

Parts List for ESR-1650

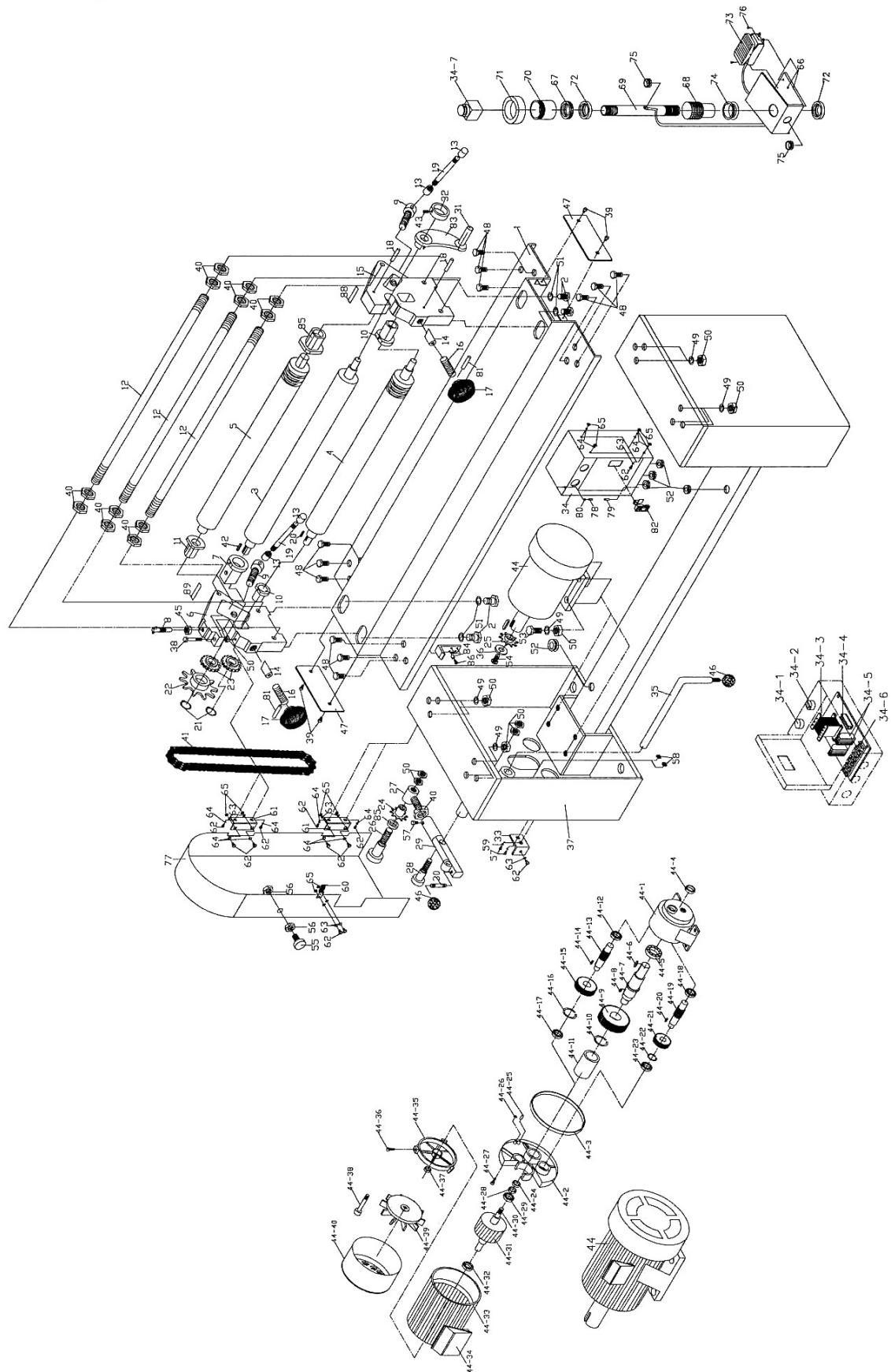
Index No	Part No	Description	Size	Qty
1.....	ESR1650-1	Base Assembly.....		1
2.....	ESR1650-2	Hex Cap Screw	M16x25	4
3.....	ESR1650-3	Upper Roll		1
4.....	ESR1650-4	Lower Roll		1
5.....	ESR1650-5	Rear Roll		1
6.....	ESR1650-6	Left Support.....		1
7.....	ESR1650-7	Left Upper Roll Seat		1
8.....	ESR1650-8	Set Handle Assembly		1
9.....	ESR1650-9	Lock Knob		2
10.....	ESR1650-10	Bushing		2
11.....	ESR1650-11	Bushing, Left Rear.....		1
12.....	ESR1650-12	Set Rod		3
13.....	ESR1650-13	Cap		4
14.....	ESR1650-14	Gib Key		2
15.....	ESR1650-15	Right Support		1
16.....	ESR1650-16	Front Adjusting Screw.....		2
17.....	ESR1650-17	Knob		2
18.....	ESR1650-18	Spring Pin.....	Ø5x40 mm.....	2
19.....	ESR1650-19	Handle.....		2
20.....	ESR1650-20	Flat Key.....	30x8x8 mm.....	1
21.....	ESR1650-21	C-Ring.....	Ø28 mm	2
22.....	ESR1650-22	Sprocket.....	Z=30, P=15.875.....	1
23.....	ESR1650-23	Gear.....	M=5, Z=5.....	2
24.....	ESR1650-24	Sprocket.....	Z=11, P=15.875.....	1
25.....	ESR1650-25	Drive Sprocket.....	Z=15, P=15.875.....	1
26.....	ESR1650-26	Sprocket Shaft.....		1
27.....	ESR1650-27	Lever Head.....		1
28.....	ESR1650-28	Lever Shaft.....		1
