
Stainless Steel Centrifugal Pump

Model CDX / 2CDX

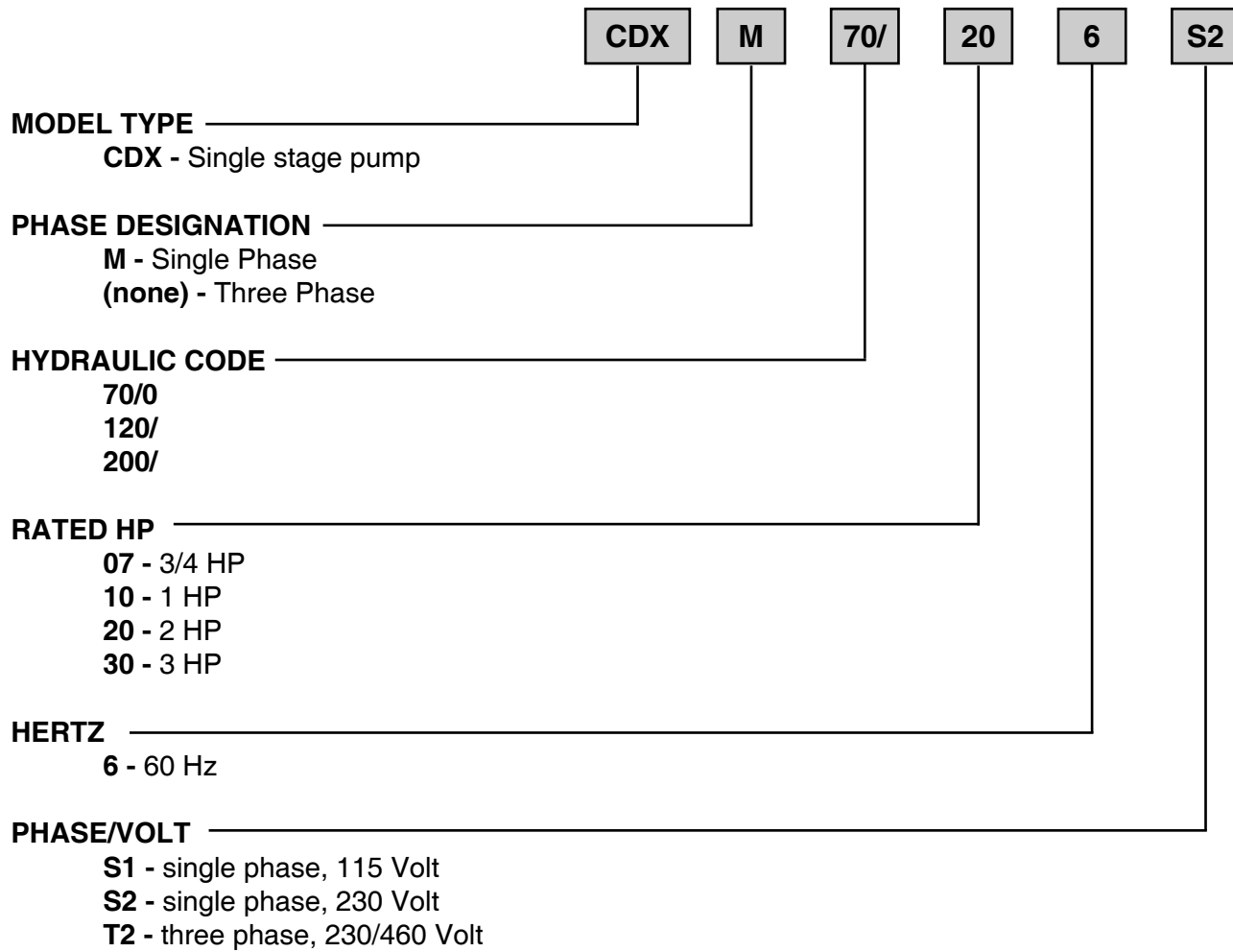


Technical Specifications

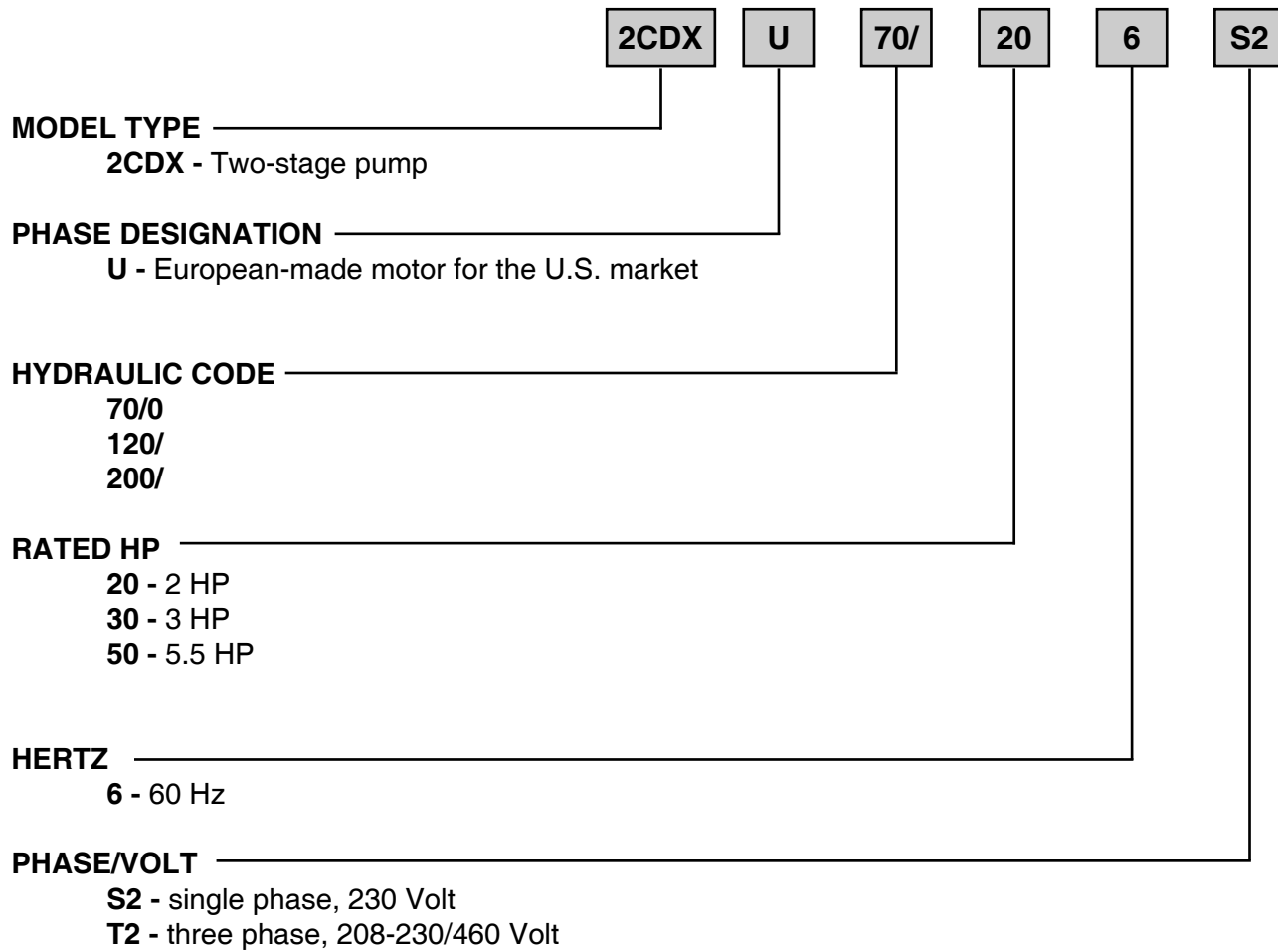


EBARA Pumps Americas Corporation

Model Designation



Model Designation



Specifications

	Standard	Optional
Size Suction Discharge	1 1/4" NPT thread 1 1/2" NPT thread 1" NPT thread	
Range of HP	3/4 HP to 3 HP	
Range of Performance Capacity Head	5 to 66 GPM at 3600 RPM 40 to 154 feet at 3600 RPM	
Liquid Handled Type of liquid Temperature Max. working pressure	Clean Water Range: 23°F (-5°C) to 140°F (60°C) 116 PSI	
Materials Casing Impeller (closed type) Shaft Bracket Shaft Seal	304 Stainless Steel 304 Stainless Steel 303 Stainless Steel Aluminum Mechanical Seal Carbon/Ceramic/NBR	Consult factory for additional seal options
Direction of Rotation	Clockwise when viewed from motor end	
Motor Type Speed Single Phase Three PHase Motor Protection Bearing	TEFC/IP55 60 Hz, 3450 RPM (2 poles) 230V 230/460V Built-in overload protection (single phase) Sealed Ball Bearing	



