BALDOR • RELIANCE

Product Information Packet

EM2543T-BG

50HP,1775RPM,3PH,60HZ,326T,4256M,OPSB,F1

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Part Detail

Revision:	H	**Status:**	PRD/A	**Change #:**		**Proprietary:**	No
Type:	AC	**Elec. Spec:**	42WGW387	**CD Diagram:**	CD0180	**Mfg Plant:**	
Mech. Spec:	42E307	**Layout:**	42LYE307	**Poles:**	04	**Created Date:**	10-08-2013
Base:	RG	**Eff. Date:**	09-06-2017	**Leads:**	9#8		

Specs

Catalog Number:	EM2543T-BG	**Insulation Class:**	H
Enclosure:	OPSB	**Inverter Code:**	Inverter Ready
Frame:	326T	**KVA Code:**	G
Frame Material:	Steel	**Lifting Lugs:**	Standard Lifting Lugs
Output @ Frequency:	50.000 HP @ 60 HZ	**Locked Bearing Indicator:**	No Locked Bearing
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	**Motor Lead Quantity/Wire Size:**	9 @ 8 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	**Motor Lead Exit:**	Ko Box
	230.0 V @ 60 HZ	**Motor Lead Termination:**	Flying Leads
Agency Approvals:	CSA	**Motor Type:**	4256M
	CSA EEV	**Mounting Arrangement:**	F1
	UR	**Power Factor:**	87
Auxillary Box:	No Auxillary Box	**Product Family:**	General Purpose
Auxillary Box Lead Termination:	None	**Pulley End Bearing Type:**	Ball
Base Indicator:	Rigid	**Pulley Face Code:**	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	**Pulley Shaft Indicator:**	Standard
Blower:	None	**Rodent Screen:**	None
Current @ Voltage:	57.000 A @ 460.0 V	**Shaft Extension Location:**	Pulley End
	120.000 A @ 208.0 V	**Shaft Ground Indicator:**	Shaft Grounding

	114.000 A @ 230.0 V
Design Code:	A
Drip Cover:	No Drip Cover
Duty Rating:	CONT
Electrically Isolated Bearing:	Not Electrically Isolated
Feedback Device:	NO FEEDBACK
Front Face Code:	Standard
Front Shaft Indicator:	None
Heater Indicator:	No Heater

Shaft Rotation:	Reversible
Shaft Slinger Indicator:	No Slinger
Speed Code:	Single Speed
Motor Standards:	NEMA
Starting Method:	Direct on line
Thermal Device - Bearing:	NONE (OLD)
Thermal Device - Winding:	None
Vibration Sensor Indicator:	No Vibration Sensor
Winding Thermal 1:	None
Winding Thermal 2:	None

Nameplate NP3554L

CAT.NO.	EM2543T-BG			**P/N**		**ENCL**	OPSB		
SPEC.	42E307W387G1	**CC**	010A	**FRAME**	326T	**SER.NO.**			
HP	50	**CLASS**	H	**HZ**	60				
RPM	1775	**PH**	3	**DES**	A				
VOLTS	230/460	**CODE**	G	**ODE BRG**	6311	**DE BRG**	6312		
AMPS	114/57	**USABLE AT 208V**	120						
RATING	40C AMB-CONT	**NEMA-NOM-EFF**	94.5	**GREASE**	POLYREX EM				
PF	87	**SER.F.**	1.15	**VPWM INVERTER READY**					
HTR-VOLTS		**HTR-AMPS**		**MAX. SPACE HEATER TEMP.**					

Parts List

Part Number	Description	Quantity
SA270436	SA 42E307W387G1	1.000 EA
RA257071	RA 42E307W387G1	1.000 EA
S/P107-000-004	SUPER-E(284 FR. & UP)-CL PLANT,POLYREX E	1.000 EA
HA6360	LIFTING LUG FOR 42 FRAME MOTORS.	2.000 EA
HA6017	CAST ADAPTER, 40,42 KOBX	1.000 EA
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 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
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	1.000 EA
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
42EP3200A01	FR ENDPLATE, MACH	1.000 EA
HW5100A13	W4627-047 WVY WSHER	1.000 EA
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
42EP3200B01	PU ENDPLATE, MACH	1.000 EA
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	8.000 EA
10CB3500SP	CONDUIT BOX LID, CAST	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 EA
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA
LB1508	LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81	1.000 EA

