

Motor Data

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Motor Specification

Project: _____ Model: _____ Chk'd: _____ Date: _____

2 Pole Motor Specification – Models DGUII

OUTPUT		PHASE	RATING			LOCKED ROTOR CURRENT A	INSULATION CLASS	OVERLOAD PROTECTION	CABLE				PERFORMANCE DATA AT RATING POINT		RESISTANCE AT 20°C OHMS	* Symbols	
HP	kw		VOLTAGE V	CURRENT A	SPEED MIN ⁻¹				TYPE	No. OF COND	GAUGE		LENGTH Ft.	EFFICIENCY %			POWER FACTOR %
2	1.5	SINGLE	208/230	15.7/12.8	3270/3380	55.0/60.0	F	Built-in overload protection	2PNCT	4	2	#14	33	73.0/75.3	99.7/99.3	0.95/2.28	EB

2 Pole Motor Specification – Model DGFU

OUTPUT		PHASE	RATING			LOCKED ROTOR CURRENT A	INSULATION CLASS	OVERLOAD PROTECTION	CABLE				PERFORMANCE DATA AT RATING POINT		RESISTANCE AT 20°C OHMS	* Symbols									
HP	kw		VOLTAGE V	CURRENT A	SPEED MIN ⁻¹				TYPE	No. OF COND	GAUGE		LENGTH Ft.	EFFICIENCY %			POWER FACTOR %								
2	1.5	SINGLE	208/230	15.7/12.8	3270/3380	55.0/60.0	F	BUILT-IN THERMAL DETECTOR	SOW-A /SOW-A	4/5	3.5/0.75	#12/#18	33	73.0/75.3	99.7/99.3	0.95/2.28	EB								
		THREE	208/230	8.5/7.8	3450/3480	43.8/49.1					2/0.75	#14/#18		81.5/80.6	87.9/81.6	1.53	EB								
			460	3.9	3480	24.6								80.6	81.6	5.51									
3	2.2	SINGLE	208/230	22.8/20.0	3300/3370	86.0/96.0					F	BUILT-IN THERMAL DETECTOR		SOW-A /SOW-A	4/5	5.5/0.75	#10/#18	33	74.5/73.8	98.5/97.5	0.54/2.28	EB			
		THREE	208/230	12.7/11.5	3450/3470	61.1/72.1										2/0.75	#14/#18		76.6/76.6	91.6/88.3	1.09	EB			
			460	5.8	3470	36.1													76.6	88.3	3.75				
5	3.7	SINGLE	208/230	37.2/33.0	3470/3500	138/152			F	BUILT-IN THERMAL DETECTOR						W/SOW-A /SOW-A	4/5		8/0.75	#8/#18	33	74.9/72.0	99.7/98.9	0.50/1.00	EB
		THREE	208/230	20.2/18.7	3390/3430	114/129													5.5/0.75	#10/#18		81.2/80.7	91.3/87.3	0.56	EB
			460	9.4	3410	64.8																80.7	87.3	1.93	

* Ref. data Mfr.'s Symbols

Motor Specification

Project: _____ Model: _____ Chk'd: _____ Date: _____

4 Pole Motor Specification – Model DLU, DVU

OUTPUT		PHASE	RATING			LOCKED ROTOR CURRENT A	INSULATION CLASS	OVERLOAD PROTECTION	CABLE			PERFORMANCE DATA AT RATING POINT		RESISTANCE AT 20°C OHMS	* Symbols								
HP	KW		VOLTAGE V	CURRENT A	SPEED R.P.M.				TYPE	No. OF COND	GAUGE		LENGTH Ft.			EFFICIENCY %	POWER FACTOR %						
								mm ²	AWG														
1	0.75	SINGLE	208/230	5.7/5.4	1640/1680	16.5/18.2	F	BUILT-IN OVERLOAD PROTECTION (AUTO-CUT)	2P/NC	4	1.25	#16	33	64.3/64.1	98.2/94.1	3.2/6.1	EB						
		THREE	208/230	3.4/3.3	1655/1690	13.1/14.3			VCT					78.2/77.8	82.9/76.3	5.8	MA						
			460	1.7	1690	7.1			76.8					75.3	23.5								
2	1.5	SINGLE	208/230	11.5/11.2	1650/1690	36.8/40.6			F		BUILT-IN OVERLOAD PROTECTION (AUTO-CUT)	2P/NC		4	2	#14	33	65.9/65.5	95.1/88.8	1.4/2.8	EB		
		THREE	208/230	6.8/6.6	1720/1740	42.7/47.3									1.25	#16		75.1/77.6	81.5/73.4	1.55			
			460	3.3	1740	26									77.6	73.4		10.1					
3	2.2	SINGLE	208/230	16.2/15.8	1710/1730	55.8/63.4				F		BUILT-IN OVERLOAD PROTECTION (AUTO-CUT)	2P/NC		4	3.5		#11	33	70.2/68.6	92.9/88.1	0.9/1.8	EB
5	3.7	SINGLE	208/230	27.2/25.2	1710/1730	104/117										5.5		#9		69.9/70.7	93.5/90.2	0.4/0.9	EB

* Ref. data Mfr.'s Symbols

Motor Specification

Project:

Model:

Chk'd:

Date:

4 Pole Motor Specification – Model DLFU, DLMFU, DVFU, DDLFU

FM Explosion Proof Option

OUTPUT		PHASE	RATING			LOCKED ROTOR CURRENT A	INSULATION CLASS	OVERLOAD PROTECTION	CABLE			PERFORMANCE DATA AT RATING POINT		RESISTANCE AT 20°C OHMS	Symbols							
HP	KW		VOLTAGE V	CURRENT A	SPEED min ⁻¹				TYPE	No. OF COND	GAUGE		LENGTH Ft.			EFFICIENCY %	POWER FACTOR %					
								mm ²	AWG													
2	1.5	THREE	208/230	6.8/6.6	1720/1740	42.7/47.3	F	BUILT-IN THERMAL DETECTOR	SOW-A/ SOW-A	4/5	33	2 / 0.75	#14 / #18	75.0/77.6	81.5/73.4	1.54	EB					
			460	3.3	1740	23.7						77.6	73.4	10.1								
3	2.2	THREE	208/230	9.2/9.2	1730/1740	56.5/63.0						460	2 / 0.75	#14 / #18	77.5/71.3	85.6/84.0	1.59	EB				
			460	4.6	1740	31.5							71.3	84.0	5.87							
5	3.7	THREE	208/230	15.0/14.2	1720/1740	88.0/98.0						H	BUILT-IN THERMAL DETECTOR	SOW-A/ SOW-A	4/5	33	3.5 / 0.75	#12 / #18	78.9/73.6	86.7/88.7	0.97	EB
			460	7.1	1740	49.0											73.6	88.7	3.38			
7 1/2	5.5	THREE	208/230	22.4/21.6	1735/1745	115/129			460	8 / 0.75	#8 / #18						78.8/75.7	86.4/84.3	0.49	EM		
			460	10.8	1745	64.3				75.6	84.4						1.82					
10	7.5	THREE	208/230	31.2/29.2	1735/1745	160/177			460	8 / 0.75	#8 / #18						76.8/76.9	86.8/83.7	0.37	EM		
			460	14.6	1745	88.5				76.9	83.7						1.36					
15	11	THREE	208/230	42.8/39.2	1750/1760	224/252				W/ SOW-A	40			8 / 0.75	#8 / #18	79.5/81.0	89.6/86.9	0.29	EM			
			460	19.6	1760	126								81.0	86.9	1.04						
20	15	THREE	208/230	58.2/55.2	1755/1765	333/373	14 / 0.75	#6 / #18						80.3/79.6	89.0/85.6	0.18	EM					
			460	27.6	1765	186		79.6						85.6	0.65							
25	18.5	THREE	208/230	72.8/66.6	1760/1765	345/383	14 / 0.75	#6 / #18						80.9/81.9	87.1/85.1	0.13	EM					
			460	33.3	1765	191		81.9						85.1	0.44							
30	22	THREE	208/230	82.4/77.6	1760/1765	405/456	22 / 0.75	#4 / #18			85.2/84.7	86.9/84.0	0.10	EM								
			460	38.8	1765	228		84.7			84.0	0.35										
40	30	THREE	208/230	107/99	1760/1770	704/778	4+4 / 5	14+14 / 0.75			#6+#6 / #18	88.1/89.2	88.0/85.2	0.066	EM							
			460	49.5	1770	389		89.2			85.2	0.225										
50	37	THREE	208/230	134/129	1765/1770	772/870		22+22 / 0.75	#4+#4 / #18		88.0/86.9	86.9/82.6	0.039	EM								
			460	64.5	1770	435			86.9		82.6	0.128										
60	45	THREE	208/230	162/155	1765/1770	932/1045		22+22 / 0.75	#4+#4 / #18	88.6/87.2	86.9/83.3	0.032	EM									
			460	77.5	1770	523			87.2	83.3	0.103											



Motor Power Cable

Project:

Model:

Chk'd:

Date:

2 Pole Motor Power Cable – Model DGUII

OUTPUT		PHASE	VOLTAGE V	GAUGE mm ²	NUMBER OF COND.	DETAILS OF CONDUCTOR		INSULATOR THICKNESS mm	SHEATH THICKNESS mm	CABLE O.D. mm	CONDUCTOR RESISTANCE AT (20°C) Ω/km	MAX CABLE LENGTH Ft
HP	kW					Q'TY/Dia OF WIRE PCS/mm	DIAMETER mm					
2	1.5	SINGLE	208/230	2	4	37/0.26	1.8	0.8	1.9	12.5	10.2	100

2 Pole Motor Power Cable – Model DGFU

OUTPUT		PHASE	VOLTAGE V	GAUGE AWG (SOW-A)	NUMBER OF COND.	DETAILS OF CONDUCTOR		INSULATOR THICKNESS mm	SHEATH THICKNESS mm	CABLE O.D. mm	CONDUCTOR RESISTANCE AT (20°C) Ω/km	MAX CABLE LENGTH Ft
HP	kW					Q'TY/Dia OF WIRE PCS/mm	DIAMETER mm					
2	1.5	SINGLE	208/230	#12	4	65/0.25	2.4	1.14	2.6	16.51	5.86	168
		THREE	208/230 460	#14	4	41/0.25	1.9	1.14	2.2	14.48	9.80	330 1287
3	2.2	SINGLE	208/230	#10	4	104/0.25	3.0	1.14	2.6	18.03	3.72	207
		THREE	208/230 460	#14	4	41/0.25	1.9	1.14	2.2	14.48	9.80	211 861
5	3.7	SINGLE	208/230	#8	4	133/0.28	4.4	1.52	3.4	25.15	2.41	214
		THREE	208/230 460	#10	4	104/0.25	3.0	1.14	2.6	18.03	3.72	257 1161



