

ABB BALDOR RELIANCE III

Customer information packet

EM4314TS

60HP, 1780RPM, 3PH, 60HZ, 364TS, A3658M, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	364TS
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	60.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CURUSEEV NEMA PREMIUM NEMA PREMIUM (OLD LOGO)
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	70.000 A @ 460.0 V 152.000 A @ 208.0 V 140.000 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.0 %
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	70.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	G

Part Detail

Revision	U
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A36WG4075
Layout	617428-076
Eff. date	02-13-2025
CD Diagram	CD0180
Poles	04
Leads	3#4,6#6
Proprietary	False
Created date	11-18-2010

Lifting Lugs	Standard Lifting Lugs
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	3 @ 4 AWG
Motor Standards	NEMA
Motor Type	A3658M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	31.36 IN
Power Factor	84
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1780 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate
NP3979LUA

CAT #				EM4314TS				SER				CC				010A													
SPEC				P36G3431				RATING				40C AMB-CONT																	
HZ		VOLTS				AMPS				RPM		HP		CODE		-		SF		DES		PF		NEMA NOM. EFF					
60		230/460				140/70				1780		60		G				1.15		B		84 %		95 %					
		-																				% %							
PH		3		CL		F		MAX CORR KVAR				15																	
BRG		DE		6313		ODE		6313		ENCL		TEFC		FR		364TS						54							
GREASE				POLYREX EM												MTR WT				834		LBS							
USABLE AT				50HZ 50HP 190/380V 138/69A												SF1.0													
INVERTER DUTY				CT		15-60		HZ		4:1		VT		3-60		HZ		20:1		CHP		60-90		HZ		1.5:1		1.0 SF VPWM	
MAX RPM				2700																									

Parts List

Part number	Description	Quantity
SA211815	SA P36G3431	1.000 ea
RA199044	RA P36G3431	1.000 ea
000692000VD	LABEL WARNING	1.000 ea
NP3979LUA	SS SUPER-E UR CSA-C-US-EEV NEMA PREM CC	1.000 ea
MG1025Y17	WILKOFAST, 789.701, SUPER E PEARL GOLD	0.250 ga
004824015A	GREASE POLYREX EM	1.000 lb
032018005AK	HHCS 1/4-20X5/8 PLATED	4.000 ea
032018008AK	HHCS 1/4-20X1 PLATED	4.000 ea
032018008CK	HHCS 3/8-16X1L PLATED	4.000 ea
032018012DK	HHCS 1/2-13X1-1/2 PLTD. 032018012DR	4.000 ea
032018012DK	HHCS 1/2-13X1-1/2 PLTD. 032018012DR	4.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
032018005DL	1/2-13 X 5/8 SILICON BRONZE HHCS	1.000 ea
415045002E	SLGR	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	2.000 ea
034180012DA	KEY 1X4X1/4X1-1/2 L	1.000 ea
034180016GA	KEY 1/2X1/2X2 L	1.000 ea
034530052AB	P/NIP 1/8X6-1/2 Zinc	1.000 ea
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 ea
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 ea
034690001AB	1/8" NPT SQHDPLG	1.000 ea
034690001AB	1/8" NPT SQHDPLG	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
043292000AJ	GASK 320-400	1.000 ea
077176000L	C/BOX, PAINTED 440	1.000 ea
077176001A	CBOX Cover 360-400	1.000 ea
078548001K	FAN KB 100/30 (70) 360	1.000 ea

078559001A	+FANCV - 360	1.000 ea
085922073B	BRKT 360 085922072WCC KB	1.000 ea
085922073B	BRKT 360 085922072WCC KB	1.000 ea
402731001A	GASK 360-440	1.000 ea
406099000A	PLUG - FAN COVER 320-440	1.000 ea
410700004F	WSHR	1.000 ea
415000115H	T/LUG #2AWG-4/0AWG	1.000 ea
415072001B	CLAMP	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
421948032	LABEL, MYLAR	1.000 ea
14PA1000	PACKAGING 314 GROUP COMBINED PRINT	1.000 ea

Accessories

Part number	Description	Multiplier
K36G2	C-FACE KIT	A8
085922068B	BRKT,E360,D-FLG,313,FINISHED-TURNED	P1

AC Induction Motor performance data

Record #72794 - Typical performance - not guaranteed values

Winding	A36WG4075
Type	A3658M
Enclosure	TEFC

Nameplate data

Rated Output	60		
Volts	230 / 460		
Full Load Amps	140 / 70		
R.P.M.	1780		
Hz	60	Phase	3
KVA Code	G		
S.F.	1.15		
NEMA Nom. Eff.	95	Power Factor	84
Duty	CONT		
S.F. Amps			