Specifications

	Standard	Optional
Size Suction Discharge	2CDXU70 - 1 1/4" NPT thread 2CDXU120 - 1 1/4" NPT thread 2CDXU200 - 1 1/2" NPT thread 1" NPT thread	
Range of HP	2 HP to 5 1/2 HP	
Range of Performance Capacity Head	5 to 66 GPM at 3600 RPM 127 to 255 feet at 3600 RPM	
Liquid Handled Type of liquid Temperature Max. working pressure	Clean Water Range: 23°F (-5°C) to 212°F (100°C) 125 PSI (8.6 Bar)	
Materials Casing Impeller (closed type) Shaft Bracket Shaft Seal	304L Stainless Steel 304L Stainless Steel 304L Stainless Steel Aluminum Mechanical Seal Carbon/Ceramic/Viton	Consult factory for additional seal options
Direction of Rotation	Clockwise when viewed from motor end	
Motor Type Speed Three Phase Motor Casing Bearing	TEFC/IP55 60 Hz, 3450 RPM (2 poles) 230/460V Aluminum Ball Bearing	



Electrical Data

3/4 to 1 HP, Single Phase, 115V

Hz	Poles	Phase	Output (HP)	Voltage (V)	Applicable Model
60	2	Single	0.75-1	115	CDXM70

Name-Plate Rating	MOTOR MODEL		70/076	70/106
	Output	HP	0.75	1
		KW	0.55	0.75
	Phase		1	1
	Poles		2	2
	Volts		115	115
	Amperes		7.5	9.4
	Speed		3430	3450
Insulation Class		F	F	
Capacity of Capacitor µF		Start	-	-
		Run	45	60
No Load Test	Amperes		3.22	6.23
	Watts		230	354
Resistance at 20°C	Ohms		1.357	0.921
	100% Load	Current		7.7
Efficiency		65.0	66.1	
Power Factor		97.2	89.2	
Speed		3449	3445	
Locked Rotor Torque			0.40	0.68
Start Current			28.1	40.94
Number Starts per Hour			30	
Voltage Tolerance			±6	



Electrical Data

3/4 to 2 HP, Single Phase, 230V

Hz	Poles	Phase	Output (HP)	Voltage (V)	Applicable Model
60	2	Single	0.75-2	230	CDXM

Name-Plate Rating	MOTOR MODEL	70/076	70/106	70/156	120/106	120/156	120/206	200/156	200/206	
	Output	HP	0.75	1	1	1	1.5	2	1.5	2
		KW	0.55	0.75	1.1	0.75	1.1	1.5	1.1	1.5
	Phase	1	1	1	1	1	1	1	1	
	Poles	2	2	2	2	2	2	2	2	
	Volts	230	230	230	230	230	230	230	230	
	Amperes	3.4	5.2	7.9	5.2	7.2	11.3	6.7	10.2	
	Speed	3420	3430	3425	3425	3440	3475	3450	3490	
	Insulation Class	F	F	F	F	F	F	F	F	
Capacity of Capacitor µF	Start	-	-	-	-	-	-	-	-	
	Run	12.5	14	25	14	25	35	20	35	
No Load Test	Amperes	2.8	2.95	3.94	2.95	3.94	5.73	5.05	5.73	
	Watts	335	325	502	325	502	529	485	529	
Resistance at 20°C	Ohms	5.19	3.5	2.082	3.5	2.082	0.96	2.166	0.96	
100% Load	Current	4.09	5.3	7.2	5.3	7.2	10.5	6.7	10.5	
	Efficiency	62.1	67.7	70.1	67.7	70.1	80.3	67.7	80.3	
	Power Factor	91.8	81.4	91.6	81.4	91.6	88.7	90.9	88.7	
	Speed	3429	3512	3458	3512	3458	6492	3459	3492	
Locked Rotor Torque		0.53	0.66	0.82	0.66	0.82	1.49	0.82	1.49	
Start Current		17.34	19.9	23.9	20.1	23.9	32.6	23.9	32.6	
Number Starts per Hour		30								
Voltage Tolerance		±6								



