

## Opera plus Family **A07E10000X**

EcoLine

Fully digital controlled ✓

High efficiency - Low consumption ✓

Reliable and Money Saving ✓

Hot Pluggable Power Supplies ✓

100% Remotable ✓

### Features:

Wideband circuits amplifiers with LD-Mos technology

AAQ: Advanced Audio Quality

Storage of events

Built-in Fully digital controlled Modulator.

Automatic Audio change-over / Dual L+R, Dual MPX or Mixed

Automatic fold-back ROS & Temperature protection

Ambient & RF Module temperature measurement

4 lines LCD alphanumeric display

2x5000W Ampli. in only one heat-sink for the highest reliability

6x3500VA HOT PLUGGABLE Power Supply with PFC

Sealed duct cooling air with blowers

Easy removable blower

Harmonics filter & directional coupler built-in

24 unit 19" standard rack Cabinet

GSM Telemetry, TCP/IP Webserver, SNMP, SMTP server.  
Front panel Headphone jack for audio monitor

Plug&Play Modules - easily replaceable

Metals treated with galvanic process



The picture is for illustrative purposes

OPERA plus 10KW FM 87,5÷108MHz transmitter uses 2x5000W amplifier with 6<sup>th</sup> generation LDMOS technology, 65:1 VSWR and 6x3500W Hot Pluggable Power Supplies.

The technical solutions adopted by our engineers are focused to assure energy saving (among the lowest) and high reliability. Settings, protections, telemetry are totally microprocessor controlled. The installation and the maintenance of the equipment are respectively very fast and easy. These fully protected transmitters are indicated for use in unmanned stations.



### Options built-in:

- Digital Stereo Encoder Module
- RDS encoder
- AES-EBU digital audio input / Audio from IP
- Input & Output special dry contacts
- Bidirectional remote control by GSM/SMS
- Remote control by TCP-IP/WebServer/SNMP-SMTP
- Remote control by RS-232



### MPX characteristics

Signal input	MPX
Composite Input impedance	10Kohm unbalanced
Input connector	BNC
Input level	Adjustable 0/+6/Variable
Audio freq. response (30Hz to 60KHz)	< 0,5 dB
Modulation distortion	<0.1%
Signal to noise ratio	>75dB

### Stereo characteristics

Signal inputs	Left or Right - AES-EBU
Input impedance	600ohm (bal.) or 10k ohm
Input connectors	Canon XLR
Unbalanced rejection	>40dB
Input level	Adjustable (Front/Remote)
Pre- emphasis	75 or 50uS
Audio frequency response (30Hz to 15KHz)	<0.25dB
Audio frequency response (19KHz to 100KHz)	>50dB
Cross-talk between left and right channel	>50dB
Distortion at frequency deviation of 75KHz	<0.1%
Signal to noise referred at deviation of 75KHz	>77dB
Suppression of 38KHz	>50dB

Specifications are subject to change without notice.

### General specification

Operating voltage	400VAC $\pm 15\%$ 3phases or 230VAC $\pm 10\%$ Monophase > 71%
Typical Efficiency	Forced air
Cooling	up to 4000m (13123 ft) over sl
Operating altitude	< <b>14000W</b>
Typical Consumption	-5° to 50°C
Operational temperature range	-20° to 60°C
Storage temperature range	1+5/8" - 3+1/8"
Output RF connector	BNC
Monitor RF connector	24U Cabinet - 300KG
Dimensions	

### Radio frequency

Frequency range	87.5 to 108MHz
Frequency setting	in 10KHz or 100 KHz steps
Setting mode	By keys on the front panel/Remote
Frequency stability	< $\pm 300\text{Hz/year}$ - 0.5ppm*
Frequency generation	PLL synthesizer
Modulation type	direct VCO frequency modul. F3
Nominal frequency deviation	$\pm 75\text{KHz}$
Deviation linearity in all freq. range	$\pm 5\text{KHz}$
RF output power	10KW $\pm 0.3\text{dB}$ - Adjustable
Driver power	max 10W
Harmonics emission	<-70dBc*

### Modulation capability

MONO (left and right)  
 L-R & AES-EBU  
 SCA + RDS  
 Composite  
 IP Audio

Power Amplifier  
Section



LOGIC UNIT

\*In accordance with standards: EN60215:1989/A1:1992/A2:1994; EN301 489-1 V 1.9.2; EN301 489-11 V 1.3.1; EN302 018-2 RED V2.1.1