

BALDOR® • RELIANCE 

Product Information Packet

EM4102T-G

20HP,1180RPM,3PH,60HZ,286T,1054M,TEFC,F1

Part Detail							
Revision:	Z	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	10WGY730	CD Diagram:	CD0180	Mfg Plant:	
Mech. Spec:	10H279	Layout:	10LYH279	Poles:	06	Created Date:	11-29-2011
Base:	RG	Eff. Date:	12-28-2021	Leads:	9#10		

Specs			
Catalog Number:	EM4102T-G	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	H
Frame:	286T	Inverter Code:	Inverter Ready
Frame Material:	Iron	KVA Code:	H
Motor Letter Type:	Three Phase	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	20.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	1200 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 10 AWG
Voltage @ Frequency:	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	460.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	1054M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	77
	CSA EEV	Product Family:	General Purpose
	CSA	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	Standard
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	Rigid	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	Shaft Extension Location:	Pulley End

Blower:	None	Shaft Ground Indicator:	Shaft Grounding
Current @ Voltage:	27.000 A @ 460.0 V	Shaft Rotation:	Reversible
	54.000 A @ 230.0 V	Shaft Slinger Indicator:	Shaft Slinger
	56.000 A @ 208.0 V	Speed Code:	Single Speed
Design Code:	A	Motor Standards:	NEMA
Drip Cover:	No Drip Cover	Starting Method:	Direct on line
Duty Rating:	CONT	Thermal Device - Bearing:	None
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Winding:	None
Feedback Device:	NO FEEDBACK	Vibration Sensor Indicator:	No Vibration Sensor
Front Face Code:	Standard	Winding Thermal 1:	None
Front Shaft Indicator:	None	Winding Thermal 2:	None

Nameplate NP3443LUA										
CAT.NO.	EM4102T-G				CUST. P/N				ENCL	TEFC
SPEC.	10H279Y730G1		CC	010A	FRAME	286T		SER.NO.		
HP	20		CLASS	H	HZ	60				
R.P.M.	1180		PH.	3	DES.	A				
VOLTS	230/460		CODE	H	ODE BRG	6309		DE BRG	6311	
AMPS	54/27		USABLE AT 208V	56						
RATING	40C AMB-CONT		NEMA NOM. EFF.	91.7		GREASE	POLYREX EM			
P.F.	77		SER.F.	1.15		CT6-60H(10:1)VT3-60H(20:1)				
USABLE AT	50HZ 20HP 190/380V 62/31A				SF1.0					
VOLTS		AMPS		MAX. SPACE HEATER TEMP.						

Parts List		
Part Number	Description	Quantity
SA235023	SA 10H279Y730G1	1.000 EA
RA221987	RA 10H279Y730G1	1.000 EA
09FN3001C02	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 EA
10CB3000SP	KOBX, CAST W/2.00 LEAD HOLE	1.000 EA
09GS1000SP	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	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
HW4600B40	V-RING SLINGER 2.000 X 2.680 X .28 VITON	1.000 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
10EP1106A01	FR ENDPLATE, MACH	1.000 EA
10XN3816K32	BOLT, 3/8-16X2 HH YZ(5)	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
HA4017A01	1/8 X 4 GREASE EXT (F/S)	1.000 EA
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 EA
10XN2520K32	1/4-20 X 2.00 HX HD SCRW GRADE 5, ZINC P	2.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 EA
10EP1105A01	PU ENDPLATE	1.000 EA
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 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
10FH4000	310 FAN HOUSING STAMPED	1.000 EA
51XF2520A08	SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L	4.000 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
HW2501H28	KEY, 1/2 SQ X 3.250	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA
LB1350	BAR CODE LABEL FOR YORK	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 LB
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.070 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA
NP3443LUA	SS SUPER-E UL CSA-EEV PREM CC	1.000 EA
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A06	1.000 EA
FE-0000022	ZRTG FE ASSEMBLY	1.000 EA

PE-0000013	ZRTG PE ASSEMBLY	1.000 EA
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AC Induction Motor Performance Data