Motor Power Cable

Project:

Model:

Chk'd:

Date:

4 Pole Motor Cable — Models DLU, DVU

OUTPUT		PHASE	VOLTAGE V	GAUGE mm ²	NUMBER OF COND.	DETAILS OF CONDUCTOR		INSULATOR THICKNESS mm	SHEATH THICKNESS mm	CABLE O.D. mm	CONDUCTOR RESISTANCE AT (20°C) Ω/km	MAX CABLE LENGTH Ft
HP	kW					Q'TY/Dia OF WIRE PCS/mm	DIAMETER mm					
1	0.75	SINGLE	208/230	1.25	4	50/0.18	1.5	0.8	1.8	11.5	15.1	110
		THREE	208/230 460			50/0.18	1.5	0.8	1.8	11.5	16	279 1280
2	1.5	SINGLE	208/230	2	4	37/0.26	1.8	0.8	1.9	12.5	10.2	80/90
		THREE	208/230 460	1.25		50/0.18	1.5	0.8	1.8	11.5	16	89 354
3	2.2	SINGLE	208/230	3.5	4	45/0.32	2.5	0.8	2.0	14.5	5.54	100
5	3.7	SINGLE	208/230	5.5	4	70/0.32	3.1	1.0	2.1	17.0	3.56	80



Motor Power Cable

Project:

Model:

Chk'd:

Date:

4 Pole Motor Specification – Model DLFU, DVFU, DDLFU

OUTPUT		PHASE	VOLTAGE V	GAUGE AWG	NUMBER OF COND.	DETAILS OF CONDUCTOR		INSULATOR THICKNESS mm	SHEATH THICKNESS mm	CABLE O.D. mm	CONDUCTOR RESISTANCE AT (20°C) Ω/km	MAX CABLE LENGTH Ft
HP	kW					Q'TY/Dia OF WIRE PCS/mm	DIAMETER mm					
2	1.5	THREE	208/230	SOW-A #14	4	41/0.25	1.9	1.14	2.2	14.48	9.80	349
			460									1778
3	2.2	THREE	208/230	SOW-A #14	4	41/0.25	1.9	1.14	2.2	14.48	9.80	217
			460									1075
5	3.7	THREE	208/230	SOW-A #12	4	65/0.25	2.4	1.14	2.6	16.51	5.86	217
			460									1089
7½	5.5	THREE	208/230	SOW-A #8	4	104/0.25	4.4	1.14	3.4	20.83	2.41	257
			460									1247
10	7.5	THREE	208/230	SOW-A #8	4	119/0.29	4.4	1.14	3.4	20.83	2.41	300
			460									1465
15	11	THREE	208/230	W #8	4	133/0.28	4.3	1.52	3.5	25.15	2.41	184
			460									920
20	15	THREE	208/230	W #6	4	259/0.26	5.3	1.52	3.8	27.94	1.50	240
			460									1191
25	18.5	THREE	208/230	W #6	4	259/0.26	5.3	1.52	3.8	27.94	1.50	191
			460									963
30	22	THREE	208/230	W #4	4	259/0.32	6.7	1.52	4.2	32.26	0.96	264
			460									1306
40	30	THREE	208/230	W #6 + #6	4 + 4	259/0.26	5.3	1.52	3.8	27.94	1.50	247
			460									613
50	37	THREE	208/230	W #4 + #4	4 + 4	259/0.26	6.7	1.52	4.2	32.26	0.96	201
			460									333
60	45	THREE	208/230	W #4 + #4	4 + 4	259/0.32	6.7	1.52	4.2	32.26	0.96	248
			460									656



EBARA Submersible Pumps DLU, DVU, DGUII, DGFU, DLFU, DVFU, DDLFU

Thermal Detector Cable

Project: _____ Model: _____ Chk'd: _____ Date: _____

Control Cable – Model DGFU, DLFU, DVFU, DDLFU

OUTPUT		PHASE	VOLTAGE V	GAUGE AWG	NUMBER OF COND.	DETAILS OF CONDUCTOR		INSULATOR THICKNESS mm	SHEATH THICKNESS mm	CABLE O.D. mm	CONDUCTOR RESISTANCE AT (20°C) Ω/km
HP	KW					Q'TY/Dia OF WIRE PCS/mm	DIAMETER mm				
2	1.5	SINGLE	208/230								
to	to	THREE	/460	#18	5	16/0.25	1.2	0.76	2.2	12.32	24.23
60	45										



Motor Wiring Diagram

Project: _____ Model: _____ Chk'd: _____ Date: _____

Manual Operation Type – Single Phase

Model DGUII

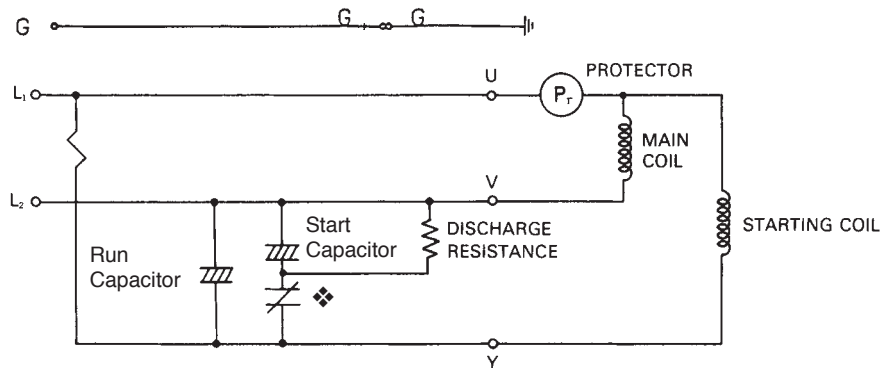
Output 2HP

G: GREEN

U : RED

V : WHITE

Y : BLACK



❖ Model : 3ARR3 FJ4EM2 6x557 (Mfr : GE)

Pick-up : 295-315V

Drop-out : 135-60V

Capacity : 35A

Motor Wiring Diagram

Project:

Model:

Chk'd:

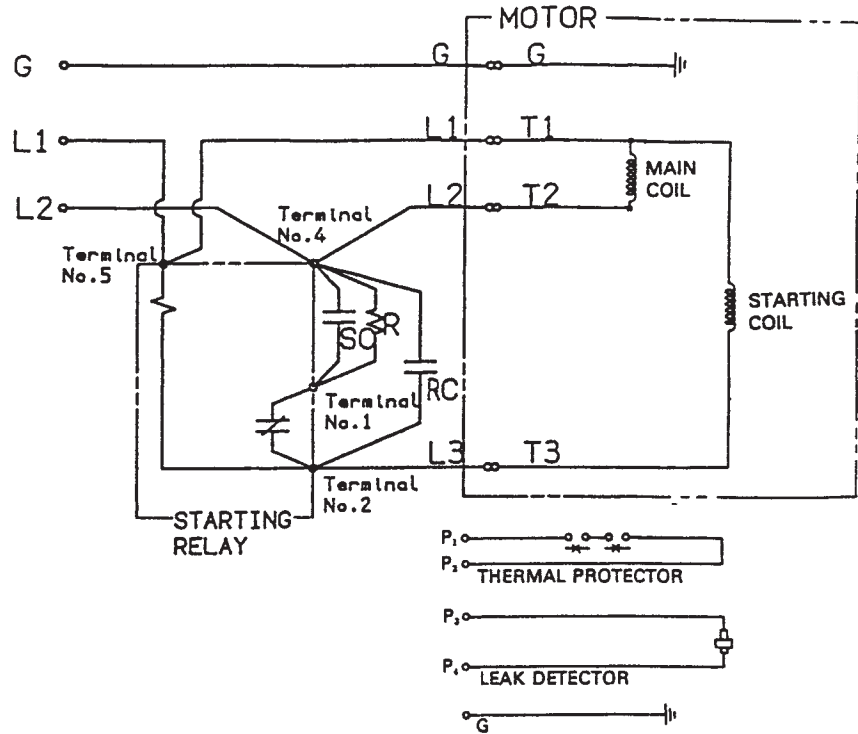
Date:

Manual Operation Type – Single Phase

Model DGFU

Output 2 to 5HP

- G : GREEN
- L₁ : RED – T₁
- L₂ : WHITE – T₂
- L₃ : BLACK – T₃
- P₁ : RED
- P₂ : WHITE
- P₃ : BLACK
- P₄ : ORANGE
- G : GREEN



OUTPUT		SC : STARTING CAPACITOR	RC : RUNNING CAPACITOR	R : RESISTOR	STARTING RELAY (Mfr: General Electric)
HP	kw				
2	1.5	250VAC 161~193μF	440VAC 25μF	50~60k Ω 2W	3ARR3 FJ4EK2 RELAY MODEL No. 6x557
3	2.2	250VAC 270~324μF	440VAC 35μF	29~36k Ω 2W	3ARR3 FJ4EK2 RELAY MODEL No. 6x555
5	3.7	250VAC 216~259μF	440VAC 55μF	36~43k Ω 2W	3ARR3 FJ4EK2 RELAY MODEL No. 6x555

Motor Wiring Diagram

Project:

Model:

Chk'd:

