

Boxed Rotary Isolators and Changeover Switches: Enclosure Types



ABS Enclosure: Size 1



ABS Enclosure: Size 2



ABS Enclosure: Size 3



Metal Enclosure

Box Size / Type	Height (mm)	Width (mm)	Depth (mm)	Depth (Inc Switch) (mm)
1 (ABS Enc * 20A, 25A, 32A & 40A 3P & 4P * 20A 4P only)	125	100	70	118
2 (ABS Enc 63A & 80A 3P & 4P) + (25A, 32A & 40A 4P BB range)	175	125	90	134
3 (ABS Enc 100A & 125A 4P) + (25A, 32A, & 40A 6P & 8P) + Changeover switches (25A, 32A & 40A 4P)	280	190	130	190
4 Metal Enc (for 63A, 80A & 125A in 6P, 8P & 4P Changeover)	400	300	200	260
Metal Clad Enclosure (25 - 80A 3P) + (25 - 125A 4P)	270	215	100	144
Stainless Steel (25 - 40A 4P)	173	100	118	162
Stainless Steel (63 - 80A 4P)	178	178	132	176
Die Cast (25 - 63A 4P)	152	150	100	144
Metal Clad Changeover (32 - 63A 4P)	270	215	100	144
DC Isolator ABS Enclosure (16 - 32A 4P)	170	100	90	115

■ All Switch Ratings are at **AC21**



ABS DC Enclosure



Metal Clad



Stainless Steel



Diecast



Metal Clad C/O

Load Break Enclosure / Switch Size	Potential No. of Additional Auxiliaries
3P Boxed 32-80A	1 Auxiliary
4P Boxed 20-40A	-
4P Boxed 63-80A	1 Auxiliary
4P Boxed 100-125A	-
4P Large Enclosure 25-40A	1 Auxiliary
3P Metal Clad 25-80A	1 Auxiliary
4P Metal Clad 25-125A	1 Auxiliary
4P Diecast 25-63A	1 Auxiliary
4P Stainless Steel 25-40A	-
4P Stainless Steel 63-80A	2 Auxiliaries (1 either side)
6P Boxed 25-40A	2 Auxiliaries (1 either side)
6P Boxed 63-125A	2 Auxiliaries (1 either side)
8P Boxed 25-40A	-
8P Boxed 63-125A	-
4P Boxed Change Over 25-40A	-
4P Metal Clad Change Over 32-63A	-
4P Metal Enc Change Over 63-125A	-

Canadian Standards:			CAN / CSA-C22.2 No.14									
American Standards:			UL508									
IEC & European Standards:			IEC 60947-1 & 3, EN60947, VDE 0660-107									
Isolator Rating (AC21)			Measure	Switch Code	LB20	LB25	LB32	LB40	LB63	LB80	LB100	LB125
Rated Operational Voltage, UE												
IEC / EN / VDE			Volts	V	690	690	690	690	690	690	690	690
UL / CSA			Volts	V	600	600	600	600	600	600	600	600
Main switch: Isolating Voltage up to			Volts	V	750	750	750	750	750	750	750	750
Resistance to Surge Pulse Voltage, Uimp			Volts	KV	6	6	6	6	6	6	6	6
Rated Uninterrupted Current, Iu			Amp	A	16	20	25	32	40	63	100	125
Rated Uninterrupted Current, Ie												
IEC / EN / VDE	AC22	Amp	A	16	20	25	32	40	63	100	125	
	AC-21A	Amp	A	20	25	32	40	63	80	100	125	
	AC-1	Amp	A	20	25	32	40	63	80	100	125	
UL / CSA			Amp	A	16	20	25	32	40	63	100	125
Rated Operational Power at 50 to 60Hz (IEC / EN / VDE)												
IEC / EN / VDE	AC-23A, 3 Phase, 3 Pole	220-240V	kW	3	4	5.5	7.5	11	15	22	30	
		380-440V	kW	5.5	7.5	11	15	18.5	30	37	45	
		500-690V	kW	7.5	11	11	15	22	30	45	55	
	AC-3A, 3 Phase, 3 Pole	220-240V	kW	2	3	4	5.5	7.5	11	18.5	22	
		380-440V	kW	3	5.5	7.5	11	18.5	22	30	37	
		500-690V	kW	5.5	7.5	11	11	18.5	22	37	45	
Short Circuit Capacity (IEC / EN / VDE)												
Max. Fuse Size (Type gL)			Amp	A	16	25	25	32	40	63	100	125
Rated Fused Short Circuit Current			Amp	kA	5	5	30	30	30	30	30	30
UL / CSA Power Rating												
DOL	3 Phase, 3 Pole	120V	HP	1.5	1.5	3	3	5	7.5	7.5	7.5	
		240V	HP	3	3	7.5	7.5	10	15	15	15	
		480V	HP	7.5	7.5	15	20	20	25	30	40	
		600V	HP	10	10	20	25	30	30	40	50	
	1 Phase	120V	HP	0.5	0.5	1.5	2	3	4.5	3	3	
		240V	HP	1.5	1.5	2	3	4	6	7.5	7.5	
Short Circuit Capacity (UL / CSA)												
Max. Fuse Size			Amp	A	25	25	50	50	70	70	100	125
Fuse (Being certified with J type fuses)			Type	-	J	J	J, RK5				J	J
Rated Fuse Short Circuit Current			Amp	kA	5	5	5	5	5	5	10	10
Terminal Cross Section												
Single / Multiple Strand Wire			Min	mm²	1.5	1.5	1	1	4	4	6	6
			Max	mm²	6	6	10	10	16	16	70	70
Fine Strand Wire with Sleeve			Min	mm²	0.5	0.5	0.75	0.75	2.5	2.5	4	4
			Max	mm²	6	6	6	6	10	10	50	50
American Wire Gauge			-	AWG	12	12	8	8	6	6	1	1
Recommended Tightening Torque for Terminals			-	NM	0.8	0.8	1.7	1.7	1.7	1.7	2.5	2.5

Load Break Switch - Operating Temperatures

Temperature	Derating %	20A	25A	32A	40A	63A	80A	100A	125A
40°C	100%	20A	25A	32A	40A	63A	80A	100A	125A
45°C	95%	19A	24A	30A	38A	60A	76A	95A	119A
50°C	90%	18A	23A	29A	36A	57A	72A	90A	113A
55°C	85%	17A	21A	27A	34A	54A	68A	85A	106A
60°C	80%	16A	20A	26A	32A	50A	64A	80A	100A
65°C	75%	15A	19A	24A	30A	47A	60A	75A	94A
70°C	70%	14A	18A	22A	28A	44A	56A	70A	88A
75°C	65%	13A	16A	21A	26A	41A	52A	65A	81A
80°C	60%	12A	15A	19A	24A	38A	48A	60A	75A

The normal operating temperature range for our switch disconnectors is from -25°C to +40°C.
For higher ambient temperatures of more than +40°C the switch has to be *derated accordingly*.
The table below shows the percentage of derating in load for different temperature ranges.
The maximum operating temperature of our switches in continuous use is +80°C.

Duty Category Information Table

Current	Category	Typical applications	Relevant IEC Product Standard
AC	AC 1	Non-inductive or slightly inductive loads, resistance furnaces.	947-4
	AC-3	Squirrel-cage motors: Starting, switching off motors during running.	947-3
	AC-15	Control of AC electromagnetic Loads.	947-5-1
	AC-21	Switching of resistive loads, including moderate overloads.	947-3
	AC-22	Switching of mixed resistive & inductive loads.	947-3
	AC-23	Switching of motor loads or other highly inductive loads.	947-3
DC	DC-1	Non-inductive or slightly inductive loads, resistance furnaces.	947-4
	DC-13	Control of DC electromagnets	947-5-1