

CHLORIDE

by  Signify

Exit/Emergency

CH3 series

Three Phase Uninterruptible Power Supply 40-55 kW



Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lamps: _____ Qty: _____
 Notes: _____

Philips Chloride CH3 series is a three phase centralized inverter UPS system that is a reliable and a cost effective way to meet NFPA code requirements with an output rating ranging from 40kW to 55kW. It is compatible with all luminaires and has a peak overload capability of 1700% to accommodate in-rush current from LED luminaires. The CH3 Series inverters are standard with microprocessor based self-diagnostic/self-test electronics that perform automatic monthly and annual tests in according with NFPA 101 equipment, and the results are logged with a date and time stamp.

Ordering guide

Example: CH3 NN 40 S 0 0 0

Product	Input voltage	Output voltage	Unit size	Battery	Monitor	Output distribution ¹	Relay interface options
CH3							
CH3 Three-phase uninterruptible power supply	L 208/120V N 480/277V	L 208/120V N 480/277V	40 40kW 45 45kW 50 50kW 55 55kW	S 90 min N OTHER Consult factory for alternate battery run times	0 LCD color touchscreen 1 LCD color touchscreen + TCP/IP or MODBUS TCP 2 LCD color touchscreen + MODBUS RS485 3 LCD color touchscreen + BACnet/IP 4 LCD color touchscreen + BACnet MS/TP	0 Integral main CB only 1 Distribution cabinet ² 2 Distribution cabinet w/normally Off bus ²	0 None provided 1 Output alarm relay contacts, and Off bus "Command On" and REPO inputs ³ 2 Off bus "Command On" and REPO inputs only ³

Application	Qty 3P
Normally On	
Normally Off	
On + alarm	
Off + alarm	

Footnotes:

- ¹ Max quantity (4) breakers allowed 15A – 150A, or (2) breaker allowed 175A or 200A. Breakers must be 3 pole.
- ² Distribution cabinet is optional with 480/277V models, required only if selecting optional output distribution circuit breakers and/or Normally Off bus. Distribution cabinet is required with 208/120V models.
- ³ "Command On" allows a remote alarm contact signal to energize the Normally Off bus which will illuminate the normally off emergency lights.



CH3 Three Phase Uninterruptible Power Supply

40-55 kW

Codes and standards

- UL 924, NFPA 101, NFPA 111, NEC

Construction

- Free standing, NEMA 1 enclosure with hinged door and powder coat finish with top access for conduit entries.
- 208Y/120 VAC or 480Y/277 VAC, 3 phase, 4 wire plus ground input and output. Voltage must be specified when ordering.
- 90% typical efficiency.
- Operating temperature range 68°F (20°C) to 95°F (35°C). Increases or decreases in temperature will affect battery performance. Optimum battery performance realized at 77°F (25°C). Batteries are rated at 100% capacity at 77°F (25°C).
- Internal maintenance bypass, main input and output breakers and battery cabinet disconnect breaker are standard.
- Double conversion, no interruption with a standard backup time of 90 minutes.
- Output distribution circuit breakers optional.
- Normally Off bus optional.
- Factory startup service included.

Application

- Operates incandescent, fluorescent, LED and HID type luminaires.

- Consult factory for compatibility and performance with non-lighting and switched lighting loads.

Electronics - inverter

- Transient response $\pm 10\%$ for 1 cycle, then $\pm 3\%$ for 2-3 cycles maximum (100% load step).
- 3:1 crest factor capability up to 75% of rated load, and 2.5:1 maximum at 100% load.
- Inverter output distortion $< 3\%$ THD (linear loads).
- Output voltage regulation $\pm 3\%$ of nominal at full load.
- Frequency: 60 Hz ± 0.5 Hz
- Load power factor capability is 0.7 lagging to 0.7 leading.
- Automatic low battery voltage disconnect (LVD).

Electronics - rectifier

- Input voltage range $+10\%$, -15% of nominal.
- Input current THD $< 10\%$ (at full load).
- Voltage regulation $\pm 1\%$ maximum for input voltage and DC variations.
- Ripple voltage $< 1\%$ rms float voltage.
- Three stage temperature compensated charger.

