

Alpican™ capacitors

FEATURES

> Self-healing technology for a longer life

In case of voltage breakdown the metal layer around the breakdown evaporates. This process happens in microseconds. This results in perfect isolation of the faulty area within microseconds. An insulation area is formed which is resistive and voltage proof, keeping the capacitor operational with a negligible loss of capacitance. The capacitor remains operational during the entire process.

> Unique terminal design

Unique terminal design with discharge resistor ensures proper termination of the cables. The cable connection is so firm that it doesn't allow the cable to loosen.



> Compact design

Alpican is constructed with three single elements stacked and assembled to form a delta connection. The compact design offers high mechanical strength and stability. This makes installation sturdy and ensures longer life to the system. Also, the compact shape of the product makes handling easy.

FEATURES

> Ease of installation

Compact cylindrical design of Alpican™ makes installation easy & faster. The reduced installation time and cost makes a perfect combination for the installer. Mounting is done with a stud at the bottom of the capacitor. The stud forms a solid permanent earthing.



> Zero Maintenance

Design and manufacturing process makes Alpican™ maintenance free. This also ensures capacitance stability and long life. It adds value to the product and makes installation error free

> Better heat dissipation

The Aluminium can design make heat dissipation uniform.

> Low energy loss (energy saving)

Alpican is designed and made for long life and low losses during the operation. Thus making it one of the most energy efficient capacitors.

Alpican™ resin filled capacitors

Alpican™ gas filled capacitors



4151 10



4151 23



4151 29

Dimensions (p. 40)
Technical data (p. 38)

Dimensions (p. 40)
Technical data (p. 38)

Resin filled 440 V Standard duty:

- Conforms to IS 13340-1, IEC 60831-1&2
- ISI marked
- Compact design
- Self healing metallized polypropylene film
- Over pressure device for disconnection
- Low energy losses
- Resistance to high temperatures
- Bio-degradable soft resin, semi-dry

Resin filled 440 V Heavy duty:

- Conforms to IS 13340-1, IEC 60831-1&2
- ISI marked
- Compact design
- Self healing metallized polypropylene film
- Over pressure device for disconnection
- Low energy losses
- Resistance to high temperatures
- Bio-degradable soft resin, semi-dry

Gas filled 440 V Heavy duty:

- Conforms to IS 13340-1, IEC 60831-1&2
- Compact design
- Self healing metallized polypropylene film
- Over pressure device for disconnection
- Low energy losses
- Dry inert gas filled

Pack	Cat. nos.	Standard duty Resin filled capacitor 440 V, 3 phase, 50 Hz
1/12	4151 00	1 KVAR
1/12	4151 01	2.1 KVAR
1/12	4151 02	3 KVAR
1/12	4151 03	4.2 KVAR
1/12	4151 04	5 KVAR
1/6	4151 05	7.5 KVAR
1/4	4151 06	10 KVAR
1/4	4151 07	12.5 KVAR
1/4	4151 08	15 KVAR
1/4	4151 09	20 KVAR
1/4	4151 10	25 KVAR
1/4	4151 11	30 KVAR

Pack	Cat. nos.	Heavy duty gas filled capacitor 440 V, 3 phase, 50 Hz
1/4	4151 24	5.2 KVAR
1/4	4151 25	7.3 KVAR
1/4	4151 26	8.8 KVAR
1/4	4151 27	10.5 KVAR
1/4	4151 28	12.6 KVAR
1/4	4151 29	17.5 KVAR
1/4	4151 30	21 KVAR
1/4	4151 31	25.2 KVAR

Pack	Cat. nos.	Heavy duty Resin filled capacitor 440 V 3 phase
1/12	4151 12	1 KVAR
1/12	4151 13	2.1 KVAR
1/6	4151 14	3 KVAR
1/6	4151 15	4.2 KVAR
1/6	4151 16	5 KVAR
1/4	4151 17	7.5 KVAR
1/4	4151 18	10 KVAR
1/4	4151 19	12.5 KVAR
1/2	4151 20	15 KVAR
1/4	4151 21	20 KVAR
1/2	4151 22	25 KVAR
1/2	4151 23	30 KVAR

NEW

Reactors and Power factor controllers

Alpican™ resin filled capacitor for reactors



4151 33

Dimensions (p. 41)
Technical data (p. 38)

Resin filled 525 V Standard duty:

