



FEATURES
 Supports OCP systems
10U height
537(W) x 720(L) x 44.5(H) mm
 21.6kW total output power (N+0)
Accommodates up to six PSU modules and
one RMU
50.5/54.5V output
PSU & RMU are hot-swappable
N+1 / N+N Redundancy
 Supports external BBU (Murata Battery
Backup System)
Four RJ45 ports with RMU





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PRODUCT OVERVIEW

MWOCES-211-P-C is a 21.6kW, 21" 10U power shelf that provides a delivery system for up to six 68mm, 10U Power Supplies (PSU), and one Remote Management Unit (RMU). It is intended to support 50.5V/54.5V power distribution architectures in OCP (V3) systems. Two AC input connectors accommodate either three-phase four-wire delta (without neutral) or three-phase five-wire wye (with neutral) configurations for added flexibility. Each input is configured to power a group of three power supply module slots. DC output connection is provided by pluggable bus bars.

Ordering Guide		
Part Number ¹	Input Cion	DC Output Busbar Configuration
MWOCES-211-P-C ²	 Three-Phase four wire Delta Three-Phase five wire Wye Single-Phase HVDC 	Bar clip

¹Shelf does not include the power supply modules and RMU and needed to be ordered separately as required. ² Contact Murata for availability

INPUT CHARACTERISTICS								
Parameter	Conditions	Min.	Nom.	Max.	Units			
	Line to Line (Delta source)	180	200/208/277	305				
Input Voltage Operating Range	Line to Line (Wye source with neutral connection)	312	346/360/480	528	Vac			
	HVDC	192	240/380	400				
Frequency	AC input	47	50/60	63	Hz			
	Wye / Single-phase: 200-240Vac (Each input, per line)			23.5	Arme			
Input Current	Delta : 200-240Vac (Each input, per line)			41.0	AIIII5			
	240-380Vdc (each input, per line)			23	Adc			

OUTPUT CHARACTERISTICS								
Parameter	Configuration	Min.	Тур.	M (At Outp 50.5 Vdc	Max. put Voltage) 54.5 Vdc	Units		
	With six (6) PSUs	0		21,600	21,600			
	With five (5) PSUs	0		18,000	18,000			
Output Power	With four (4) PSUs	0		14,400	14,400	w		
output i owei	With three (3) PSUs	0		10,800	10,800	, vv		
	With two (2) PSUs	0		7,200	7,200			
	With one (1) PSU	0		3,600	3,600			
	With six (6) PSUs	0		427.7	396			
	With five (5) PSUs	0		356.5	330	Δ		
Output Current	With four (4) PSUs	0		285.2	264			
Output Outrent	With three (3) PSUs	0		213.9	198			
	With two (2) PSUs	0		142.6	132			
	With one (1) PSU	0		71.3	66			
	With six (6) PSUs [5+1]		14.4 (a	t 18kW Output p	oower)			
	With six (6) PSUs [3+3]		oower)					
	With five (5) PSUs [4+1]		15 (at 14.4kW Output power)					
Holdun Time	With four (4) PSUs [3+1]		16 (at 10.8kW Output power)					
	With four (4) PSUs [2+2]	24 (at 7.2kW Output power)						
	With three (3) PSUs [2+1]		18 (at	7.2kW Output p	ower)			
	With two (2) PSUs [1+1]		24 (at	3.6kW Output p	ower)			
	With one (1) PSU		12 (at	3.6kW Output p	ower)			



ENVIRONMENTAL CHARACTERISTICS

Parameter	Conditions	Min.	Тур.	Max.	Units			
Storage temperature range	Non-operating	-40		70	°C			
Operating temperature range	Altitude < 5,000m	0		40				
Storage humidity	Non-condensing	10		90	0/_			
Operating humidity	Non-condensing	10		85	/0			
Shock	30G non-operating							
Vibration	Operating, random vibration, 5-500Hz 1.11G							
Safety approval	UL62368-1 : 2018 (3rd Edition) (Information Technology Ed CAN/CSA-C22.2 No. 62368-1 : 2018 (3rd Edition) (Informa General Requirements) TUV : EN62368-1:2018 (3rd Edition) CQC : GB4943.1-2022 CB : IEC 62368-1:2018 (3rd Edition)	quipment — s ation Techno	afety – Part ⁻ logy Equipme	I: General Re nt – safety –	quirements) Part 1:			
Weight (Typical)	Shelf Only, without PSUs and RMU		12.1		Kg			

ISOLATION CHARACTERISTICS								
Parameter	Conditions	Min.	Тур.	Max.	Units			
Insulation opfoty rating/toot voltage	Input to output - Reinforced	5,000			Vdo			
insulation safety rating/test voltage	Input to chassis	2,500			Vuc			
Isolation	Output to chassis	50			Vdc			