460 V, 60 Hz:

High Voltage Connection

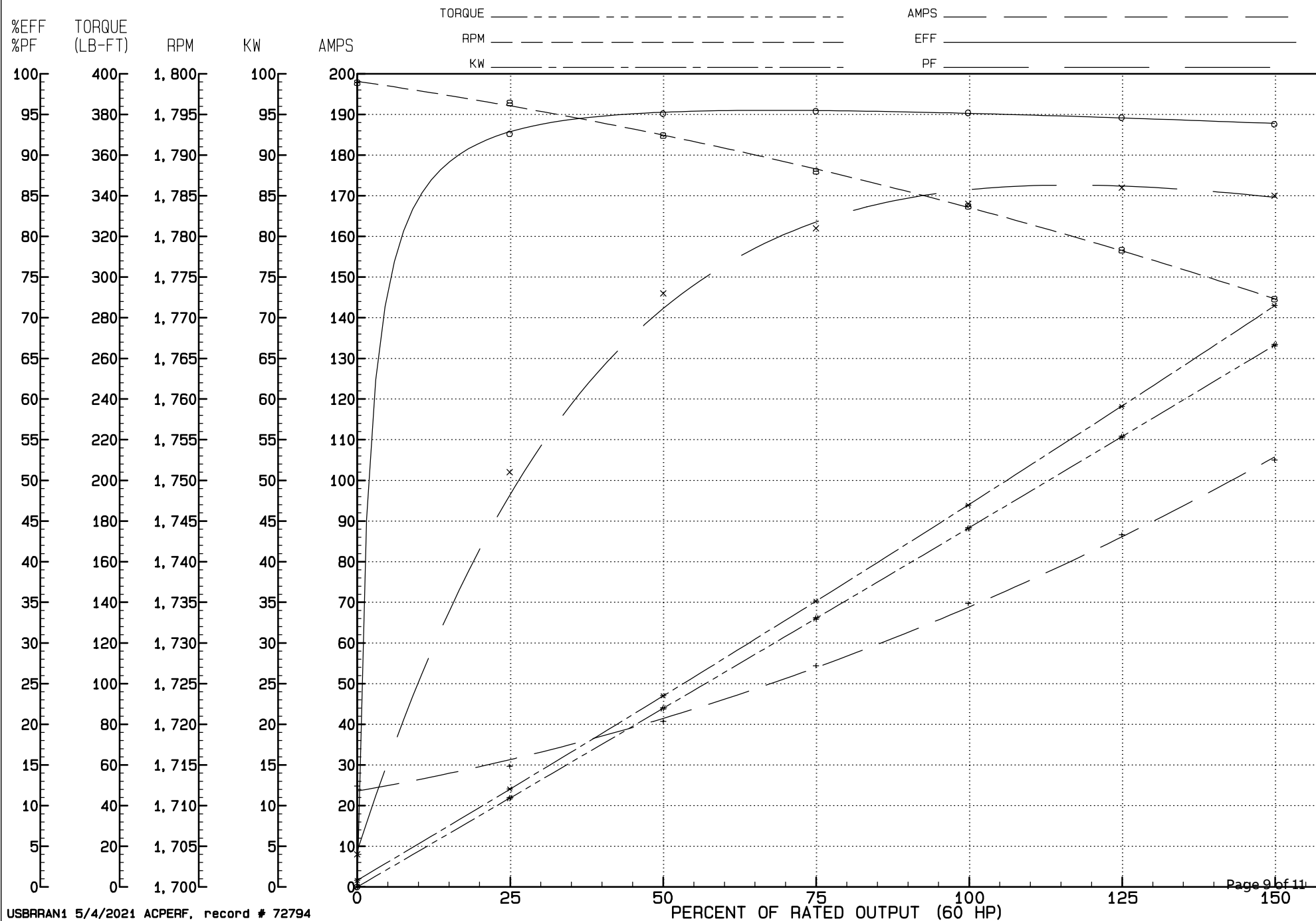
Full Load Torque	176.4 LB-FT
Start Configuration	direct on line
Breakdown Torque	422 LB-FT
Pull-up Torque	276 LB-FT
Locked-rotor Torque	352 LB-FT
Starting Current	462 A
No-load Current	24.8
Line-line Res. @ 25°C	0.10816 Ω
Temp. Rise @ Rated Load	56°C
Temp. Rise @ S.F. Load	70°C
Locked-rotor Power Factor	32.3
Rotor inertia	0

