

an EnerSys® company

# **MODUPS<sup>™</sup> Series**

Uninterruptible Power Supply



- Cordex<sup>®</sup> switched mode battery charger/rectifier
- Pulse-Width Modulation (PWM) inverter with built in modular static switch and internal AC-DC rectifier
- Manual make before break (MBB) bypass switch
- Microprocessor controlled logic and control panel for DC section and AC section
- Input and output circuit breakers

#### The MODUPS<sup>™</sup> Series UPS is a continuous duty, single or three-phase input and onephase output, double-conversion, solid-state uninterruptible power supply.

Designed specifically as an AC backup power source for critical AC loads, its operational level of greater than 92% power efficiency results in less power usage than typical UPS systems. With optimal system efficiency at 50 to 100% of load, additional inverter and/ or rectifier modules may be added to the system with no negative impact on system efficiency.

Modular rectifiers charge the batteries only when necessary and the charging capacity of the system rectifiers are proportional to battery

capacity. This optimizes battery recharge time and minimizes the number of rectifiers necessary to support the batteries.

MODUPS Series inverters provide a clean sinewave output power signal to AC loads—with its built-in static switch design, it allows a zero transfer time of the loads to the AC bypass available source in case of AC black out. Also, built-in manual bypass switch takes the system down for maintenance safely without interrupting AC power to loads.

All modules are hot-swappable and each individual module can disconnect itself from the system in the event of failure. Additionally, the scalable architecture of the MODUPS Series allows flexibility for easy future system expansion.

