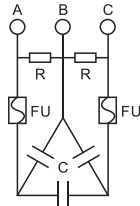


No.	Model	Rated capacity (kvar)	Sealing diameter A (mm)	Housing diameter B (mm)	Housing height H (mm)	Outline figure number
1	HDCAP3-0.4-XX-3	5/7.5/10/12	80	76	245	Fig. 1
2	HDCAP3-0.4-XX-3	14/15/16	90	86	245	Fig. 1
3	HDCAP3-0.4-XX-3	18/20	90	86	290	Fig. 1
4	HDCAP3-0.4-XX-3	25/30	120	116	290	Fig. 2
5	HDCAP3-0.45-XX-3	5/7.5/10/12	80	76	245	Fig. 1
6	HDCAP3-0.45-XX-3	14/15/16	90	86	245	Fig. 1
7	HDCAP3-0.45-XX-3	18/20	90	86	290	Fig. 1
8	HDCAP3-0.45-XX-3	25/30	120	116	290	Fig. 2
9	HDCAP3-0.525-XX-3	5/7.5/10/12	80	76	245	Fig. 1
10	HDCAP3-0.525-XX-3	14/15	90	86	245	Fig. 1
11	HDCAP3-0.525-XX-3	16/18/20	90	86	290	Fig. 1
12	HDCAP3-0.525-XX-3	25/30	120	116	290	Fig. 2

Wiring diagram

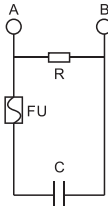
(Δ) wiring method for three-phase product

HDCAP3-□-□-3



(H) wiring method for single-phase product

HDCAP3-□-□-1



Commissioning and operation

- Check whether the technical parameters specified on the nameplate meet the use requirements.
- Fully consider the factors such as voltage rise caused by the operation of the capacitor before installation to prevent a long-term operation of the capacitor under the over-voltage.
- Before installing the capacitor, check the voltage waveform and network characteristics, and take the corresponding measures (such as the connection of the low-voltage filter reactor in series) to limit the influence on the harmonic sources (such as a large rectifier, an inverter, a frequency converter, and an intermediate frequency furnace) according to the severity of the harmonic wave.
- When the capacitor and motor are connected together in parallel, it is recommended to select the capacitor according to the condition of the capacitor current of less than 90% of the non-load current of the motor.
- The soft copper wire is used as much as possible for connection of the capacitor line terminal and grounding terminal for good contact. It is recommended that the capacitor wiring terminal is checked regularly by user to prevent poor contact resulting in accidental damage to the capacitor.
- The following protection measures are taken for capacitor used in the capacitor box:
 - Transient overcurrent protection: Even HDC19s series is used to switch the capacitor contactor, or a XD1 current limiting reactor is provided at the front of the capacitor.
 - Steady over-voltage protection: Generally, there is an over-voltage protector on the reactive compensation controller.
 - Steady over-current protection: A heat relay or a miniature circuit breaker is provided on the capacitor for over-current protection.

Maintenance and service

Perform the regular maintenance to remove dust deposited on the capacitor timely.

Do not open the capacitor to replace the parts inside without permission, and contact the customer center timely or stop the machine in case of the failure of the capacitor.

HDCAP3

Low voltage capacitor

User Manual

Applicable Standard: IEC 60831-1
 please carefully read the User Manual before the installation and use of the products, keep it properly as backup.



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Safety Notice

Please read this Manual carefully before installation, operation, run, maintenance and inspection, and install and use this manual according to this Manual.

Danger:

- Do not operate the capacitor with wet hands.
- Do not touch the live part during operation.
- Cut off the power supply during maintenance and service.

Attention:

- Installation, maintenance and service must be performed by the professionals.
- Remove the capacitor from the power grid timely if found that the capacitor housing is swelled seriously.
- The time interval between the removal of the capacitor and the reuse shall be greater than 3 minutes (self-discharge time), or a very high transition over-voltage may occur, resulting in damage to the capacitor.
- Check that the product operating voltage, rated current, frequency and use purpose meet the requirements before use.
- Turn on the control circuit for non-load operation test, and then connect to the load after confirming no abnormality.
- Tighten the terminals regularly.
- Prevent impurities from falling into the product.
- Please use spare parts provided by our company.
- Stop the machine immediately and contact the supplier if found any damage or abnormal sound during unpacking.
- Please dispose the product waste for any scrapped product.

Description of HDCAP3



- Wiring terminal
- Wiring terminal
- Grounding and installation terminal

Model description

HD CAP 3-0.4-15-3

- The number of phases
- Rated capacity: unit: kvar
- Rated voltage: unit: kV
- Product series No.:
- 3 series means wax dipping type
- First three letters of the capacitor means the capacitor
- Enterprise code; HD means the Himel

Main technical parameters

Rated voltage (U_n)	400V/450V/525V	
Rated capacity (Q_n)	1 ~ 30kvar	
Capacity deviation (μF)	Rated capacity 0~+10%	
Loss angle tangent angle ($\tan \delta$)	Under the power frequency rated voltage, 20°C: $\tan \delta \leq 0.0012$	
Voltage withstand (Ut)	Inter-pole	2.15 U_n , 2s
	Pole-to-case	Higher value taken among 2 U_n , +2kV or 3kV; last 2s after increased by 20%
Allowable over-voltage	1.10 U_n (not exceed 8h in 24h)	
Allowable over-current	1.43 I_n	
Self-discharge characteristic	The residual voltage decreases to 50V and below from $\sqrt{2} U_n$ within 3 minutes after power failure	

Normal use, installation and transport conditions

- Normal use and installation conditions
 - The ambient air temperature is ranged -25°C to +50°C in use.
 - The altitude at the installation site does not exceed 2000m.
 - The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is +40°C, and a higher relative humidity can be obtained at the low temperature, for example 90% at 20°C; the protection measures shall be taken for condensation due to temperature changes.
 - The product shall be installed vertically, with the title angle of not more than 10° at each direction.
 - The installation site shall be free from direct sunlight, not affected by rain or snow, with excessive dust and severe vibration avoided; the mutual distance should be greater than 30mm; the effective measures are taken in summer with high temperature to ensure good ventilation and cooling.
- Normal storage and transport conditions
 - Normal storage: -25°C~+55°C; up to +70°C in a short time (not more than 24h).
 - Please handle the product during transport, and do not invert it to avoid strong impact.

External and installation dimensions (mm) HDCAP3

