ABB BALDOR RELIANCE

Customer information packet

CEM2550T-4G

100HP, 3525RPM, 3PH, 60HZ, 365TSC, OPSB, F1

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Specifications

Enclosure	OPSB
Frame	365TSC
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	100.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CSA
	CSA EEV
	NEMA PREMIUM
	UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	109.000 A @ 460.0 V
	218.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Electrically Isolated Bearings
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	109.0 a
Insulation Class	H
Inverter Code	Not Inverter

Part Detail

Revision	F
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	42WGW968
Layout	42LY-000-037
Eff. date	07-10-2024
CD Diagram	CD0006
Poles	02
Leads	3#4
Proprietary	False
Created date	09-16-2020

IP Rating	NONE
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4272M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	27.81 IN
Power Factor	91
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	3525 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	None
Winding Thermal 2	None

Nameplate

NP3554LUA												
CAT.NO.	CEM2550T-4G			**P/N**						**ENCL**	OPSB	
SPEC.	42-0000-0089	**CC**	010A		**FRAME**	365TSC		**SER.NO.**				
HP	100		**CLASS**	F	**HZ**	60						
RPM	3540		**PH**	3	**DES**	A						
VOLTS	460			**CODE**	G		**ODE BRG**	6311	**DE BRG**	6313		
AMPS	110											
RATING	40C AMB-CONT			**NEMA-NOM-EFF**	93.6		**GREASE**	POLYREX EM				
PF	91	**SER.F.**	1.15			**CT30-60(2:1) VT3-60(20:1)**						
USABLE AT	50HZ 75HP 380V 100A SF1.0											
HTR-VOLTS	**HTR-AMPS**			**MAX. SPACE HEATER TEMP.**								

AC Induction Motor Performance Data
Record # 48166
Typical performance - not guaranteed values

Winding: 42WGW968-R001	**Type:** 4266M	**Enclosure:** OPSB

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			100	**Full Load Torque**	148 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			110	**Breakdown Torque**	483 LB-FT
R.P.M.			3540	**Pull-up Torque**	172 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	245 LB-FT
NEMA Design Code	A	**KVA Code**	G	**Starting Current**	771 A
Service Factor (S.F.)			1.15	**No-load Current**	23.5 A
NEMA Nom. Eff.	93.6	**Power Factor**	91	**Line-line Res. @ 25ºC**	0.0539 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	45°C
S.F. Amps				**Temp. Rise @ S.F. Load**	55°C
				Locked-rotor Power Factor	20.7
				Rotor inertia	5.16 LB-FT2

Load Characteristics 460 V, 60 Hz, 100 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	72	87	90	91	91	89	91
Efficiency	91.3	93.9	94	93.6	92.7	91.6	93
Speed	3584	3568	3552	3536	3518	3496	3525
Line amperes	36.1	57.7	82.8	110	138	169	127

