



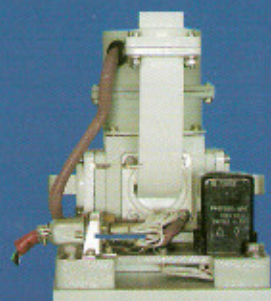
TCHERNO MORE Co.

COASTAL RADAR SYSTEMS

MODULES

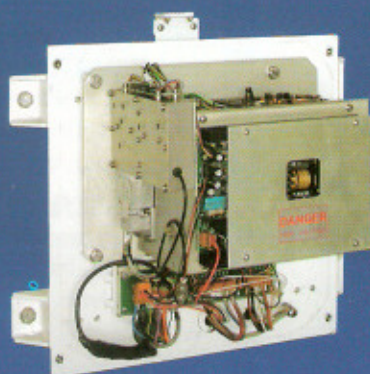


SCANNER UNIT



WAVEGUIDE SWITCH

TRANSCEIVER



INVERTER



TECHNICAL SPECIFICATIONS

SCANNER UNIT

ANTENNA

Polarization	horizontal
Length	18 ft
Operating frequency	(9410±30)MHz
Beamwidth	
- horizontal	0.45°
- vertical	20°±2°
Sidelobes level	
In horizontal plane	
- within±10°	≤ minus25dB
- outside±10°	≤ minus30dB
Gain	≥ 34dB
VSWR	≤ 1.25
Size	5520 x 200 x 200mm
Weight	54kg
Wind speed (operational)	30m/s
Windspeed (survival)	50m/s
Temperature range	minus 40°C to 50°C
Relative humidity	up to100%

REDUCER

Own weight	70kg
Rotation speed	10÷40rpm; two speeds selectable
Motor	90L8-B-055kW, 750rpm, 220/380V
Motor supply	3phases, 380VAC±10%
Motor power	550W
Greasing	SKF LGWA2
Lubricating oil	MOBIL SH624 SAE75W85
Temperature range	(-40 to +50)°C
Antenna shaftencoder	2 phases with 1024ppr each, Dephased at 90°; 1 phase with 1ppr

TRANSCEIVER

TRANSMITTER

PeakPower	(6÷10)kW - short pulse		
	(10÷12)kW - middle and long pulse		
Frequency	9410MHz ± 30MHz		
Pulse repetition rate / Pulse Length			
Short pulse	Middle pulse	Long pulse	
2400±50Hz/0.05ms	1200±25Hz/0.3ms	600±10Hz/0.6ms	

RECEIVER

Type	LOG
IF	60MHz
Bandwidth	(25±3)MHz-short pulse (4±1)MHz - middle and long pulse
Noise Figure	better than 5dB
Tuning	manual control or AFC with fine tuning indication

INVERTER

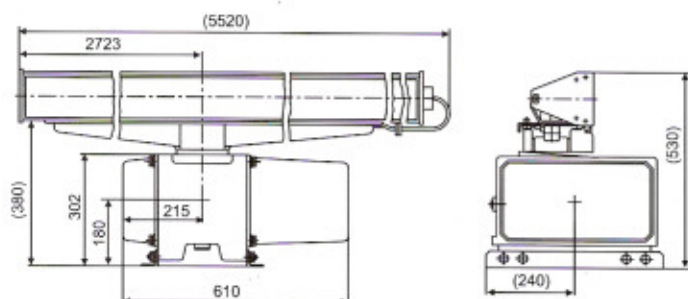
Provides three-phase supply voltage required for antenna rotation.

Input supply current	7,6A
Power of the motor controlled	0,75kW
Rated output current	3,6A
Peak output current (for 10s)	5,6A
Overload protection, activated at	I>5,6A

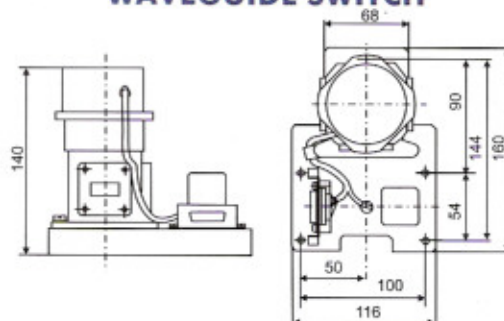
WAVEGUIDE SWITCH

Frequency band	(9410 ± 50)Mhz
Waveguide size	WR90
Insertion loss	≤ 0,3dB
Isolation	≥ 50dB
SWR	≤ 1,2
Typical switching time	≥ 2s
Drive voltage	27 V DC

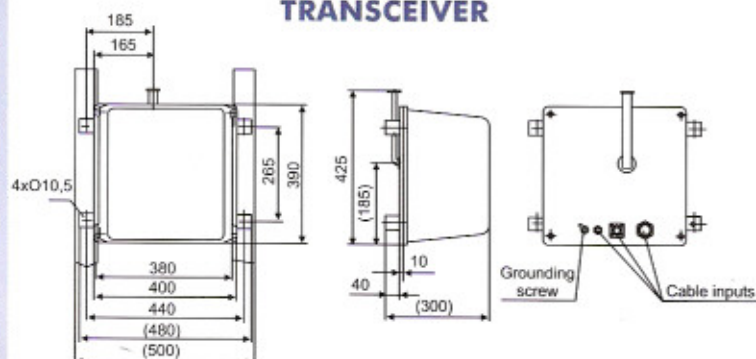
SCANNER UNIT



WAVEGUIDE SWITCH



TRANSCEIVER



INVERTER