## **MODUPS<sup>™</sup> Series** Specifications

Models:	MODUPS-06-1-1	MODUPS-12-1-1	MODUPS-15-1-1			
Electrical						
Power Rating:	6kVA	12kVA	15kVA			
Input/Phase:	208 to 240VAC/1PH	208 to 240VAC/1PH	208 to 240VAC/1PH			
Input Current:	70A	93A	116A			
Output/Phase:	120V/1PH	120V/1PH	120V or 240V/1PH			
Output Power:	6,000VA	12,000VA	15,000VA			
Rated Frequency:	50/60Hz	50/60Hz	50/60Hz			
Frequency Range:	45 to 66Hz	45 to 66Hz	45 to 66Hz			
Power Factor:	>0.9 at nominal conditions and 50-100% load	>0.9 at nominal conditions and 50-100% load	>0.9 at nominal conditions and 50-100% load			
Start Up Delay:	Programmable up to 120 seconds to enable stagger-start of multiple rectifiers and to minimize the effect on a supply source					
Soft Start:	User adjustable to at least 5 seconds (not including start up delay time) and is determined by output current limit ramp-up					
Inrush Current:	$\leq$ full load steady state current of the rectifier within rated limits	$\leq$ full load steady state current of the rectifier within rated limits	$\leq$ full load steady state current of the rectifier within rated limits			
Input Current THD:	<5% Total Harmonic Distortion (THD) at 100% load	<5% Total Harmonic Distortion (THD) at 100% load	<5% Total Harmonic Distortion (THD) at 100% load			
Input Transient Suppression:	Meets ANSI/IEEE C62.41 category B3	Meets ANSI/IEEE C62.41 category B3	Meets ANSI/IEEE C62.41 category B3			
DC Link Voltage Range:	90 to 145VDC	90 to 145VDC	90 to 145VDC			
Protection:	In and output circuit breakers	In and output circuit breakers	In and output circuit breakers			
Efficiency:	>92% at nominal conditions and 50-100% load	>92% at nominal conditions and 50-100% load	>92% at nominal conditions and 50-100% load			
Overload Capacity:	Inverter: 100	% continuously, 150% for 5 seconds Bypass: 1000% for 10ms, 125%	for 10 minutes			
Crest Factor:	3.1	3.1	3.1			
Harmonic Voltage Distortion:	1.5% THD maximum, 1% maximum for any single harmonic (linear load)	1.5% THD maximum, 1% maximum for any single harmonic (linear load)	1.5% THD maximum, 1% maximum for any single harmonic (linear load)			
MTBF:	230,000hrs	230,000hrs	230,000hrs			
Communications						
Interface Port:	RS232/RS485/dry alarm contacts	RS232/RS485/dry alarm contacts	RS232/RS485/dry alarm contacts			
Built-in SNMP Card:	Optional	Optional	Optional			
Alarms/Monitor:	LCD/LED	and audible: AC fault, DC fault, Inverter fault, Bypass fault, on Inverter,	, on Bypass			
Mechanical						
Enclosure Dimensions L × D × H (in):	32 × 32 × 84	32 × 32 × 84	32 × 32 × 84			
Estimated Weight (lbs):	950	1050	1100			
Protection Rating:	NEMA 1/IP20	NEMA 1/IP20	NEMA 1/IP20			
Safety and Environment						
Temperature:	Ope	rating: 32 to 104°F (0 to 40°C) Storage: -4 to 140°F (-20 to 6	50°C)			
Relative Humidity:	90% non-condensing	90% non-condensing	90% non-condensing			
Audible Noise:	65dBA at 1m distance	65dBA at 1m distance	65dBA at 1m distance			
Isolation/Gavalnize:	AC-DC-AC: 2,000Vrms DC-GND: 2,000Vrms AC-GND: 2,000Vrms	AC-DC-AC: 2,000Vrms DC-GND: 2,000Vrms AC-GND: 2,000Vrms	AC-DC-AC: 2,000Vrms DC-GND: 2,000Vrms AC-GND: 2,000Vrms			
Agency Compliance:	UL 1778/CSA 22.2 107 CE (pending)	UL 1778/CSA 22.2 107 CE (pending)	UL 1778/CSA 22.2 107 CE (pending)			
Rectifier Power Module (Corde	x <sup>®</sup> Switch-Mode Rectifier Module, 125VDC/	4.4kW Rating Per Module)				
Quantity:	3	4	5			
Inverter Power Module (125VD	0C-120-240VAC/1.6kVA or 1kVA)					
Quantity:	4	8	15			
Configuration	1	l 	1			
	208 to 240VAC/1PH	208 to 240VAC/1PH	208 to 240VAC/1PH			
	125010 210000 1111	125VDC	125010 210000 1111			
AC Output:	120V/1PH	1200 / 1PH	120V or 240V/1PH			
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## **MODUPS<sup>™</sup> Series** Specifications