- Conforms to IS 13340-1, IEC 60831-1&2
- Compact design
- Self healing metallized polypropylene film
- Over pressure device for disconnection
- Low energy losses
- Resistance to high temperatures
- Bio-degradable soft resin, semi-dry

Pack	Cat. nos.	Standard duty Resin filled capacitor 525 V, 3 phase, 50Hz
1/6	4151 32	5 KVAR
1/4	4151 33	8.3 KVAR
1/4	4151 34	10.4 KVAR
1/4	4151 35	12.5 KVAR
1/4	4151 36	16.7 KVAR
1/4	4151 37	20.8 KVAR
1/4	4151 38	25 KVAR



4151 50

Dimensions (p. 41-42)
Technical data (p. 40)

Reactor:

- High harmonic loading capacity
- Low losses
- High linearity
- Easy mounting

Automatic power factor controller:

- Conforms to IEC 61010-1
- High accuracy
- IP 41 terminals
- Manual & Automatic mode of operation
- Free potential contact for remote alarm
- Displays alarm indication for 9 different conditions
- Internal temperature sensor
- RS 232 communication port
- In-built LED screens



4150 43

Pack	Cat. nos.	Reactors 7 % duty
1	4151 48	Reactor 10 kvar
1	4151 49	Reactor 12.5 kvar
1	4151 50	Reactor 25 kvar
1	4151 51	Reactor 50 kvar
1	4151 52	Reactor 100 kvar

Pack	Cat. nos.	Reactors 14 % duty
1	4151 53	Reactor 12.5 kvar
1	4151 54	Reactor 25 kvar
1	4151 55	Reactor 50 kvar

Pack	Cat. nos.	Power factor controller
1	4150 52	3 step controller
1	4150 41	5 step controller
1	4150 42	7 step controller
1	4150 43	12 step controller

Alpican™

Guarantee

- The Company at its discretion will replace products if they have any manufacturing defect within 1 year for capacitor, Reactor & APFC controller.
- The above guarantee is applicable when the products are selected taken into consideration all the technical characteristics of the product published in our catalogue.
- The guarantee is only applicable when the products are installed as per the Company's instructions and not tampered in any manner.
- The guarantee states the Company's entire liability. It does not extend to cover consequential loss or damage or installation costs arising from defective products.

Bold catalogue numbers are products normally available with Legrand (India) stockists. **Cat. nos. that are not bold** - delivery within 4 - 8 weeks from the date of order. **Bold packing quantity** is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same. **Red catalogue numbers** : new products.

■ Technical specifications**Resin filled Standard duty capacitors**

- Standards : IS 13340-1993, IS 13341-1992, IEC-60831-1&2
- Rated Voltage : 440 V & 525 V
- Frequency : 50/60 Hz
- Power range : 1 to 30 KVAR
- Losses(Dielectrical) : < 0.20 W/KVAR
- Losses (Total) : < 0.45 W/KVAR
- Peak inrush current : 200*In
- Over voltage : UN+10% for 8 Hrs in 24 Hrs
- Over current : 1.3 * In
- Mean life expectancy : upto 1,00,000 h at temp level D
- Capacitance tolerance : +10%
- Voltage test between terminals : 1.75*Un , AC, 2S as per IS
- Voltage test between earth & terminals : 3.6 KV, AC, 2S as per IS
- Discharge resistors : Fitted: standard discharge time less than at residual voltage of 50V, 60 second as per IS
- Safety : Self healing + pressure sensitive disconnecter + discharge device
- Protection : IP20
- Casing : Aluminium Can
- Dielectric : Metallized Polypropylene film
- Impregnation : NCPB
Soft polyurethane Resin
- Ambient temperature : -10°C / + 55°C (Class D)
- Humidity : 95%
- Altitude : 4000 m above sea level
- Mounting : Indoor,vertical position
- Fixing and earthing : Threaded M12 stud at bottom
- Switching life : Maximum 5000 per year

