

CHANGEOVER FOR TWO SUPPLIES (AUTO MATIC)

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MANHUA ELECTRIC



MATYS 100A~3200A

FUNCTIONS

- MATYS product is the combination of two load-break switches mounted back to back, electrically and mechanically interlocked.
- It provides manual switching, or remote controlled source inversion or changeover under load of two low voltage power circuits.

GENERAL CHARACTERISTICS

- Isolation with positive break indication
- On load switching
- 3 stable positions(I, 0, II) or overlapping,
- Padlocking in 0 or in all three positions(I, 0, II)
- Communication interface
- Auto/manual selector
- Manual emergency operation

CONFORM STANDARD

International Standard

- IEC60947-1 (1998) 《Low-voltage switchgear and controlgear, part one: General Rules》.
- IEC60947-3 (1999) 《Low-voltage switchgear and controlgear, switches, disconnectors, switch-disconnectors and fuse-combination units》.
- IEC60947-6 (1999) 《Low voltage switch equipment and control equipment multi-function-switch automatic change-Over switch electrical device》

TECHNICAL DATA

1.The electric data and mechanical data of MATYS -100~160A

约定发热电流Ith	Conventional thermal current IthA	100A				160A		
额定电流In(A) Rated current In (A)		20A	40A	63A	80A	100A	125A	160A
额定绝缘电压Ui(V) Rated impulse withstand voltage Ui (V)		500	500	500	500	500	500	500
介质强度 (V) Dielectric strength (V)		5000	5000	5000	5000	5000	5000	5000
额定冲击耐受电压Uimp KV(安装类别IV) Rated surge-resistant voltage Uimp KV (installed category IV)		8	8	8	8	8	8	8
额定工作电流Ie (A) Rated Working current Ie (A)	380V	AC-31	20	40	63	80	100	125
		AC-33	20	32	40	63	80	125
		AC-35	20	40	63	80	100	125
	220V	DC-31	20	40	63	80	100	125
		DC-33	20	32	40	63	80	100
电动机功率P (380V) KW Motor power P(380V)KW		DC-35	20	40	63	80	100	125
			10	20	25	30	32	63
额定短时耐受电流Icw (KA Rms) 0.1S/1S Rated short-time withstand current (kA Rms)0.1s/1.0s			9/5	9/5	9/5	9/5	20/10	20/10
额定分断能力 (A Rms) AC33 380V Rated breaking capability (A Rms) AC33 380V			160	320	500	640	800	1000
额定接通能力 (A Rms) AC33 380V Rated making capability (A Rms) AC33 380V			200	400	630	800	1000	1250
额定短路接通能力Icm(KA峰值) Rated short-current making capability Icm (kA peak value)			8	8	10	10	10	12
机械寿命 (循环操作次数) Mechanical durability (number of cyclic operation)			8000	8000	8000	8000	8000	5000
电气寿命 Electric durability	COS φ=0.65 AC33		1500	1500	1500	1500	1500	1000
转换时间 Change-oner time	I -0- II 或 II -0- I (s)		0.5	0.5	0.5	0.5	0.5	1.0
	I -0或 II -0(s)		0.3	0.3	0.3	0.3	0.3	0.6
电气控制能耗 Power consumption of electrical control	24V(DC)(w)		50	50	50	50	50	75
	220V(AC)(w)		50	50	50	50	50	75
操作力距 (Nm) Moment of operation(Nm)			15	15	15	15	22	22
重量 (kg) Weight (kg)	3极 3poles						8.2	8.2
	4极 4poles		4.2	4.3	4.4	4.5	8.7	8.7

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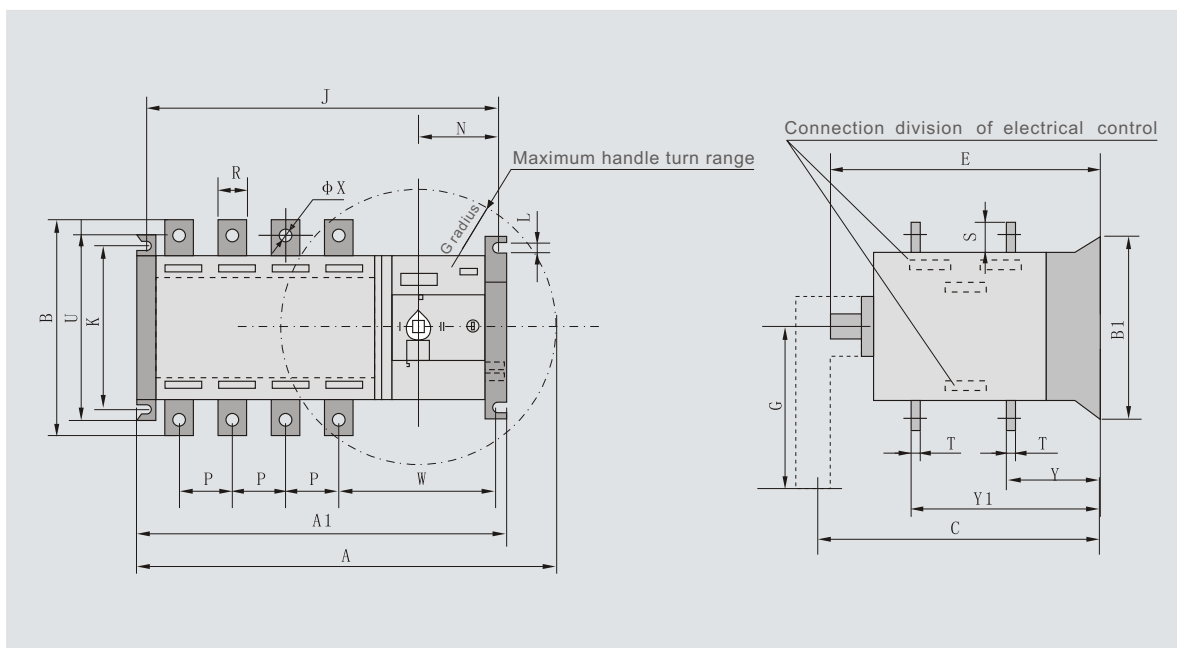
TECHNICAL DATA