Models:	MODUPS-06-3-1	MODUPS-12-3-1	MODUPS-15-3-1	MODUPS-20-3-1	MODUPS-30-3-1	
Electrical						
Power Rating:	6kVA	12kva	15kva	20kVA	30kVA	
Input/Phase:	208VAC/3PH	208VAC/3PH	208VAC/3PH	208VAC/3PH	208VAC/3PH	
Input Current:	40A	54A	67A	81A	108A	
Output/Phase:	120V/1PH	120V/1PH	120V or 240V/1PH	120V or 240V/1PH	120V or 240V/1PH	
Output Power:	6,000VA	12,000VA	15,000VA	20,000VA	30,000VA	
Rated Frequency:	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	
Frequency Range:	45 to 66Hz	45 to 66Hz	45 to 66Hz	45 to 66Hz	45 to 66Hz	
Power Factor:	>0.9 at nominal conditions and 50-100% load					
Start Up Delay:	Programmable up to 120 seconds to enable stagger-start of multiple rectifiers and to minimize the effect on a supply source					
Soft Start:	User adjustable to at least 5 seconds (not including start up delay time) and is determined by output current limit ramp-up					
Inrush Current:	$\leq$ full load steady state current of the rectifier within rated limits					
Input Current THD:	<5% Total Harmonic Distortion (THD) at 100% load					
Input Transient Suppression:	Meets ANSI/IEEE C62.41 category B3	Meets ANSI/IEEE C62.41 category B3	Meets ANSI/IEEE C62.41 category B3	Meets ANSI/IEEE C62.41 category B3	Meets ANSI/IEEE C62.41 category B3	
DC Link Voltage Range:	90 to 145VDC	90 to 145VDC	90 to 145VDC	90 to 145VDC	90 to 145VDC	
Protection:	In and output circuit breakers	In and output circuit breakers	In and output circuit breakers	In and output circuit breakers	In and output circuit breakers	
Efficiency:		>	92% at nominal conditions and 50-100% lo	ad		
Overload Capacity:		Inverter: 100% continuously	r, 150% for 5 seconds Bypass: 1000% fo	r 10ms, 125% for 10 minutes		
Crest Factor:	3.1	3.1	3.1	3.1	3.1	
Harmonic Voltage Distortion:		1.5% THD ma	ximum, 1% maximum for any single harmoni	ic (linear load)		
MTBF:	230,000hrs	230,000hrs	230,000hrs	230,000hrs	230,000hrs	
Communications						
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Interface Port:	RS232/RS485/dry alarm contacts	RS232/RS485/dry alarm contacts	RS232/RS485/dry alarm contacts	RS232/RS485/dry alarm contacts	RS232/RS485/dry alarm contacts	
Interface Port: Built-in SNMP Card:	RS232/RS485/dry alarm contacts Optional	RS232/RS485/dry alarm contacts Optional	RS232/RS485/dry alarm contacts Optional	RS232/RS485/dry alarm contacts Optional	RS232/RS485/dry alarm contacts Optional	
Interface Port: Built-in SNMP Card: Alarms/Monitor:	RS232/RS485/dry alarm contacts Optional	RS232/RS485/dry alarm contacts Optional LCD/LED and audible	RS232/RS485/dry alarm contacts Optional a: AC fault, DC fault, Inverter fault, Bypass fau	RS232/RS485/dry alarm contacts Optional Jlt, on Inverter, on Bypass	RS232/RS485/dry alarm contacts Optional	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical	RS232/RS485/dry alarm contacts Optional	RS232/RS485/dry alarm contacts Optional <b>LCD/LED and audible</b>	RS232/RS485/dry alarm contacts Optional 2: AC fault, DC fault, Inverter fault, Bypass fau	RS232/RS485/dry alarm contacts Optional ult, on Inverter, on Bypass	RS232/RS485/dry alarm contacts Optional	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in):	RS232/RS485/dry alarm contacts Optional 32 × 32 × 84	RS232/RS485/dry alarm contacts Optional <b>LCD/LED and audible</b> 32 × 32 × 84	RS232/RS485/dry alarm contacts Optional a: AC fault, DC fault, Inverter fault, Bypass fau 32 × 32 × 84	RS232/RS485/dry alarm contacts Optional ult, on Inverter, on Bypass (2×) 32 × 32 × 84	RS232/RS485/dry alarm contacts Optional (2×) 32 × 32 × 84	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs):	RS232/RS485/dry alarm contacts           Optional           32 × 32 × 84           