

ET10000-5

10000W ICEFET SOLID STATE FM TRANSMITTERS



ELENOS
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COMPOSITION

Exciter (Indium series)	n°1 ETG 500.1 (or equivalent trade mark ETG 500.7, ETG 500.5, ETG 300.3) in single drive configuration n°2 ETG 500.1 (or equivalent trade mark ETG 500.7, ETG 500.5, ETG 300.3) in dual drive configuration
Amplifier	n°2 Amplifier E5000-series
Combiner	n°1 2-way combiner IN 5000 - OUT 10000 with an internal load composed by 1 group of 6 resistance of 800W 50Ω
RF output connector	1+5/8"
Circuit breaker box	4U (on front or rear panel on demand)

GENERAL DATA

Output nominal maximum power	10000W
Output power range	1500 - 10000W
Operating band	87.5 - 108 MHz
Dimensions: Rack units	32U
Dimensions: W - H - D	56.5 - 160.3 - 107.8cm
Weight	270 kg
RF power stage technology	ICEFET & ECOSAVING
Automatic power RF control	Stabilized output power value on the set value
Overall output power RF stability	+/-0.1 dB
Cooling system	Forced air-cooling
Air outlet	On the top or on the rear. Cooling flow 2200 /2400 m3/h (depending on environment)
RS232/RS485	Yes
Points of measure	RF Sample - MPX Monitor

EXCITER DATA

Driving power	250W
Displayed parameters	A careful analysis of the functioning through detailed measurement of currents, voltages, temperatures and powers
Adjustments	From the frontal panel/from PC
L-DMOS	n°1
Cooling fans	n°2 x 24Vdc, 0.56A (on rear panel)
Power supply	n°1 x 1KW, 44V
Dimensions: Rack units	2U
AES/EBU input resolution	24bits
AES/EBU input sample rate	32,44.1,48,96 KHz Automatically selected
AES/EBU-Analog input automatic changeover	Yes
L/R audio input level	+15/-10 dBu for 75KHz standard deviation
L/R level adjustment	Soft adjust 0.1dB steps from front panel
L/R input impedance	Selectable 10K - 600Ω

MPX audio input level	+15/-10 dBu for 75KHz standard deviation
MPX level adjustment	Soft adjust 0.1 dB steps from front panel
MPX input impedance	5KΩ selectable
SCA/RDS audio input level	0 dBu for 75KHz standard deviation
PILOT amplitude adjustment	Soft adjust 0.05% steps from front panel
PILOT phase adjustment	Soft adjust 0.01 degree steps from front panel
PILOT tone frequency	19 KHz
PILOT tone deviation	7.5 KHz Adjustable
PILOT tone frequency stability	+/-1 Hz
THD+N	< 0.05% with 75 kHz frequency deviation < 0.05% with 100 kHz frequency deviation @ 30 Hz to 15 kHz, L/R channel
Pre-emphasis	0/25/50/75 microseconds +/-0.1dB
FM S/N MPX FCC	82 dB 20Hz - 23KHz - 50uS - ref @ 53KHz - RMS
FM S/N STEREO CCIR weighted	72 dB Weight-ref@53KHz-Qpk
FM S/N STEREO CCIR unweighted	72 dB Unweight-ref@53KHz-QPk
Stereo crosstalk	-65 dB or better @ 1KHz
PLL lock time	<10sec
Intermodulation distortion	<0.05% Measured with two of tones 1KHz & 1.3KHz, ratio 1:1 at 100% modulation
Frequency deviation	+/- 75 KHz 0.1 dB steps adjustable
RF frequency steps	10 KHz
Phase response	0.1 degree from linear phase; 53kHz to 100kHz
Modulation capability	+/-250 KHz
External reference	On demand (10MHz)

AMPLIFIER DATA

Output nominal maximum power	5000W
Output power range	500 - 5000W
Displayed Parameters	A careful analysis of the functioning through detailed measurement of currents, voltages, temperatures and powers
Adjustments	From the frontal panel/from PC
L-DMOS	n°16
Cooling fans	n°6 x 24Vdc, 2A (on rear and front panel)
Power supply	n°3 x 3KW, 50V
Dimensions: Rack units	4U

COMBINER DATA

Displayed Parameters	A careful analysis of the functioning through detailed measurement of currents, voltages, temperatures and powers
Adjustments	From the frontal panel/from PC
Cooling fans	n°3 x 24Vdc, 2A (on front panel)
Dimensions: Rack units	4U



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INSTALLATION REQUIREMENTS

Power supply	380V or 400V, Threephase + neutral wire 50-60Hz * 210V, Threephase (WYE without neutral) *
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* to be specified when placing the order

Power consumption	16KW
Current consumption @230VAC/Threephase	42A
Current consumption @380VAC/Threephase	24A

ENVIRONMENT

Temperature range (operating)	-5 - +45 °C
Temperature range (non operating)	-20 - +55 °C
Humidity range (operating)	95% @ 40 °C (not condensing)
Humidity range (non operating)	90% @ 55 °C
Altitude range (operating)	< 3000 meters
Altitude range (non operating)	< 15000 meters

TELECONTROL & TELEMETRY

Remote control	Yes
Remote Control at clean contacts	Yes
SNMP option	Yes (external)