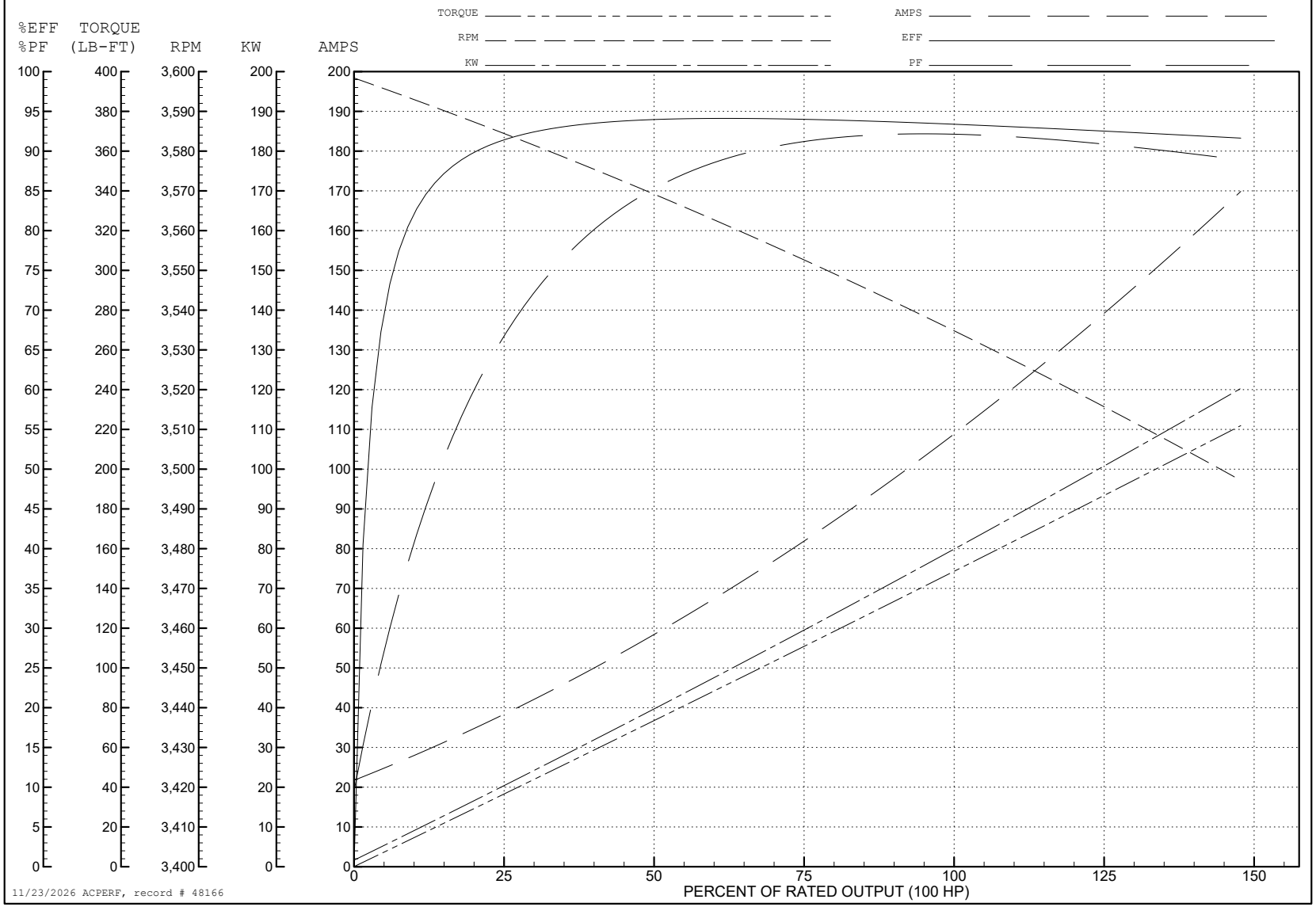
ABB Motors and Mechanical Inc.