1100	RS232/RS485/dry alarm contacts           Optional           LCD/LED and audible           32 × 32 × 84           1250	RS232/RS485/dry alarm contacts Optional e: AC fault, DC fault, Inverter fault, Bypass for 32 × 32 × 84 1350	RS232/RS485/dry alarm contacts Optional ult, on Inverter, on Bypass (2×) 32 × 32 × 84 1450	R5232/R5485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating:	RS232/RS485/dry alarm contacts Optional 32 × 32 × 84 1100 NEMA 1/IP20	RS232/RS485/dry alarm contacts Optional <b>LCD/LED and audible</b> 32 × 32 × 84 1250 NEMA 1/IP20	RS232/RS485/dry alarm contacts Optional a: AC fault, DC fault, Inverter fault, Bypass fau 32 × 32 × 84 1350 NEMA 1/IP20	RS232/RS485/dry alarm contacts Optional ult, on Inverter, on Bypass (2×) 32 × 32 × 84 (450 NEMA 1/IP20	RS232/RS485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650 NEMA 1/IP20	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment	R5232/RS485/dry alarm contacts Optional 32 × 32 × 84 1100 NEMA 1/IP20	RS232/RS485/dry alarm contacts           Optional           LCD/LED and audible           32 × 32 × 84           1250           NEMA 1/IP20	RS232/RS485/dry alarm contacts Optional 2: AC fault, DC fault, Inverter fault, Bypass for 32 × 32 × 84 1350 NEMA 1/IP20	RS232/RS485/dry alarm contacts Optional ult, on Inverter, on Bypass (2×) 32 × 32 × 84 1450 NEMA 1/IP20	R5232/R5485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650 NEMA 1/IP20	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment Temperature:	RS232/RS485/dry alarm contacts Optional 32 × 32 × 84 1100 NEMA 1/IP20	RS232/RS485/dry alarm contacts Optional <b>LCD/LED and audible</b> 32 × 32 × 84 1250 NEMA 1/IP20 <b>Operating:</b> 32 to	RS232/RS485/dry alarm contacts Optional a: AC fault, DC fault, Inverter fault, Bypass fau 32 × 32 × 84 1350 NEMA 1/IP20 104°F (0 to 40°C) Storage: -4 to 140	RS232/RS485/dry alarm contacts         Optional         alt, on Inverter, on Bypass         (2×) 32 × 32 × 84         1450         NEMA 1/IP20         P°F (-20 to 60°C)	RS232/RS485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650 NEMA 1/IP20	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment Temperature: Relative Humidity:	RS232/RS485/dry alarm contacts         Optional         32 × 32 × 84         1100         NEMA 1/IP20         90% non-condensing	RS232/RS485/dry alarm contacts Optional <b>LCD/LED and audible</b> 32 × 32 × 84 1250 NEMA 1/IP20 <b>Operating:</b> 32 to 90% non-condensing	RS232/RS485/dry alarm contacts Optional a: AC fault, DC fault, Inverter fault, Bypass fau 32 × 32 × 84 1350 NEMA 1/IP20 104°F (0 to 40°C) Storage: -4 to 140 90% non-condensing	RS232/RS485/dry alarm contacts         Optional         ult, on Inverter, on Bypass         (2×) 32 × 32 × 84         1450         NEMA 1/IP20         O° F (-20 to 60° C)         90% non-condensing	RS232/RS485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650 NEMA 1/IP20 90% non-condensing	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment Temperature: Relative Humidity: Audible Noise:	RS232/RS485/dry alarm contacts Optional 32 × 32 × 84 1100 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance	RS232/RS485/dry alarm contacts Optional <b>LCD/LED and audible</b> 32 × 32 × 84 1250 NEMA 1/IP20 <b>Operating:</b> 32 to 90% non-condensing 65dBA at 1m distance	RS232/RS485/dry alarm contacts Optional a: AC fault, DC fault, Inverter fault, Bypass for 32 × 32 × 84 1350 NEMA 1/IP20 104°F (0 to 40°C) Storage: -4 to 140 90% non-condensing 65dBA at 1m distance	RS232/RS485/dry alarm contacts         Optional         ult, on Inverter, on Bypass         (2×) 32 × 32 × 84         1450         NEMA 1/IP20         0° F (-20 to 60°C)         90% non-condensing         65dBA at 1m distance	RS232/RS485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment Temperature: Relative Humidity: Audible Noise: Isolation/Gavalnize:	RS232/RS485/dry alarm contacts Optional 32 × 32 × 84 1100 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance	RS232/RS485/dry alarm contacts Optional <b>LCD/LED and audible</b> 32 × 32 × 84 1250 NEMA 1/IP20 Operating: 32 to 90% non-condensing 65dBA at 1m distance <b>AC-DC-AC</b> :	RS232/RS485/dry alarm contacts         Optional         az × 32 × 84         1350         NEMA 1/IP20         104°F (0 to 40°C)         Storage: -4 to 140         90% non-condensing         65dBA at 1m distance         2,000Vrms       C-GND: 2,000Vrms	RS232/RS485/dry alarm contacts         Oprional         ult, on Inverter, on Bypass         (2×) 32 × 32 × 84         1450         NEMA 1/IP20         0° F (-20 to 60 ° C)         90% non-condensing         65dBA at 1m distance <b>D</b> : 2,000Vrms	RS232/RS485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment Temperature: Relative Humidity: Audible Noise: Isolation/Gavalnize: Agency Compliance:	RS232/RS485/dry alarm contacts Optional 32 × 32 × 84 1100 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance UL 1778/CSA 22.2 107 CE (pending)	RS232/RS485/dry alarm contacts         Optional         LCD/LED and audible         32 × 32 × 84         1250         NEMA 1/IP20         Operating: 32 to         90% non-condensing         65dBA at 1m distance         AC-DC-AC:         UL 1778/CSA 22.2 107 CE (pending)	RS232/RS485/dry alarm contacts Optional a: AC fault, DC fault, Inverter fault, Bypass fault 32 × 32 × 84 1350 NEMA 1/IP20 104 °F (0 to 40 °C) <b>Storage</b> : -4 to 140 90% non-condensing 65dBA at 1m distance 2,000Vrms <b>DC-GND</b> : 2,000Vrms <b>AC-GN</b> UL 1778/CSA 22.2 107 CE (pending)	RS232/RS485/dry alarm contacts         Optional         ult, on Inverter, on Bypass         (2×) 32 × 32 × 84         1450         NEMA 1/IP20         0° F (-20 to 60 ° C)         90% non-condensing         65dBA at 1m distance         D: 2,000Vrms         UL 1778/CSA 22.2 107 CE (pending)	RS232/RS485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance UL 1778/CSA 22.2 107 CE (pending)	
Interface Port:         Built-in SNMP Card:         Alarms/Monitor:         Mechanical         Enclosure Dimensions L × D × H (in):         Estimated Weight (lbs):         Protection Rating:         Safety and Environment         Temperature:         Relative Humidity:         Audible Noise:         Isolation/Gavalnize:         Agency Compliance:         Rectifier Power Module (Cordez)	RS232/RS485/dry alarm contacts Optional 32 × 32 × 84 1100 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance UL 1778/CSA 22.2 107 CE (pending) x <sup>©</sup> Switch-Mode Rectifier M	RS232/RS485/dry alarm contacts Optional LCD/LED and audible 32 × 32 × 84 1250 NEMA 1/IP20 Operating: 32 to 90% non-condensing 65dBA at 1m distance AC-DC-AC: UL 1778/CSA 22.2 107 CE (pending) Vodule, 125VDC/4.4kW R	RS232/RS485/dry alarm contacts         Optional         az × 32 × 84         1350         NEMA 1/IP20         104 °F (0 to 40 °C)         Storage: -4 to 140         90% non-condensing         65dBA at 1m distance         2,000Vrms       DC-GND: 2,000Vrms         AC-GN         UL 1778/CSA 22.2 107 CE (pending)         cating Per Module)	RS232/RS485/dry alarm contacts         Oprional         ult, on Inverter, on Bypass         (2×) 32 × 32 × 84         1450         NEMA 1/IP20         0° F (-20 to 60°C)         90% non-condensing         65dBA at 1m distance <b>D</b> : 2,000Vrms         UL 1778/CSA 22.2 