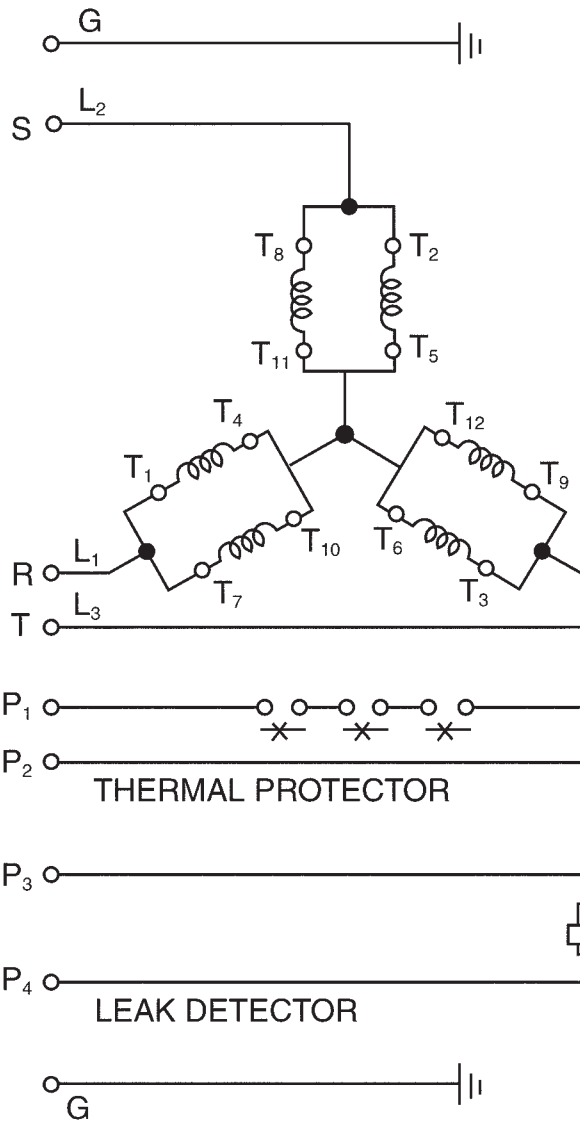
Date:

Manual Operation Type – Three Phase

Model DGFU

Output 2 to 5HP

208/230V



G – GRN

L₁ – RED – T₁ – T₇

L₂ – WHT – T₂ – T₈

L₃ – BLK – T₃ – T₉

T₄ – T₅ – T₆ – T₁₀ – T₁₁ – T₁₂

P₁ – RED

P₂ – WHT

P₃ – BLK

P₄ – ORG

G – GRN

Motor Wiring Diagram

Project:

Model:

Chk'd:

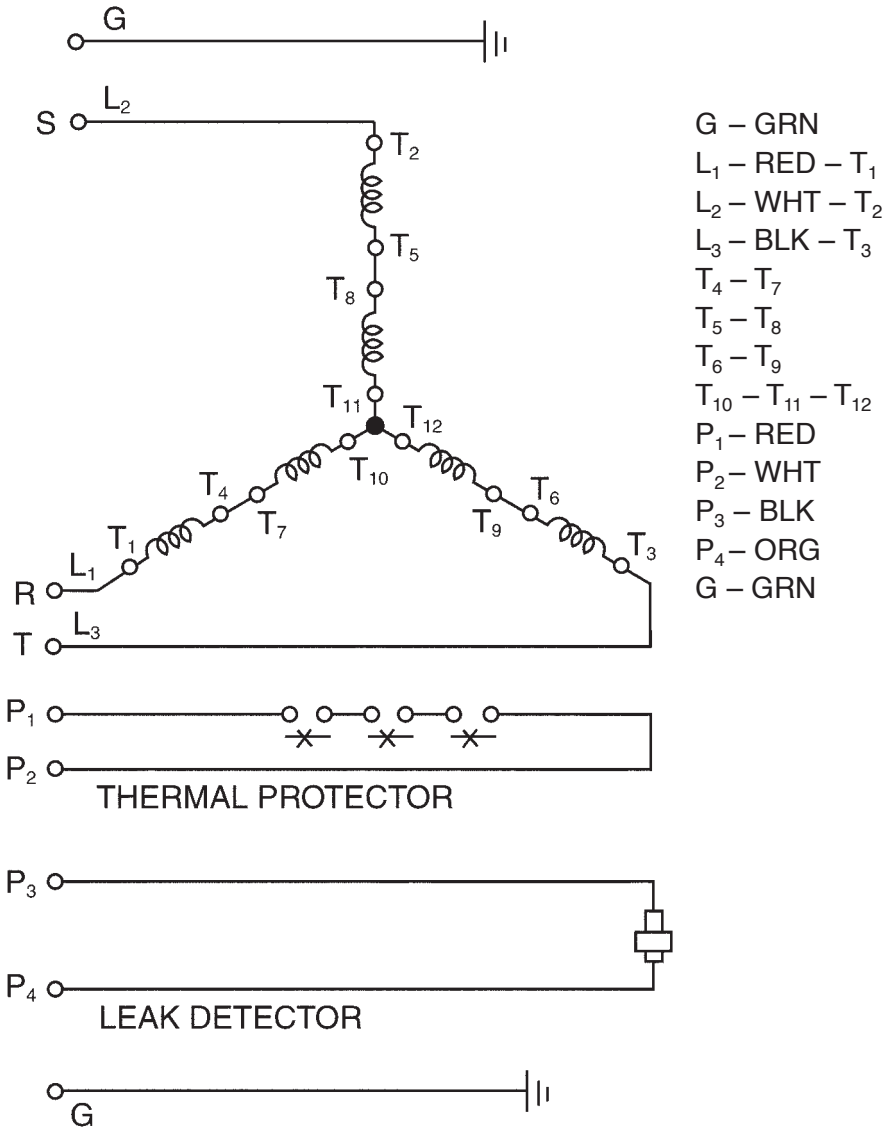
Date:

Manual Operation Type – Three Phase

Model DGFU

Output 2 to 5HP

460V



Motor Wiring Diagram

Project:

Model:

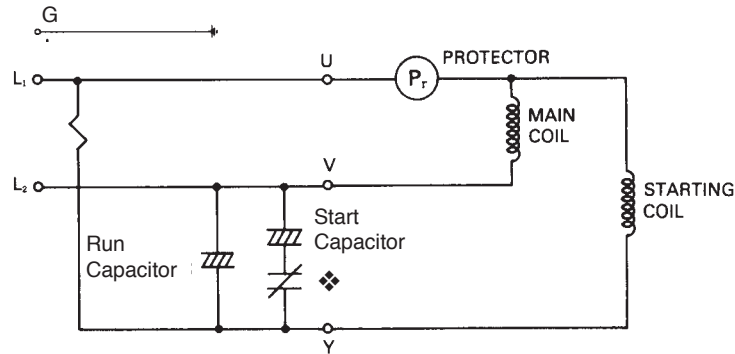
Chk'd:

Date:

Manual Operation Type – Single Phase

Model DLU, DVU

Output 1 to 5HP



U : RED
 V : WHITE
 Y : BLACK
 G : GREEN

- ❖ Output 1 to 2 HP Model : 3ARR3 FJ10EE3 6x551 (Mfr : GE)
 Pick-up : 185-200V
 Drop-out : 105-40V
 Capacity : 35A
- ❖ Output 3 to 5HP Model : 3ARR3 FJ4EK2 6x555 (Mfr : GE)
 Pick-up : 260-275V
 Drop-out : 135-60V
 Capacity : 35A

Motor Wiring Diagram

Project:

Model:

Chk'd:

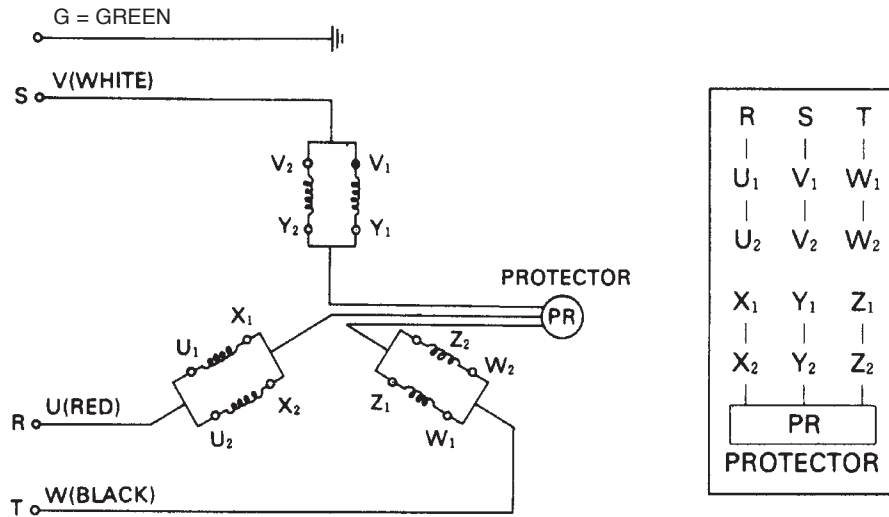
Date:

Manual Operation Type – Three Phase

Model DLU, DVU

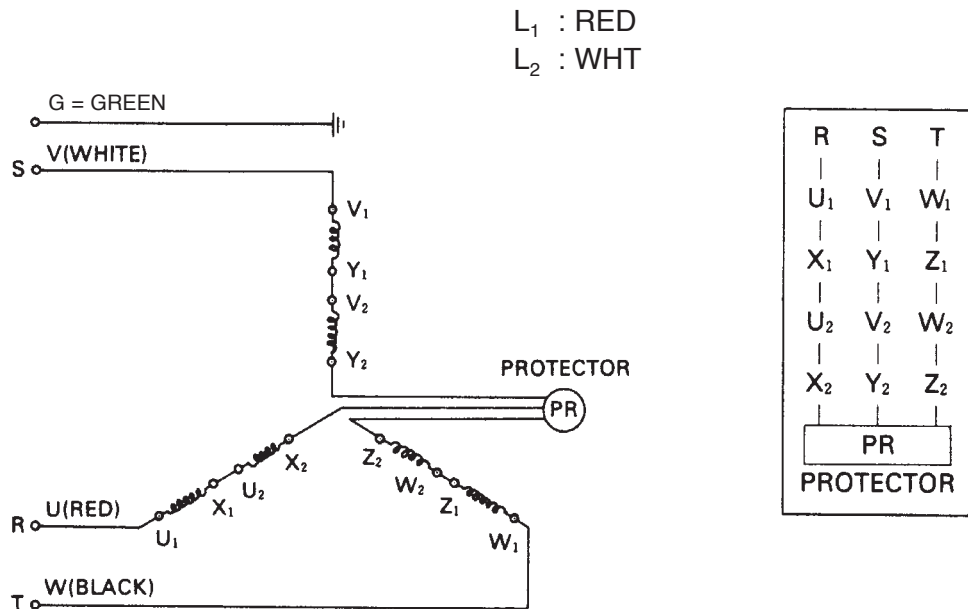
Output 1HP

208/230V



G : GREEN
 U : RED
 V : WHITE
 W : BLACK
 PR : PROTECTOR (AUTO-CUT)