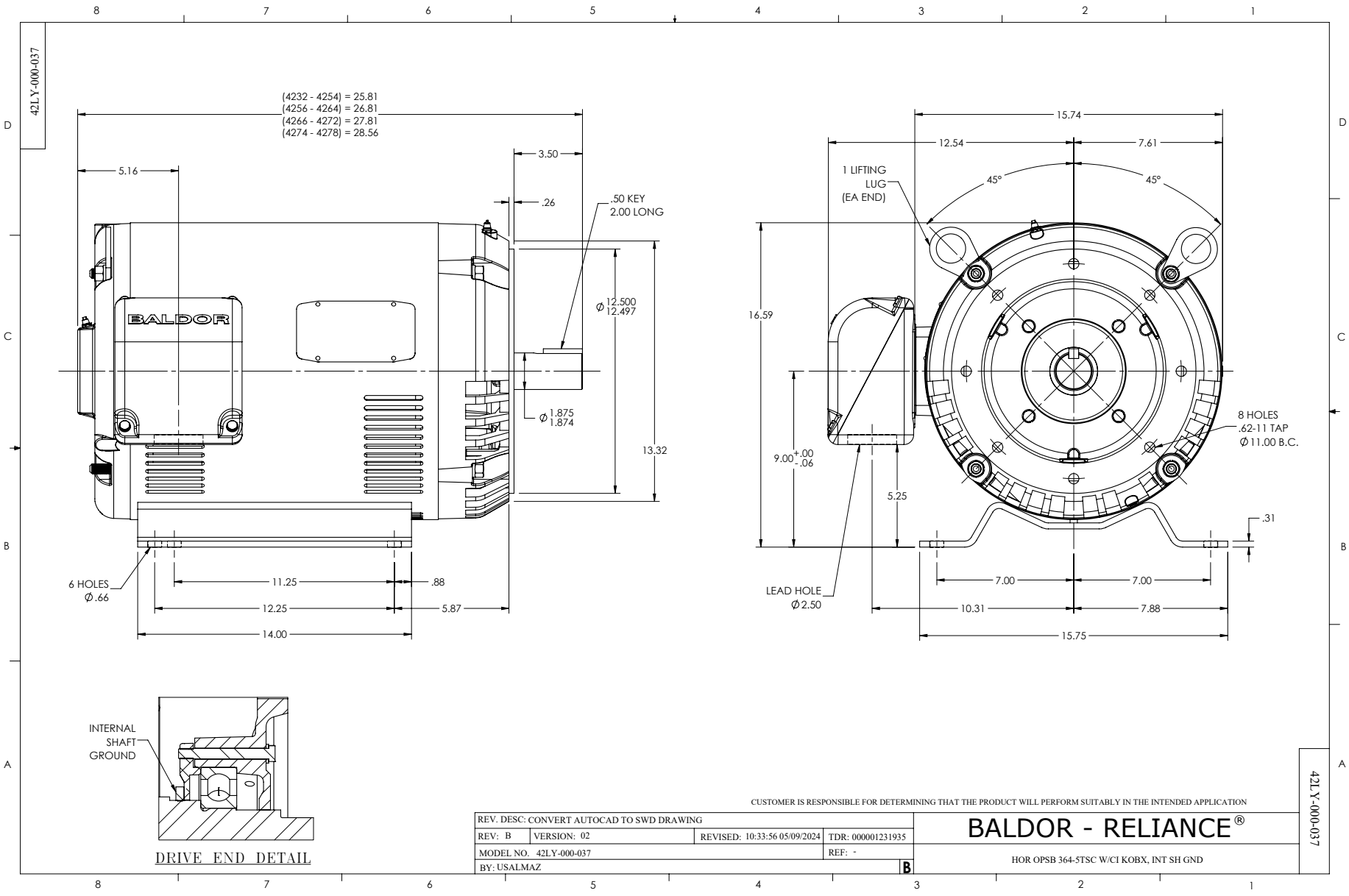
WINDING # 42WGW968

100 HP 3 PH 60 HZ 3540 RPM 460 V 4266M

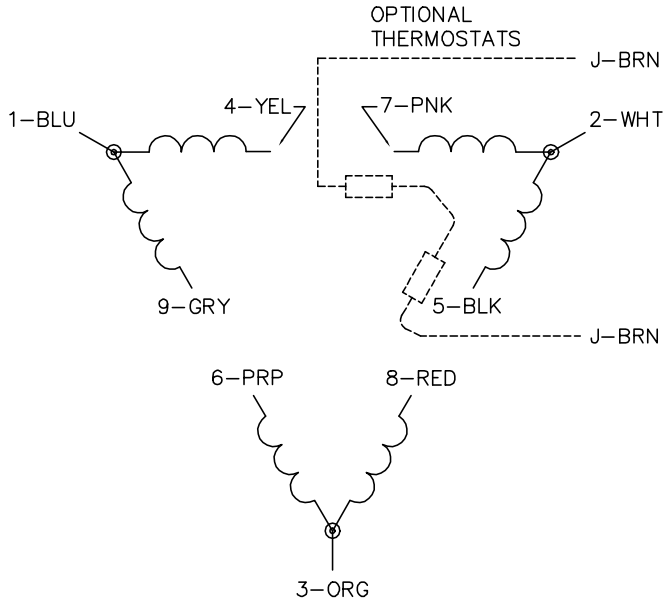
Typical performance - not guaranteed values.