Resin filled Heavy duty capacitors

- Standards : IS 13340-1993, IS 13341-1992, IEC 60831-1/-2, IEC-60831-1&2
- Rated Voltage : 440 V
- Frequency : 50/60 Hz
- Power range : 1 to 30 KVAR
- Losses(Dielectrical) : < 0.20 W/KVAR
- Losses (Total) : < 0.5 W/KVAR
- Peak inrush current : 250*In
- Over voltage : UN+10% for 8 Hrs in 24 Hrs
- Over current : 1.5 to 1.8 * In
- Mean life expectancy : upto 1,15,000 h at temp level D
- Capacitance tolerance : +10%
- Voltage test between terminals : 1.75*Un , AC, 2S as per IS
- Voltage test between earth & terminals : 3.6 KV, AC, 2S as per IS
- Discharge resistors : Fitted: standard discharge time less than at residual voltage of 50V, 60 second as per IS
- Safety : Self healing + pressure sensitive disconnecter + discharge device
- Protection : IP20
- Casing : Aluminium Can
- Dielectric : Metallized Polypropylene film
- Impregnation : NCPB
Soft polyurethane Resin
- Ambient temperature : -10°C / + 55°C (Class D)
- Humidity : 95%
- Altitude : 4000 m above sea level
- Mounting : Indoor,vertical position
- Fixing and earthing : Threaded M12 stud at bottom
- Switching life : Maximum 6000 per year

■ Technical specifications

- Standards : IS 13340-1993, IS 13341-1992, IEC 60831-1/-2, IEC-60831-1&2
- Rated Voltage : 440 V
- Frequency : 50/60 Hz
- Power range : 5 to 25 KVAR
- Losses(Dielectrical) : < 0.20 W/KVAR
- Losses (Total) : < 0.5 W/KVAR
- Peak inrush current : 300*In
- Over voltage : UN+10% for 8 Hrs in 24 Hrs
- Over current : 1.4 * In
- Mean life expectancy : upto 1,80,000 h at temp level C
- Capacitance tolerance : -5/10%
- Voltage test between terminals : 1.75*Un , AC, 2S as per IS
- Voltage test between earth & terminals : 3.6 KV, AC, 2S as per IS
- Discharge resistors : Fitted: standard discharge time less than at residual voltage of 50V, 60 second as per IS
- Safety : Self healing + pressure sensitive disconnecter + discharge device
- Protection : IP20
- Casing : Aluminium Can
- Dielectric : Metallized Polypropylene film
- Impregnation : Inert gas impregnated
- Ambient temperature : -40°C / + 55°C (Class D)
- Humidity : 95%
- Altitude : 4000 m above sea level
- Mounting : Indoor,vertical position
- Fixing and earthing : Threaded M12 stud at bottom
- Switching life : Maximum 7000 per year

Reactors

Power factor controllers

■ Technical specifications

- Standard: IEC 60076-6
- Rated line voltage: 440V
- Rated frequency: 50Hz
- De-tuning factor p [%]: 7 %
- Tolerance on inductance: 0/+6%
- Dielectric test: 50Hz3kV, 60s
- Protection class: IP 00
- Cooling method: natural air (AN)
- Ambient temperature: +40°C
- Insulation class: H
- Insulation level: 1.1kV
- Blocking factor p% 7% - Tuning order 3.78
- Temperature protection (NC) : Yes

■ Technical specifications

- Digital power factor controller
- LED screen: 3 digits, 7 segments
- Membrane keypad
- RS 232 serial port for setting parameters and automatic testing via a PC
- Internal temperature sensor
- Advanced function for measuring capacitor overvoltages, average over a week
- 1 programmable relay for an alarm and/or controlling a fan

Versions

- 3, 5, 7 and 12 controlled steps

Temperature class

- Operation: - 10 to + 60°C
- Storage: - 20 to + 80°C

Current inputs

- Rated current: 5 A (1 A on request)
- Operating limit: 0.125 A to 6 A
- Input current: 0.65 W
- Not sensitive to the CT polarity
- Not sensitive to the phase rotation polarity

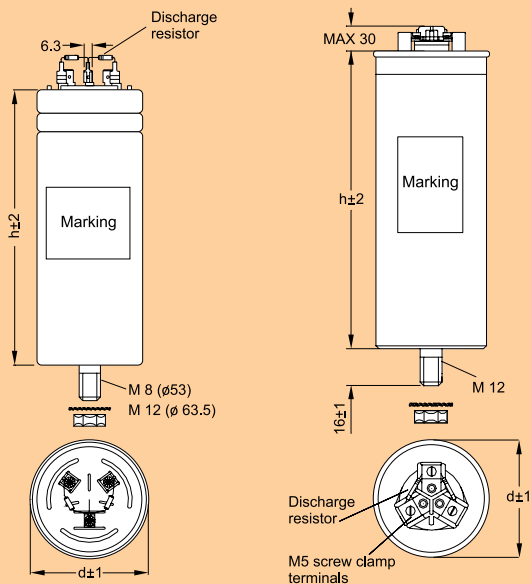
Frequency

- 50 Hz/60 Hz

Parameters

- Power factor: 0.8 inductive to 0.8 capacitive
- Same step reconnection time: 5 to 240 s
- Manual and automatic mode
- 4 quadrant operation for operation on generator
- Internal temperature sensor
- Volt-free contact for remote alarm
- Alarm display (overvoltage, over/under compensation, overload, etc.)

