

**BALDOR • RELIANCE**

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# Customer information packet

## EM31155

2HP, 3450RPM, 3PH, 60HZ, 56, 3524M, ODP, F1, N

Class - None

Division - Not Applicable

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11/26/2024 10:38:36 PM

## Specifications

Enclosure	OPEN
Frame	56
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	2.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CURUSEEV
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	5.600 A @ 208.0 V 5.200 A @ 230.0 V 2.600 A @ 460.0 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 Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	2.6 a

## Part detail

Revision	Q
Type	AC
Mech. spec.	35B011
Base	
Status	PRD/A
Elec. spec.	35WGS254
Layout	35LYB011
Eff. date	07-01-2024
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	03-27-2014

<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Ready
<b>IP Rating</b>	NONE
<b>KVA Code</b>	K
<b>Lifting Lugs</b>	No Lifting Lugs
<b>Locked Bearing Indicator</b>	No Locked Bearing
<b>Motor Lead Exit</b>	Ko Box
<b>Motor Lead Quantity/Wire Size</b>	9 @ 18 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	3524M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	2
<b>Overall Length</b>	12.07 IN
<b>Power Factor</b>	85
<b>Product Family</b>	General Purpose
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>RoHS Status</b>	ROHS COMPLIANT
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	0.625 IN
<b>Shaft Extension Location</b>	Pulley End
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	3450 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None

**Winding Thermal 2**

**None**

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**Nameplate**

<b>NP3155LUA</b>										
<b>CAT.NO.</b>	EM31155									
<b>SPEC.</b>	35B011S254G1									
<b>HP</b>	2									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	5.2/2.6									
<b>RPM</b>	3450									
<b>FRAME</b>	56		<b>HZ</b>	60		<b>PH</b>	3			
<b>SF</b>	1.15	<b>CODE</b>	K	<b>DES</b>	B	<b>CLASS</b>	F			
<b>F.L. AVG. EFF.</b>	85.5	<b>PF</b>	85							
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>										
<b>DE</b>	6205		<b>ODE</b>	6203						
<b>ENCL</b>	OPEN	<b>SN</b>								
<b>USABLE AT</b>	50HZ 2HP 190/380V 6.2/3.1A							SF1.0		

## Parts list

Part number	Description	Quantity
SA278620	SA 35B011S254G1	1.000 ea
RA265151	RA 35B011S254G1	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3007	35 CB CASTING W/.88 DIA. LEAD HOLE	1.000 ea
51XB1016A06	10-16X3/8 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
35EP3209G00	MASTER ODE,203 BRG	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3210B00	MASTER DE,205 BRG,1.000SH	1.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 ea
35CB4521	35 LIPPED CB LID (GALV & PHOSPH)	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1050Y01	CELEROL BALDOR GOLD *** NLA IN 5 GALLON	0.017 ga
HA3100A18	THRUBOLT 10-32 X 9.250	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500bx)4/22	1.000 ea
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 ea
NP3155LUA	ALUM SUPER-E UL CC "SEMS" "USABLE AT" VE	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A06	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 # 57243

Typical performance - not guaranteed values

Winding: 35WGS254-R009		Type: 3524M	Enclosure: OPEN	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>	
Rated Output (HP)	2	Full Load Torque	3 LB-FT	
Volts	230/460	Start Configuration	direct on line	
Full Load Amps	5.2/2.6	Breakdown Torque	11.6 LB-FT	
R.P.M.	3450	Pull-up Torque	8.2 LB-FT	
Hz	60 Phase	Locked-rotor Torque	10.7 LB-FT	
NEMA Design Code	B KVA Code	Starting Current	18.8 A	
Service Factor (S.F.)	1.15	No-load Current	1 A	
NEMA Nom. Eff.	85.5 Power Factor	Line-line Res. @ 25°C	8.08 Ω	
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	36°C	
S.F. Amps		Temp. Rise @ S.F. Load	43°C	
		Locked-rotor Power Factor	53.6	
		Rotor inertia	0.0657 LB-FT <sup>2</sup>	

**Load Characteristics 460 V, 60 Hz, 2 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	54	73	82	86	88	88	87
Efficiency	78.2	84.9	86.2	85.8	84.5	82.9	85
Speed	3566	3536	3504	3469	3429	3387	3445
Line amperes	1.2	1.6	2.1	2.6	3.2	3.8	3

