ETPS
ELECTRONIC TEST & POWER SYSTEMS

EAC-TABI

THREE PHASE BIDIRECTIONAL GRID SIMULATOR

POSITIVE PROBLEM SOLVING

The EAC-TABI is a series of high power bidirectional three phase grid simulators. Each unit is user programmable to operate as either an AC source or AC sink.

A true sinewave output is provided as standard. The output frequency is adjustable in the range of 45 - 105Hz, ideal for simulating different mains from around the world. Different frequency ranges are optional, with up to 805Hz possible. An RS-232 and CAN interface are provided as standard. The high resolution TFT front panel displays a host of measurement and setting functions. Single phase and unidirectional versions are also available.

- Single Phase Models Available on Request
- RS-232 & CAN Interfaces as Standard
- Extended Frequency Range Possible
- Built in Freestanding Cabinet
- TFT Front Panel Screen
- Systems up to 500kVA

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FURTHER DETAILS

Each unit is built in its own freestanding cabinet. An external operating panel is available so that the TFT screen can be operated remotely. This is particularly useful where the power supply may be operating in a potentially hazardous environment, such as a test cell.

OPTIONS

CODE	DESCRIPTION
/F400	Increased output frequency range 95 - 420Hz
/F800	Increased output frequency range 195 - 805Hz
/IES	Interface for emergency stop
/ETHERNET	Factory fitted Ethernet interface
/ANALOGUE	Factory fitted 0 - 10V analogue interface
/EOP	External operation panel for remote control of the unit

TECHNICAL DATA

GENERAL	
Mains Input Voltage	3 × 400VAC ± 10%, 50/60Hz (other inputs available on request)
Output Voltage	See selection table
Standard Output Frequency	45 - 105Hz (other ranges optionally available)
Output Frequency Accuracy	± 0.1%
Rated Output Power	See selection table
Static Voltage Regulation	± 1% (fs)
Dynamic Voltage Regulation	± 4% at 100% load change (50/60Hz), ± 8% (800Hz)
Asymmetric Load Voltage Regulation	± 2% at 100% unbalanced load
Regulation Time	<25msec
Overload Characteristic	150% for 1 min / 125% for 10 min / 110% for 20 min
Short-Circuit Characteristic	2 × I_{NOM} for 5s according EN 50091, Part 1
Waveform	Sinusoidal
Distortion Factor at Linear Load	≤5% (typically 3%)
EMC	According to EN 50091-2
Permissible Power Factor	Power derating, if power factor deviates from 0.8 lagging
Crest Factor of the Load Current	≤2.3% (at 100% load)
Permissible Ambient Temperature	0 up to +40°C
Permissible Environment	3K3 according to IEC 60721 (max. 85% rel. humidity, none condensation)
Permissible Operating Altitude	1000m above sea level with rated load
Protection Class	IP20 according to IEC 60529
Paint Finish	RAL 7035
Cooling	Forced air cooling or convection cooling dependent on rated nominal system power

Different output ranges and application/user specific options are possible. Please contact ETPS Ltd to discuss your requirements.