460V



L₁ : RED
 L₂ : WHT

Motor Wiring Diagram

Project:

Model:

Chk'd:

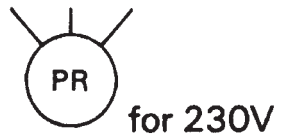
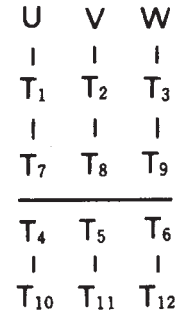
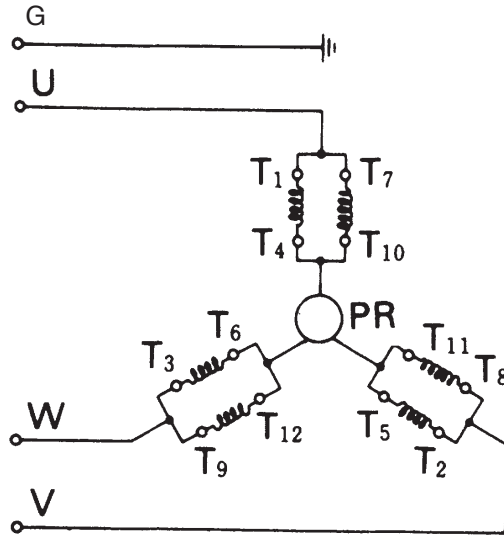
Date:

Manual Operation Type – Three Phase

Model DLU, DVU

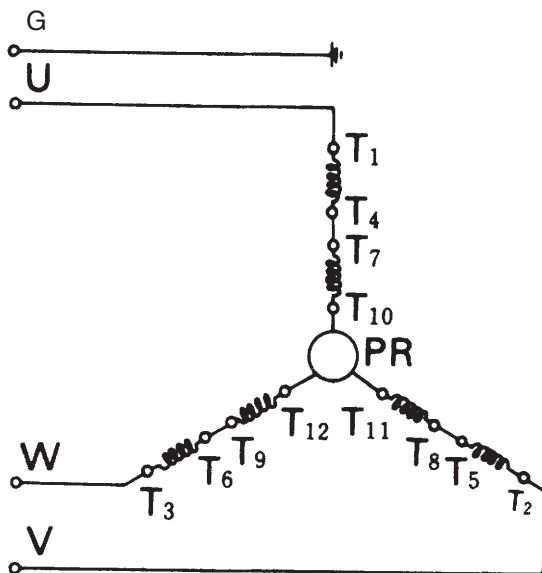
Output 2HP

208/230V

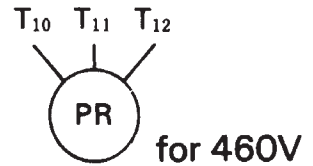
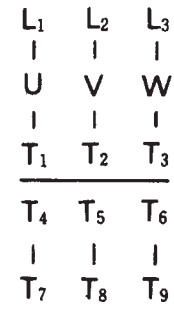


G : GREEN
 U : RED
 V : WHITE
 W : BLACK
 PR : PROTECTOR (AUTO-CUT)

460V



L₁ : RED
 L₂ : WHT



Motor Wiring Diagram

Project:

Model:

Chk'd:

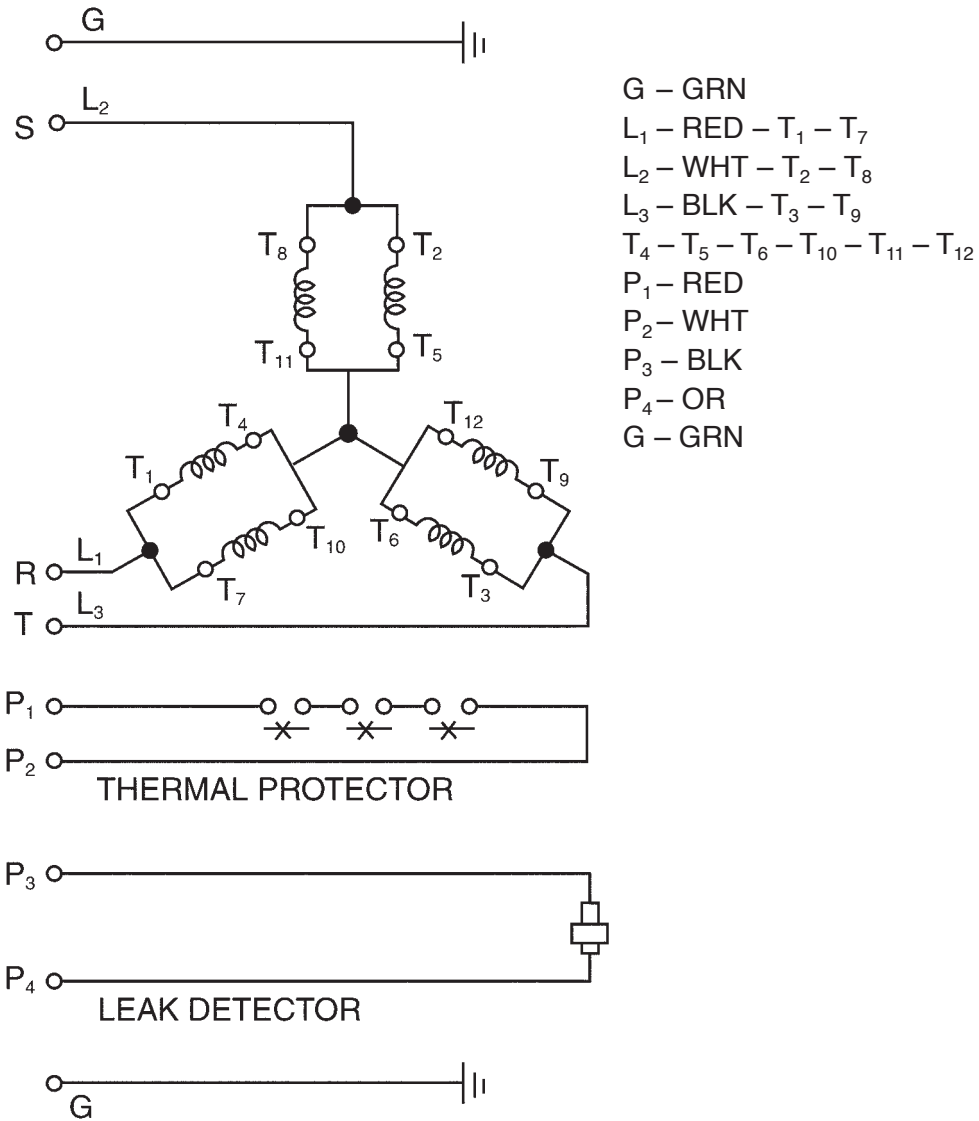
Date:

Manual Operation Type – Three Phase

Model DLFU, DVFU

Output 2 to 5HP

208/230V



Motor Wiring Diagram

Project:

Model:

Chk'd:

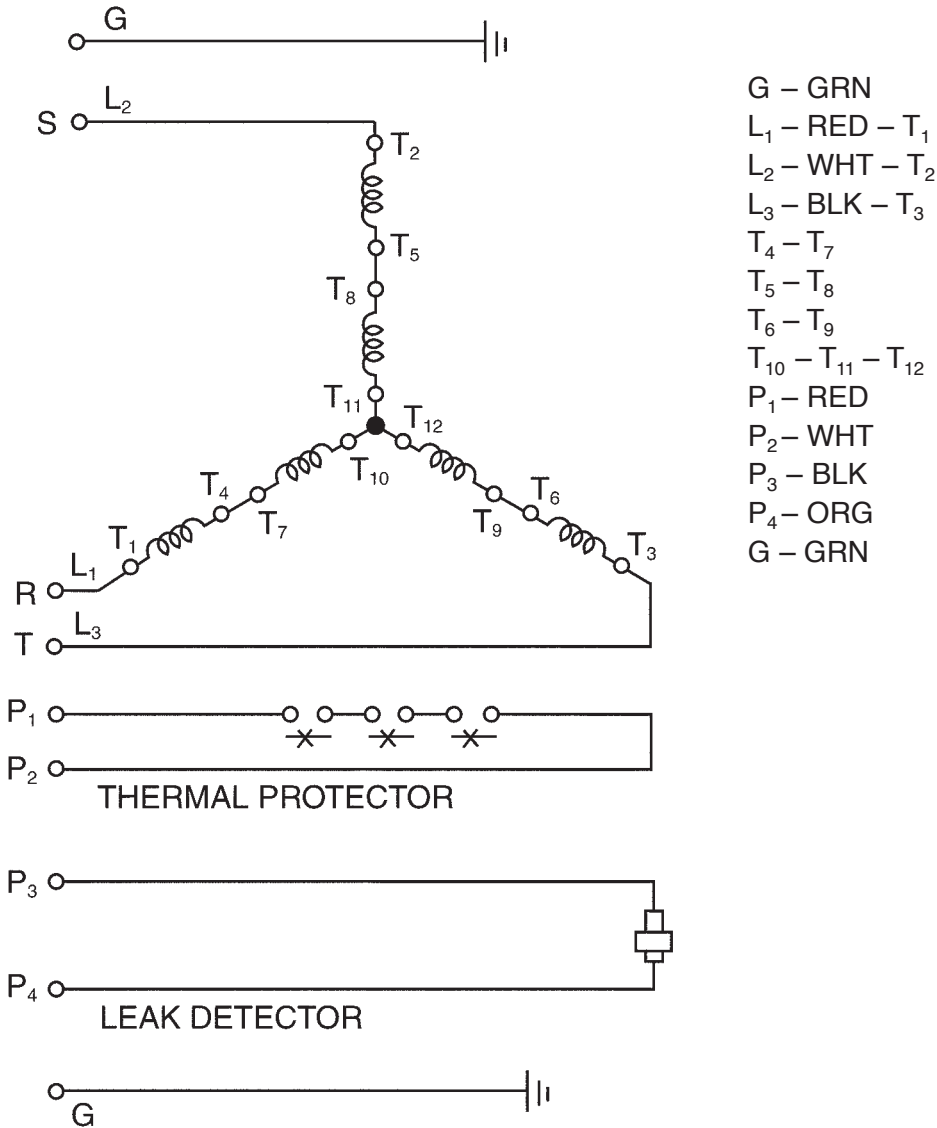
Date:

Manual Operation Type – Three Phase

Model DLFU, DVFU

Output 2 to 5HP

460V



Motor Wiring Diagram

Project:

Model:

Chk'd:

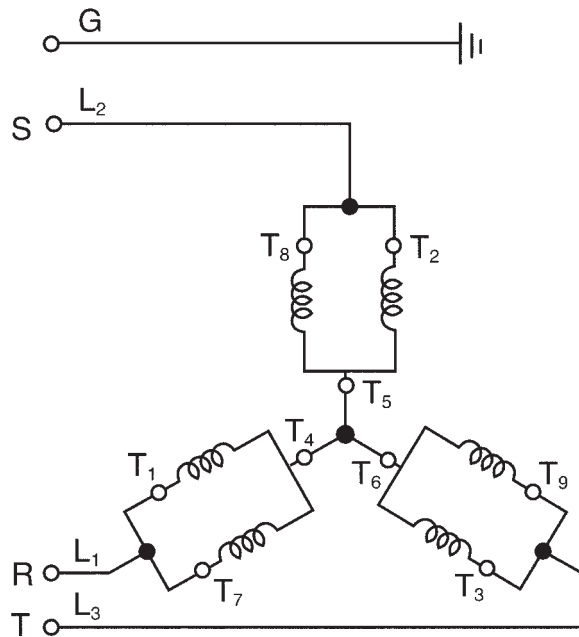
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Manual Operation Type – Three Phase

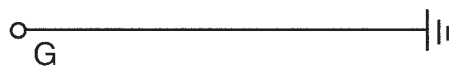
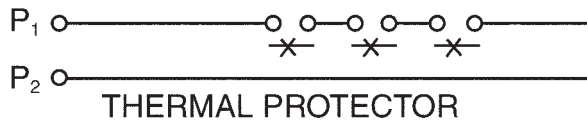
Model DLFU, DVFU

Output 7.5 to 10HP

208/230V



- G – GRN
- L₁ – RED – T₁ – T₇
- L₂ – WHT – T₂ – T₈
- L₃ – BLK – T₃ – T₉
- T₄ – T₅ – T₆
- P₁ – RED
- P₂ – WHT
- P₃ – BLK
- P₄ – ORG
- G – GRN



Motor Wiring Diagram

Project:

Model:

Chk'd:

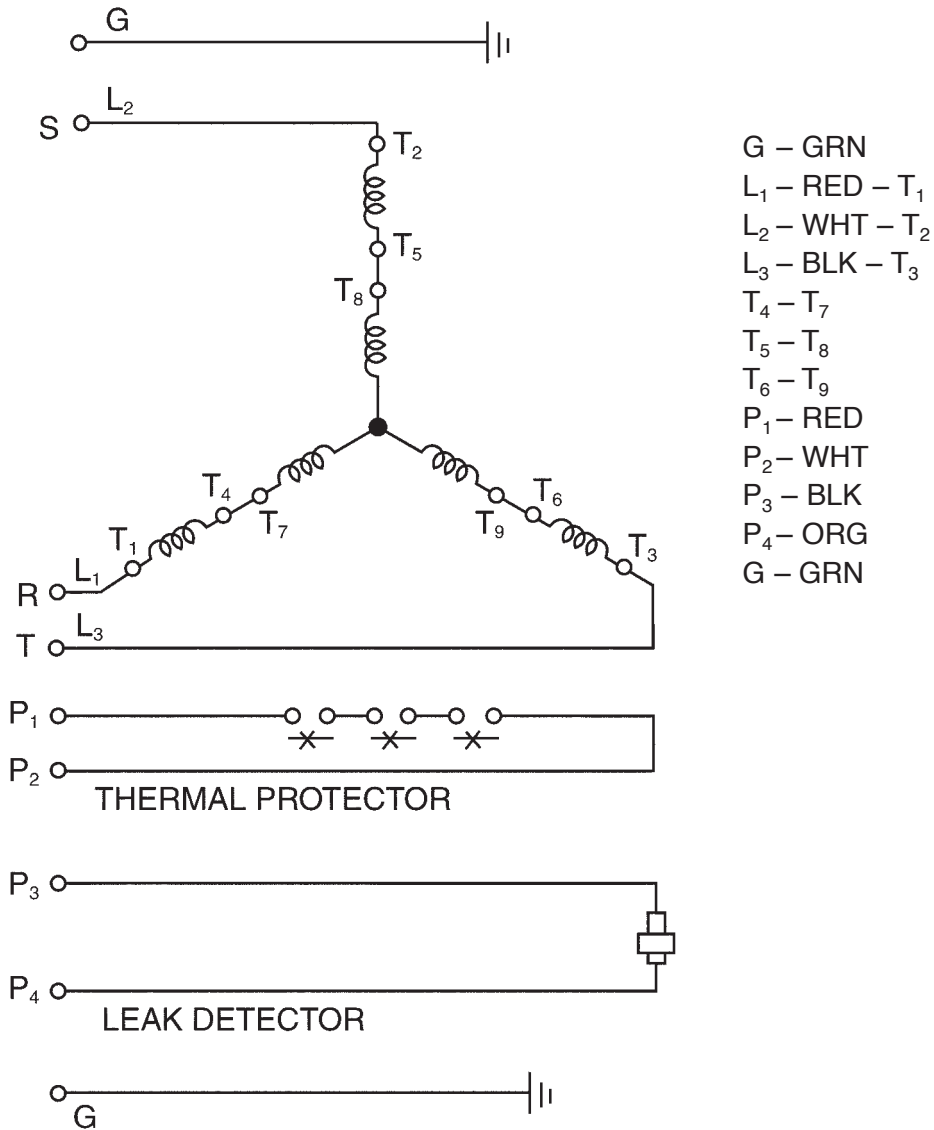
Date:

Manual Operation Type – Three Phase

Model DLFU, DVFU

Output 7.5 to 10HP

460V



Motor Wiring Diagram

Project: _____

Model: _____

Chk'd: _____

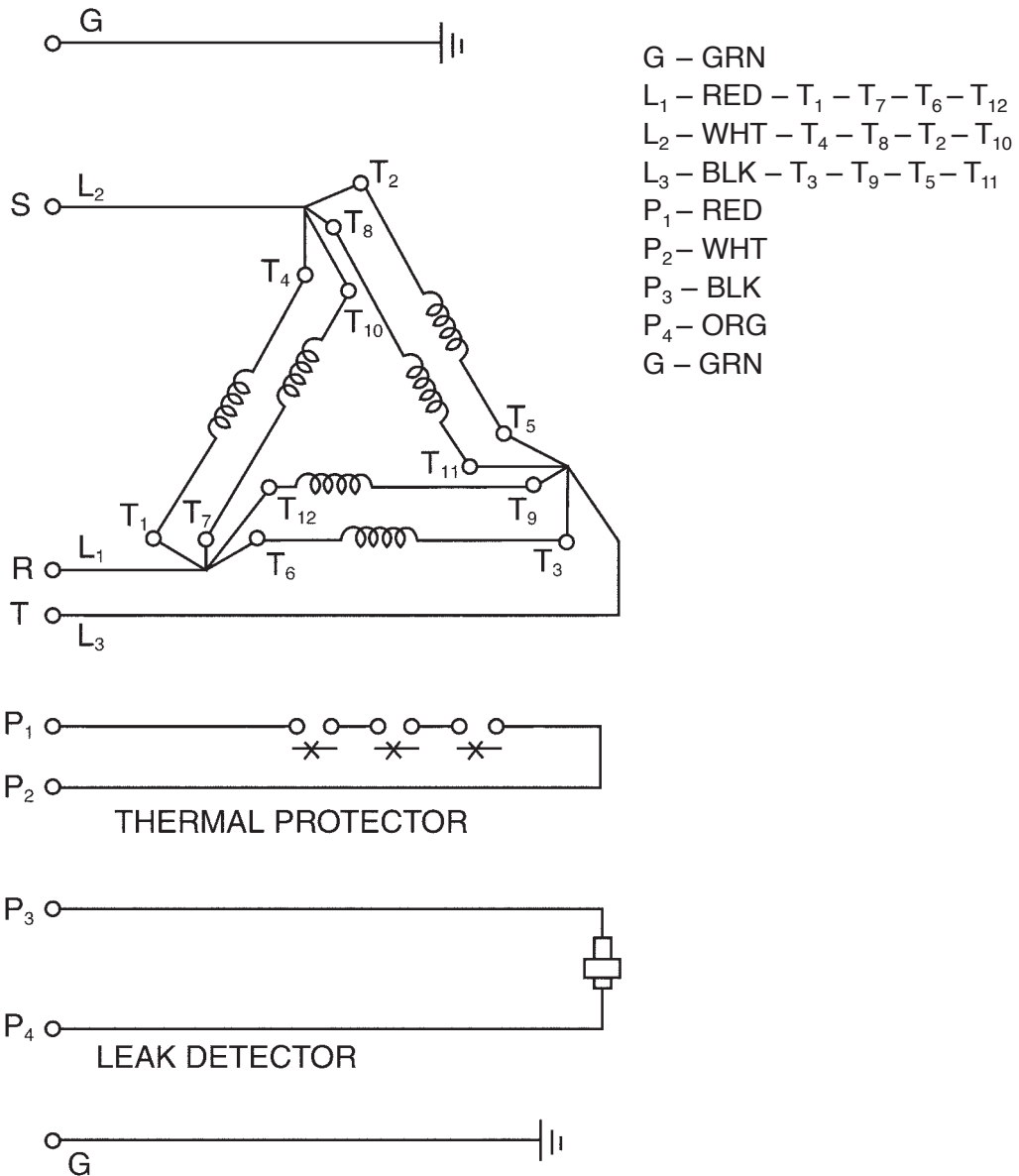
Date: _____

Manual Operation Type – Three Phase

Model DLFU, DVFU, DDLFU

Output 15 to 30HP

208/230V



Motor Wiring Diagram

Project: _____

Model: _____

Chk'd: _____

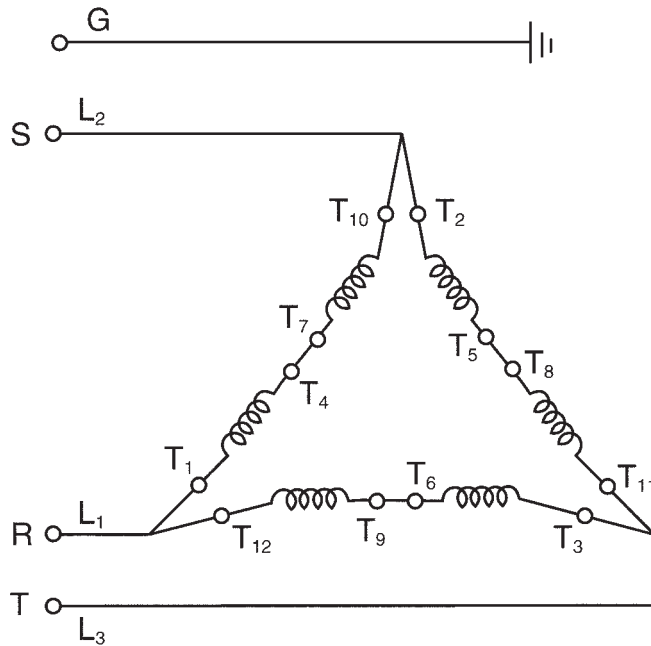
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Manual Operation Type – Three Phase

