



JSL INDUSTRIES LTD.

“Jyoti” AIR CIRCUIT BREAKERS (Type JCDW- 400A-6300A)

Introduction

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Dimensional Details



'JYOTI' Air Circuit Breakers (Type JCDW 400A-6300A)

As per IEC 60947 Part-2 With
Intelligent Release



'Jyoti' Air Circuit Breakers

Jyoti Intelligent Range ACBs Type JCDW are available from 400-6300 Amp in 3 & 4 Pole Versions with breaking capacity of 50 kA to 100kA and comply with international Standard IEC 60947 Part-2, as well as Indian Standard IS : 13947 Part-2, These ACBs are available in the following versions :

A) Fixed Type Manual Spring Charging
 Motorized Spring Charging

B) Draw-out Type Manual Spring Charging
 Motorized Spring Charging

These ACBs are ideally suitable for use in industrial plants and utilities for operating voltages upto 690 V.A.C.

SALIENT FEATURES OF ACBs

1. Wide Range : 400-6300 Amp
2. Users friendly design
3. Uniform height and depth for all versions
4. 400 Amp-6300 Amp ACBs available in Three Frames JCDW-2000, JCDW-3200 & JCDW-6300
5. Multi function intelligent release
6. Spring charge Stored energy mechanism
7. Front mounted accessories

Jyoti Intelligent ACB gives protection with metering and remote communication interface. The intelligent release is designed to work in tough industrial environment. The functions of intelligent release are as under.

1. It has protective function such as over load long time delay, inverse time, short time delay, specific time and instantaneous etc. which can be set by the users themselves to form the protective characteristic required.

2. Overload alarm function
3. Testing function
4. Load monitor function
5. Display function
6. Self diagnosis function
7. MCR function
8. Thermal analog function
9. Contact loss indication
10. Fault memory function

The intelligent releases are available in following types

Type L (Economical Type), Type M (Common Type) and Type H (with communication interface)

ACCESSORIES

1. Spring Charging Motor :

It is provided with electrically operated ACB to charge closing spring and are available in 110 V and 220 V AC/DC.

2. Shunt Trip :

It is used for remote tripping of ACB. It is available in 110 and 220V AC or DC and 415V AC.

3. Under Voltage Release :

It is used to trip the ACB in case of voltage drop below required level. Under voltage releases are available in 24, 110V and 220V AC or DC and 425V AC.

4. Auxiliary Contacts :

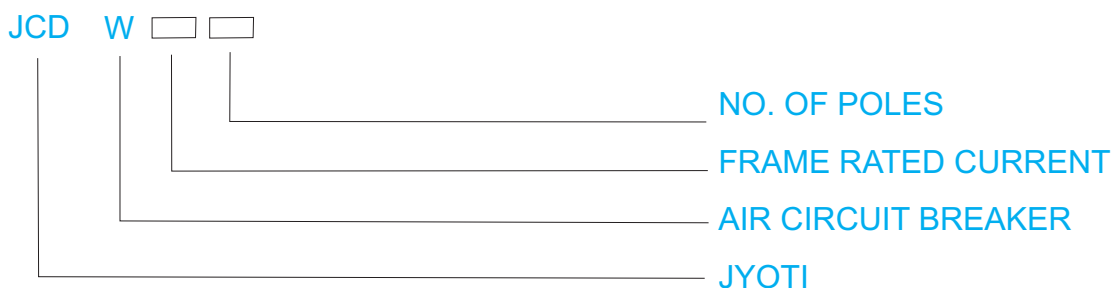
For indication and remote functions.

5. Door Interlock :

It prevents the opening of the panel door if the ACB is in On position.