Parts List (continued)

Part Number	Description	Quantity
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.030 LB
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.080 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 EA
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 EA
HA3151A03	THRUBOLT STUD 1/2-13 X 20.5	4.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA
NP3554L	SS SUPER-E UL CSA-EEV PREM CC	1.000 EA
42PA1000	PACKAGING GROUP PRINT PK1024A06	1.000 EA

AC Induction Motor Performance Data

Record # 35575 - Typical performance - not guaranteed values

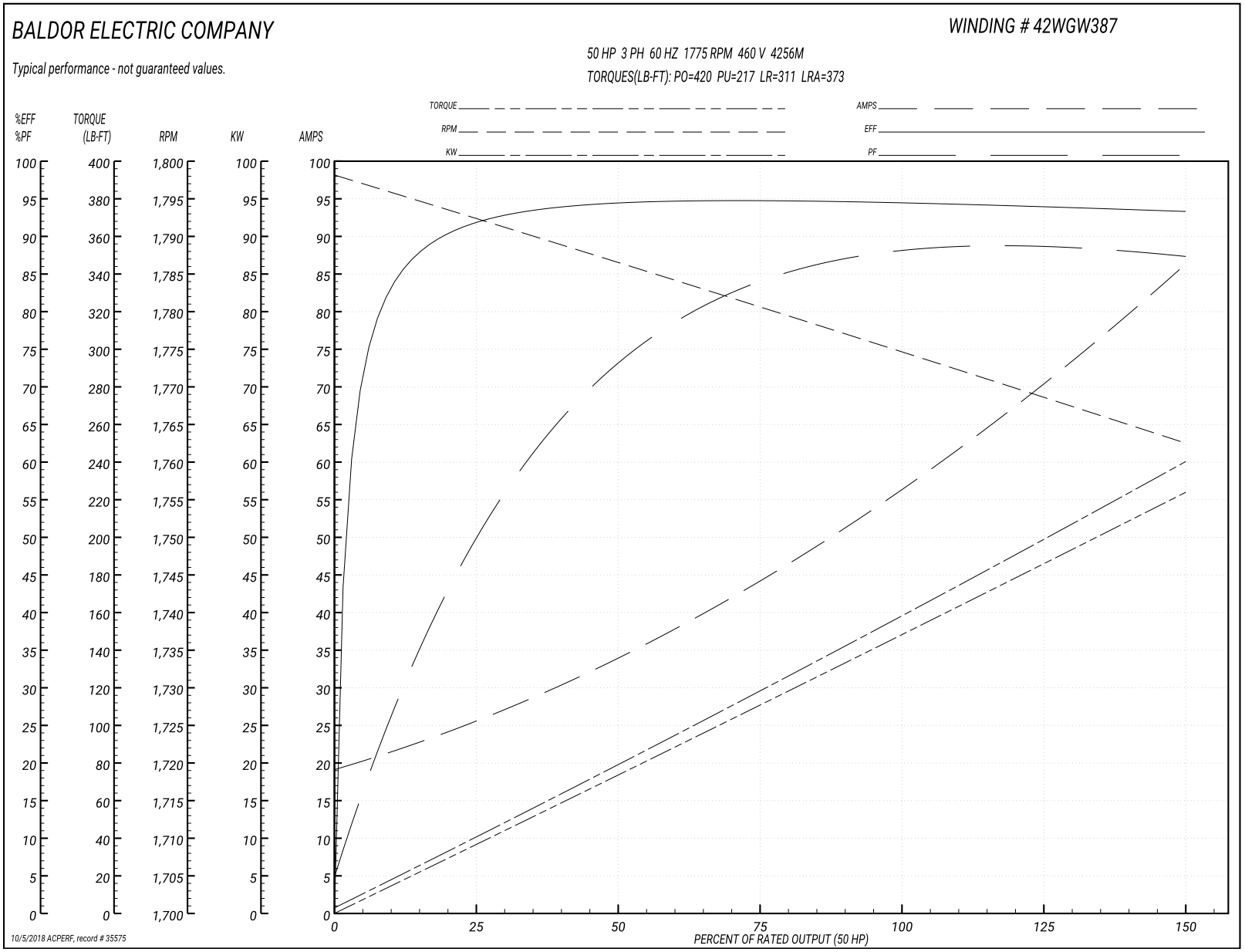
Winding: 42WGW387-R005	**Type:** 4256M	**Enclosure:** OPSB