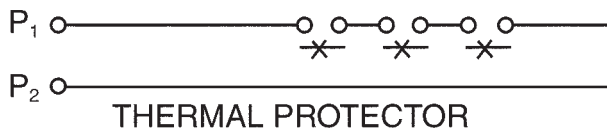
Model DLFU, DVFU, DDLFU

Output 15 to 30HP

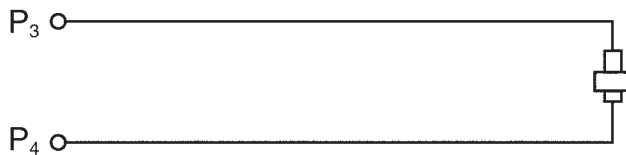
460V



- G – GRN
- L₁ – RED – T₁ – T₁₂
- L₂ – WHT – T₂ – T₁₀
- L₃ – BLK – T₃ – T₁₁
- T₄ – T₇
- T₅ – T₈
- T₆ – T₉
- P₁ – RED
- P₂ – WHT
- P₃ – BLK
- P₄ – ORG
- G – GRN



THERMAL PROTECTOR



LEAK DETECTOR



Motor Wiring Diagram

Project:

Model:

Chk'd:

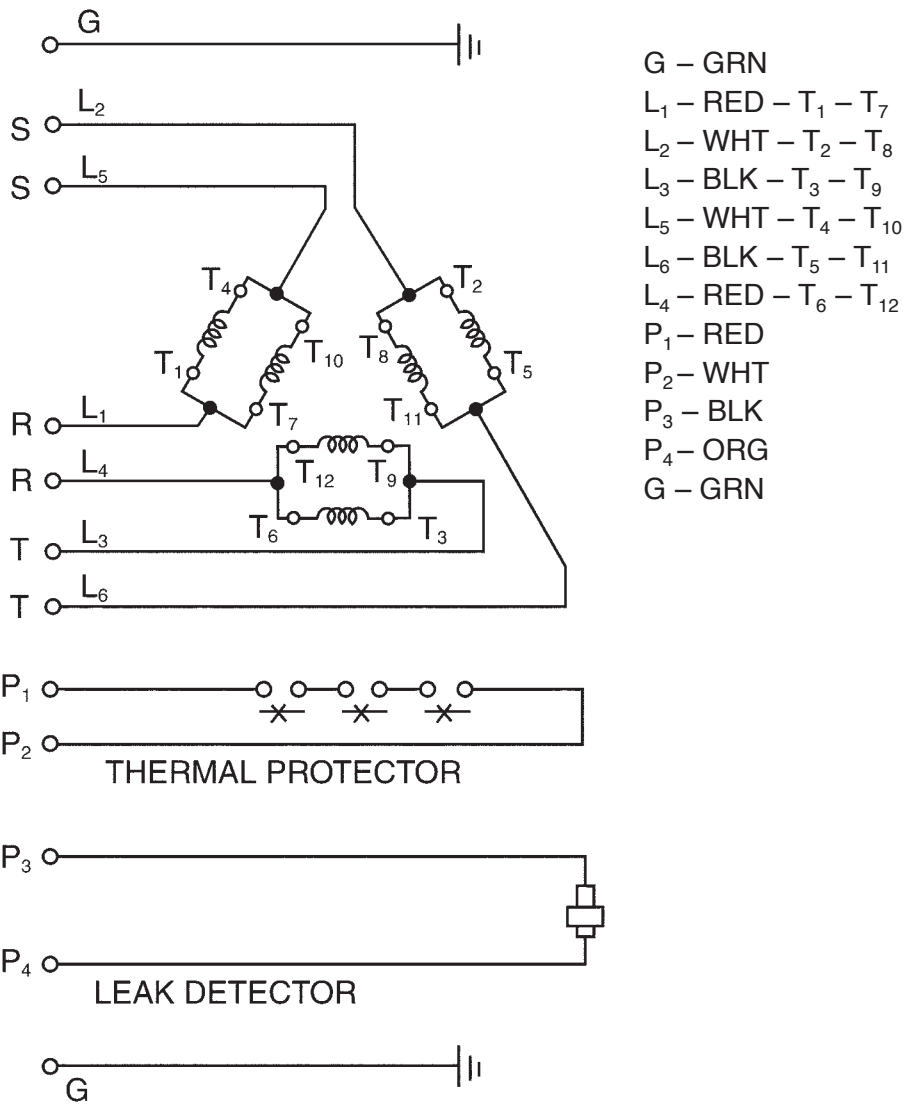
Date:

Manual Operation Type – Three Phase

Model DLFU, DDLFU

Output 40 to 60HP

208/230V



Motor Wiring Diagram

Project:

Model:

Chk'd:

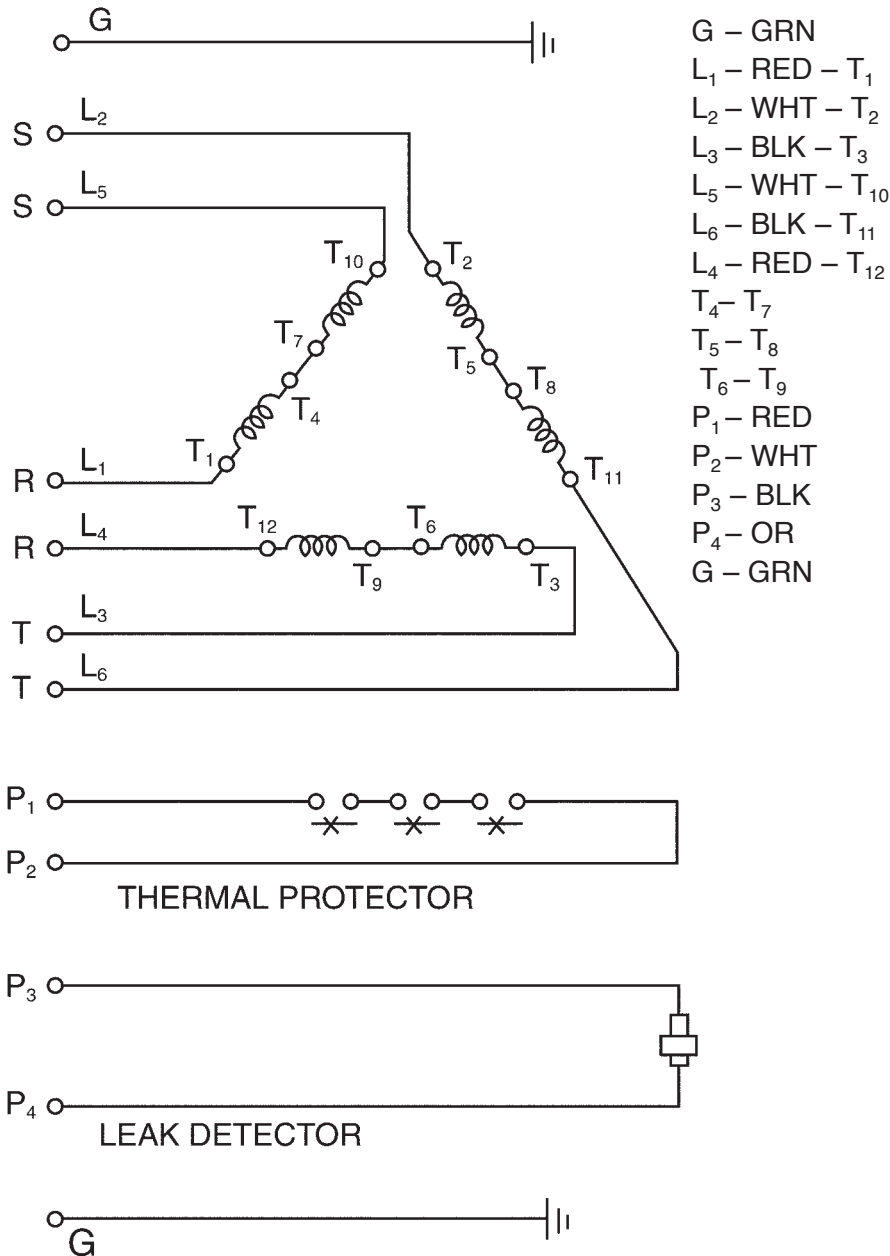
Date:

Manual Operation Type – Three Phase

Model DLFU, DDLFU

Output 40 to 60HP

460V



Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DLU, DVU
Single Phase
 1 to 5HP
 60HZ
 208/230V