JCDW SERIES INTELLIGENT AIR CIRCUIT BREAKERS

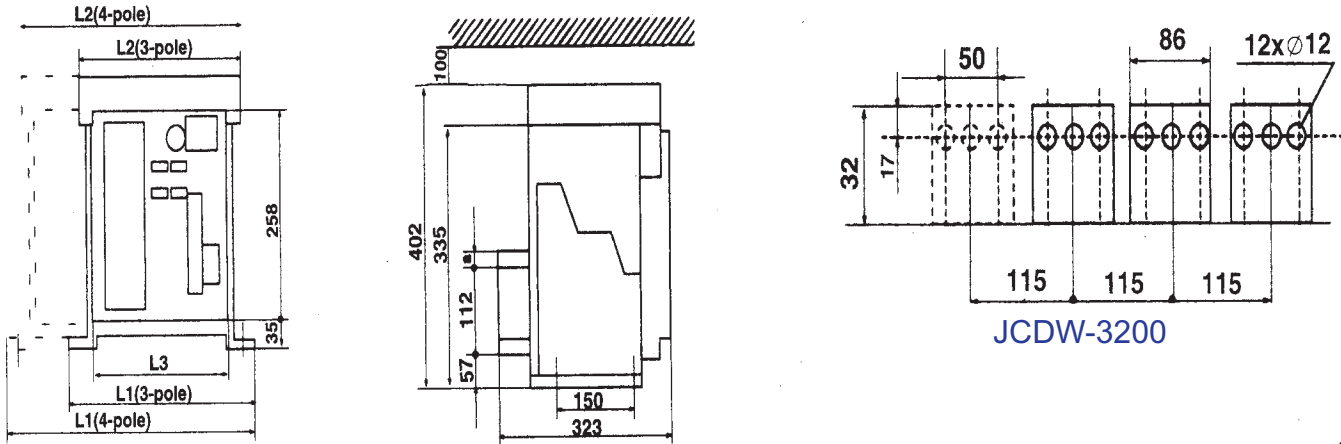
MODEL AND DEFINATION



MAIN TECHNICAL DATA

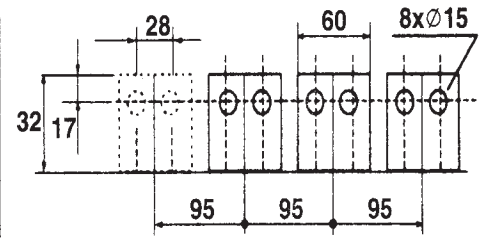
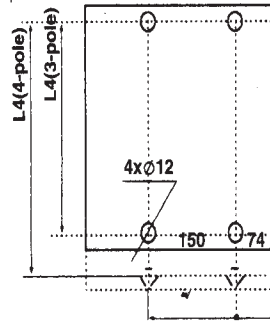
MODEL		UOM	JCDW-2000	JCDW-3200	JCDW-6300	
NO. OF POLES			3P, 4P	3P, 4P	3P, 4P	
RATED CURRENT			400,630,800,1000, 1250,1600,2000	2000,2500,2900, 3200	4000,5000,6300	
RATED FREQUENCY		Hz	50 / 60	50 / 60	50 / 60	
RATED OPERATING VOLTAGE (Ue)		V	AC 415, AC 690	AC 415, AC 690	AC 415, AC 690	
RATED INSULATION VOLTAGE (Ui)		V	800	800	800	
CLEARANCE ABOVE ARCHUTE mm			0	0	0	
RATED IMPULSE WITHSTAND VOLTAGE (Uimp)		V	8000	8000	8000	
RATED SERVICE SHORT CIRCUIT BREAKING CAPACITY (Ics) kA	415V	kA	50	80	100	
	690V	kA	40	50	75	
RATED ULTIMATE SHORT CIRCUIT BREAKING CAPACITY (Icu) kA	415V	kA	50	80	120	
	690V	kA	50	50	85	
RATED SHORT TIME WITHSTAND CURRENT (Icw) kA, 1 Sec.		415V	kA	50	65	85
FREQUENCY OF OPERATING CYCLES		PER HOUR	Cycle	20	20	10
FULL BREAKING TIME			mA	20-30	20-30	20-30
MAKING TIME			mA	55-70	55-70	55-70
POWER CONSUMPTION			W	360	1200	2000
ENDURANCE	Mechanical	Cycles	9000	4500	1500	
	Electrical	Cycles	1000	500	500	
EXTERNAL DIMENSION (LXBXH)	3P FIXED	mm	362 X 323 X 402	422 X 323 X 402	...	
	3P DRAW-OUT	mm	375 X 421 X 432	435 X 421 X 432	928 X 421 X 432	
	4P FIXED	mm	457 X 323 X 402	537 X 323 X 402	...	
	4P DRAW-OUT	mm	470 X 421 X 432	550 X 421 X 432	...	

Installation and Overall Dimensions of 3P or 4P JCDW-2000A-3200A Fixed Circuit Breaker



JCDW-3200

TABLE FOR JCDW1-2000A-3200A Overall and Installation Dimensions							
In A	No. of Poles	L1	L2	L3	L4	In A	A
2000	3P	362	318	292	340	430-630	10
						800-1600	15
	4P	457	413	292	340	2000	20
3200	3P	422	378	352	400	2000-2500	20
	4P	537	493	352	515	3200	30



JCDW-2000

ALL DIMENSION ARE IN mm

Installation and Overall Dimensions of 3P or 4P JCDW-2000A-6300A Draw-out Circuit Breaker

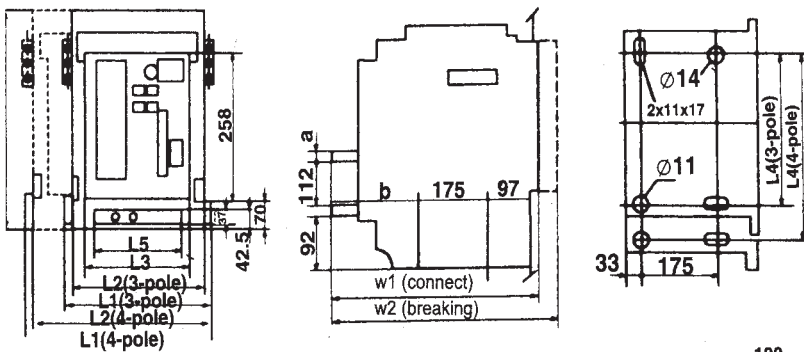
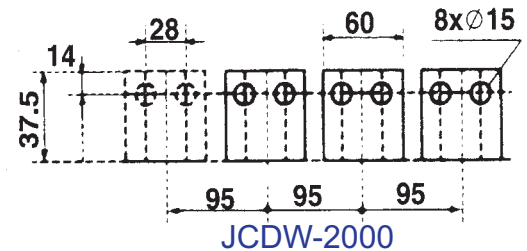
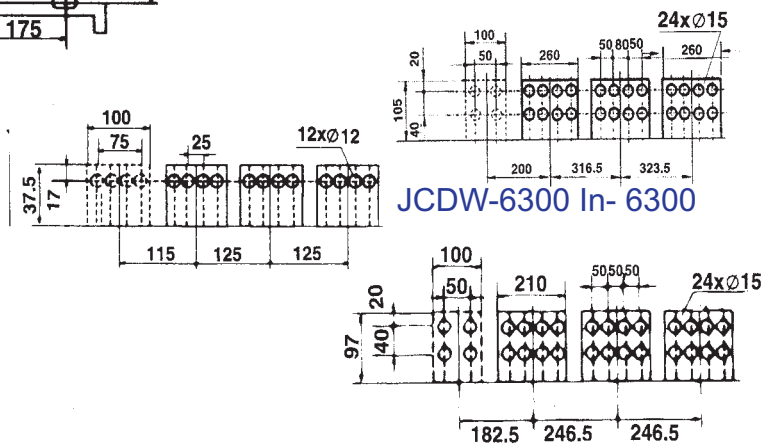


TABLE FOR JCDW1-2000A-5000A Overall and Installation Dimensions								
In A	No. of Poles	L1	L2	L3	L4	L5	In A	a
2000	3P	375	335	292	265	247	400-630	10
							800-1600	15
	4P	470	430	292	360	247	2000	20
3200	3P	435	395	352	325	307	2000-2500	20
	4P	550	510	352	440	307	3200	30
4000	3P	813	510	352	440	307		30
	4P	928	748	352	678	307	4000/4	20
6300	3P	813	773	352	703	307		20
	4P	928	888	352	818	307	3200-4000	20
6300	3P	928	888	352	818	307	5000-6300	30



JCDW-2000



JCDW-6300 In- 6300

JCDW-6300 In = 400A, 5000A

ALL DIMENSION ARE IN mm