Compact, full-featured DIN-rail power system

The Micropack System is convection cooled, designed for less power hungry applications, but still with system functionality options to match any requirements. Use as stand alone or in a flexible off the shelf configurable system.

The Micropack Power System extends your network one step further. With load ranges typically between 120W and 1000W, and in 12, 24 and 48V options, the system is perfect for a great variety of applications.

MICROPACK SYSTEM

FOR 12 V_{DC}, 24 V_{DC}, 30 V_{DC} & 48 V_{DC} OUTPUT

Doc 241120.90x.DS3 – v8

APPLICATIONS

TELECOM – MOBILE / WIRELESS

- RADIO BASE STATIONS/ CELL SITES
- LTE / 4G / WIMAX
- MICROWAVE

TELECOM – FIXED

- FIBER OPTICS
- MICROWAVE
- CABLE
- BROADBAND

POWER UTILITIES

- CONTROL & PROTECTION
- PLC AND ALARM SYSTEMS
- SIGNALING

RAILWAY & METRO

- CONTROL & PROTECTION
- SIGNALING SYSTEMS
- SAFETY SYSTEM

MICROPACK RECTIFIERS

COMPACK CONTROLLER

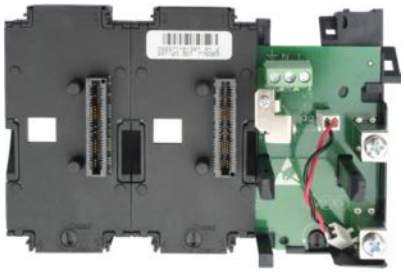
KEY FEATURES

- COMPACT AND SHALLOW (149 MM DEEP)
- DIN RAIL MOUNTABLE
- ON-SITE CONFIGURABLE
- OFF THE SHELF DELIVERY
- STAND-ALONE OPTION (W/ALARM RELAY)
- PLUG-IN BREAKERS OR BULK OUTPUT
- ACCEPTS 85 – 300 $V_{AC/DC}$ INPUT
- 12, 24-30, 48 V_{DC} OUTPUT VERSIONS
- ETHERNET FOR REMOTE AND LOCAL MONITORING AND CONTROL VIA WEB BROWSER
- SNMP PROTOCOL WITH TRAP, SET AND GET ON ETHERNET. EMAIL OF TRAP ALARMS
- 3 DIGITAL PROGRAMMABLE RELAY OUTPUTS
- 3 PROGRAMMABLE MULTIPURPOSE INPUTS

MICROPACK SYSTEM

FOR 12 V_{DC}, 24 V_{DC}, 30 V_{DC} & 48 V_{DC} OUTPUT

RECTIFIER POWER CORES



2-positions (241120.901)

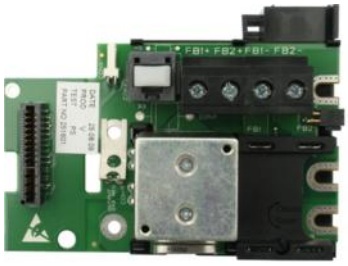
Standalone (241120.900)

4-positions (241120.902)

RECTIFIER POWER CORES

Battery distribution with shunt, LVBD and sockets for 2 breakers

(241120.910 for 48 V_{DC} only)
(241120.915 for 24 - 48 V_{DC})

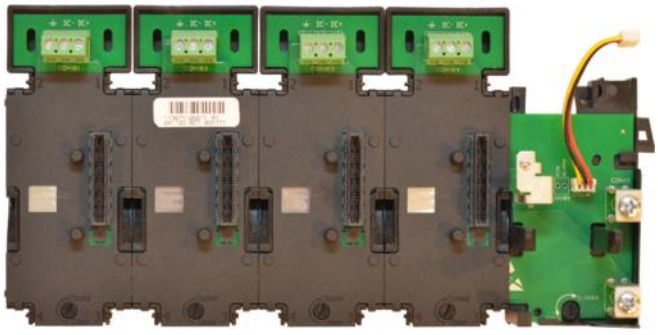


Load distribution with sockets for 4 breakers (241120.920)

Plug-in battery and load breaker

RECTIFIER POWER CORES

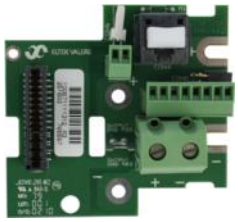
Standalone (241120.905)