■ Dimensions

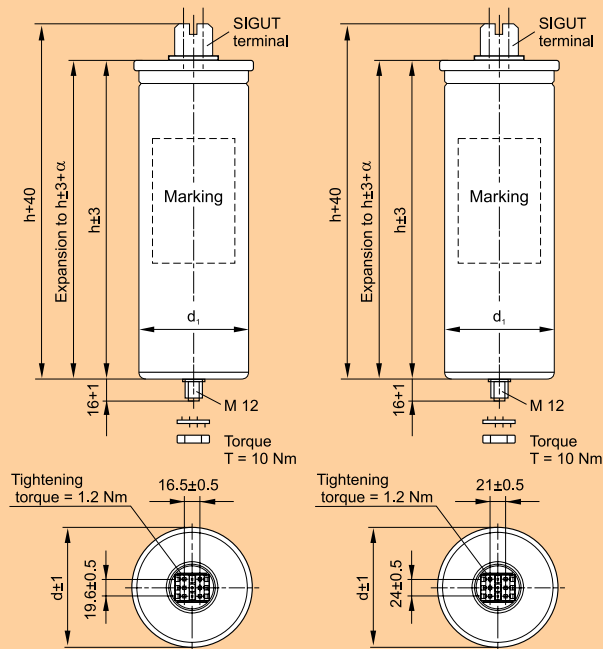


440 V Resin filled std duty

Cat no	Dimensions	
	Diameter	Height
4 151 00	53	117
4 151 01	53	117
4 151 02	63.5	129
4 151 03	63.5	129
4 151 04	63.5	152

440 V Resin filled std duty

Cat no	Dimensions	
	Diameter	Height
4 151 05	78.4	195
4 151 06	88.4	195
4 151 07	88.4	270
4 151 08	88.4	270
4 151 09	88.4	345
4 151 10	93.5	345
4 151 11	93.5	345



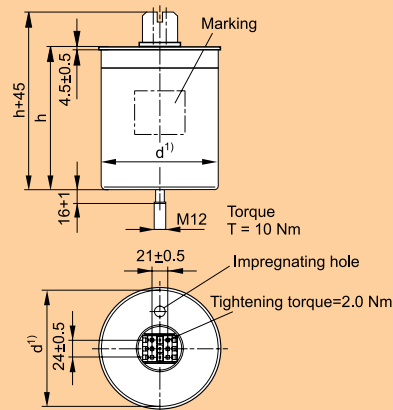
440 V Resin filled heavy duty
Can diameter up to 90 mm

Cat no	Dimensions	
	Diameter	Height
4 151 12	53	117
4 151 13	63.5	129
4 151 14	78.4	195
4 151 15	78.4	195
4 151 16	78.4	195
4 151 17	88.4	270
4 151 18	88.4	270

440 V Resin filled heavy duty
Can diameter above 90 mm

Cat no	Dimensions	
	Diameter	Height
4 151 19	93.5	270
4 151 20	105.5	280
4 151 21	121.5	280
4 151 22	121.5	325
4 151 23	142	325

■ Dimensions



Creepage distance 12.7 mm min.
Clearance 9.6 mm min.