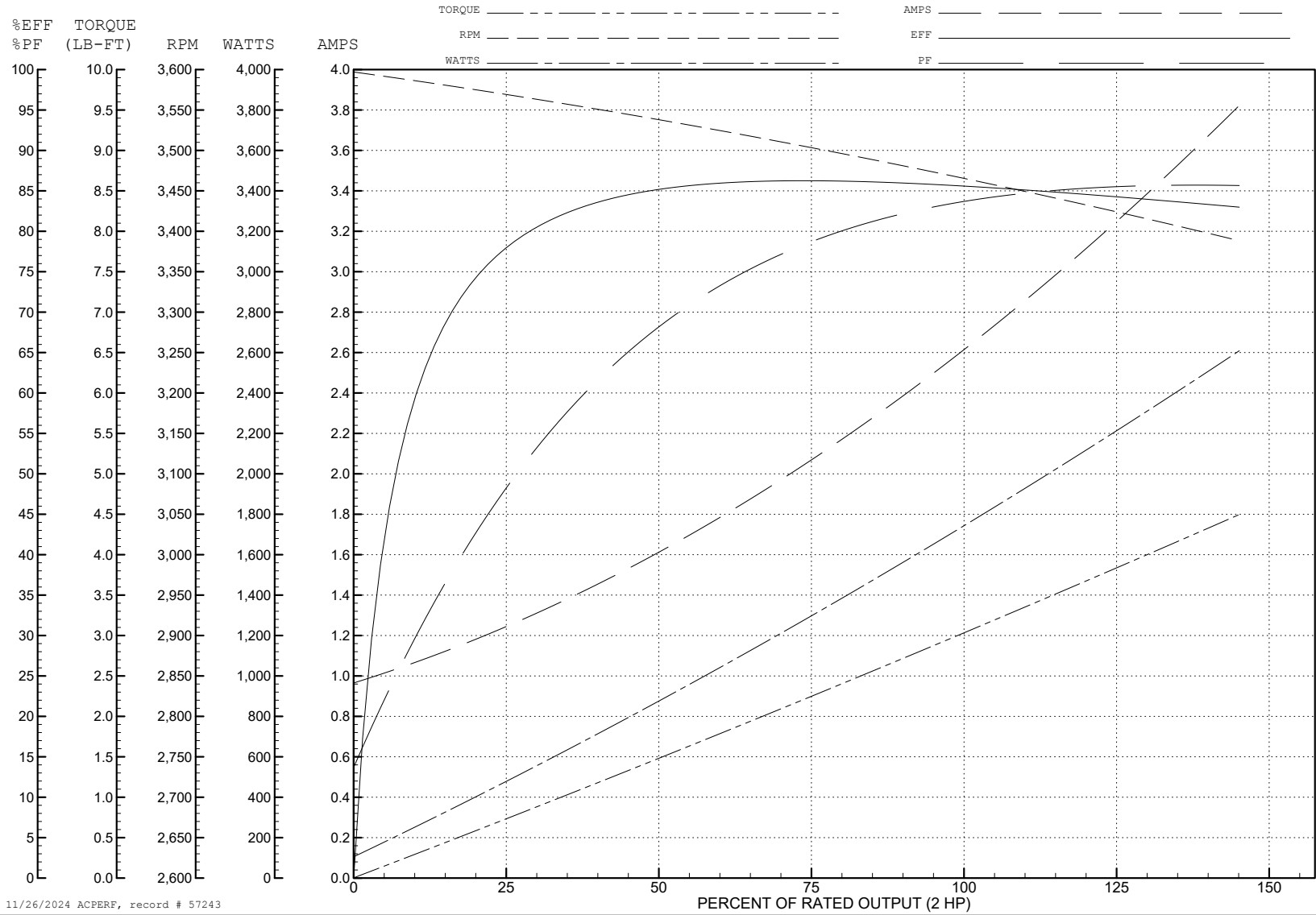
ABB Motors and Mechanical Inc.

WINDING # 35WGS254

Typical performance - not guaranteed values.