29.....	ESR1650-29	Lever.....		1
30.....	ESR1650-30	Stud		1
31.....	ESR1650-31	Clamp Handle Grip	M8.....	1
32.....	ESR1650-32	Bushing		1
33.....	ESR1650-33	Bracket.....		1
34.....	ESR1650-34	Electrical Box.....		1
34-1.....	ESR1650-34-1	Power Indicator	XD110V	1
34-2.....	ESR1650-34-2	Power On/Off.....	LA18-11/2	1
34-3.....	ESR1650-34-3	Transformer.....	BK50VA, 0-115-230-380-460, 50/60Hz	1
34-4.....	ESR1650-34-4	Fuse	5A	1
34-5.....	ESR1650-34-5	Magnetic Contactor	110V CJX2-0901	2
34-6.....	ESR1650-34-6	Junction Terminal	600V, 10A, 13P	1
34-7.....	ESR1650-34-7	Emergency Switch.....	10A	1
35.....	ESR1650-35	Locking Handle.....		1
36.....	ESR1650-36	Washer.....	Ø10 mm	1
37.....	ESR1650-37	Stand		1
38.....	ESR1650-38	Hex Cap Screw	M12x130	1
39.....	TS-2171012	Pan Head Machine Screw	M4x5	4
40.....	TS-154010	Hex Nut	M16	13
41.....	ESR1650-41	Chain	10Ax1x100	1
42.....	ESR1650-42	Flat Key.....	60x8x8 mm.....	1
43.....	TS-1524021	Socket Set Screw	M8x10	1
44.....	ESR1650-44	Motor*	1HP, 3Ph, 230/460V ..	1
.....	ESR1650-44A	Motor*	1HP, 1PH, 115/230V ..	1
.....	ESR1650-44A-SC....	Start Capacitor (for single phase).....	35MFD 450V	1
.....	ESR1650-44A-RC....	Run Capacitor (for single phase).....	35µF 450V	1