440 V Gas filled heavy duty

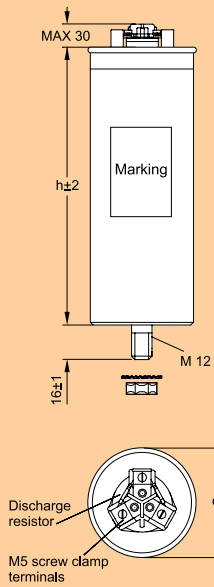
Cat no	Dimensions	
	Diameter	Height
4 151 24	116	164
4 151 25	116	164
4 151 26	116	164
4 151 27	116	164
4 151 28	116	164
4 151 29	116	200
4 151 30	136	200
4 151 31	136	200

Alpican™

resin filled capacitor for reactors

Power factor controllers

■ Dimensions



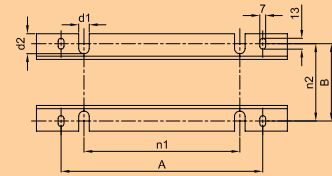
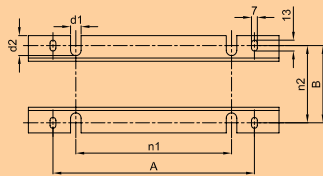
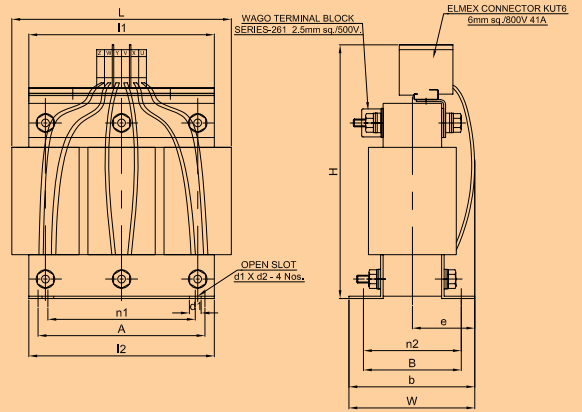
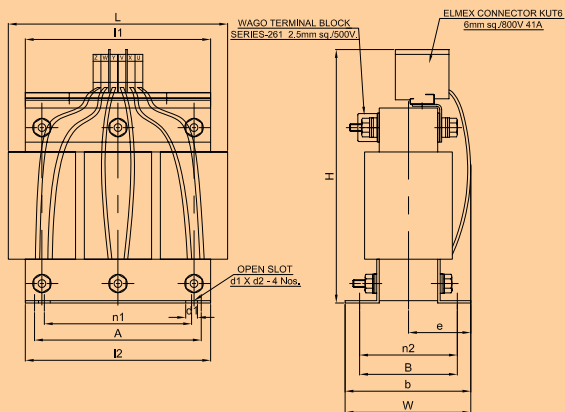
525 V Resin filled std duty

Cat no	Dimensions	
	Diameter	Height
4 151 32	78.4	195
4 151 33	88.4	270
4 151 34	88.4	270
4 151 35	88.4	270
4 151 36	88.4	345
4 151 37	93.5	345
4 151 38	93.5	345

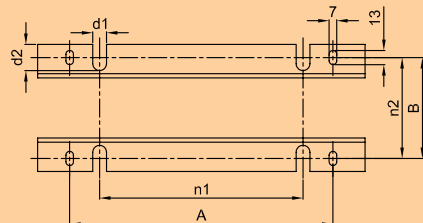
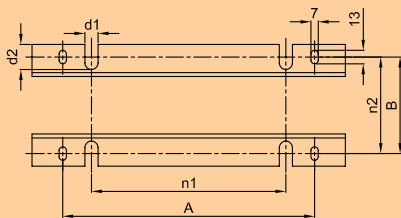
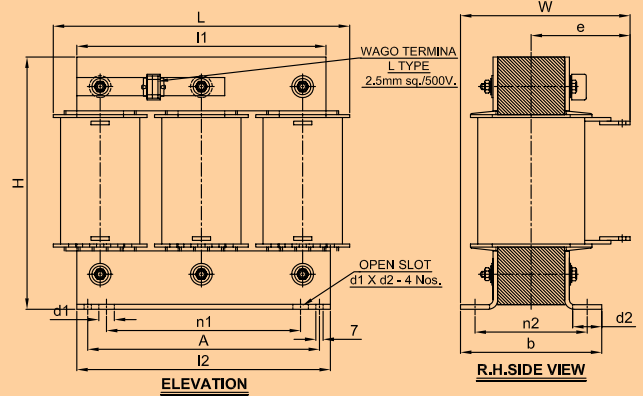
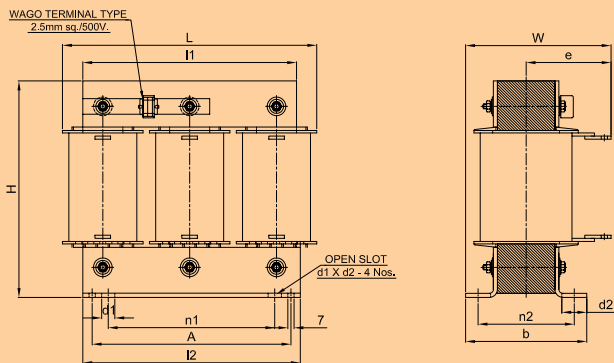
■ Dimensions