Electrical Data

3/4 to 3 HP, Three Phase, 230V

Hz	Poles	Phase	Output (HP)	Voltage (V)	Applicable Model
60	2	Three	0.75-3	230	CDX

Name-Plate Rating	MOTOR MODEL	70/076	70/106	70/156	120/106	120/156	120/206	200/156	200/206	200/306	
	Output	HP	0.75	1	1	1	1.5	2	1.5	2	3
		KW	0.55	0.75	1.1	0.75	1.1	1.5	1.1	1.5	2.2
	Phase	3	3	3	3	3	3	3	3	3	
	Poles	2	2	2	2	2	2	2	2	2	
	Volts	230	230	230	230	230	230	230	230	230	
	Amperes	1.9	2.9	3.8	2.8	4	7.5	3.8	7.5	7.5	
	Speed	3330	3450	3350	3350	3375	3480	3380	3500	3360	
Insulation Class	F	F	F	F	F	F	F	F	F		
No Load Test	Amperes	1.12	2.02	2.52	2.02	2.52	4.6	2.52	4.6	4.6	
	Watts	134	158	82	158	82	114	82	114	114	
Resistance at 20°C	Ohms	12.6	7.06	3.2	7.06	3.2	1.34	3.2	1.34	1.34	
	Current	1.98	2.8	4.28	2.8	4.28	8.16	4.28	8.16	8.16	
100% Load	Efficiency	63.2	68.1	82.74	68.1	82.7	82.9	82.3	82.9	84.1	
	Power Factor	73.6	74.2	76.3	74.2	76.3	77	76.3	77	77	
	Speed	3418	3436	3447	3436	3447	3480	3447	3480	3480	
Locked Rotor Torque		2.54	4.17	7.55	4.17	7.55	12.41	7.55	12.41	12.41	
Start Current		6.55	17.2	25.7	17.2	25.7	58.23	25.7	58.23	58.23	
Number Starts per Hour		30									
Voltage Tolerance		±10									



Electrical Data

3/4 to 3 HP, Three Phase, 460V

Hz	Poles	Phase	Output (HP)	Voltage (V)	Applicable Model
60	2	Three	0.75-3	460	CDX

Name-Plate Rating	MOTOR MODEL	70/076	70/106	70/156	120/106	120/156	120/206	200/156	200/206	200/306
	Output	HP	0.75	1	1.5	1	1.5	2	1.5	2
	KW	0.55	0.75	1.1	0.75	1.1	1.5	1.1	1.5	2.2
	Phase	3	3	3	3	3	3	3	3	3
	Poles	2	2	2	2	2	2	2	2	2
	Volts	460	460	460	460	460	460	460	460	460
	Amperes	1.2	1.6	2.2	1.7	2.2	4.1	2.2	4.1	4.1
	Speed	3330	3450	3350	3350	3375	3480	3380	3500	3360
	Insulation Class	F	F	F	F	F	F	F	F	F
No Load Test	Amperes	0.65	1.17	1.27	1.17	1.27	2.30	1.27	2.30	2.3
	Watts	134	158	82	158	82	114	82	114	114
Resistance at 20°C	Ohms	37.9	21.2	9.6	21.2	9.6	4.01	9.6	4.01	4.01
100% Load	Current	1.15	1.62	2.15	1.62	2.15	4.10	2.15	4.10	4.10
	Efficiency	63.2	68.1	84.44	68.1	84.44	87.4	84.44	87.4	87.4
	Power Factor	73.6	74.2	76.3	74.2	76.3	77	76.3	77	77
	Speed	3418	3436	3447	3436	3447	3480	3447	3480	3480
Locked Rotor Torque		3.37	5.53	9.98	5.53	9.98	16.41	9.98	16.41	16.41
Start Current		3.28	8.60	17.2	8.60	17.2	38.9	17.2	38.9	38.9
Number Starts per Hour		30								
Voltage Tolerance		±10								