Name-Plate Rating	Motor Model		ZDL	ZDL	ZDL	ZDL	
	Output	HP	1	2	3	5	
		kW	0.75	1.5	2.2	3.7	
	Phase		1	1	1	1	
	Poles		4	4	4	4	
	Volts		208/230	208/230	208/230	208/230	
	Amperes		5.7/5.4	11.5/11.2	16.2/15.8	27.2/25.2	
	Speed		1640/1680	1650/1690	1710/1730	1710/1730	
	Insulation Class		F	F	F	F	
Capacitor μ F	Start		40	100	200	400	
	Run		20	30	35	40	
No Load Test	Amperes		2.0/3.0	4.4/7.2	6.0/9.0	8.5/12.2	
	Watts		310/400	500/640	640/900	550/1160	
Resistance at 20°C	Main Coil		3.2	1.4	0.9	0.4	
	Aux. Coil		6.1	2.8	1.8	0.9	
100% Load	Current	Amp.	5.7/5.4	11.5/11.2	16.2/15.8	27.2/25.2	
	Efficiency	%	64.3/64.1	65.9/65.5	70.2/68.6	69.9/70.7	
	Power Factor	%	98.2/94.1	95.1/88.8	92.9/88.1	93.5/90.2	
	Speed	RPM	1640/1682	1650/1693	1714/1730	1713/1732	
Locked Rotor Torque	%	135/161	169/209	144/186	166/221		
Locked Rotor Current	Amp.	16.5/18.2	36.8/40.6	55.8/63.4	104/117		
Vibration	Micron	20	20	20	20		
Noise	Phon (50cm)	65	65	65	65		
Number Starts Per Hour		20	20	20	20		
Design Standard		NEMA (EQUIVALENT)					
Voltage Tolerance	%	± 10					
Frequency Tolerance	%	± 5					
(Ref. data Mfr's Symbols)		EB	EB	EB	EB		

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DLU, DVU
Three Phase
 1 to 2HP
 60HZ
 208/230V

Name-Plate Rating	Motor Model	EM-KG78, KB2, KB3	ZDL			
	Output	HP	1	2		
		kW	0.75	1.5		
	Phase	3	3			
	Poles	4	4			
	Volts	208/230	208/230			
	Amperes	3.4/3.3	6.8/6.6			
	Speed	1655/1690	1720/1740			
	Insulation Class	F	F			
Capacitor μ F	Start	—	—			
	Run	—	—			
No Load Test	Amperes	1.68/2.01	3.8/4.46			
	Watts	87/117	200/240			
Resistance at 20°C	OHMS	5.8	1.55			
100% Load	Current	Amp.	3.21/3.17	6.8/6.6		
	Efficiency	%	78.2/77.8	75.1/77.6		
	Power Factor	%	82.9/76.3	81.5/73.4		
	Speed	RPM	1691/1691	1722/1742		
Locked Rotor Torque	%	199/244	327/407			
Locked Rotor Current	Amp.	13.1/14.3	42.7/47.3			
Vibration	Micron	15	15			
Noise	Phon (50cm)	55	65			
Number Starts Per Hour		20	20			
Design Standard	NEMA (EQUIVALENT)					
Voltage Tolerance	%					± 10
Frequency Tolerance	%					± 5
(Ref. data Mfr's Symbols)		MA	EB			

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DLU, DVU
Three Phase
 1 to 2HP
 60HZ
 460V

Name-Plate Rating	Motor Model	EM-KG78, KB2, KB3	ZDL			
	Output	HP	1	2		
		kW	0.75	1.5		
	Phase		3	3		
	Poles		4	4		
	Volts		460	460		
	Amperes		1.7	3.3		
	Speed		1690	1740		
	Insulation Class		F	F		
Capacitor μ F	Start	—	—			
	Run	—	—			
No Load Test	Amperes	1.05	2.23			
	Watts	131	240			
Resistance at 20°C		23.5	10.1			
	OHMS					
100% Load	Current	Amp.	1.63	3.3		
	Efficiency	%	76.8	77.6		
	Power Factor	%	75.3	73.4		
	Speed	RPM	1708	1741		
Locked Rotor Torque	%	257	406			
Locked Rotor Current	Amp.	7.1	26			
Vibration	Micron	15	15			
Noise	Phon (50cm)	55	65			
Number Starts Per Hour		20	20			
Design Standard	NEMA (EQUIVALENT)					
Voltage Tolerance	%					± 10
Frequency Tolerance	%					± 5
(Ref. data Mfr's Symbols)		MA	EB			

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DGUII
Single Phase
2HP
60HZ
208/230V

Name-Plate Rating	Model		ZDG			
	Output	HP	2			
		kW	1.5			
	Phase		1			
	Poles		2			
	Volts	V	208/230			
	Amperes	A	15.7/12.8			
	Speed	min ⁻¹	3270/3380			
Insulation Class		F				
Capacitor μ F	Start		161~193			
	Run		25			
No Load Test	Amperes		1.7/1.9			
	Watts		335/401			
Resistance at 20°C	Main Coil		0.95			
	OHMS Aux. Coil		2.28			
100% Load	Current	Amp.	9.89/8.71			
	Efficiency	%	73.0/75.3			
	Power Factor	%	99.7/99.3			
	Speed	min ⁻¹	3438/3477			
Locked Rotor Torque		%	341/428			
Locked Rotor Current		Amp.	55.0/60.0			
Vibration		Micron	20			
Noise		Phon (50cm)	65			
Number Starts Per Hour			20			
Design Standard			NEMA (EQUIVALENT)			
Voltage Tolerance		%	± 10			
Frequency Tolerance		%	± 5			
(Ref. data Mfr's Symbols)			EB			

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DGFU
Single Phase
 2 to 5HP
 60HZ
 208/230V

FM Explosion Proof Option

Name-Plate Rating	Model		ZDLX (DG)	ZDLX (DG)	ZDLX (DG)		
	Output	HP	2	3	5		
		kW	1.5	2.2	3.7		
	Phase		1	1	1		
	Poles		2	2	2		
	Volts	V	208/230	208/230	208/230		
	Amperes	A	15.7/12.8	22.8/20.0	37.2/33.0		
	Speed	min ⁻¹	3270/3380	3300/3370	3470/3500		
	Insulation Class		F	F	F		
Capacitor μF	Start	161~193	270~324	216~259			
	Run	25	35	55			
No Load Test	Amperes	1.7/1.8	2.3/3.2	6.0/6.7			
	Watts	334/400	438/535	1091/1300			
Resistance at 20°C	Main Coil	0.95	0.54	0.50			
	Aux. Coil	2.28	2.28	1.00			
100% Load	Current	Amp.	9.89/8.71	14.4/13.2	23.7/22.5		
	Efficiency	%	73.0/75.3	74.5/73.8	74.9/72.0		
	Power Factor	%	99.7/99.3	98.5/97.5	99.7/98.9		
	Speed	min ⁻¹	3438/3477	3442/3473	3536/3547		
Locked Rotor Torque		%	341/428	353/421	147/167		
Locked Rotor Current		Amp.	55.0/60.0	86.0/96.0	138/152		
Vibration		Micron	15	15	15		
Noise		Phon (50cm)	65	65	65		
Number Starts Per Hour			20	20	20		
Design Standard			NEMA (MG 1 Design B)				
Voltage Tolerance		%	± 10				
Frequency Tolerance		%	± 5				
(Ref. data Mfr's Symbols)			EB	EB	EB		

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DGFU
Three Phase
2 to 5HP
60HZ
208/230V

FM Explosion Proof Option

Name-Plate Rating	Model		ZDLX (DG)	ZDLX (DG)	ZDLX (DG)		
	Output	HP	2	3	5		
		kW	1.5	2.2	3.7		
	Phase		3	3	3		
	Poles		2	2	2		
	Volts	V	208/230	208/230	208/230		
	Amperes	A	8.5/7.8	12.7/11.5	20.2/18.7		
	Speed	min ⁻¹	3450/3480	3450/3470	3390/3430		
Insulation Class		F	F	F			
Capacitor μ F	Start		—	—	—		
	Run		—	—	—		
No Load Test	Amperes		2.3/2.9	2.8/3.2	4.4/5.6		
	Watts		200/242	458/496	548/628		
Resistance at 20°C	OHMS		1.53	1.09	0.56		
100% Load	Current	Amp.	5.80/5.70	8.69/8.15	13.8/13.1		
	Efficiency	%	81.5/80.6	76.6/76.6	81.2/80.7		
	Power Factor	%	87.9/81.6	91.6/88.3	91.3/87.3		
	Speed	min ⁻¹	3461/3490	3463/3489	3471/3497		
Locked Rotor Torque		%	308/406	291/399	299/369		
Locked Rotor Current		Amp.	43.8/49.1	61.1/72.1	114/129		
Vibration		Micron	15	15	15		
Noise		Phon (50cm)	65	65	65		
Number Starts Per Hour			20	20	20		
Design Standard			NEMA (MG 1 Design B)				
Voltage Tolerance		%	± 10				
Frequency Tolerance		%	± 5				
(Ref. data Mfr's Symbols)			EB	EB	EB		

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DGFU
Three Phase
2 to 5HP
60HZ
460V

FM Explosion Proof Option

Name-Plate Rating	Model		ZDLX (DG)	ZDLX (DG)	ZDLX (DG)		
	Output	HP	2	3	5		
		kW	1.5	2.2	3.7		
	Phase		3	3	3		
	Poles		2	2	2		
	Volts V		460	460	460		
	Amperes A		3.9	5.8	9.4		
	Speed min ⁻¹		3480	3470	3410		
Insulation Class		F	F	F			
Capacitor µF	Start		—	—	—		
	Run		—	—	—		
No Load Test	Amperes		1.5	1.6	2.8		
	Watts		242	496	628		
Resistance at 20°C	OHMS		5.51	3.75	1.93		
100% Load	Current	Amp.	2.85	4.08	6.58		
	Efficiency	%	80.6	76.6	80.7		
	Power Factor	%	81.6	88.3	87.3		
	Speed	min ⁻¹	3490	3489	3497		
Locked Rotor Torque		%	406	399	369		
Locked Rotor Current		Amp.	24.6	36.1	64.8		
Vibration		Micron	15	15	15		
Noise		Phon (50cm)	65	65	65		
Number Starts Per Hour			20	20	20		
Design Standard			NEMA (MG 1 Design B)				
Voltage Tolerance		%	± 10				
Frequency Tolerance		%	± 5				
(Ref. data Mfr's Symbols)			EB	EB	EB		