Record # 53030

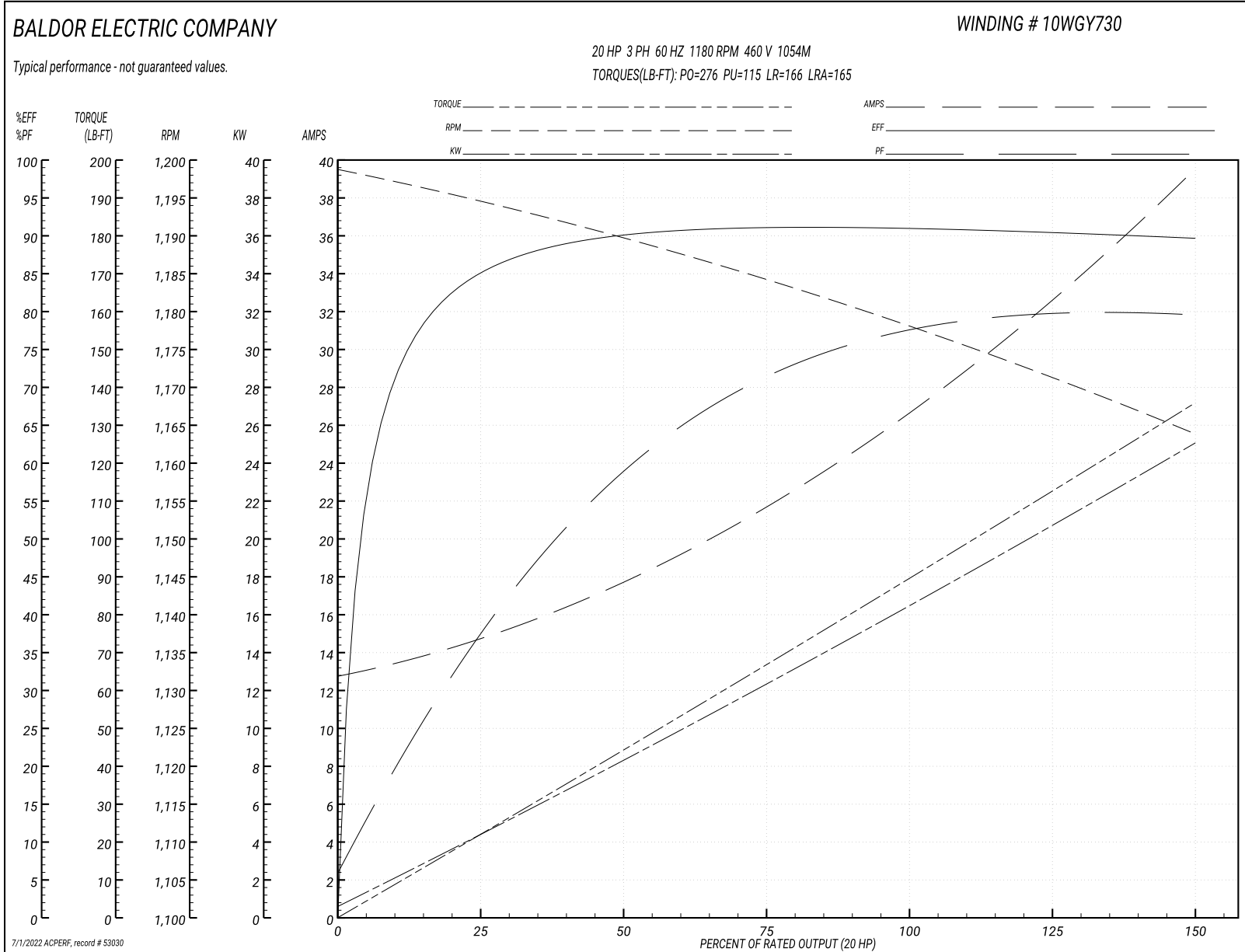
Typical performance - not guaranteed values

