

ES 300 Series

300 WATTS PROGRAMMABLE DC SUPPLY

FEATURES

- 300W Laboratory Supply
- 0 to 30Vdc and 0 - 10A
- Very Low Output Ripple
- EMC surpasses CE requirements
- Low emissions & high immunity
- High programming speed
- Excellent dynamic response to load changes
- Protected against all overload and short circuit conditions
- Designed for a long life at full power
- Master/Slave parallel
- Series operation with voltage and current sharing
- Voltage and current control with 10 turn potentiometers
- 19' rack mounting or laboratory use (feet included)
- Remote sensing



SPECIFICATIONS

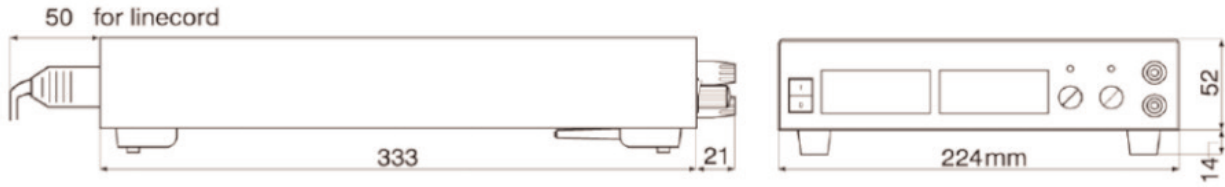
INPUT	
Input voltages	90 - 265Vac Fuse 5 A T
Input Frequency	48 - 62Hz
Power Factor	Better than 0.97
Inrush Current	Limited with NTC resistor of 16 ohms cold resistance
OUTPUT	
Output Voltage	0 to 30Vdc
Output Current	0 to 10A
Digital Meters	0 - 30.0V / 0 - 10.00A, 0.5% + 2 dig
Monitor Voltage	0 - 5V, offset 0 to +7mV, full scale error +/-0.2%
Monitor Current	0 - 5V, offset -5 to 0mV, full scale error +/-0.5%
Reference Voltage	5.165V +/-31mV, TC12ppm typ, 30ppm max
CC status output	+5V (or 5mA) when in CC mode
Limits	Voltage adjust range: 0 - 102% Current adjust range: 0 - 102%
Voltage Regulation	Load 0 - 100%, 10mV Line 100-260Vac 1mV
Current Regulation	Load 0 - 100%, 4mA Line 200-26VAC, 1mA
Ripple & Noise	CV: 5mV rms, 15mV p-p CC: 6mA rms, 15mA p-p
Output Impedance	Less than 0.3ohm up to 100kHz(I out > 0.5A)
Recovery Time	50 μ s (after 50-100% load step)
Hold up time	18 ms full load, 50 ms half load
Remote Sensing	Is not provided
Over voltage limit	Fixed at 34V (int. adjust, 6-34V)
Thermal protection	Shuts down output in case of insufficient cooling
MECHANICAL	
Dimensions	52 x 224 x 333mm
Weight	3.1kg
Degree of Protection	Enclosure IP20

PROGRAMMING	
V and I control	10-turn potmeters, res 0.03%
Programming Inputs	Voltage: 0-5V, offset -3 to +10mV Full scale error +/-0.2% Current: 0-5V, offset 0 to +20mV Full scale error +/-0.5% Input impedance 1Mohm
Prog. response time	Up to 0-30V, 1ms Down 30-5V 2ms with load 3 Ohm
OPTIONAL FEATURES	
Software Control and Interfaces	P179 - Ethernet controller (incl sequencer) P180 - RS232 controller P281 - PROFIBUS controller P282 - CANBUS controller
External programming interface modules	IEEE488 controller module ISO AMP module
OPERATING	
Efficiency	> 86%
Remote ShutDown	+5V (3.5 - 12V) or relay contact, response time 3ms
Series Operation	Normal and Master/Slave series operation is possible. For fast and easy operation the M/S Series Adapter is recommended
Parallel Operation	No limitations. Normal and Master/Slave parallel operation is possible
Insulation	Input to Output: 4.0KVAC (1 min) Input to Case: 2.5KVAC (1 min) Output to Case: 600VDC
MTBF	500,000 hrs
Operating Temperature	-20°C to +50°C
Storage Temperature	-40°C to +85°C
STANDARDS	
Safety	EN60950 / EN61010 Current adjust range: 0 - 102%
EMC	EN61204-3 Power Supply Standard EN61000-6-3 (EN55022B) Generic Emission EN61000-6-2 Generic Immunity

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TECHNICAL ILLUSTRATIONS



19" rack mounting

Panel RA 19-1ES for one ES

Panel RA 19-2ES for two ES

Panel RA 19-ES-PSC for one ES and one PSC-488 module



Rear Connections

Standard unit:
Analog programming

Switches Manual / Programming

Analog programming

Input Connector

Linecord supplied



Option P179:
Ethernet programming

Ethernet programming

Switches Manual / Programming

Combination possible with option P185



Option P180:
RS232 programming

RS232 programming

Switches Manual / Programming

Combination possible with option P185



Option P185:
Rear power outlet

Rear power outlet

Switches Manual / Programming

Analog programming