* Note: Motor includes gear reducer assembly, index nos. ESR1650-44-1 thru ESR1650-44-41.

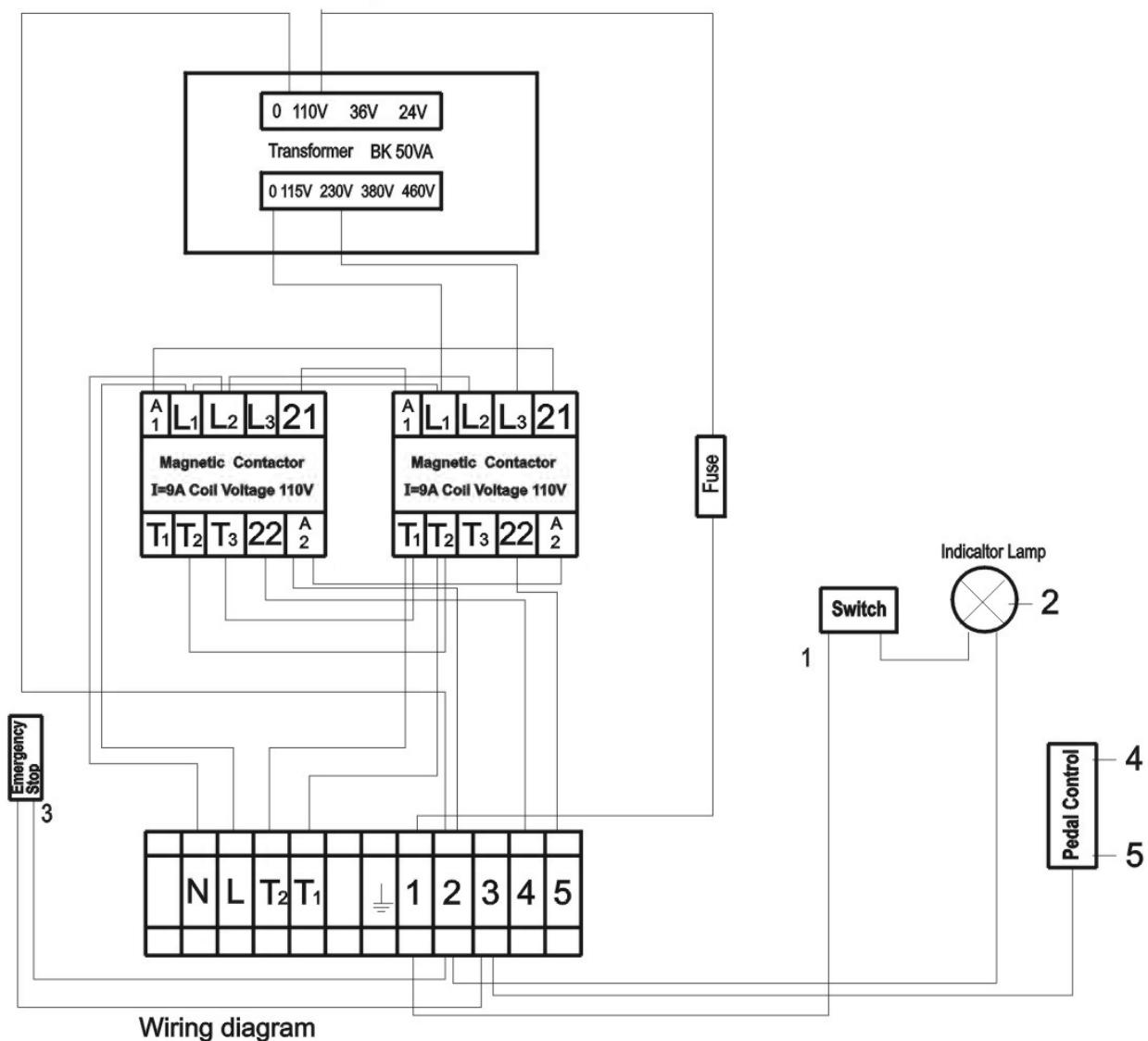
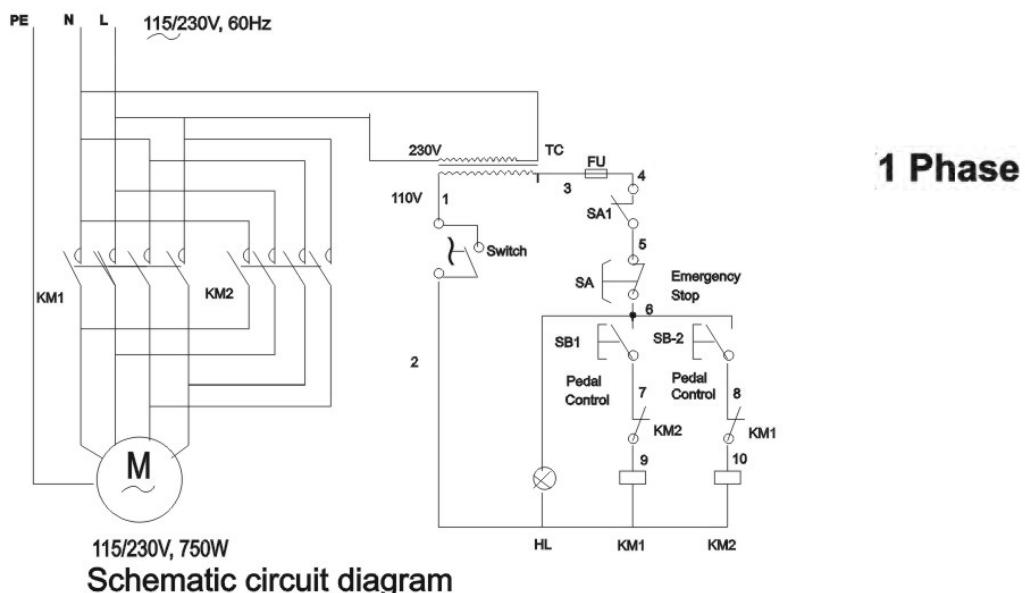
Index No	Part No	Description	Size	Qty
44-1.....	ESR1650-44-1	Housing		1
44-2.....	ESR1650-44-2	Housing Cover		1
44-3.....	ESR1650-44-3	O-Ring	149.5 x Ø2.2mm	1
44-4.....	ESR1650-44-4	Oil Seal – Output Shaft		1
44-5.....	ESR1650-44-5	Bearing – Output Shaft		1
44-6.....	ESR1650-44-6	Key – Output Shaft		1
44-7.....	ESR1650-44-7	Output Shaft		1
44-8.....	ESR1650-44-8	Key – Stage 3 Pinion		1
44-9.....	ESR1650-44-9	Gear – Stage 3		1
44-10.....	ESR1650-44-10	Snap Ring		1
44-11.....	ESR1650-44-11	Oil-less Bearing		1
44-12.....	ESR1650-44-12	Bearing – Stage 2 Pinion		1
44-13.....	ESR1650-44-13	Pinion – Stage 3		1
44-14.....	ESR1650-44-14	Key – Stage 3 Pinion		1
44-15.....	ESR1650-44-15	Gear – Stage 2		1
44-16.....	ESR1650-44-16	Snap Ring		1
44-17.....	ESR1650-44-17	Bearing – Stage 3 Pinion		1
44-18.....	ESR1650-44-18	Bearing – Stage 2 Pinion		1
44-19.....	ESR1650-44-19	Pinion – Stage 2		1
44-20.....	ESR1650-44-20	Key – Stage 2 Pinion		1
44-21.....	ESR1650-44-21	Gear – Stage 1		1
44-22.....	ESR1650-44-22	Snap Ring		1
44-23.....	ESR1650-44-23	Bearing – Stage 2 Pinion		1
44-24.....	ESR1650-44-24	Oil Seal – Motor Shaft		1
44-25.....	ESR1650-44-25	Pin		1
44-26.....	ESR1650-44-26	O-Ring	6.0 x Ø2mm	4