Electronics - static transfer switch

- Overload rating 110% for 2 minutes, 150% for 10 seconds, 400% for 4 cycles (without use of static bypass).

Metering/controls

- LCD color touch screen display allows user access to all system parameters. View real time data and alarm history. Logs up to 75 events, offers password protection.

Communication options

- Available BACnet/IP or BACnet MS/TP, Ethernet TCP/IP, MODBUS TCP or MODBUS RS485 network with specific IP address for Ethernet connected systems.
- Provides remote monitoring of the inverter status, battery test results, alarm conditions and electrical measurements via a web browser, without the need for additional software.
- Remote notification of alarms and status are available via SNMP, e-mail and network broadcast messaging, or via the user's building management system.

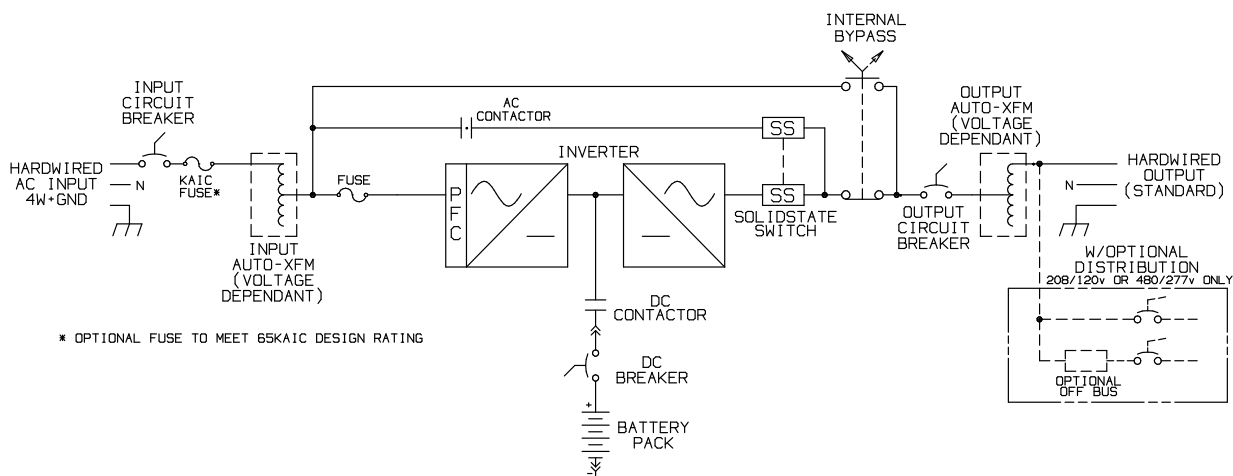
Battery

- Valve regulated maintenance free, sealed lead calcium battery with front access terminals for easy installation.

Warranty

- If factory start up is conducted within 120 days of shipment, Philips Chloride will warrant parts for 24 months and on-site labor for the first 12 months from date of factory start up.
- If factory start up is not conducted within 120 days of shipment, Philips Chloride warrants parts for 24 months from date of shipment.
- Battery warranty is 1 year full / 9 years pro-rated.

One-line diagram



CH3 Three Phase Uninterruptible Power Supply

40-55 kW

System input/output

Rating	Voltage In/Out	Max Input Amps ¹	Max Output Amps per phase ²	BTU / Hour	Weight (Lbs)	Cabinet Configuration
40	208/120	163	111	19096	10726	E
40	480/277	71	48	13640	9340	D
45	208/120	183	125	21483	11686	E
45	480/277	80	54	15345	10300	D
50	208/120	204	139	23870	12250	E
50	480/277	89	60	17050	10780	D
55	208/120	224	153	26257	12730	E
55	480/277	97	66	18755	11260	D

¹ Continuous duty

² Consult factory for current ratings for voltage configurations not shown above.

Dimensions



Cabinet configuration D

Width – 126"

- Electronics cabinet – 44"
- First battery cabinet – 41"
- Second battery cabinet – 41"

Height – 77"

Depth – 33"



Cabinet configuration E

Width – 155"

- Distribution cabinet – 29"
- Electronics cabinet – 44"
- First battery cabinet – 41"
- Second battery cabinet – 41"

Height – 77"

Depth – 33"