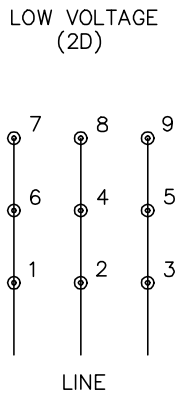
TORQUES(LB-FT): PO=483 PU=172 LR=245 LRA=771

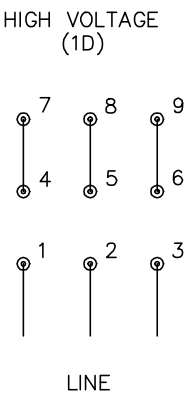



42LY-000-037
(4232 - 4254) = 25.81
(4256 - 4264) = 26.81
(4266 - 4272) = 27.81
(4274 - 4278) = 28.56
5.16
3.50
.26
.50 KEY
2.00 LONG
Ø 12.500
12.497
Ø 1.875
1.874
13.32
BALDOR
6 HOLES
Ø.66
11.25
.88
12.25
5.87
14.00
15.74
12.54
7.61
1 LIFTING
LUG
(EA END)
45°
45°
16.59
8 HOLES
.62-11 TAP
Ø11.00 B.C.
9.00 +.00 -.06
5.25
.31
LEAD HOLE
Ø2.50
7.00
7.00
10.31
7.88
15.75
INTERNAL
SHAFT
GROUND
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD TO SWD DRAWING
REV: B
VERSION: 02
REVISED: 10:33:56 05/09/2024
TDR: 000001231935
MODEL NO. 42LY-000-037
REF: -
BY: USALMAZ
B
BALDOR - RELIANCE®
HOR OPSB 364-5TSC W/CI KOBX, INT SH GND
42LY-000-037

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

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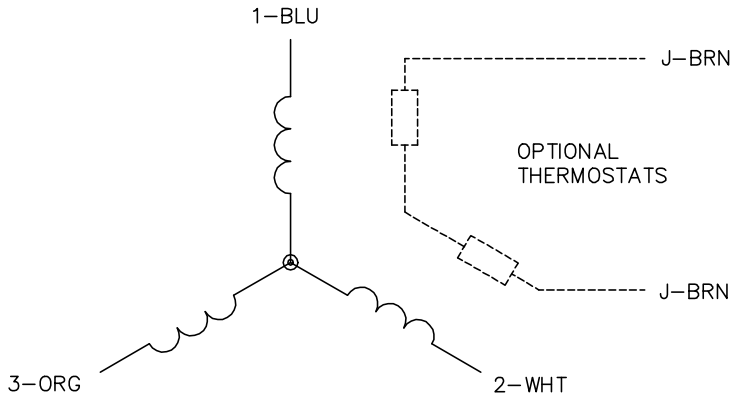
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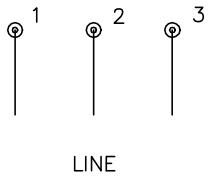
3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

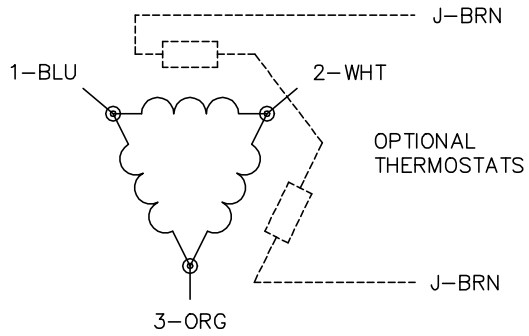
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

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REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1