44-27.....	ESR1650-44-27	Hex Cap Screw	M6x20	5
44-28.....	ESR1650-44-28	Wave Spring		1
44-29.....	BB-6304ZZ	Bearing – Motor Shaft	6304ZZ	1
44-30.....	ESR1650-44-30	Motor Shaft		1
44-31.....	ESR1650-44-31	Rotor		1
44-32.....	BB-6304ZZ	Bearing – Motor	6304ZZ	1
44-33.....	ESR1650-44-33	Coil Assembly		1
44-34.....	ESR1650-44-34	Junction Box		1
44-35.....	ESR1650-44-35	Rear Motor Cover		1
44-36.....	ESR1650-44-36	Screw – Fan Cover		3
44-37.....	ESR1650-44-37	Oil Seal – Rear Cover		1
44-38.....	ESR1650-44-38	Bolt - Motor		4
44-39.....	ESR1650-44-39	Motor Fan		1
44-40.....	ESR1650-44-40	Motor Fan Cover		1
44-41.....	ESR1650-44-41	Oil Plug (not shown)		1
45.....	TS-2310201	Hex Nut	M20	1
46.....	ESR1650-46	Ball Grip	SØ30 mm	2
47.....	ESR1650-47	End Plate		2
48.....	TS-1492021	Hex Cap Screw	M12x30	12
49.....	TS-2361121	Lock Washer	Ø12 mm	16
50.....	TS-1540081	Hex Nut	M12	21
51.....	TS-2361161	Lock Washer	Ø16 mm	4
52.....	ESR1650-52	Strain Relief	Ø16 mm	5
53.....	TS-1492051	Hex Cap Screw	M12x50	4
54.....	TS-1491041	Hex Cap Screw	M10x30	1
55.....	ESR1650-55	Locking Knob	M8x30	1
56.....	TS-1540061	Hex Nut	M8	2
57.....	ESR1650-57	Socket Head Cap Screw	M6x18	3
58.....	TS-1540041	Hex Nut	M6	2
59.....	TS-1550041	Flat Washer	Ø6 mm	2
60.....	ESR1650-60	Latch Plate		1
61.....	ESR1650-61	Hinge	L=80, δ=2	2
62.....	TS-1533052	Pan Head Machine Screw	M5x16	11