107 CE (pending)	RS232/RS485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance UL 1778/CSA 22.2 107 CE (pending)	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment Temperature: Relative Humidity: Audible Noise: Isolation/Gavalnize: Agency Compliance: Rectifier Power Module (Cordes) Quantity:	RS232/RS485/dry alarm contacts Optional 32 × 32 × 84 1100 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance UL 1778/CSA 22.2 107 CE (pending) x <sup>©</sup> Switch-Mode Rectifier M 3	RS232/RS485/dry alarm contacts Optional LCD/LED and audible 32 × 32 × 84 1250 NEMA 1/IP20 Operating: 32 to 90% non-condensing 65dBA at 1m distance AC-DC-AC: UL 1778/CSA 22.2 107 CE (pending) tockule, 125VDC/4.4kW R 4	RS232/RS485/dry alarm contacts Optional a: AC fault, DC fault, Inverter fault, Bypass fault 32 × 32 × 84 1350 NEMA 1/IP20 104°F (0 to 40°C) Storage: -4 to 140 90% non-condensing 65dBA at 1m distance 2,000Vrms DC-GND: 2,000Vrms AC-GN UL 1778/CSA 22.2 107 CE (pending) Cating Per Module) 5	RS232/RS485/dry alarm contacts         Optional         ult, on Inverter, on Byposs         (2×) 32 × 32 × 84         1450         NEMA 1/IP20         0° F (-20 to 60 ° C)         90% non-condensing         65dBA at 1m distance         D: 2,000Vrms         UL 1778/CSA 22.2 107 CE (pending)         6	RS232/RS485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance UL 1778/CSA 22.2 107 CE (pending) 8	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment Temperature: Relative Humidity: Audible Noise: Isolation/Gavalnize: Agency Compliance: Rectifier Power Module (Cordez Quantity: Inverter Power Module	R5232/RS485/dry alarm contacts         Optional         32 × 32 × 84         1100         NEMA 1/IP20         90% non-condensing         65dBA at 1m distance         UL 1778/CSA 22.2 107 CE (pending)         x <sup>∞</sup> Switch-Mode Rectifier M         3         125VDC-120-240V/	RS232/RS485/dry alarm contacts         Optional         LCD/LED and audible         32 × 32 × 84         1250         NEMA 1/IP20         Operating: 32 to         90% non-condensing         65dBA at 1m distance         AC-DC-AC:         UL 1778/CSA 22.2 107 CE (pending)         todule, 125VDC/4.4kW R         4         AC/1.6kVA or 1kVA	RS232/RS485/dry alarm contacts         Optional         a: AC fault, DC fault, Inverter fault, Bypass for         32 × 32 × 84         1350         NEMA 1/IP20         104 °F (0 to 40 °C)         Storage: -4 to 140         90% non-condensing         65dBA at 1m distance         2,000Vrms       AC-GND: 2,000Vrms         AC-GND: 2,000Vrms       AC-GND:         cting Per Module)       5	RS232/RS485/dry alarm contacts         Optional         ult, on Inverter, on Bypass         (2×) 32 × 32 × 84         1450         NEMA 1/IP20         0° F (-20 to 60°C)         90% non-condensing         65dBA at 1m distance         02,000Vrms         UL 1778/CSA 22.2 107 CE (pending)         6         25VDC-120-240VACC/1KV	RS232/RS485/dry alarm contacts         Optional         (2×) 32 × 32 × 84         1650         NEMA 1/IP20         90% non-condensing         65dBA at 1m distance         UL 1778/CSA 22.2 107 CE (pending)         8         /A	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment Temperature: Relative Humidity: Audible Noise: Isolation/Gavalnize: Agency Compliance: Rectifier Power Module (Cordez Quantity: Inverter Power Module Quantity:	R5232/RS485/dry alarm contacts         Optional         32 × 32 × 84         1100         NEMA 1/IP20         90% non-condensing         65dBA at 1m distance         UL 1778/CSA 22.2 107 CE (pending)         x <sup>∞</sup> Switch-Mode Rectifier M         3         