Electrical Data

Hz	Poles	Phase	Output (HP)	Voltage	Applicable Model
60	2	Single	2 to 3	230	2CDXU

Name-Plate Rating	MOTOR MODEL		70/206	70/306			
	Output	HP	2	3			
		KW	1.5	2.2			
	Phase		1	1			
	Poles		2	2			
	Volts		230	230			
	Amperes		10.3	11.7			
	Speed		3500	3450			
	Insulation Class		F	F			
Capacity of Capacitor μ F	Start		-	-			
	Run		35	35			
No Load Test	Amperes		5.50	5.50			
	Watts		168	168			
Resistance at 20°C OHMS			2.558	2.558			
100% Load	Current	Amp.	10.3	11.7			
	Efficiency	%	79.7	78.5			
	Power Factor	%	95.6	94.6			
	Speed	RPM	3484	3461			
Locked Rotor Torque		%	40.9	40.9			
Start Current		Amp.	69.6	69.6			
Number Starts Per Hour			20	20			
Voltage Tolerance		%	±6%				
Frequency Tolerance		%	±6%				
(Ref. data Mfr's Symbols)			EI	EI			



Electrical Data

Hz	Poles	Phase	Output (HP)	Voltage	Applicable Model
60	2	Three	2 to 5 1/2	208/230	2CDXU

Name-Plate Rating	MOTOR MODEL		70/206	70/306	120/306	120/506	
	Output	HP	2	3	3	5 1/2	
		KW	1.5	2.2	2.2	4	
	Phase		3	3	3	3	
	Poles		2	2	2	2	
	Volts		208/230	208/230	208/230	208/230	
	Amperes		8.3/7.5	8.3/7.5	8.3/7.5	14.2/12.9	
	Speed		3490	3460	3460	3480	
	Insulation Class		F	F	F	F	
No Load Test	Amperes		3.2	3.2	4.5	7.1	
	Watts		157	157	165	436	
Resistance at 20°C OHMS			2.45	2.45	2.02	0.72	
100% Load	Current Amp.		8.3/7.5	8.3/7.5	8.3/7.5	14.2/12.9	
	Efficiency %		87.5	87.5	87.5	88.5	
	Power Factor %		85.6	85.6	85.0	86.8	
	Speed RPM		3392	3392	3409	3465	
Locked Rotor Torque %		500	500	388	300		
Start Current Amp.		57	59	71	145		
Number Starts Per Hour		20	20	20	20		
Voltage Tolerance %		±10%					
Frequency Tolerance %		±10%					
(Ref. data Mfr's Symbols)		EI	EI	EI	EI		



Electrical Data

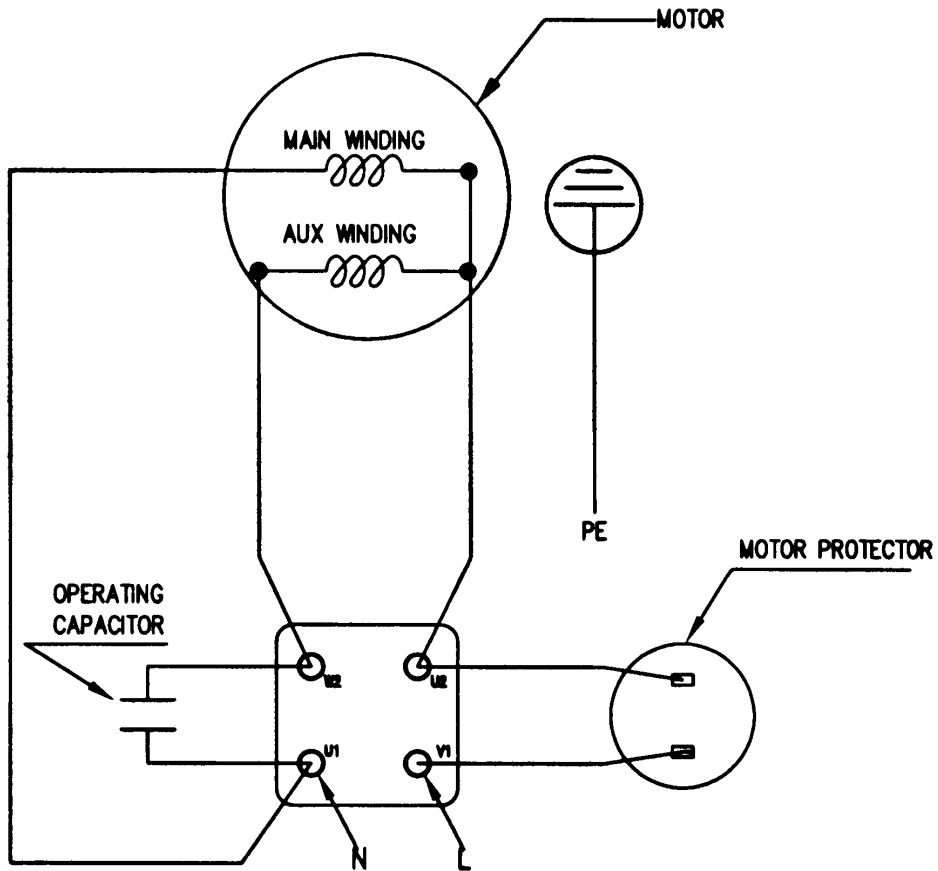
Hz	Poles	Phase	Output (HP)	Voltage	Applicable Model
60	2	Three	2 to 5 1/2	460	2CDXU