Cat.Nos	Height x Width x Depth (mm)	Weight (kg)
4 150 52	96 x 96 x 65	0.42
4 150 41	96 x 96 x 65	0.44
4 150 42	96 x 96 x 65	0.46
4 150 43	144 x 144 x 65	0.77

■ Dimensions



Cat no	KVAR	Rated Current	L	W	H	I1	I2	n1	n2	b	e	d1	d2	A	B
4151 48	10	13.2A.	190	140±3mm	225	165	165	60	78±3mm	100	90±5mm	10.8	15.5	85	78
4151 49	12.5	16.4A.	190	140±3mm	225	165	165	60	78±3mm	100	90±5mm	10.8	15.5	85	78



Cat no	KVAR	Rated Current	L	W	H	I1	I2	n1	n2	b	e	d1	d2	A	B
4151 50	25	32.8A.	240	165±5mm	205	205	205	150	95±3mm	114	115±5mm	10.8	15.5	175	95
4151 51	50	65.61A.	275	225±5mm	240	235	235	150	165±3mm	185	127±5mm	10.8	15.5	175	165
4151 52	100	131.22A	330	180±5mm	270	285	285	150	132±3mm	155	98±5mm	10.8	15.5	175	132

All dimensions are in mm, 1 Inch = 25.4mm, accuracy of dimensions = ± 2mm

Contactors

Contactors compatible with Legrand capacitors

Standard duty 440V (resin)

Cat. No.	KVAR	Current	Contactor Cat. No.
4151 00	1 KVAR	1.3	J101211
4151 01	2.1 KVAR	2.8	J101211
4151 02	3 KVAR	3.9	J101211
4151 03	4.2 KVAR	5.5	J101211
4151 04	5 KVAR	6.6	J101211
4151 05	7.5 KVAR	9.8	J101211
4151 06	10 KVAR	13.1	J101211
4151 07	12.5 KVAR	16.4	J101811
4151 08	15 KVAR	19.7	J101811
4151 09	20 KVAR	26.2	J102011
4151 10	25 KVAR	32.8	J103021
4151 11	30 KVAR	39.4	J103021

Heavy duty 440V (resin)

Cat. No.	KVAR	Current	Contactor Cat. No.
4151 12	1 KVAR	1.3	J101211
4151 13	2.1 KVAR	2.8	J101211
4151 14	3 KVAR	3.9	J101211
4151 15	4.2 KVAR	5.5	J101211
4151 16	5 KVAR	6.6	J101211
4151 17	7.5 KVAR	9.8	J101211
4151 18	10 KVAR	13.1	J101211
4151 19	12.5 KVAR	16.4	J101811
4151 20	15 KVAR	19.7	J101811
4151 21	20 KVAR	26.2	J102011
4151 22	25 KVAR	32.8	J103021
4151 23	30 KVAR	39.4	J103021

Heavy duty 440V (gas)

Cat. No.	KVAR	Current	Contactor Cat. No.
4151 24	5.2 KVAR	6.8	J101211
4151 25	7.5 kvar	9.6	J101211
4151 26	8.8 kvar	11.5	J101211
4151 27	11.5 kvar	13.8	J101211
4151 28	12.6 kvar	16.5	J101811
4151 29	17.5 kvar	23	J101811
4151 30	21 kvar	27.6	J102011
4151 31	25.2 kvar	33.1	J103021

Standard duty 525V (resin)

Cat. No.	KVAR	Current	Contactor Cat. No.
4151 32	5 KVAR	5.5	J101211
4151 33	8.3 kvar	9.1	J101211
4151 34	10.4 KVAR	11.4	J101211
4151 35	12.5 KVAR	13.7	J101211
4151 36	16.7 kvar	18.4	J101811
4151 37	20.8 KVAR	22.9	J102011
4151 38	25 KVAR	27.5	J103021

Note: Legrand recommends the use of INDOASIAN- CAPACITOR DUTY CONTACTORS for Legrand capacitors