Index No	Part No	Description	Size	Qty
63.....	TS-2361051	Lock Washer	Ø5 mm	11
64.....	TS-1550031	Flat Washer.....	Ø5 mm	12
65.....	TS-1540031	Hex Nut	M5.....	14
66.....	ESR1650-66	Foot Control Guard.....		1
67.....	ESR1650-67	Flat Nut		1
68.....	ESR1650-68	Nut		1
69.....	ESR1650-69	Post.....		1
70.....	ESR1650-70	Emergency Switch Holder..		1
71.....	ESR1650-71	Cover		1
72.....	ESR1650-72	Washer.....		2
73.....	ESR1650-73	Foot Control Pedal Switch		1
74.....	ESR1650-74	Strain Relief.....	Ø26 mm	1
75.....	ESR1650-75	Strain Relief.....	Ø10 mm	2
76.....	ESR1650-76	Hex Cap Screw	M4x16	4
77.....	ESR1650-77	Side Cover		1
78.....	ESR1650-78	Hinge Screw		1
79.....	ESR1650-79	Hinge Pin		1
80.....	TS-1541001	Nylon Insert Lock Nut	M4.....	1
81.....	ESR1650-81	Spring Pin.....	Ø6x35 mm.....	2
82.....	ESR1650-82	Electrical Box Latch		1
83.....	ESR1650-83	Clamp Handle.....		1
84.....	ESR1650-84	Bushing		4
85.....	ESR1650-85	Bushing, Right Rear		1
86.....	TS-1502051	Socket Head Cap Screw.....	M5x20	4
87.....	BB-6202ZZ	Ball Bearing.....	6202Z.....	1