Name-Plate Rating	MOTOR MODEL		70/206	70/306	120/306	120/506	
	Output	HP	2	3	3	5 1/2	
		KW	1.5	2.2	2.2	4	
	Phase		3	3	3	3	
	Poles		2	2	2	2	
	Volts		460	460	460	460	
	Amperes		4.1	4.1	4.1	7.6	
	Speed		3490	3460	3460	3480	
	Insulation Class		F	F	F	F	
No Load Test	Amperes		1.6	1.6	2.73	3.7	
	Watts		186	186	230	516	
Resistance at 20°C OHMS			3.5	3.5	2.43	0.92	
100% Load	Current	Amp.	4.1	4.1	4.1	7.6	
	Efficiency	%	87.5	87.5	87.5	88.5	
	Power Factor	%	80.9	80.9	74.1	81.3	
	Speed	RPM	3442	3442	3469	3494	
Locked Rotor Torque		%	506	506	424	296	
Start Current		Amp.	30	30	36	73	
Number Starts Per Hour			20	20	20	20	
Voltage Tolerance		%	±10%				
Frequency Tolerance		%	±5%				
(Ref. data Mfr's Symbols)			EI	EI	EI	EI	



Wiring Diagram

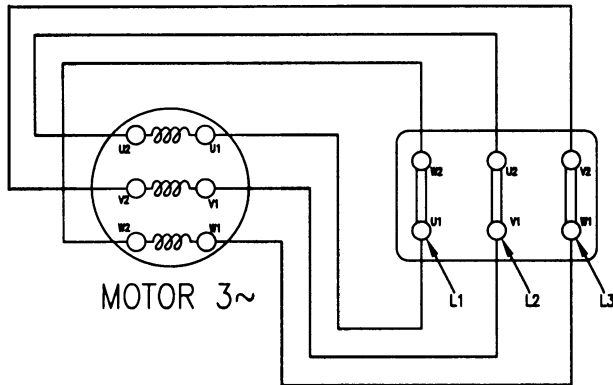
Single Phase



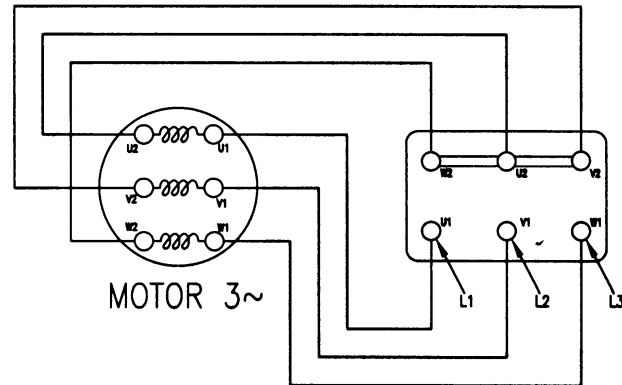
Wiring Diagram

Three Phase

DELTA CONNECTION

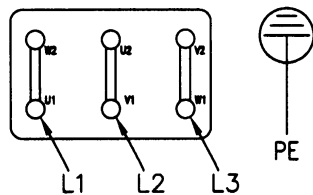


STAR CONNECTION

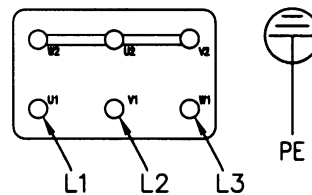


FOR 2HP (1.5kW) AND 5.5HP (4kW)

DELTA CONNECTION 230 V



STAR CONNECTION 460 V



FOR 3HP (2.2kW)

3hp(2.2kW) ONLY - Star-Double Star (Y-YY)

