

Flatpack2 Integrated 19" 2U

24V, 48V, 60V, 110V, 125V & 220V



Power supply system, battery charger or DC/DC converter

The Integrated 19" 2U power supply is built around the Flatpack2 rectifier and designed for applications such as switchgear, telecom, emergency lighting and alarm systems.

The rectifier's wide DC output range makes it suitable for parallel operation with all types of stationary batteries, including lead acid, lithium or nickel cadmium types.

As additional options the measuring and signalling can be widely extended by incorporating the Eltek Fleximonitor and Relay Board.

Applications

- Power utilities
 - Low & high voltage switchgear
 - Transformer & substations
 - Power generation & distribution
 - Control & protection
 - Scada system
 - Communication equipment
- Railway & metro infrastructure
 - Control & protection
 - Signalling
 - Safety systems
- Telecom-mobile
 - Radio base stations / Cell Sites
 - LTE / 4G / WiMAX
 - Distributed antenna systems
 - Microwave
 - Broadband

Key features

- Compact 19" / 2U system design
- Smartpack2 controller
- House up to 4 hot pluggable modules
- Super high efficiency rectifiers
- V_{AC} or V_{DC} input
- 24 - 220 V_{DC} output
- Bulk feed output
- Advanced control and monitoring through ethernet port
- Graphical 3.2" TFT high contrast, high resolution colour display for easy navigation in user menu
- SNMP protocol with trap, set and get on ethernet, email of trap alarms
- Digital programmable relay outputs
- Programmable multipurpose inputs ("digital inputs" or analog signals)
- Simple installation

Flatpack2 Integrated 19" 2U

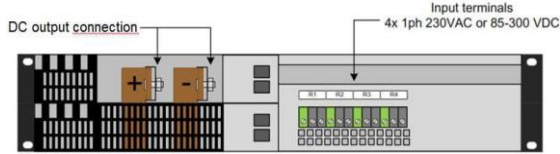
24V, 48V, 60V, 110V, 125V & 220V

Model	24 – 125 V	
Part number	CIO30402.4nnn	
Input data		
Voltage (nominal)	185 - 275 V _{AC/DC}	
Voltage (operating range)	85 - 305 V _{AC/DC}	
Frequency	0 - 66 Hz	
Power factor	> 0.99	
Output data		
Voltage (nominal) DC	24, 48, 60, 110, 125 V	
Adjustable range DC	See module datasheet	
Max output power DC	12 kW	
Static Voltage regulation	+/- 0.5 %	
Controller type		
Smartpack2	Touch	
Basic unit	Basic	
I/O unit	Type 2	

Front view Flatpack 2 Integrated 19" 2U



Rear view Flatpack 2 Integrated 19" 2U

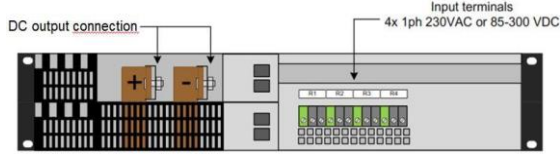


Model	110 – 220 V	Front View Flatpack 2 Integrated 19" 2U
Part number	CIO20402.4nnn	
Input data		
Voltage (nominal)	185 - 275 V _{AC/DC}	
Voltage (operating range)	85 - 300 V _{AC/DC}	
Frequency	0 - 66 Hz	
Power factor	> 0.99	
Output data		
Voltage (nominal) DC	110, 125, 220 V	
Adjustable range DC	See module datasheet	
Max output power DC	8 kW	
Static Voltage regulation	+/- 0.5 %	
Controller type		
Smartpack2	Touch	
Basic unit	Basic Industrial	
I/O unit	Fleximonitor / Relay box	

Front view Flatpack 2 Integrated 19" 2U



Rear view Flatpack 2 Integrated 19" 2U



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Model	24 – 125 V	110 – 220 V
Product number (Configured Industrial Power system)	CIO30402.4nnn	CIO20402.4nnn

Power Module		
Flatpack2 rectifier ¹⁾	Flatpack2 24/1800 HE Flatpack2 48/2000 HE / SHE Flatpack2 48/3000 HE / SHE Flatpack2 48-60/2000 HE Flatpack2 110/2000 HE	Flatpack2 110/2000 HE Flatpack2 220/2000 HE

Input data	
Voltage (range) ^{1), 2)}	85 - 300 V _{AC/DC}
Individual AC input	4x (L, N, PE)
Connection	Individual screw terminal 6 mm ² , rear connection

Output data		
Nominal output voltage	24 - 125 V _{DC}	110 - 220 V _{DC}
Power (maximum @ nominal input)	12 kW	8 kW
Pb, number of cells supported	12 - 60	50 - 120
NiCd, number of cells supported	18 - 104	82 - 180
Connection	Unprotected bulk output on M6 bolt, rear connection	

Control and monitoring		
Controller master unit ³⁾	Smartpack2 touch	
Controller basic unit ³⁾	Basic	Basic industrial
Local operations	Self-explanatory menu guided operation via touch-pad and graphical colour display	
Remote operations	Ethernet for remote/local monitoring and control via WEB browser, SNMP protocol, Modbus	
Input / output unit	I/O monitor, Type2	Fleximonitor (optional)
Inputs	6x NO / NC	16x NO / NC
Relay outputs	6x potential free NO-C-NO	4x or 8x potential free NO-C-NO (Via optional Fleximonitor Relay extension board)

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Other specification		
Isolation	3.0 kVAC - input to output 1.5 kVAC - input to earth 0.5 kVDC - output to earth	
Ingress protection class	IP 20	
Operating temperature	-40 to +55 °C (-40 to +131 °F), humidity 5 – 95 % RH non-condensing	
Storage temperature	-40 to +85 °C (-40 to +185 °F), humidity 0 – 99 % RH non-condensing	
Dimensions (W x D x H)	482 x 432 x 89 mm [19 x 17 x 3.5 inch]	482 x 470 x 89 mm [19 x 18.5 x 3.5 inch]
Weight	Aprox. 10 kg (1x power module), aprox. 16 kg (4x power modules)	

Design standards		
Electrical safety	EN IEC 62368-1:2020+A11:2020	EN IEC 62368-1:2020+A11:2020
EMC	ETSI EN 300 386 V.1.6.1, FCC CFR 47 Part 15 EN 61000-6-1 /-2 /-3 /-4 /-5 (depending on module)	
Environment	ETSI EN 300 019-2-1 (Class 1.2) ETSI EN 300 019-2-2 (Class 2.3) ETSI EN 300 019-2-3 (Class 3.2) RoHS (2011/65/EU) and WEEE (2002/96/EC) compliant Normal operating conditions as per IEC 62040-5-3:2016 clause 4.2. Other operating conditions as per IEC 62040-5-3:2016 clause 4.3, must be advised.	

- 1) See respective Flatpack2 rectifier datasheet for more information
- 2) The VDC input available with 'xxx/2000 HE' modules only
- 3) See Smartpack2 controller datasheet for details
- 4) See respective Input / Output CAN node datasheet for details

Specifications are subject to change without notice