125VDC-120-240V/         4	RS232/RS485/dry alarm contacts         Optional         LCD/LED and audible         32 × 32 × 84         1250         NEMA 1/IP20         Operating: 32 to         90% non-condensing         65dBA at 1m distance         AC-DC-AC:         UL 1778/CSA 22.2 107 CE (pending)         Vodule, 125VDC/4.4kW R         4         ACC/1.6kVA or 1kVA         8	R5232/RS485/dry alarm contacts           Optional           2: AC fault, DC fault, Inverter fault, Bypass fault           32 × 32 × 84           1350           NEMA 1/IP20           104°F (0 to 40°C)           Storage: -4 to 140           90% non-condensing           65dBA at 1m distance           2,000Vrms         AC-GND: 2,000Vrms           UL 1778/CSA 22.2 107 CE (pending)           cating Per Module)           5           15	RS232/RS485/dry alarm contacts         Oprional         alt, on Inverter, on Bypass         (2×) 32 × 32 × 84         (450         NEMA 1/IP20         0°F (-20 to 60 °C)         90% non-condensing         65dBA at 1m distance         D: 2,000Vrms         UL 1778/CSA 22.2 107 CE (pending)         6         20	RS232/RS485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance UL 1778/CSA 22.2 107 CE (pending) 8 8	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment Temperature: Relative Humidity: Audible Noise: Isolation/Gavalnize: Agency Compliance: Rectifier Power Module (Cordez Quantity: Inverter Power Module Quantity: Configuration	R5232/RS485/dry alarm contacts         Optional         32 × 32 × 84         1100         NEMA 1/IP20         90% non-condensing         65dBA at 1m distance         UL 1778/CSA 22.2 107 CE (pending)         x <sup>®</sup> Switch-Mode Rectifier M         3         125VDC-120-240V/         4	RS232/RS485/dry alarm contacts         Optional         LCD/LED and audible         32 × 32 × 84         1250         NEMA 1/IP20         Operating: 32 to         90% non-condensing         65dBA at 1m distance         AC-DC-AC:         UL 1778/CSA 22.2 107 CE (pending)         Nodule, 125VDC/4.4kW R         4         AC/1.6kVA or 1kVA         8	RS232/RS485/dry alarm contacts         Optional         a: AC fault, DC fault, Inverter fault, Bypass for         32 × 32 × 84         1350         NEMA 1/IP20         104 °F (0 to 40°C)         Storage: -4 to 140         90% non-condensing         65dBA at 1m distance         2,000Vrms       DC-GND: 2,000Vrms         UL 1778/CSA 22.2 107 CE (pending)         cating Per Module)         5         12         15	RS232/RS485/dry alarm contacts         Optional         ult, on Inverter, on Bypass         (2×) 32 × 32 × 84         1450         NEMA 1/IP20         0° F (-20 to 60 ° C)         90% non-condensing         65dBA at 1m distance         0: 2,000Vrms         UL 1778/CSA 22.2 107 CE (pending)         6         20	RS232/RS485/dry alarm contacts         Optional         (2×) 32 × 32 × 84         1650         NEMA 1/IP20         90% non-condensing         65dBA at 1m distance         UL 1778/CSA 22.2 107 CE (pending)         8         /A         30	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment Temperature: Relative Humidity: Audible Noise: Isolation/Gavalnize: Agency Compliance: Rectifier Power Module (Cordez Quantity: Inverter Power Module Quantity: Configuration AC Input:	RS232/RS485/dry alarm contacts         Optional         32 × 32 × 84         1100         NEMA 1/IP20         90% non-condensing         65dBA at 1m distance         UL 1778/CSA 22.2 107 CE (pending)         x <sup>®</sup> Switch-Mode Rectifier N         3         125VDC-120-240V/         4         208VAC/3PH	RS232/RS485/dry alarm contacts         Optional         LCD/LED