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DLFU, DVFU

Three Phase

2 to 10HP

60HZ

208/230V

FM Explosion Proof Option

Name-Plate Rating	Model		ZDLX (DL)	ZDLX (DL)	ZDLX (DL)	ZDLX (DL)	ZDLX (DL)
	Output	HP	2	3	5	7 1/2	10
		kW	1.5	2.2	3.7	5.5	7.5
	Phase		3	3	3	3	3
	Poles		4	4	4	4	4
	Volts	V	208/230	208/230	208/230	208/230	208/230
	Amperes	A	6.8/6.6	9.2/9.2	15.0/14.2	22.4/21.6	31.2/29.2
	Speed	min ⁻¹	1720/1740	1730/1740	1720/1740	1735/1745	1735/1745
	Insulation Class		F	F	F	H	H
Capacitor μF	Start	—	—	—	—	—	
	Run	—	—	—	—	—	
No Load Test	Amperes	3.8/4.4	3.8/5.0	4.8/6.1	7.0/8.5	9.8/12.5	
	Watts	200/240	250/350	300/400	275/348	386/502	
Resistance at 20°C	OHMS	1.54	1.59	0.97	0.49	0.37	
100% Load	Current	Amp.	6.80/6.60	9.20/9.20	15.0/14.2	22.4/21.6	31.2/29.2
	Efficiency	%	75.0/77.6	77.5/71.3	78.9/73.6	78.8/75.7	76.8/76.9
	Power Factor	%	81.5/73.4	85.6/84.0	86.7/88.7	86.4/84.3	86.8/83.7
	Speed	min ⁻¹	1722/1742	1733/1747	1725/1742	1736/1745	1735/1746
Locked Rotor Torque		%	327/407	255/314	240/296	167/203	188/229
Locked Rotor Current		Amp.	42.7/47.3	56.5/63.0	88.0/98.0	115/129	160/177
Vibration		Micron	15	15	15	15	15
Noise		Phon (50cm)	65	65	65	65	65
Number Starts Per Hour			20	20	20	20	20
Design Standard			NEMA (MG 1 Design B)				
Voltage Tolerance		%	± 10				
Frequency Tolerance		%	± 5				
(Ref. data Mfr's Symbols)			EB	EB	EB	EM	EM

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DLFU, DVFU

Three Phase

2 to 10HP

60HZ

460V

FM Explosion Proof Option

Name-Plate Rating	Model		ZDLX (DL)	ZDLX (DL)	ZDLX (DL)	ZDLX (DL)	ZDLX (DL)
	Output	HP	2	3	5	7 1/2	10
		kW	1.5	2.2	3.7	5.5	7.5
	Phase		3	3	3	3	3
	Poles		4	4	4	4	4
	Volts	V	460	460	460	460	460
	Amperes	A	3.3	4.6	7.1	10.8	14.6
	Speed	min ⁻¹	1740	1740	1740	1745	1745
	Insulation Class		F	F	F	H	H
Capacitor μF	Start	—	—	—	—	—	
	Run	—	—	—	—	—	
No Load Test	Amperes	2.2	2.5	3.1	4.3	6.3	
	Watts	240	350	400	348	502	
Resistance at 20°C	OHMS	10.1	5.87	3.38	1.82	1.36	
100% Load	Current	Amp.	3.30	4.60	7.10	10.8	14.6
	Efficiency	%	77.6	71.3	73.6	75.6	76.9
	Power Factor	%	73.4	84.0	88.7	84.4	83.7
	Speed	min ⁻¹	1742	1747	1742	1745	1746
Locked Rotor Torque		%	407	314	296	203	229
Locked Rotor Current		Amp.	23.7	31.5	49.0	64.3	88.5
Vibration		Micron	15	15	15	15	15
Noise		Phon (50cm)	65	65	65	65	65
Number Starts Per Hour			20	20	20	20	20
Design Standard			NEMA (MG 1 Design B)				
Voltage Tolerance		%	± 10				
Frequency Tolerance		%	± 5				
(Ref. data Mfr's Symbols)			EB	EB	EB	EM	EM

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DLFU, DVFU, DDLFU

Three Phase

15 to 30HP

60HZ

208/230V

FM Explosion Proof Option

Name-Plate Rating	Model		ZDLX (DL)	ZDLX (DL)	ZDLX (DL)	ZDLX (DL)	
	Output	HP	15	20	25	30	
		kW	11	15	18.5	22	
	Phase		3	3	3	3	
	Poles		4	4	4	4	
	Volts	V	208/230	208/230	208/230	208/230	
	Amperes	A	42.8/39.2	58.2/55.2	72.8/66.6	82.4/77.6	
	Speed	min ⁻¹	1750/1760	1755/1765	1760/1765	1760/1765	
	Insulation Class		H	H	H	H	
Capacitor µF	Start	—	—	—	—		
	Run	—	—	—	—		
No Load Test	Amperes	12.1/15.9	18.0/24.7	18.7/25.1	22.7/31.7		
	Watts	618/786	754/1071	598/856	701/1053		
Resistance at 20°C	OHMS	0.29	0.18	0.13	0.10		
100% Load	Current	Amp.	42.8/39.2	58.2/55.2	72.8/66.6	82.4/77.6	
	Efficiency	%	79.5/81.0	80.3/79.6	80.9/81.9	85.2/84.7	
	Power Factor	%	89.6/86.9	89.0/85.6	87.1/85.1	86.9/84.0	
	Speed	min ⁻¹	1753/1764	1757/1766	1764/1771	1769/1776	
Locked Rotor Torque		%	136/165	132/162	119/145	112/136	
Locked Rotor Current		Amp.	224/252	333/373	345/383	405/456	
Vibration		Micron	15	15	15	15	
Noise		Phon (50cm)	65	65	65	65	
Number Starts Per Hour			20	20	20	20	
Design Standard			NEMA (MG 1 Design B)				
Voltage Tolerance		%	± 10				
Frequency Tolerance		%	± 5				
(Ref. data Mfr's Symbols)			EM	EM	EM	EM	

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DLFU, DVFU, DDLFU

Three Phase

15 to 30HP

60HZ

460V

FM Explosion Proof Option

Name-Plate Rating	Model		ZDLX (DL)	ZDLX (DL)	ZDLX (DL)	ZDLX (DL)	
	Output	HP	15	20	25	30	
		kW	11	15	18.5	22	
	Phase		3	3	3	3	
	Poles		4	4	4	4	
	Volts	V	460	460	460	460	
	Amperes	A	19.6	27.6	33.3	38.8	
	Speed	min ⁻¹	1760	1765	1765	1765	
	Insulation Class		H	H	H	H	
Capacitor µF	Start	—	—	—	—		
	Run	—	—	—	—		
No Load Test	Amperes	8.0	12.4	12.6	15.9		
	Watts	786	1071	856	1053		
Resistance at 20°C		1.04	0.65	0.44	0.35		
	OHMS						
100% Load	Current	Amp.	19.6	27.6	33.3	38.8	
	Efficiency	%	81.0	79.6	81.9	84.7	
	Power Factor	%	86.9	85.6	85.1	84.0	
	Speed	min ⁻¹	1764	1766	1771	1776	
Locked Rotor Torque		%	165	162	145	136	
Locked Rotor Current		Amp.	126	186	191	228	
Vibration		Micron	15	15	15	15	
Noise		Phon (50cm)	65	65	65	65	
Number Starts Per Hour			20	20	20	20	
Design Standard			NEMA (MG 1 Design B)				
Voltage Tolerance		%	± 10				
Frequency Tolerance		%	± 5				
(Ref. data Mfr's Symbols)			EM	EM	EM	EM	

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DLFU, DDLFU

Three Phase

40 to 60HP

60HZ

208/230V

FM Explosion Proof Option

Name-Plate Rating	Model		ZDLX (DL)	ZDLX (DL)	ZDLX (DL)			
	Output	HP	40	50	60			
		kW	30	37	45			
	Phase		3	3	3			
	Poles		4	4	4			
	Volts	V	208/230	208/230	208/230			
	Amperes	A	107/99	134/129	162/155			
	Speed	min ⁻¹	1760/1770	1765/1770	1765/1770			
Insulation Class		H	H	H				
Capacitor μF	Start		—	—	—			
	Run		—	—	—			
No Load Test	Amperes		30.5/40.0	38.2/53.5	44.1/61.6			
	Watts		1700/1900	2200/3200	2500/3900			
Resistance at 20°C	OHMS		0.066	0.039	0.032			
100% Load	Current	Amp.	107/99	134/129	162/155			
	Efficiency	%	88.1/89.2	88.0/86.9	88.6/87.2			
	Power Factor	%	88.0/85.2	86.9/82.6	86.9/83.3			
	Speed	min ⁻¹	1775/1781	1781/1785	1786/1786			
Locked Rotor Torque		%	231/280	144/174	147/176			
Locked Rotor Current		Amp.	704/778	772/870	932/1045			
Vibration		Micron	15	15	15			
Noise		Phon (50cm)	65	65	65			
Number Starts Per Hour			20	20	20			
Design Standard			NEMA (MG 1 Design B)					
Voltage Tolerance		%	± 10					
Frequency Tolerance		%	± 5					
(Ref. data Mfr's Symbols)			EM	EM	EM			

Motor Data

Project: _____ Model: _____ Chk'd: _____ Date: _____

Models DLFU, DDLFU

Three Phase

40 to 60HP

60HZ

460V

FM Explosion Proof Option

Name-Plate Rating	Model		ZDLX (DL)	ZDLX (DL)	ZDLX (DL)		
	Output	HP	40	50	60		
		kW	30	37	45		
	Phase		3	3	3		
	Poles		4	4	4		
	Volts	V	460	460	460		
	Amperes	A	49.5	64.5	77.5		
	Speed	min ⁻¹	1770	1770	1770		
	Insulation Class		H	H	H		
Capacitor μ F	Start	—	—	—			
	Run	—	—	—			
No Load Test	Amperes	20.0	26.8	30.8			
	Watts	1900	3200	3900			
Resistance at 20°C		0.225	0.128	0.103			
	OHMS						
100% Load	Current	Amp.	49.5	64.5	77.5		
	Efficiency	%	89.2	86.9	87.2		
	Power Factor	%	85.2	82.6	83.3		
	Speed	min ⁻¹	1781	1785	1786		
Locked Rotor Torque		%	280	174	175		
Locked Rotor Current		Amp.	389	435	523		
Vibration		Micron	15	15	15		
Noise		Phon (50cm)	65	65	65		
Number Starts Per Hour			20	20	20		
Design Standard			NEMA (MG 1 Design B)				
Voltage Tolerance		%	± 10				
Frequency Tolerance		%	± 5				
(Ref. data Mfr's Symbols)			EM	EM	EM		