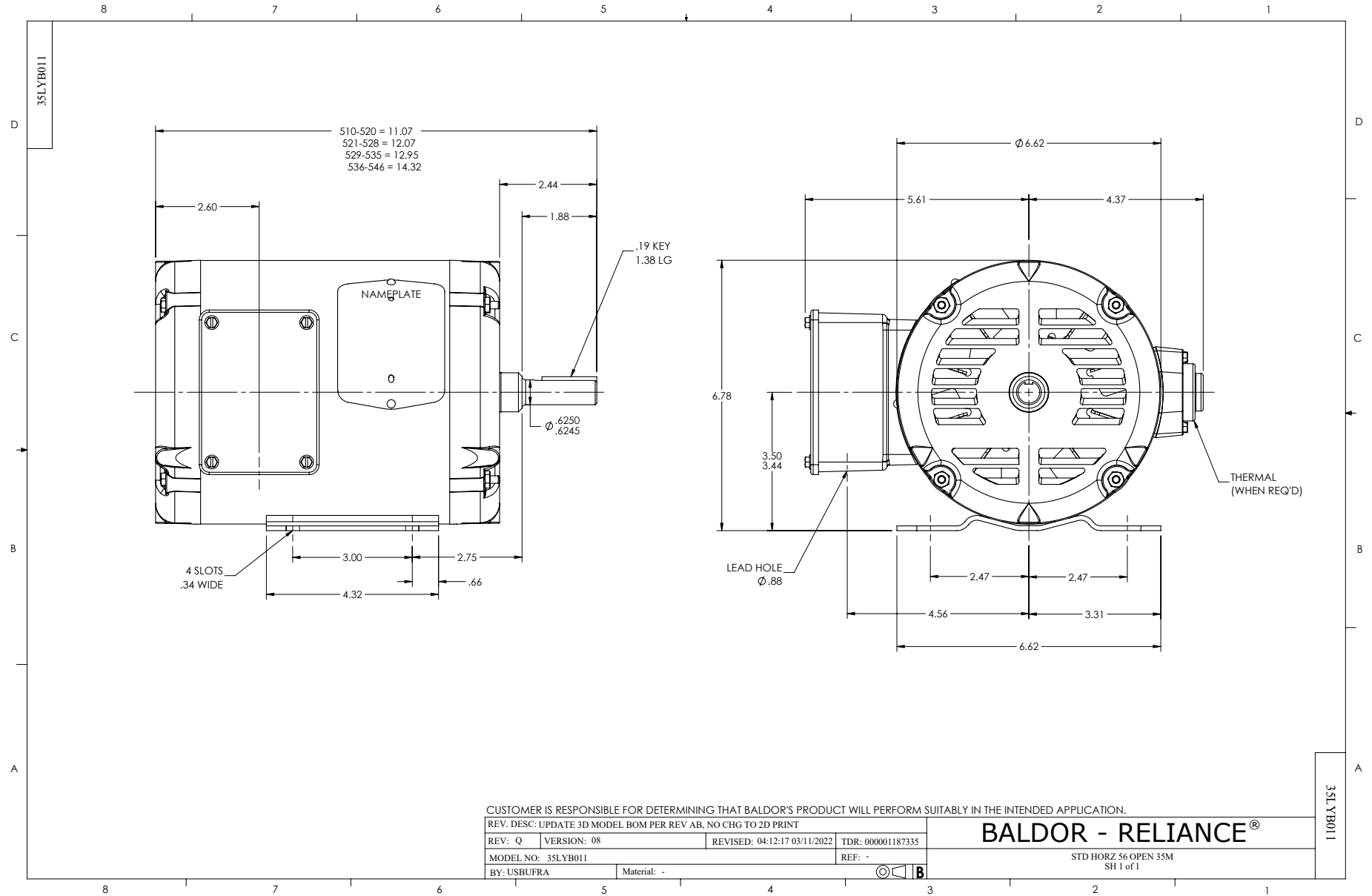
2 HP 3 PH 60 HZ 3450 RPM 460 V 3524M

TORQUES (LB-FT): PO=11.6 PU=8.2 LR=10.7 LRA=18.8

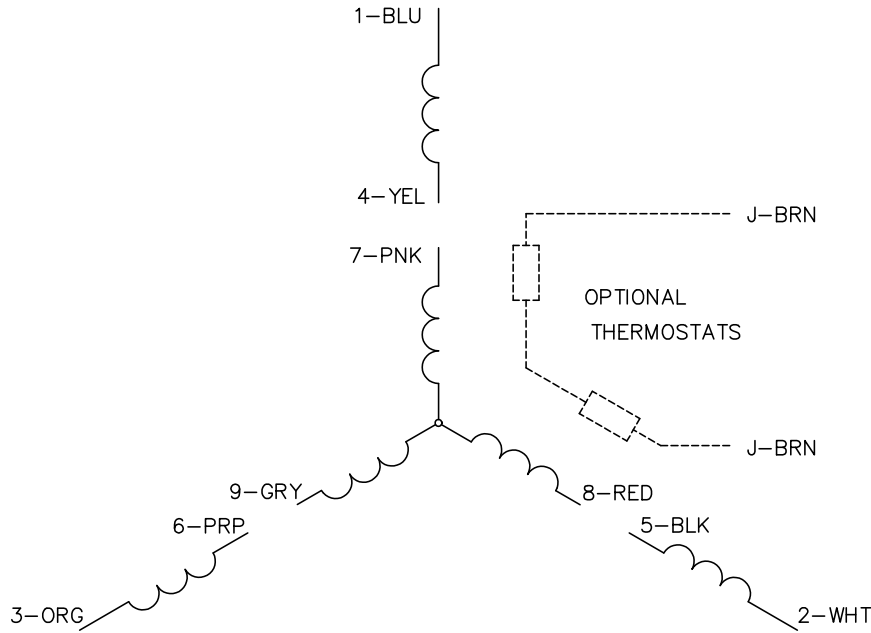


11/26/2024 ACPERF, record # 57243

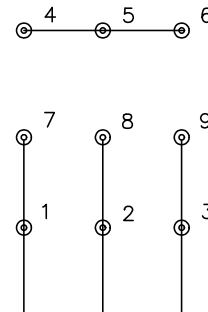




CD0005

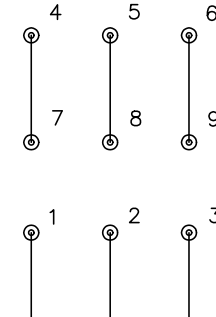


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

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			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS