

Accessories

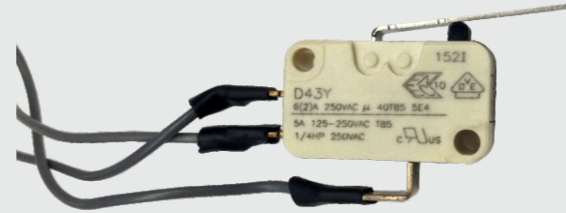
Handle

The Load Break Switch has a single hand operated handle upto 630A & two hand operated handle for Ratings 800 Amps and above. The handle offers the following features:

- Provision for providing 3 padlocks in OFF Position
- Telescopic operating shaft for varied depth adjustment.

Auxiliary Contact Kit

A maximum of two auxiliary contacts, with 2 NO + 2NC can be supplied, pre-mounted in the Switch at factory. These help in the signalling functions of power distribution system.

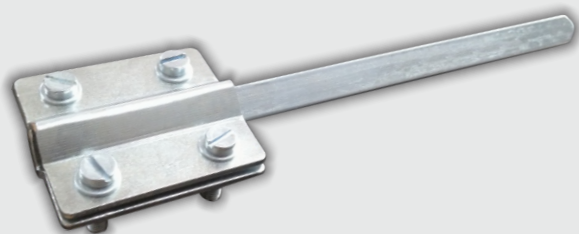


Castell Lock

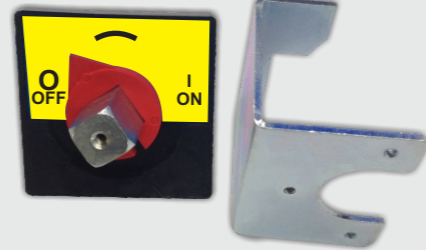
Accessories to lock the Load Break Switch in OFF state and using this can have interlocking schemes with MCCB/ACB.



Extended Shaft



Door Inter Lock Assly.



The Cubicle Load Break Switch from 63A to 3150A



HIGHLIGHTS

- Conforms to IEC 60947-3
- Available in various frame sizes, rated current from 63A to 3150A
- Quick Make & Quick Break mechanism
- Clear visual indication of 'ON' and 'OFF' position
- High Mechanical & Electrical life
- No deration in DC 23, 260V DC application
- 100% Neutral rating, true 4 pole switch
- Suitable for aluminium/copper termination
- Total safety
- ROHS compliant

Application

The JEAN MÜLLER make Cubicle Load Break Switches are 4 Pole manually operated switches. They ensure SAFE making & breaking on load and secured breaking of any low voltage electrical circuit too. These are suitable for use in individual enclosures, switch board, lighting and power panels etc. with following features :-

- Quick Make & Quick Break mechanism
- 2 stable ON & OFF positions (I – O)
- Fully visualized breaking
- Compact design
- Resistant to Tropical conditions & polluted environment
- High thermal & Dynamic withstand
- AC 23 Category
- Bounce free contacts at the time of make and break
- Any pole can be used as Neutral pole
- Unique Safety Handle with built in door padlock facility
- High Electrical & Mechanical life.

Approvals & Test

- CPRI
- ISO 9001



Advantages

1

Compactness

It is very compact in size and hence helps in saving space in the enclosures, panels etc. Due to its slim size it uses the distribution space very efficiently regardless of fact whether it is in residential or functional buildings.

2

Simplicity

Its handling is easy and simple. Its simplicity and ease in use allows the user for quick installation.

3

Safe to use

It is very safe to use. It protects people, installation and power supply distribution system. The insulation property of the material used is highly reliable and remains intact in even critical conditions.

Insulation:

Operating Handle is made of thermoplastic insulating material to make it Safer & Reliable.

Isolation Function:

These Load Break switches are **suitable for isolation** as per IEC 60947-1. Isolation function highlights the following points:-

- Position of main contact is indicated clearly by a separate mechanical indicator.
- No residual current

Details of Utilization category AC23 as per IEC: 60947-3

Examples of utilization categories for low-voltage Switchgear & controlgear

Nature of Current	Category	Typical applications	Relevant IEC product standard
a.c.	AC-20	Connecting and disconnecting under no-load conditions.	60947-3
	AC-21	Switching of resistive load, including moderate overloads	
	AC-22	Switching of mixed resistive and inductive loads, Including moderate overloads.	
	AC-23	Switching of motor loads or other highly inductive loads.	
d.c.	DC-20	Connecting and disconnecting under no-load conditions.	60947-3
	DC-21	Switching of resistive loads, including moderate overloads	
	DC-22	Switching of mixed resistive and inductive loads, Including moderate overloads. (e.g. Shunt motors).	
	DC-23	Switching of highly inductive Loads. (e.g. Series motors)	

Specification Electrical & Mechanical Characteristic

Specification	Current Rating							
	Frame-0	Frame-1			Frame-2			
Frame Sizes	63A	80A	100A	125A	160A	200A	250A	320A
Thermal Current (I _{th}) 40°C	63	80	100	125	160	200	250	315
Max. Normal rating of fuses	63	80	100	125	160	200	250	315
Insulation voltage U _i (Vac)	800	800	800	1000	1000	1000	1000	1000
Dielectric strength (Vac) 50 Hz 1 minute	4000	4000	4000	5000	5000	5000	5000	5000
Impulse voltage (KV)	6	6	6	6	6	6	8	8

Rated Operational Current I_e (A)

415 Vac: AC 23A	63	80	100	125	160	200	250	320
415 Vac: AC 21A	63	80	100	125	160	200	250	320
500 Vac: AC 23A	55	55	55	100	130	160	200	250
260V dc: DC 21A	63	80	100	125	160	200	250	320
DC 22A	63	80	100	125	160	200	250	320
DC 23A	63	63	63	125	160	160	200	250
440V dc: DC 21A	63	80	100	125	160	200	250	320
DC 22A	63	80	100	125	130	160	200	250
DC 23A	63	63	63	125	130	160	200	250

Motor Power (KW) 415V

415 Vac without pre break Aux. Contact	30	30	30	63	70	80	132	160
500 Vac without pre break Aux. Contact	30	30	30	63	60	63	140	220
690 Vac without pre break Aux. Contact	22	22	22	55	50	55	90	150
415 Vac with pre break Aux. Contact	30	30	30	63	70	80	132	160
500 Vac with pre break Aux. Contact	30	30	30	80	70	80	160	220
690 Vac with pre break Aux. Contact	35	35	35	110	110	110	110	220
Motor Reactive 415 Vac (kVAR)	25	25	25	55	55	60	100	125

Overload Capacity

Short circuit current with fuses (kA RMS)	80	80	80	80	80	80	80	80
Fuse Rating	63	80	100	125	160	200	250	315
Peak short circuit making capacity (kA RMS)	15	15	15	20	20	20	30	45
Admissible short time current 1 sec (kA RMS)	5	5	5	7	7	7	13	13

Making & Breaking Characteristics

Breaking capacity (A RMS) 415 Vac pf=0.35	504	504	504	1000	1280	1600	2000	2520
Making capacity (A RMS) 415 Vac pf=0.35	630	630	630	1250	1600	2000	2500	3150

Endurance

Mechanical Life (No. of Operations)	10000	10000	10000	8000	8000	8000	8000	5000
Electrical Life (No. of Operations)	2500	1500	1500	1000	1000	1000	1000	1000
Operating Torque (N-m)	3.5	3.5	3.5	9.5	9.5	9.5	11	11

Connection

Min. Cu. Cable / Bus bar size (mm ²)	16	25	25	50	70	95	120	185
Min. Al. Cable / Bus bar size (mm ²)	25	25X2	25X2	70	95	150	185	240

Specification Electrical & Mechanical Characteristic

Specification	Current Rating								
	Frame-3	Frame-4	Frame-5						
Frame Sizes	400A	630A	800A	1000A	1250A	1600A	2000A	2500A	3150A
Thermal Current (I _{th}) 40°C	400	630	800	1000	1250	1600	2000	2500	3150
Max. Normal rating of fuses	400	630	800	1000	1250	2 x 800	2 x 1000	2 x 1250	2 x 1250
Insulation voltage U _i (Vac)	1000	1000	1000	1000	1000	1000	1000	1000	1000
Dielectric strength (Vac) 50 Hz 1 minute	8000	8000	8000	8000	10000	10000	10000	10000	10000
Impulse voltage (KV)	12	12	12	12	12	12	12	12	12

Rated Operational Current I_e (A)

415 Vac: AC 23A	400	630	800	1000	1000	1000	1250	1250	1250
415 Vac: AC 21A	400	630	800	1000	1250	1600	2000	2500	3150
500 Vac: AC 23A	315	315	630	1000	1000	1000	1000	1000	1000
260V dc: DC 21A	400	630	800	1000	1250	1600	2000	2000	2000
DC 22A	400	500	800	1000	1250	1250	1250	1250	1250
DC 23A	400	500	800	1000	1250	1250	1250	1250	1250
440V dc: DC 21A	400	500	630	1000	1250	1600	2000	2000	2000
DC 22A	400	500	800	1000	1250	1250	1250	1250	1250
DC 23A	400	500	800	1000	1000	1000	1000	1000	1000

Motor Power (KW) 415V

415 Vac without pre break Aux. Contact	200	220	450	560	560	560	710	710	710
500 Vac without pre break Aux. Contact	220	220	450	560	560	710	710	710	710
690 Vac without pre break Aux. Contact	150	150	185	400	400	475	475	750	750
415 Vac with pre break Aux. Contact	220	355	450	560	710	710	900	1100	1155
500 Vac with pre break Aux. Contact	280	355	550	710	710	900	900	1100	1100
690 Vac with pre break Aux. Contact	220	295	475	600	600	750	750	900	900
Motor Reactive 415 Vac (kVAR)	150	2 x 125	2 x 150	3 x 150	4 x 125	5x 150	6 x 150	7 x 150	9 x 150

Overload Capacity

Short circuit current with fuses (kA RMS)	80	80	80	80	80	80	80	80	80
Fuse Rating	400	630	800	1000	1250	2 x 800	2 x 1000	2 x 1250	2 x 1250
Peak short circuit making capacity (kA RMS)	45	45	55	105	105	110	110	110	120
Admissible short time current 1 sec (kA RMS)	13	13	26	50	50	50	50	50	55

Making & Breaking Characteristics

Breaking capacity (A RMS) 415 Vac pf=0.35	3200	5040	6400	8000	8000	8000	10000	10000	10000
Making capacity (A RMS) 415 Vac pf=0.35	4000	6300	8000	10000	10000	10000	12500	12500	12500

Endurance

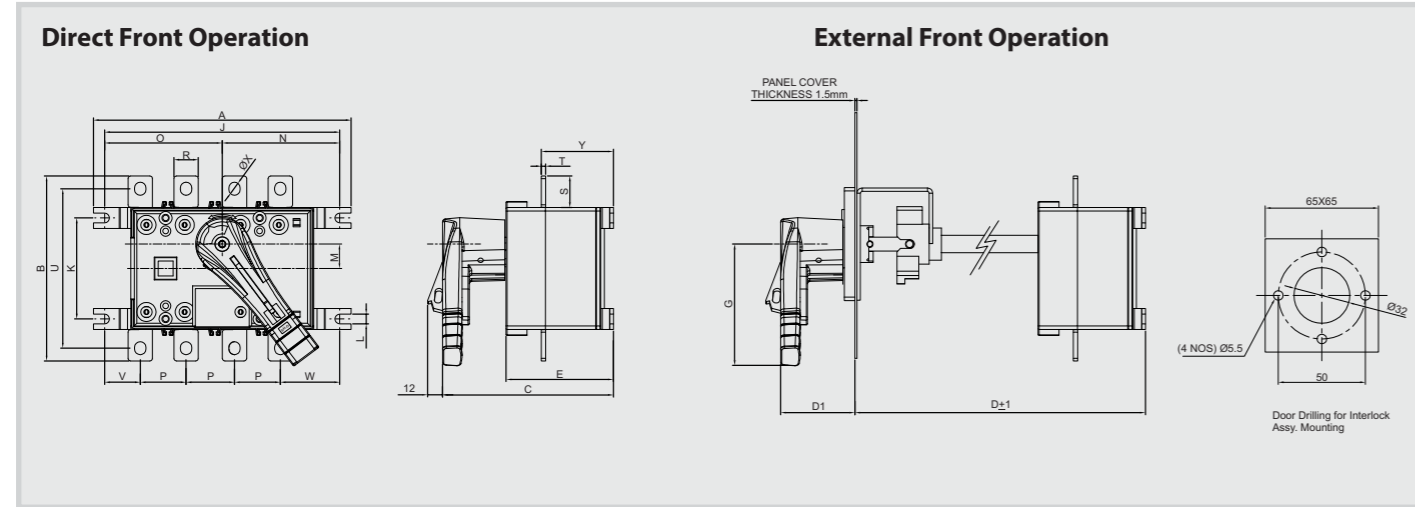
Mechanical Life (No. of Operations)	5000	5000	4000	4000	4000	3000	3000	2500	2500
Electrical Life (No. of Operations)	1000	1000	500	500	500	500	500	500	500
Operating Torque (N-m)	17	17	40	40	40	40	60	60	60

Connection

Min. Cu. Cable / Bus bar size (mm ²)	30x5x2	40x5x2	50x5x2	60x5x2	80x5x2	100x5x2	100x5x3	100x5x4	100x10x3
Min. Al. Cable / Bus bar size (mm ²)	32x8x2	40x8x2	50x8x2	50x10x2	63x12x2	100x8x2	100x10x3	100x10x4	-----

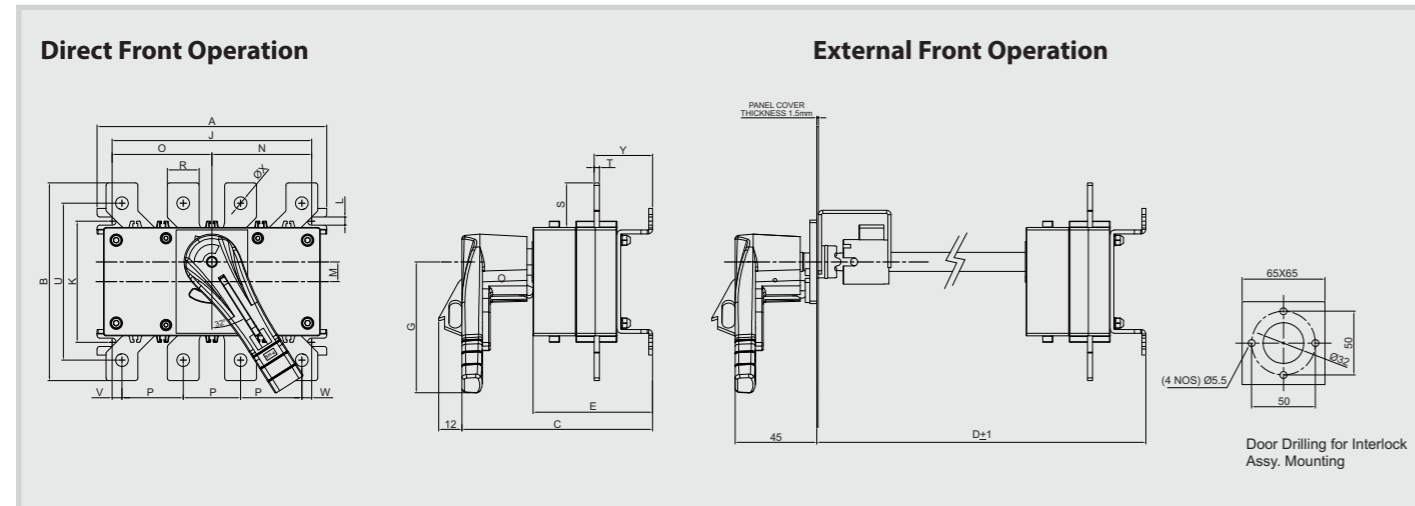
Dimensional Details :

Load Break Switch 63A To 100A



Over All Dimension		Fixing of SW.				Connection Terminal										SW. W.T.							
Rating	A	B	C	D	D1	E	G	J	K	L	M	N	O	P	R	S	T	U	V	W	ØX	Y	Open Ex.
4x63A	148	106	98	126	45	62	80	135	58	5.5	14	67.5	67.5	27	14	18	2.5	91	20.5	34	6.5	42	1 Kg.
4x80A	148	106	98	126	45	62	80	135	58	5.5	14	67.5	67.5	27	14	18	2.5	91	20.5	34	6.5	42	1 Kg.
4x100A	148	106	98	126	45	62	80	135	58	5.5	14	67.5	67.5	27	14	18	2.5	91	20.5	34	6.5	42	1 Kg.

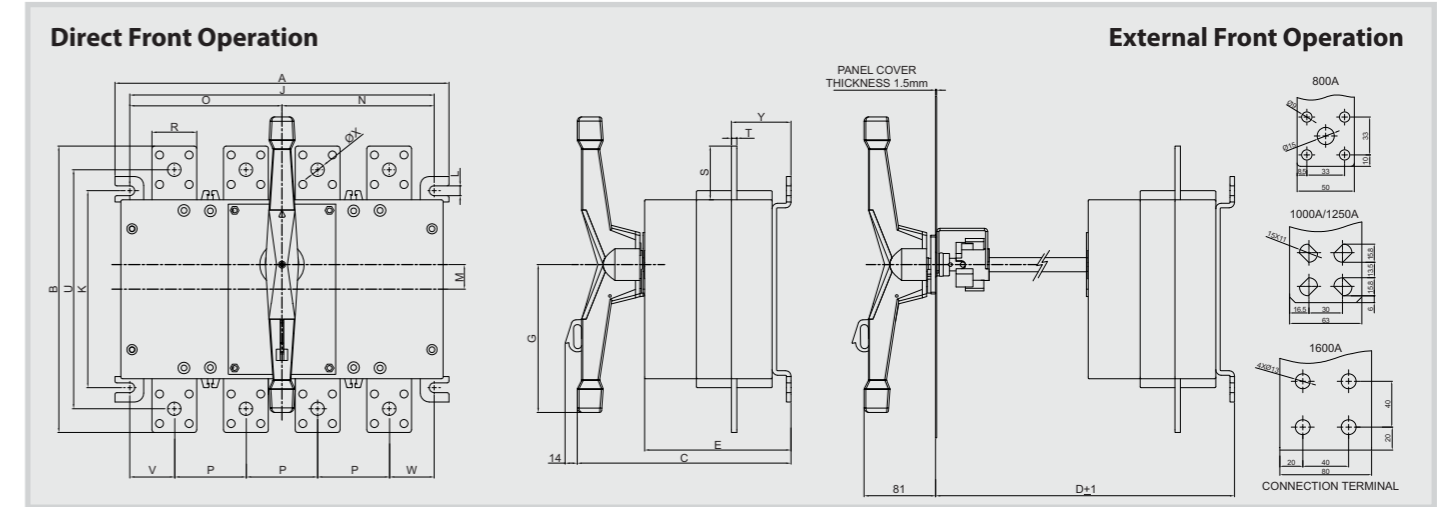
Load Break Switch 125A To 630A



Over All Dimension		Fixing of SW.				Connection Terminal										SW. W.T.						
Rating	A	B	C	D	E	G	J	K	L	M	N	O	P	R	S	T	U	V	W	ØX	Y	Open Ex.
4x125A	180	141	150	164	94	116	162	95	6.5	15	81	81	44	22	28	3	118	15	15	8.5	46	1.8 Kg.
4x160A	180	155	150	164	94	116	162	95	6.5	15	81	81	47	25	35	4	123	10.5	10.5	10	46	2.1 Kg.
4x200A	180	155	150	164	94	116	162	95	6.5	15	81	81	47	25	35	4	123	10.5	10.5	10	46	2.1 Kg.
4x250A	240	192	160	176	104	150	217	111	6.5	20	109	109	64	32	46	4.5	152	15	9.5	12.5	48	3.1 Kg.
4x320A	240	192	160	176	104	150	217	111	6.5	20	109	109	64	32	46	4.5	152	15	9.5	12.5	48	3.1 Kg.
4x400A	304	240	200	212	144	150	280	180	9	30	140	140	72	40	40	5	206	30	30	11	69	6.0 Kg.
4x630A	304	270	200	212	144	150	280	180	9	30	140	140	80	55	55	5	230	20	20	14.5	69	7.0 Kg.

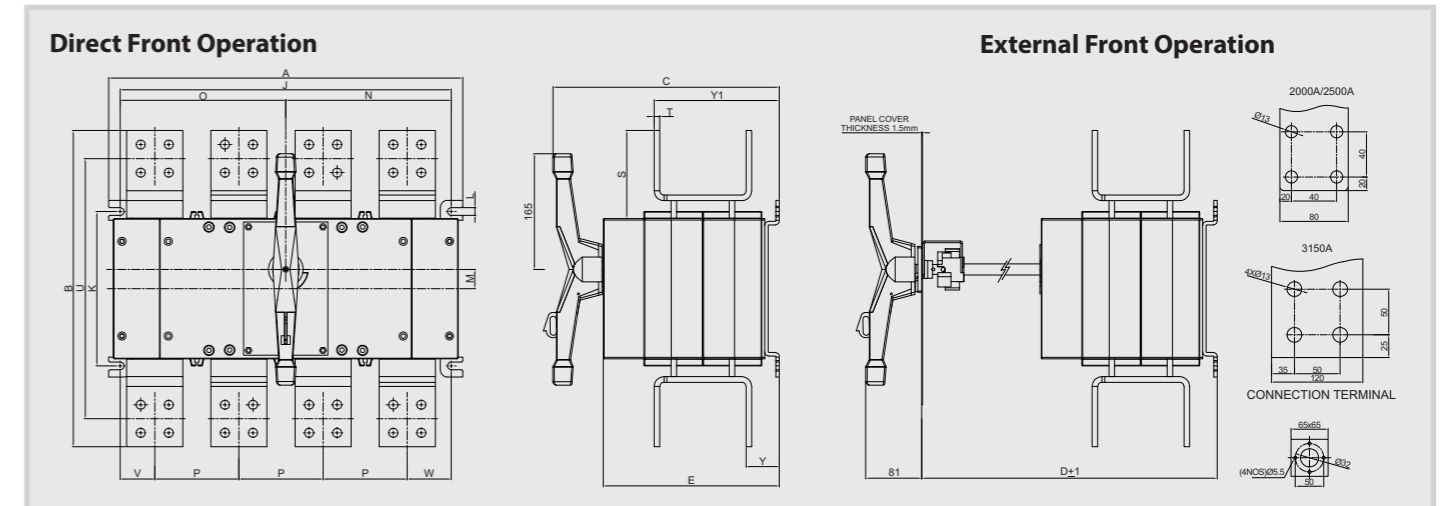
Dimensional Details :

Load Break Switch 800A To 1600A



Over All Dimension		Fixing of SW.				Connection Terminal										SW. W.T.						
Rating	A	B	C	D	E	G	J	K	L	M	N	O	P	R	S	T	U	V	W	ØX	Y	Open Ex.
4x800A	373	320	235	234	164	165	340	220	11	28	170	170	80	50	60	6	267	50	50	15	67	11.7Kg
4x1000A	505	330	235	234	164	165	474	220	11	28	237	237	120	63	65	6	273	50	63		65	16.5 Kg
4x1250A	505	330	235	234	164	165	474	220	11	28	237	237	120	63	65	7	273	50	63		66	16.8 Kg
4x1600A	505	361	235	234	164	165	374	220	11	28	237	237	120	80	80	15	281	50	63		70	23.0 Kg

Load Break Switch 2000A To 3150A



Over All Dimension		Fixing of SW.				Connection Terminal										SW. W.T.	
Rating	A	B	C	D	E	J	K	M	P	S	T	U	V	W	Y	Y1	Open Ex.
4x2000A	505	450	323	335	251	474	220	28	120	125	8	371	50	64	72	155	38.0 Kg.
4x2500A	505	450	323	335	251	474	220	28	120	125	10	371	50	64	73	156	39.5 Kg.
4x3150A	505	500	323	335	251	474	220	28	120	150	15	401	50	64	75	159	58.0 Kg.

Load Break Switch Enclosed



Function

- On load Making & Breaking current
- Emergency breaking
- Safe isolation of downstream loads for maintenance purpose

General Characteristics

- Black Handle padlockable in I-O position
- CRCA Sheet (Door 1.2 mm, Body 1.6mm)
- RAL 7035
- 2 External earthing points on each side
- Wall mounted with 4 bolts
- Door locking system allows opening of door only in OFF position
- Incoming & outgoing easily interchangeable at site
- Coating of epoxy polyester powder 70 micron
- Removable plate top & bottom
- Door with solid hinges

References and Dimensions

Rating	Dimension								
	L	W	H	X	Y	A	B	C	D
63A	180	200	119	128.5	150	70	70	46	46
80A									
100A									
125A	260	250	188	289	213	90	90	65	65
160A									
200A									
250A	345	320	212	374	275	95	95	90	90
320A									
400A	395	370	237	424	320	110	110	100	100
630A									
800A	500	470	266	554	417	95	95	75	75
1000A									
1250A	630	510	276	679	435	95	95	75	75
1600A									
2000A	800	660	364	850	540	145	145	100	100
2500A									
3150A									

* All sizes given are in mm