SELECTION TABLE

Part Number	Maximum Power	Voltage Range*	Current
EAC-TABI 10-150	10kVA	3 × 8 - 150Vrms	3 × ±38.5A
EAC-TABI 10-300	10kVA	3 × 15 - 300Vrms	3 × ±19.2A
EAC-TABI 10-600	10kVA	3 × 30 - 600Vrms	3 × ±9.6A
EAC-TABI 15-150	15kVA	3 × 8 - 150Vrms	3 × ±57.7A
EAC-TABI 15-300	15kVA	3 × 15 - 300Vrms	3 × ±28.9A
EAC-TABI 15-600	15kVA	3 × 30 - 600Vrms	3 × ±14.4A
EAC-TABI 20-150	20kVA	3 × 8 - 150Vrms	3 × ±77A
EAC-TABI 20-300	20kVA	3 × 15 - 300Vrms	3 × ±38.5A
EAC-TABI 20-600	20kVA	3 × 30 - 600Vrms	3 × ±19.2A
EAC-TABI 25-150	25kVA	3 × 8 - 150Vrms	3 × ±96.2A
EAC-TABI 25-300	25kVA	3 × 15 - 300Vrms	3 × ±48.1A
EAC-TABI 25-600	25kVA	3 × 30 - 600Vrms	3 × ±24.1A
EAC-TABI 30-150	30kVA	3 × 8 - 150Vrms	3 × ±115.5A
EAC-TABI 30-300	30kVA	3 × 15 - 300Vrms	3 × ±57.7A
EAC-TABI 30-600	30kVA	3 × 30 - 600Vrms	3 × ±28.9A
EAC-TABI 40-150	40kVA	3 × 8 - 150Vrms	3 × ±154A
EAC-TABI 40-300	40kVA	3 × 15 - 300Vrms	3 × ±77A
EAC-TABI 40-600	40kVA	3 × 30 - 600Vrms	3 × ±38.5A
EAC-TABI 50-150	50kVA	3 × 8 - 150Vrms	3 × ±192.5A
EAC-TABI 50-300	50kVA	3 × 15 - 300Vrms	3 × ±96.2A
EAC-TABI 50-600	50kVA	3 × 30 - 600Vrms	3 × ±48.1A
EAC-TABI 60-150	60kVA	3 × 8 - 150Vrms	3 × ±230.9A
EAC-TABI 60-300	60kVA	3 × 15 - 300Vrms	3 × ±115.5A
EAC-TABI 60-600	60kVA	3 × 30 - 600Vrms	3 × ±57.7A
EAC-TABI 80-150	80kVA	3 × 8 - 150Vrms	3 × ±307.9A
EAC-TABI 80-300	80kVA	3 × 15 - 300Vrms	3 × ±154A
EAC-TABI 80-600	80kVA	3 × 30 - 600Vrms	3 × ±77A
EAC-TABI 100-150	100kVA	3 × 8 - 150Vrms	3 × ±384.9A
EAC-TABI 100-300	100kVA	3 × 15 - 300Vrms	3 × ±192.5A
EAC-TABI 100-600	100kVA	3 × 30 - 600Vrms	3 × ±96.2A
EAC-TABI 120-150	120kVA	3 × 8 - 150Vrms	3 × ±461.9A
EAC-TABI 120-300	120kVA	3 × 15 - 300Vrms	3 × ±230.9A
EAC-TABI 120-600	120kVA	3 × 30 - 600Vrms	3 × ±115.5A
EAC-TABI 160-150	160kVA	3 × 8 - 150Vrms	3 × ±615.8A
EAC-TABI 160-300	160kVA	3 × 15 - 300Vrms	3 × ±307.9A
EAC-TABI 160-600	160kVA	3 × 30 - 600Vrms	3 × ±154A
EAC-TABI 200-150	200kVA	3 × 8 - 150Vrms	3 × ±769.8A
EAC-TABI 200-300	200kVA	3 × 15 - 300Vrms	3 × ±384.9A
EAC-TABI 200-600	200kVA	3 × 30 - 600Vrms	3 × ±192.5A
EAC-TABI 250-150	250kVA	3 × 8 - 150Vrms	3 × ±962.3A
EAC-TABI 250-300	250kVA	3 × 15 - 300Vrms	3 × ±481.1A
EAC-TABI 250-600	250kVA	3 × 30 - 600Vrms	3 × ±240.6A
EAC-TABI 330-150	330kVA	3 × 8 - 150Vrms	3 × ±1270.2A
EAC-TABI 330-300	330kVA	3 × 15 - 300Vrms	3 × ±635.1A
EAC-TABI 330-600	330kVA	3 × 30 - 600Vrms	3 × ±317.5A
EAC-TABI 400-150	400kVA	3 × 8 - 150Vrms	3 × ±1539.6A
EAC-TABI 400-300	400kVA	3 × 15 - 300Vrms	3 × ±769.8A
EAC-TABI 400-600	400kVA	3 × 30 - 600Vrms	3 × ±384.9A
EAC-TABI 500-150	500kVA	3 × 8 - 150Vrms	3 × ±1924.5A
EAC-TABI 500-300	500kVA	3 × 15 - 300Vrms	3 × ±962.3A
EAC-TABI 500-600	500kVA	3 × 30 - 600Vrms	3 × ±481.1A

* The value given is a line to line measurement.

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ETPS Ltd must reserve the right to make changes to the published specifications without prior notice. Where certain operating parameters are critical for your application we advise that they be confirmed at the time of order. ETPS Ltd specialises in modifying its proven platforms to suit your needs. Please contact our office if your requirement is non-standard. Please note that your actual unit may differ from those shown.

“WE ARE POSITIVE PEOPLE”

ETPS engineer electronic power supply and testing systems. Our problem solving skills provide the spark of innovation to some of the world’s leading technology brands.

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