

EPC Series (I/P 230V O/P 400V)



Electronic Phase Converter 20, 30, 40, 50, 60, 75 kVA

Claude Lyons® EPC Series of electronic phase converters are single phase input to three phase output (3 or 4 wire) inverter systems. Microprocessor controlled utilising SPWM technology (sinusoidal pulse width modulation) to produce a pure sine wave output.

Solid State, low maintenance maintenance systems incorporating Infineon® IGBT inverter modules for performance and reliability you can rely on.

Input: 1 Ø 230V AC

Output: 3 Ø 400V AC



Features & Options

- SPWM technology generating a pure sine wave output
- Robust, low maintenance system
- Incorporating German IGBT Inverter modules
- IP00 to IP54 (IP22 shown in images)
- LED display for live status
- Automatic unbalanced load compensation
- Overvoltage, overcurrent, overheat and short circuit protection system
- CE approved
- Optional input and/or output MCB's
- Optional remote monitoring



CLAUDE LYONS

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Technical Data

| Model number | CL-EPC- 20KVA-230V | CL-EPC- 30KVA-230V | CL-EPC- 40KVA-230V | CL-EPC- 50KVA-230V | CL-EPC- 60KVA-230V | CL-EPC- 75KVA-230V |
|---|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Capacity (kVA) | 20 | 30 | 40 | 50 | 60 | 75 |
| Technology | IGBT & SPWM pulse width modulation | | | | | |
| AC input | | | | | | |
| Input voltage (V) | Single phase 230 ± 15% | | | | | |
| Input frequency (Hz) | 50 ± 15% | | | | | |
| Max no load input current (A) | 3 | 4 | 5 | 6 | 7 | 9 |
| Max full load input current (A) | 108.7 | 163.1 | 174 | 271.8 | 326.1 | 407.7 |
| AC output | | | | | | |
| Output waveform | Pure sine wave | | | | | |
| Output voltage (V) | Three phase 400 (3 or 4 wire) | | | | | |
| Output voltage accuracy (%) | ± 1 | | | | | |
| Max full load output current (A) | 28.9* | 43.4* | 57.8* | 72.3* | 86.7* | 108.3* |
| Output frequency (Hz) | 50 | | | | | |
| Frequency accuracy (%) | Frequency determination ± 0.01; frequency modulation ± 0.1 | | | | | |
| Dynamic voltage transients (%) | 2 (0-100% load change) | | | | | |
| Voltage distortion rate (distortion degree) (%) | THD < 3 (Non-linear load) | | | | | |
| Display mode | | | | | | |
| Display type | 4-in-1 LED digital display | | | | | |
| Digital voltmeter (V) | ± 0.1 | | | | | |
| Digital ammeter (A) | ± 0.1 | | | | | |
| Digital frequency (Hz) | ± 0.1 | | | | | |
| Digital power (W) | ± 0.1 | | | | | |
| System | | | | | | |
| System efficiency (%) | 90 | | | | | |
| Insulation resistance (MΩ) | DC > 500V 20 | | | | | |
| Dielectric strength | (Input and output to ground) 1800 Vdc, leakage current less than 3.5mA, no flashover for 1 min. | | | | | |
| Protection class | IP42 (Note: images show IP22 rated systems) | | | | | |
| Heat dissipation mode | Transformer forced fan cooling | | | | | |
| Operating temperature (°C) | -10 to +50 | | | | | |
| Relative humidity (%) | 0-90 (non-condensing) | | | | | |
| Noise (dB) | < 65 | | | | | |
| Protective systems | Overvoltage, overcurrent, short circuit, overheat protection functions. (Optional input and/or output MCB's) | | | | | |
| Dimensions and weights | | | | | | |
| System dimensions W x D x H (MM) | 460 x 900 x 1225 | | 500 x 900 x 1300 | | 600 x 1350 x 1460 | |
| System weight (kg) | 160 | 180 | 200 | 200 | 530 | 530 |
| Packaged dimensions (mm) | 600 x 1050 x 1450 | | 580 x 980 x 1450 | | 720 x 1470 x 1700 | |
| Packaged weight (kg) | 230 | 250 | 260 | 260 | 600 | 600 |

* Output rating based on Resistive loads, derating required for other load types.



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