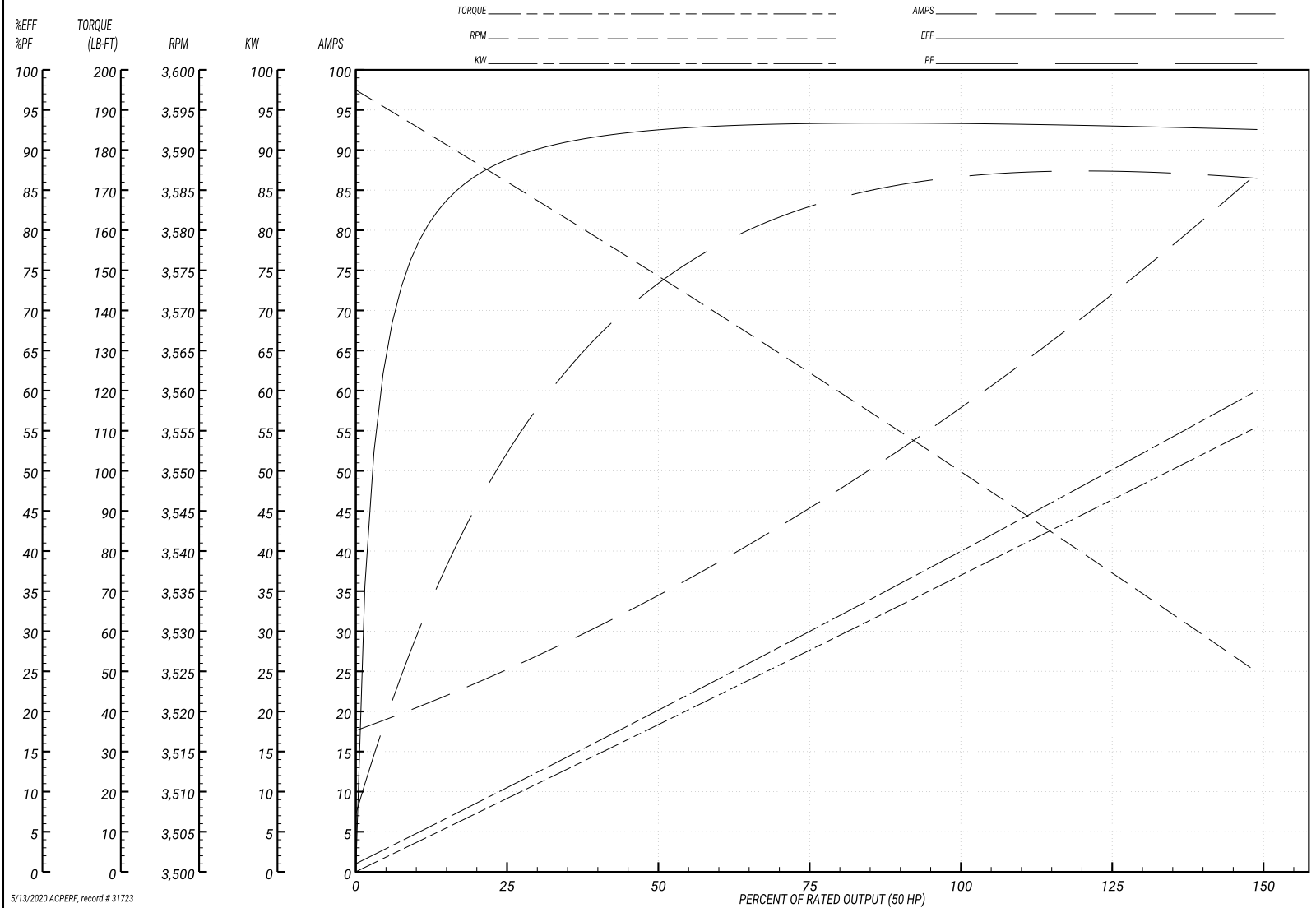
ABB Motors and Mechanical Inc.