Emission and immunity						
Parameter	Standard	Criteria				
Input current harmonics	IEC/EN 61000-3-12	Class A				
Conducted emission	CISPR 22	Class A				
ESD immunity	IEC/EN 61000-4-2	Level 4 criteria A				
Electrical fast transient/burst immunity	IEC/EN 61000-4-4	Level 3 criteria B				
Surge immunity	IEC/EN 61000-4-5	Level 3 criteria A				

PRODUCT VIEWS AND CONNECTOR DETAILS Front View PORT3 PORT4 AUX Ports (*), QTY 2 RJ45 0 0 RMU, QTY 2 RJ45 (*) Auxiliary board (AUX) is included with the power shelf. Rear View 0000 EXTERNAL Chassis Ground For BBU (battery +50V/+54.5V PIN 1 **INPUT 1** (internally connected to Input **INPUT 2** PIN 1 backup system) Connector PINS "PE") +50V/+54.5V RTN 4mm² diameter(AWG10) earthing wire shall be connected to the chassis by screw at screw hole marked with

"Protective Earth" symbol.



RJ45 CONNECTOR PIN ASSIGNMENT (AUX PORT 3)

NJ40 CONNECTOR FIN ASSIGNMENT (AUA I	-Uni 3)			
	Pin	I/O	Function	Description
	1	1	GND	-
	2	0	PLS_F	Notification signal that at least one PSU AC input fault
	3	0	BKP_F	Notification signal that at least one PSU is in FAULT state
base a	4	-	-	-
	5	-	-	-
IBSTAL .	6	-	-	-
	7	-	-	-
	8	-	-	-

RJ45 CONNECTOR PIN ASSIGNMENT (AU)	(PORT 4	.)		
	Pin	I/O	Function	Description
	1	A	ISHARE	PSU current share signal
	2	1	GND	-
	3	I/O	SYNC_START	PSU activation signal
	4	0	VOUT_SEL	Notification signal that PSU output voltage setting mode
	5	1	GND	-
COSTAN.	6	-	-	-
	7	-	-	-
	8	-	-	-

INPUT CONNECTOR PIN ASSIGNMENT (AC INPUT 1 & 2)

Positronic SP10RSSS48RM220A1-AA-2269 (Input 1) SP10RSSS48M220A1-AA-2269 (Input 2) mating connector; Positronic SP10RSSS1F0W01/AA-2268

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	W	/ye Input	Delta Input			Single Input			HVDC Input		
Pin No	Signal	Function	Pin No	Signal	Function	Pin No	Signal	Function	Pin No	Signal	Function
1	L1	AC line voltage 1	1	L1	AC line voltage 1	1	L	AC live	1	(+ HVDC)	DC POSITIVE
2	Ν	Neutral	2	L2	AC line voltage 2	2	Ν	Neutral	2	(- HVDC)	DC RETURN
3	L2	AC line voltage 2	3	L2	AC line voltage 2	3	L	AC live	3	(+ HVDC)	DC POSITIVE
4	PE	Protective earth	4	PE	Protective earth	4	PE	Protective earth	4	PE	Protective earth
5	Ν	Neutral	5	L3	AC line voltage 3	5	Ν	Neutral	5	(- HVDC)	DC RETURN
6	L3	AC line voltage 3	6	L3	AC line voltage 3	6	L	AC live	6	(+ HVDC)	DC POSITIVE
7	Ν	Neutral	7	L1	AC line voltage 1	7	Ν	Neutral	7	(- HVDC)	DC RETURN

MWOCES-211-P-C

OCP system support Power Shelf



INTERNAL CONNECTION



COMMUNICATION (WITH MWOC-RMU)					
FUNCTION	DESCRIPTION				
Control the units	ON/OFF control of each unit installed in the power shelf Select the power source line				
Reporting to the host	ON/OFF Status and presence information of each unit Status of input power sources Fault information of each unit Input power and output power of PSUs Output power and SoC of the battery unit				

COMMUNICATION (WITH MWOC-AUX)							
FUNCTION	DESCRIPTION						
Auxiliary power supply for 12V_SB	Outputs 12V from the bus voltage to back up the RMU during a power failure (requires for BBU)						
Auxiliary signal	Outputs signals such as current share, fault, output voltage switching (TBD)						
Link Back To Order Guide							

www.murata-ps.com/support



MECHANICAL DRAWING



2. Dimensions in mm

RELATED PRODUCT DATASHEETS		
Document Number	Description	Link to Related Datasheets
MWOC-RMU	Monitor and control unit	URL Link to Document
MW0CP68-3600-D-RM	3.6kw/54.5V ac-dc front-end PSU module	URL Link to Document
MW0CP68-3600-B-RM	3.6kW/50V ac-dc front-end PSU module	
MWOC_BLANKING_PANELS	Blanking panel accessories	URL Link to Document
back to the product overview		

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This product is subject to the following operating requirements and the Life and Safety Critical Application Sales Policy. Refer to: https://www.murata-ps.com/requirements/

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