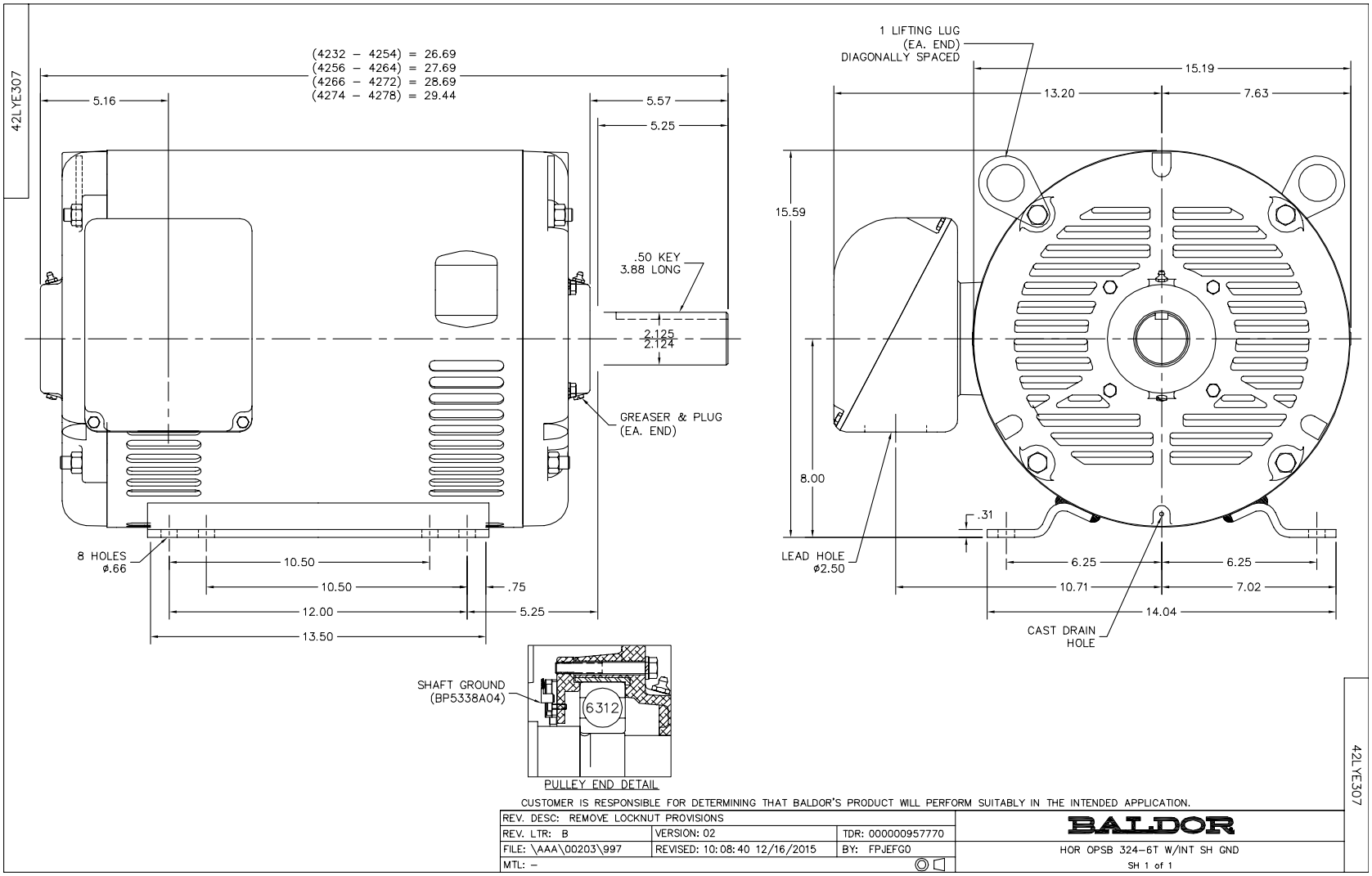
Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	50			Full Load Torque	149 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	114/57			Breakdown Torque	420 LB-FT
R.P.M.	1775			Pull-up Torque	217 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	311 LB-FT
NEMA Design Code	B	KVA Code	G	Starting Current	373 A
Service Factor (S.F.)	1.15			No-load Current	20.2 A
NEMA Nom. Eff.	94.5	Power Factor	87	Line-line Res. @ 25ºC	0.127 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	39°C
S.F. Amps				Temp. Rise @ S.F. Load	47°C
				Locked-rotor Power Factor	27
				Rotor inertia	7.46 LB-FT2