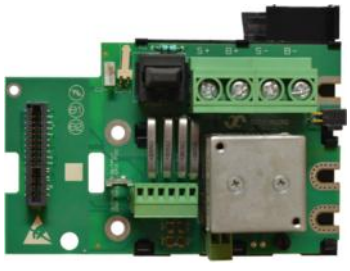
4-positions (241120.907)

RECTIFIER POWER CORES

Bulk feed output (241120.911)



Battery bulk feed with shunt and contactor in positive leg.
(241120.912 – 12 V_{DC} only)
(241120.914 – 24 - 48 V_{DC})



MICROPACK SYSTEM

FOR 12 V_{DC}, 24 V_{DC}, 30 V_{DC} & 48 V_{DC} OUTPUT

MARINE FILTER

DIN Rail Marine filter (241120.930)

MICROPACK SYSTEM BUILDING BLOCKS - COMPABILITY MATRIX

Part number	Description	Output Voltage 12V	24V	48V	Output grounding DC+	DC-	FLOAT	Supports Rectifier	DC/DC
241120.900	Powercore -1	ü	ü	ü	ü	ü	ü	ü	û
241120.901	Powercore -2	ü	ü	ü	ü	ü	ü	ü	û
241120.902	Powercore -4	ü	ü	ü	ü	ü	ü	ü	û
241120.905	Powercore -1	ü	ü	ü	ü	ü	ü	û	ü
241120.907	Powercore -4	ü	ü	ü	ü	ü	ü	û	ü
241120.910	Batt dist.	û	û	ü	ü	û	ü[1)]	ü	ü[3)]
241120.911	Bulk feed	ü	ü	ü	ü	ü	ü	ü	ü[4)]
241120.912	Bulk feed LVD 12	ü	û	û	û	ü	ü	ü	ü
241120.914	Bulk feed LVD 24/48	û	ü	ü	û	ü	ü	ü	ü
241120.915	Batt dist. 24/48	û	ü	ü	ü	û	ü[1)]	ü	ü
241120.920	Load dist.	ü	ü	ü	ü	û	ü[1)]	ü	ü
251875	Dummy Module	ü	ü	ü	ü	ü	ü	ü	ü
241120.930	Marine filter[2)]	ü	ü	ü	ü	ü	ü	ü	ü

1) Grounding of positive recommended
2) For AC input
3) From revision 4
2) From revision 2

RECTIFIER POWER CORES

A few quick steps.....

- ü Start with a DIN rail
- ü Clip on and lock the desired power core; 2 or 4 rectifier positions or stand alone
- ü Clip on and fasten either the bulk feed unit or battery distribution (for 2 or 4 pos power cores)
- ü Clip on and fasten the load distribution (if applicable)
- ü Do the wiring
- ü In marine applications, clip on the Marine Filter Unit and connect the AC feed through it.
- ü Plug in the battery and load breakers
- ü Plug in the rectifier modules and controller
- ü Install covers for the distributions, bulk feed and blind panel for any unused rectifier positions if applicableS

...and you'll have a complete DC system.

Model	Battery dist.	Bulk feed	Bulk feed LVD	Load dist.
Part number	241120.910 / .915	241120.911	241120.912 / .914	241120.920
OUTPUT DATA				
System voltage support	-48 / -24 – -48 V_{DC}	±12 – ±48 V_{DC}	+12 / +24 – +48 V_{DC}	-12 – -48 V_{DC}
Unprotected bulk output connections	-	1 (Max 10 mm^2)	1 (Max 10 mm^2)	-
Protected load output connections (plug-able single pole MCB in negative)	-	-	-	4 x 2 - 15 A (Max 4 mm^2)
Connection to Load dist (241120.920)	•	•	•	•
Unprotected battery output connections (shunt and LVBD in positive)	-	-	1 (Max 10 mm^2)	-
Protected battery output connections (single pole MCB, shunt and LVBD in negative)	2 x max 30 A (Max 10 mm^2)	-	-	-
Output Protection in rectifiers/converters	Blocking OR-ing FET or fuse, Short circuit proof and High temperature protection			
OTHER SPECIFICATIONS				
Control system connection terminals	CAN (1 x RJ45)	CAN (1 x RJ45) 2 x LVD 2 x fuse fail 1 x current shunt	CAN (1 x RJ45) 1 x LVD 2x fuse fail 1 x earth fault	-
Extending width	66 mm [2.6"]	26 mm [1.0"]	66 mm [2.6"]	73 mm [2.9"]
Weight	270 g [0.6 lbs]	110g [0.24 lbs]	250 g [0.6 lbs]	165 g [0.3 lbs]