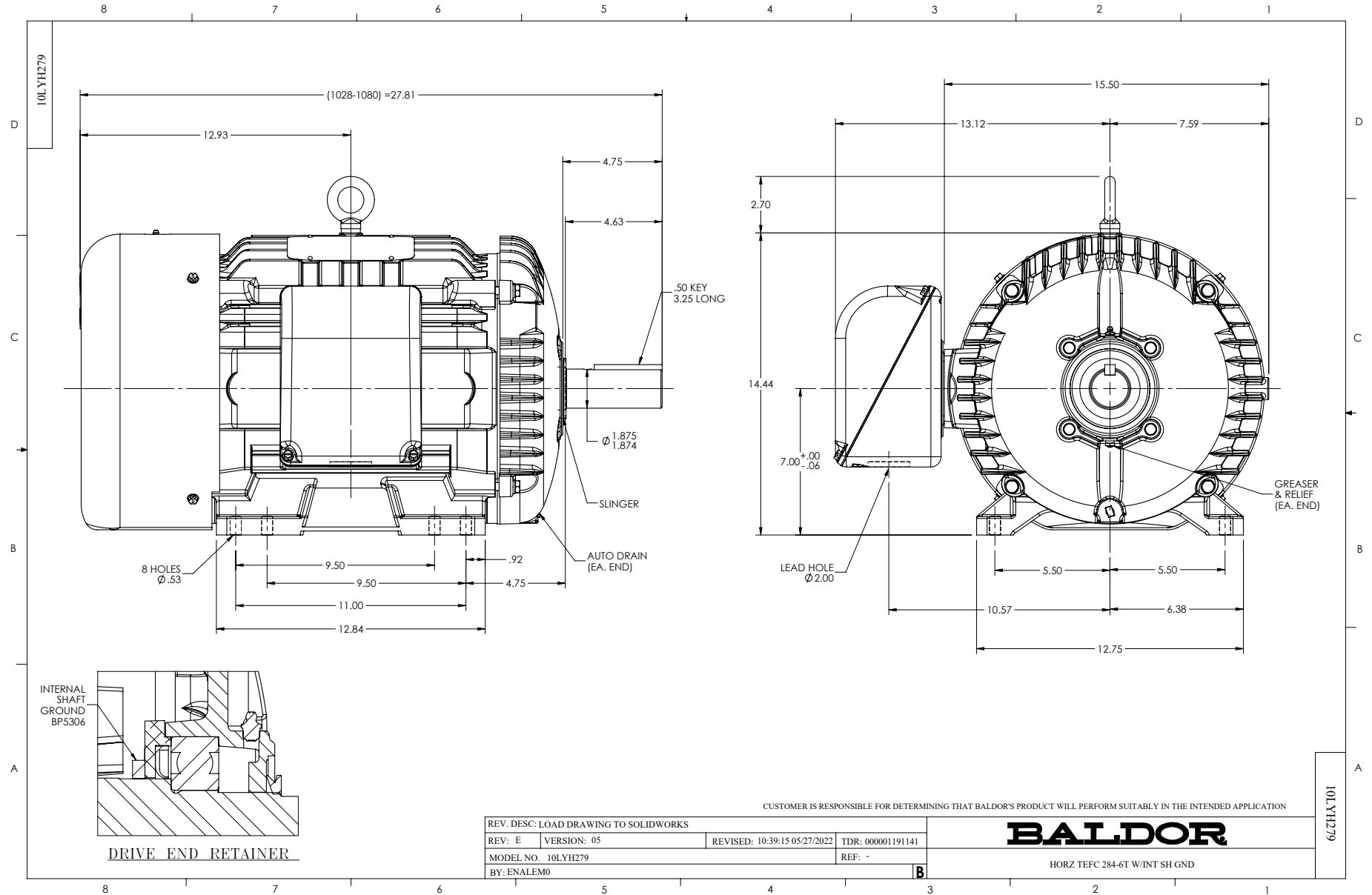
Winding: 10WGY730-R018		Type: 1054M	Enclosure: TEFC
Nameplate Data		460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	20	Full Load Torque	90.1 LB-FT
Volts	230/460	Start Configuration	direct on line
Full Load Amps	54/27	Breakdown Torque	276 LB-FT
R.P.M.	1180	Pull-up Torque	115 LB-FT
Hz	60 Phase	Locked-rotor Torque	166 LB-FT
NEMA Design Code	A KVA Code	Starting Current	165 A
Service Factor (S.F.)	1.15	No-load Current	13.1 A
NEMA Nom. Eff.	91.7 Power Factor	Line-line Res. @ 25°C	0.425 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	65°C
S.F. Amps		Temp. Rise @ S.F. Load	79°C
		Locked-rotor Power Factor	32
		Rotor inertia	6.61 LB-FT ²

Load Characteristics 460 V, 60 Hz, 20 HP

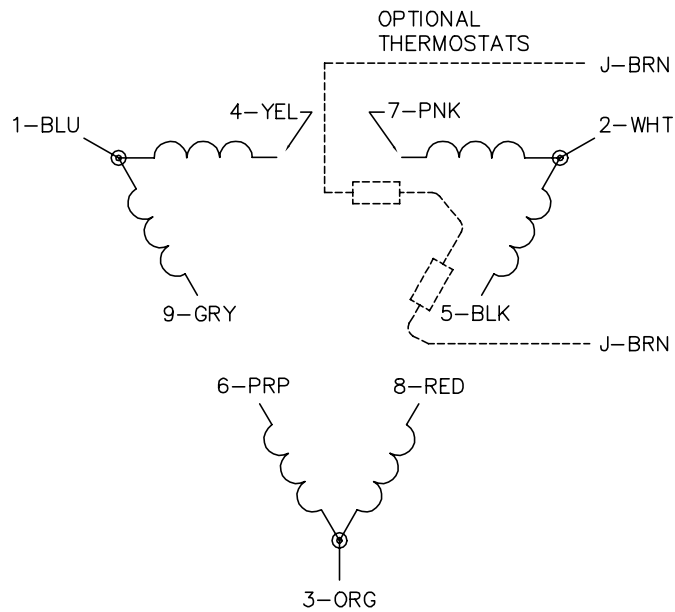
% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	39	60	71	77	79	80	78
Efficiency	86.6	91.1	91.9	91.7	90.9	89.8	91.2
Speed	1194.6	1189.5	1184.1	1178.3	1171.4	1163.8	1174
Line amperes	14.3	17.5	21.9	26.9	32.7	39.3	30.4

Performance Graph at 460V, 60Hz, 20.0HP Typical performance - Not guaranteed values

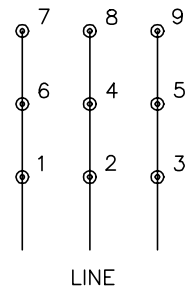




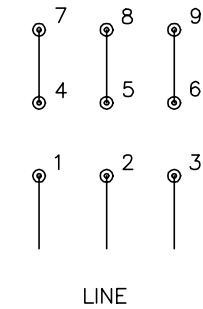
CD0180



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.

CD0180

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: -	© □	

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3PH, DV, 9 LEADS, DELTA CONNECTION

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