and audible         32 × 32 × 84         1250         NEMA 1/IP20         Operating: 32 to         90% non-condensing         65dBA at 1m distance         AC-DC-AC:         UL 1778/CSA 22.2 107 CE (pending)         Noclule, 125VDC/4.4kW R         4         AC/1.6kVA or 1kVA         8         208VAC/3PH	RS232/RS485/dry alarm contacts         Optional         2: AC fault, DC fault, Inverter fault, Bypass for         32 × 32 × 84         1350         NEMA 1/IP20         104 °F (0 to 40 °C)         Storage: -4 to 140         90% non-condensing         65dBA at 1m distance         2,000Vrms       DC-GND: 2,000Vrms         AC-GN         UL 1778/CSA 22.2 107 CE (pending)         String Per Module)         5         15         208VAC/3PH	RS232/RS485/dry alarm contacts         Oprional         alt, on Inverter, on Bypass         (2×) 32 × 32 × 84         1450         NEMA 1/IP20         D° F (-20 to 60°C)         90% non-condensing         65dBA at 1m distance         D: 2,000Vrms         UL 1778/CSA 22.2 107 CE (pending)         6         20         20         20	R5232/RS485/dry alarm contacts Optional (2×) 32 × 32 × 84 1650 NEMA 1/IP20 90% non-condensing 65dBA at 1m distance UL 1778/CSA 22.2 107 CE (pending) 8 8 /A 30	
Interface Port: Built-in SNMP Card: Alarms/Monitor: Mechanical Enclosure Dimensions L × D × H (in): Estimated Weight (lbs): Protection Rating: Safety and Environment Temperature: Relative Humidity: Audible Noise: Isolation/Gavalnize: Agency Compliance: Rectifier Power Module (Cordez Quantity: Inverter Power Module Quantity: Configuration AC Input: DC Link:	R5232/RS485/dry alarm contacts         Optional         32 × 32 × 84         1100         NEMA 1/IP20         90% non-condensing         65dBA at 1m distance         UL 1778/CSA 22.2 107 CE (pending)         x <sup>∞</sup> Switch-Mode Rectifier M         3         125VDC-120-240V/4         208VAC/3PH         125VDC	RS232/RS485/dry alarm contacts         Optional         LCD/LED and audible         32 × 32 × 84         1250         NEMA 1/IP20         Operating: 32 to         90% non-condensing         65dBA at 1m distance         AC-DC-AC:         UL 1778/CSA 22.2 107 CE (pending)         Vodule, 125VDC/4.4kW R         4         ACC/1.6kVA or 1kVA         8         208VAC/3PH         125VDC	RS232/RS485/dry alarm contacts           Optional           az × 32 × 84           1350           NEMA 1/IP20           104°F (0 to 40°C)           Storage: -4 to 144           90% non-condensing           65dBA at 1m distance           2,000Vrms         DC-GND: 2,000Vrms           UL 1778/CSA 22.2 107 CE (pending)           cating Per Module)           5           15           208VAC/3PH           125VDC	RS232/RS485/dry alarm contacts         Oprional         alt, on Inverter, on Bypass         (2×) 32 × 32 × 84         1450         NEMA 1/IP20         0°F (-20 to 60 °C)         90% non-condensing         65dBA at 1m distance         D: 2,000Vrms         UL 1778/CSA 22.2 107 CE (pending)         6         20         208VAC/3PH         125VDC	RS232/RS485/dry alarm contacts         Optional         (2×) 32 × 32 × 84         1650         NEMA 1/IP20         90% non-condensing         65dBA at 1m distance         UL 1778/CSA 22.2 107 CE (pending)         8         CA         30         208VAC/3PH         125VDC	



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#### **MODUPS<sup>™</sup> Series** Specifications

**MODUPS Series Line Drawing** 



#### **MODUPS Cabinet Drawing**

NOTES:

1. COG - CENTER OF GRAVITY





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DETAIL E SCALE 0.14 : 1

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