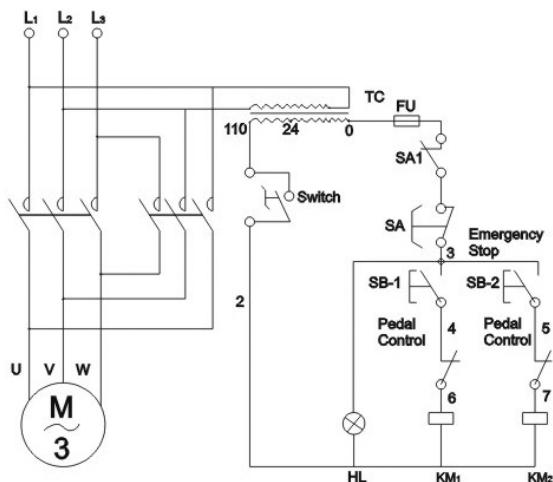
Assembly Drawing for ESR-1650



Wiring Diagram for ESR-1650-1 (1-Phase only)

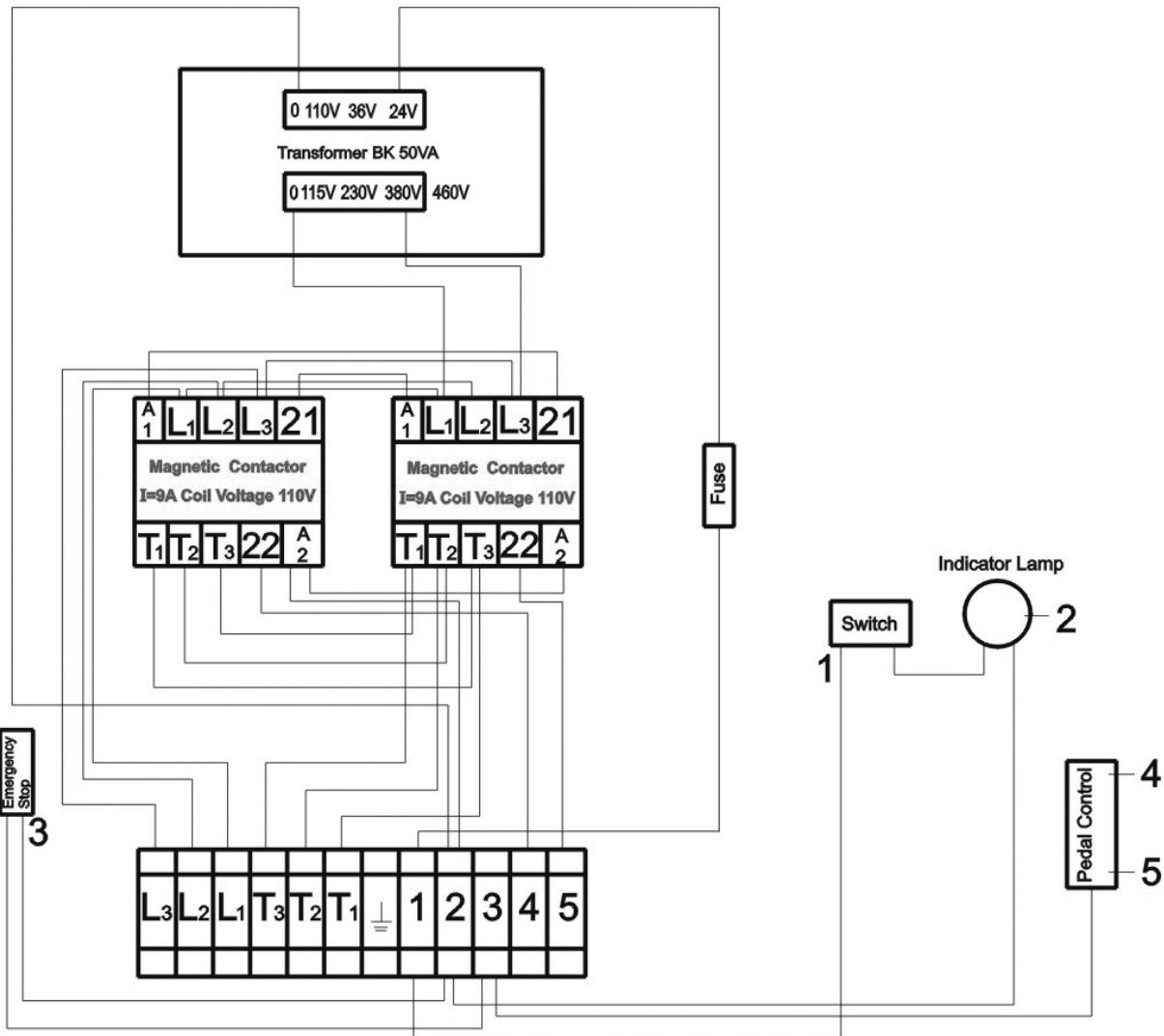


Wiring Diagram for ESR-1650-3 (3-Phase only)



(3 Phase)

Schematic circuit diagram



Wiring diagram