2.The electric data and mechanical data of MATYS -250~3200A

250A		630A		1600A				3200A		
200A	250A	400A	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A
500	500	500	500	500	500	500	500	500	500	500
5000	5000	8000	8000	10000	10000	10000	10000	10000	10000	10000
8	8	12	12	12	12	12	12	12	12	12
200	250	400	630	800	1000	1250	1600	2000	2500	3200
200	250	340	536	800	1000	1000	1000	1250	1250	1250
200	250	400	630	800	1000	1250	1600	2000	2000	2500
200	250	400	630	800	1000	1250	1600			
160	200	315	500							
200	250	400	500	800	1000	1250	1600			
100	132	220	280							
25/12	25/12	40/20	50/25	90/50	90/50	90/50	90/50	90/50	90/50	90/50
1600	1600	3200	3200	6400	8000	10000	12800	16000	20000	25600
2000	2000	4000	4000	8000	10000	12500	16000	20000	25000	32000
17	17	30	30							
5000	5000	4000	4000	2500	2500	2500	2500	1500	1500	1500
1000	1000	500	500	500	500	500	500	300	300	300
1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	2.4	2.4	2.4
0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6	1.6
75	75	90	90	90	90	98	98	120	120	120
75	75	90	90	90	90	98	98	120	120	120
30	30	45	45	55	55	55	60	95	95	95
10.4	10.4	17.8	19	28	31	31	34			
11.3	11.3	20.2	22	32	36	40	49	95	98	135



THE EXTERNAL AND INSTALLATION DIMENSION OF MATYS-160~630A



Specification	External Dimension and Installation Dimension																			
In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	W	φX	Y	Y1
125A/3	376	283.5	135	134	261	208	166	262.5	78/108	7	87	36	20	25	3.5	134	155	9	56	141
125A/4	406	316	135	134	261	208	166	295	78/108	7	87	36	20	25	3.5	134	155	9	56	141
160A/3	376	283.5	135	134	261	208	166	262.5	78/108	7	87	36	20	25	3.5	134	155	9	56	141
160A/4	406	316	135	134	261	208	166	295	78/108	7	87	36	20	25	3.5	134	155	9	56	141
200A/3	416	323.5	170	134	261	208	166	302.5	78/108	7	87	50	25	30	3.5	134	164	11	60	145
200A/4	466	373.5	170	134	261	208	166	353	78/108	7	87	50	25	30	3.5	134	164	11	60	145
250A/3	416	323.5	170	134	261	208	166	302.5	78/108	7	87	50	25	30	3.5	134	164	11	60	145
250A/4	466	373.5	170	134	261	208	166	353	78/108	7	87	50	25	30	3.5	134	164	11	60	145
400A/3	455	378.5	240	208	333	270	166	358.5	176	11	103.5	65	32	40	5	208	197	12	83	193
400A/4	515	438.5	240	208	333	270	166	418.5	176	11	103.5	65	32	40	5	208	197	12	83	193
630A/3	455	378.5	260	208	333	270	166	358.5	176	11	103.5	65	40	50	6	208	197	12	84	194
630A/4	515	438.5	260	208	333	270	166	418.5	176	11	103.5	65	40	50	6	208	197	12	84	194

Note: The connection bridge opening AND output post hole quantity is consistent.

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TERMINAL DIAGRAM OF MATYS-160~3200A

Output Connection	Inside the unit	Terminal Colour
<p>Closing is required for remote control dual opening.</p>	<p>Control</p> <p>101 102 103 104 105 106</p>	<p>Terminal</p>
<p>Instruction/automatic selection</p>	<p>Control</p> <p>201 202 203 204 205 206</p>	<p>Terminal</p>
<p>Common Contact. Position I Position 0 Position II N1 N2</p>	<p>Position Indication</p> <p>301 302 303 304 305 306</p>	<p>Terminal</p>
<p>Position I Position II</p>	<p>The First Pre-break-off Auxiliary Contact</p> <p>401 402 403 404 405 406</p>	<p>Terminal</p>
<p>mode padlock</p> <p>"manual" the contact off "Auto" the contact on "Padlock" the contact off "Non Padlock" the contact on</p>	<p>Indication Auto/manual mode and padlock</p> <p>501 502 503 504 505 506</p>	<p>Terminal</p>



TERMINAL DIAGRAM OF MATYS-160~3200A



Output Connection	Inside the unit	Terminal Colour
main power close the contact off main power failure the contact delay on ----- Fire P.inputDC24Vset "0" + ----- TXD RXD	101 102 103 104 105 106 Control Kerosene engine special-purpose	Terminal
Instruction/automatic selection Common Contact. Position I Position II	201 202 203 204 205 206 Control	Terminal
Common Contact. Position I Position 0 Position II N1 N2	301 302 303 304 305 306 Position Indication	Terminal
Position I Position II	401 402 403 404 405 406 The First Pre-break-off Auxiliary Contact	Terminal
mode "manual" the contact off "Auto" the contact on "Padlock" the contact off "Non Padlock" the contact on	501 502 503 504 505 506 Indication Auto/manual mode and padlock	Terminal



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CONNECTION DIAGRAM