MICROPACK SYSTEM

FOR 12 V_{DC}, 24 V_{DC}, 30 V_{DC} & 48 V_{DC} OUTPUT

Model	Stand alone	2-pos	4-pos	DC/DC 1-pos	DC/DC 4-pos
Part number	241120.900	241120.901	241120.902	241120.905	241120.907
INPUT DATA					
Maximum voltage		300 $V_{AC/DC}$		72 V_{DC}	
Maximum current	2 A	7 A	7 A	15 A	15 A
Connection, screw terminals max 2.5mm^2		1 x L/N/PE		1 x DC+/DC-/PE	4 x DC+/DC-/PE
Protection	Individual fuse in Micropack power modules				
Coding (prevents mixing of output voltages)		Yes, and only rectifiers fit		Yes, and only DC/DCs fit	
OUTPUT DATA					
Voltage	12V_{DC}, 24 V_{DC}, 30 V_{DC} & 48 V_{DC}				
Maximum current	10 A	20 A	40 A	12 A	40 A
Connection, screw terminals max 2.5mm^2	2 x V_{OUT+} / V_{OUT-}	-	-	2 x V_{OUT+} / V_{OUT-}	-
Connection to 241120.91x bases	-	•	•	-	•
Output Protection in rectifiers	Blocking OR-ing FET or fuse, Short circuit proof and High temperature protection				
OTHER SPECIFICATIONS					
Module alarm relay output, max 1mm^2	•	-	-	•	-
CAN connections	- / •(3 pin)[2]	• (2 wire)	• (2 wire)	- / •(3 pin)[2]	• (3 wire)
Width	44 mm [1.7"]	142 mm [5.6"]	231 mm [6.1"]	44 mm [1.7"]	231 mm [6.1"]
Weight	70 g [0.2 lbs]	160g [0.4 lbs]	250 g [0.6 lbs]	78 g [0.2 lbs]	292 g [0.6 lbs]

Model	DIN Rail Marine Filter
Part number	241120.930
OTHER SPECIFICATIONS	
Mains rating / connection	85 - 300 $V_{AC/DC}$, 0 - 12.5 A / L- N (DC+/-) + PE : 2.5mm^2 screw terminals
Dimensions / weight	35 x 99 x 114.5 mm [1.4 x 4.1 x 4.7"] / 328 g [0.72 lbs]

All models	
OTHER SPECIFICATIONS	
Cover material	Plastic V0 rated and aluminium
Temperature	Operating: -40 to +65°C (-40 to +149°F), storage: -40 to +85°C (-40 to +185°F)
Mounting	35mm DIN rail
Dimensions (H x D)	89 mm (2U)[1] x max. 150mm (incl. DIN rail) mm [3.5 x 5.9 "]
DESIGN STANDARDS	
Electrical safety	UL 60950-1:2007, CSA C22.2 No. 60950-1-07, IEC 60950-1:2005 + A1:2009, EN 60950-1: 2006, A11:2009, A1:2010, A12:2011
EMC	ETSI EN 300 386 v1.5.1: 2010 EN 61000-6-1:2007, -6-2:2005, - 6-3:2011, - 6-4:2011, -6-5:2001 FCC Part 15 Subpart 109
Mains Harmonics	EN 61000-3-2:2006
Environment	ETSI EN 300 019: -2-1 (Class 1.2) / - 2-2 (Class 2.3) / -2-3 (Class 3.2) ETSI EN 300 132-2 v2.2.2:2003 2011/65/EC (RoHS) & 2012/19/EC (WEEE)
Marine compliance (EMC class B with AC filter)	DnV Rules for Classification of Ships, High Speed & Light Craft and DnV Offshore Standards

1) Allow for minimum 1U below and above to ensure airflow
2) From HW revision 2; end-resistor p/n: 281785, standalone to standalone CAN loom p/n: 259444

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