WINDING # 12WGY320

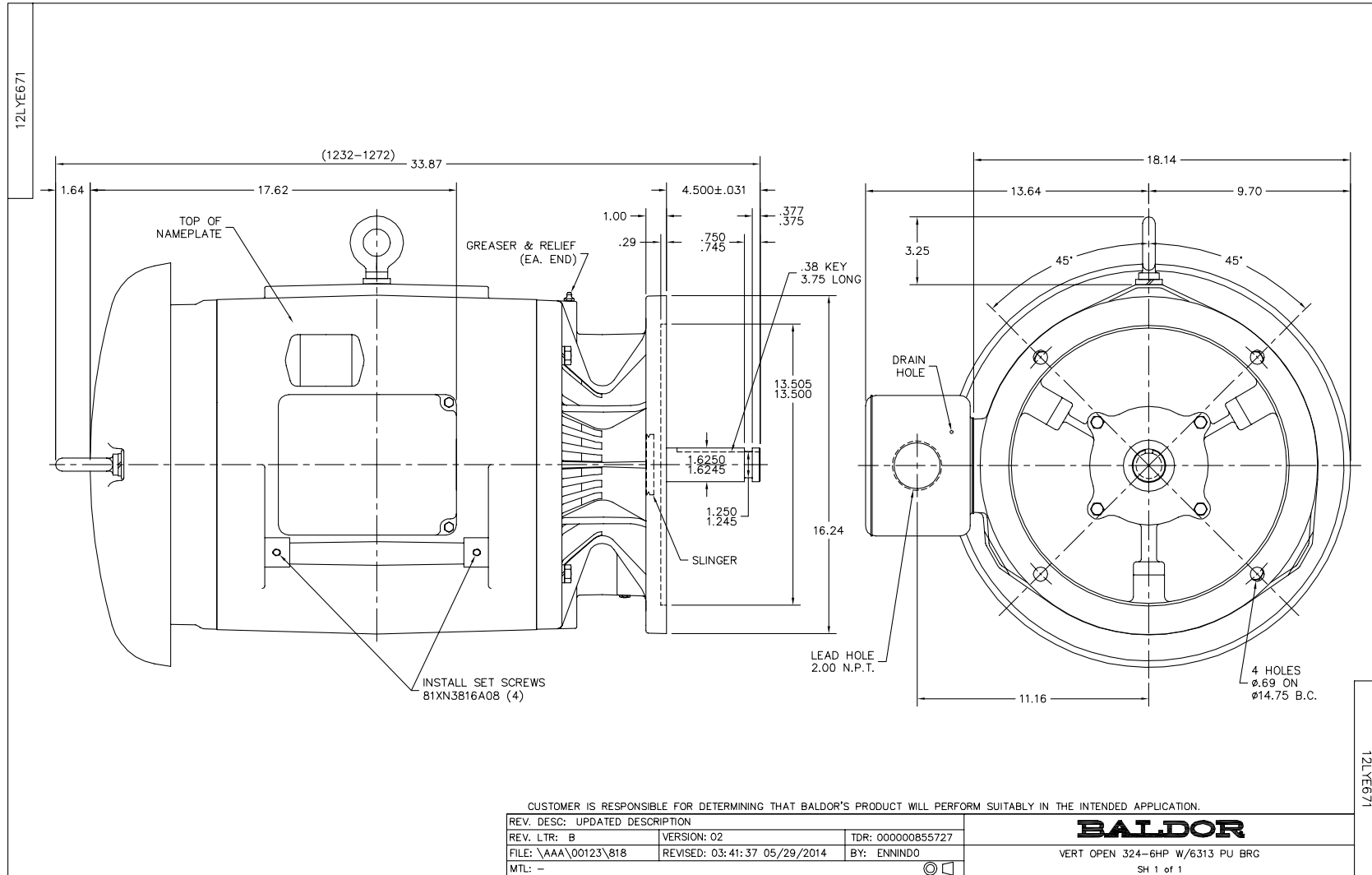
Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 3550 RPM 460 V 1250M

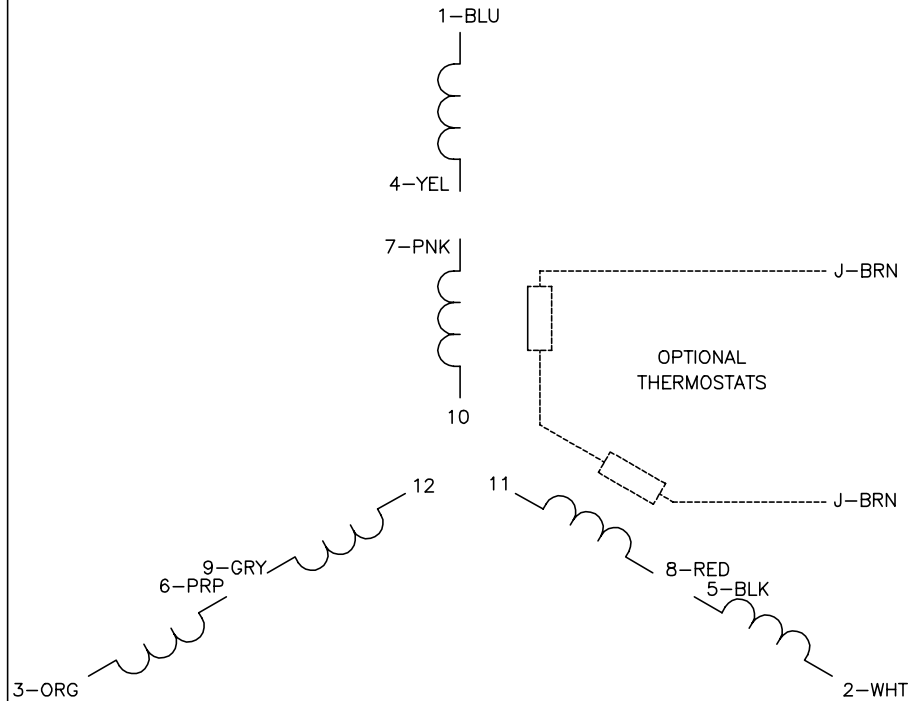
TORQUES(LB-FT): PO=293 PU=81.1 LR=118 LRA=458



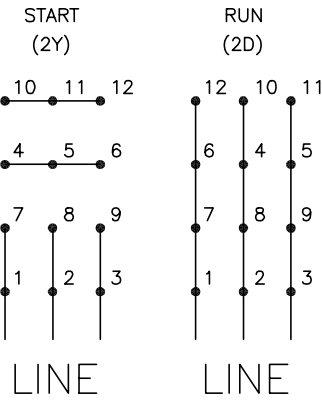
5/13/2020 ACPERF, record # 31723



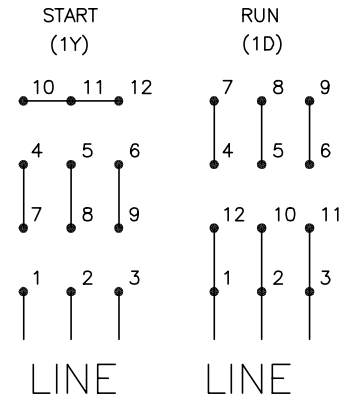
CD0104



**LOW VOLTAGE**



**HIGH VOLTAGE**



**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.

CD0104

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00008\377	REVISED: 09:02:55 02/19/2019	BY: ENBRIRO
MTL: -	© □	

**BALDOR - RELIANCE®**

3PH, DV, 12 LEADS, Y START/D RUN

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