Load Characteristics 460 V, 60 Hz, 50 HP

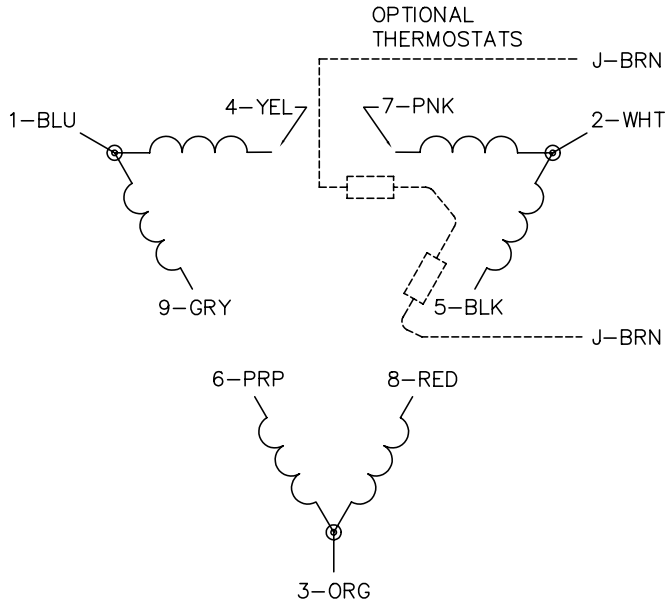
% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	54	75	83	87	88	88	87
Efficiency	92	94.5	94.5	94.7	93.9	93.3	94.4
Speed	1791	1786	1781	1775	1769	1762	1771
Line amperes	24.4	33.4	44.7	57.4	71	85.6	65.2

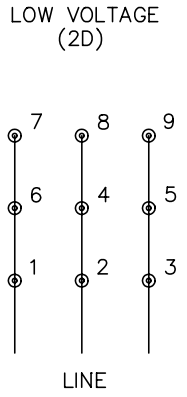
Performance Graph at 460V, 60Hz, 50.0HP Typical performance - Not guaranteed values

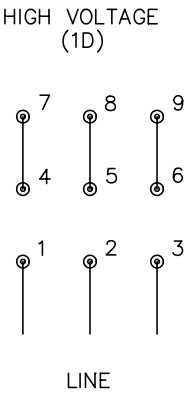



42LYE307
(4232 – 4254) = 26.69
(4256 – 4264) = 27.69
(4266 – 4272) = 28.69
(4274 – 4278) = 29.44
5.16
5.57
5.25
.50 KEY
3.88 LONG
2.125
2.124
GREASER & PLUG
(EA. END)
8 HOLES
ø.66
10.50
10.50
12.00
13.50
.75
5.25
1 LIFTING LUG
(EA. END)
DIAGONALLY SPACED
15.19
13.20
7.63
15.59
8.00
.31
LEAD HOLE
ø2.50
6.25
6.25
10.71
7.02
14.04
CAST DRAIN
HOLE
SHAFT GROUND
(BP5338A04)
6312
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.
REV. DESC: REMOVE LOCKNUT PROVISIONS
REV. LTR: B
VERSION: 02
TDR: 000000957770
FILE: \AAA\00203\997
REVISED: 10:08:40 12/16/2015
BY: FPJEFGO
MTL: –
BALDOR
HOR OPSB 324–6T W/INT SH GND
SH 1 of 1
42LYE307

CD0180







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.

CD0180

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: C	BY: JLP	REVISED: 01/21/99 2:28	TDR: 0171435
CD0180		FILE: AAA00005148	MDL: –
		MTL: –	3PH, DV, 9 LEADS, DELTA CONNECTION