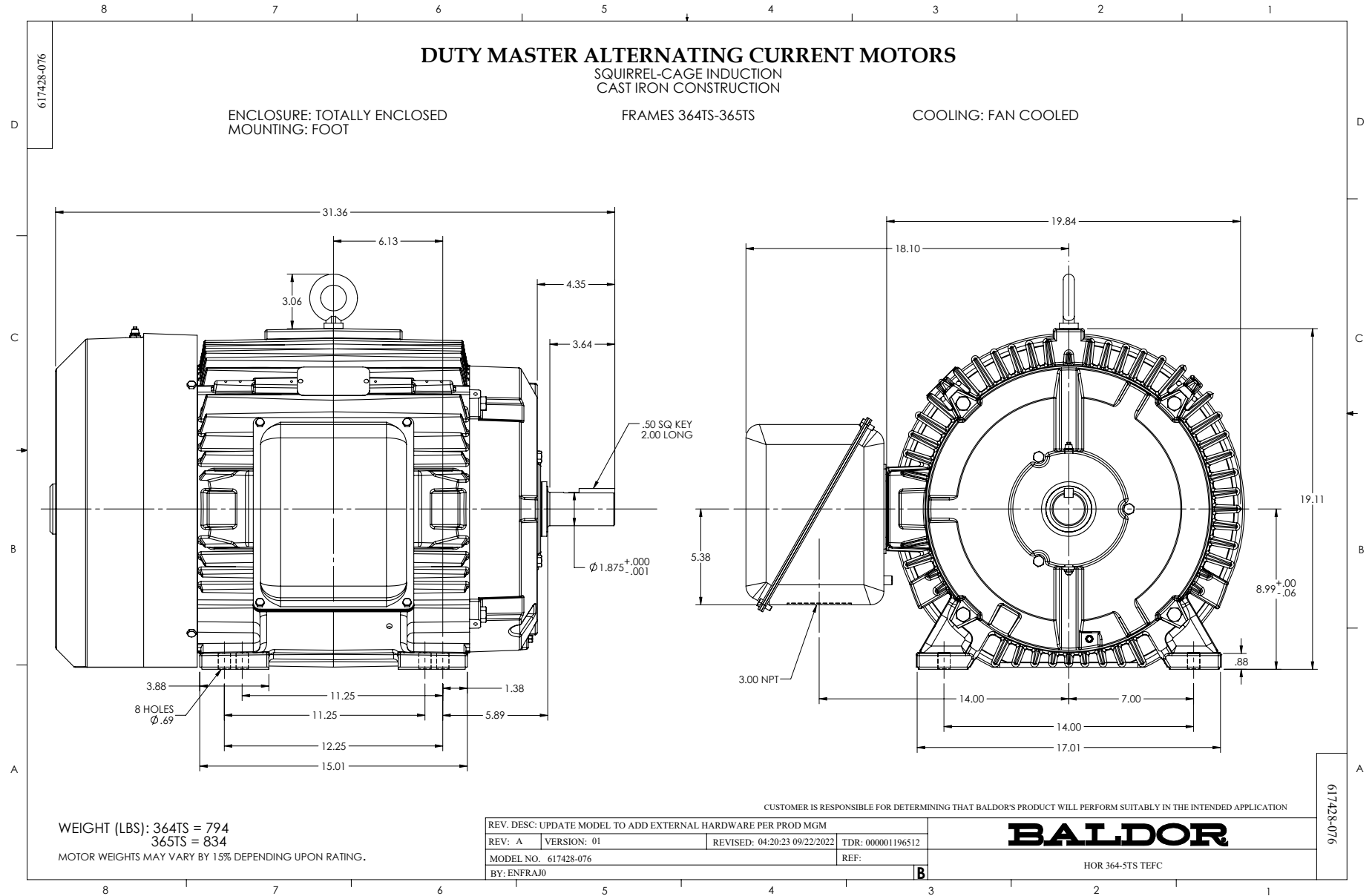
Load Characteristics 460 V, 60 Hz, 60 HP

% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	4	51	73	81	84	86	85	85
Efficiency	0	92.6	95.1	95.4	95.2	94.6	93.8	94.8
Speed	1798.9	1796.4	1792.4	1788	1783.7	1778.3	1772.3	1780
Line amperes	24.8	29.7	40.7	54.4	69.7	86.6	105	79.8

60 HP 3 PH 60 HZ 1780 RPM 460 V A3658M

TORQUES (LB-FT): PO=422.00 PU=276.00 LR=352.00 LRA=462.00





CD0180



LOW VOLTAGE
(2D)



HIGH VOLTAGE
(1D)



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.

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

CD0180