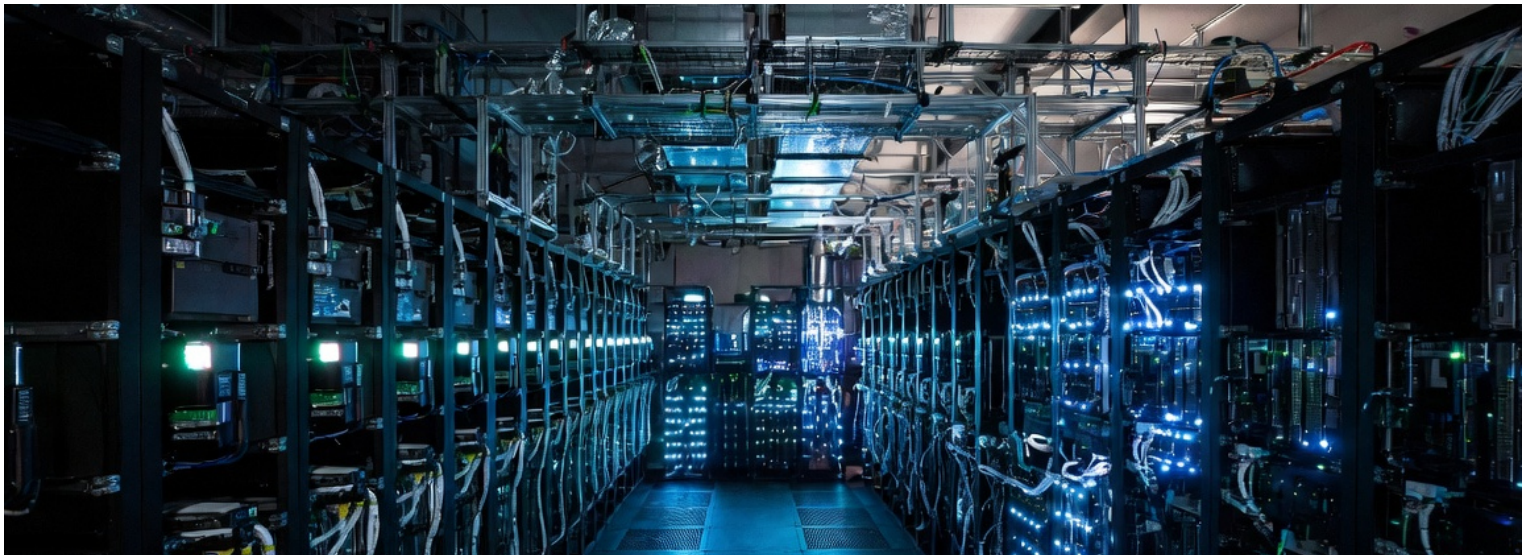


DELTRONICS GENERAL CATALOGUE

Power & Cooling Solutions for Data Center



DELTRONICS



POWER & COOLING

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DELTRONICS MARS SERIES

1:1Phase PF 0.9 (PF 1.0 optional)
POWER RANGE: 1-3 KVA

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Deltronics Mars RT Series 1-3 KVA

The Mars RT Series (1–3kVA) is an online double-conversion UPS designed for IT systems, servers, and critical equipment. Its high power factor, stable output, and rack/tower convertible design make it adaptable to a wide range of environments.

It provides advanced communication capabilities, compatibility with external battery banks, and comprehensive protection against electrical faults, ensuring uninterrupted operation for sensitive systems.

Features

- Rack/Tower convertible design
- Online double conversion with full digital control Wide input voltage range: 110~300Vac
- Input power factor 0.99 with PFC
- Selectable output voltage: 208/220/230/240Vac
- Smart charger design for optimized battery performance
- Maximum charging current can be expanded to 12A(Long run unit)
- Emergency power off function (EPO)ECOmode operation for energy saving Generator compatible
- Hot-Swappable battery design Cold start
- Intelligent fan speed regulation Load segment settable (Optional)
- Versatile LCD human-computer interface
- Multiple communication interface: RS232 (USB/ EPO/Dry contact card/ SNMP card optional)
- Multiple protection function: short-circuit, overload, overheat, battery overcharge and overdischarge, output low voltage and fan fault alarm
- PDU with maintenance bypass switch (Optional)



Multifunctional Bracket

Socket



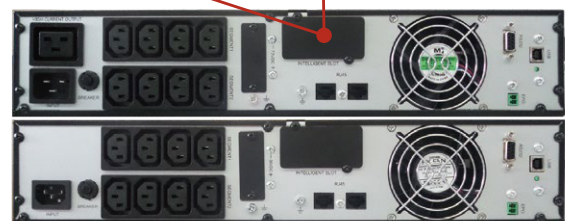
The LCD panel can be rotated



SNMP card



Dry contact card



Technical Specifications

MODEL	MR-1KRT-S2	MR-2KRT-S4	MR-3KRT-S6
Capacity (VA/W)	1000/900	2000/1800	3000/2700
INPUT			
Nominal Voltage (Vac)	208/220/230/240		
Operating Voltage Range (Vac)	110~300 (176~264 @ 100% load)		
Power Factor	≥0.99		
Bypass Frequency Range (Hz)	40~70 (50/60 Auto-Sensing)		
OUTPUT			
Nominal Voltage (Vac)	208/220/230/240		
Voltage Regulation	±1%		
Power Factor	0.9		
Output Frequency (Hz)	Line mode: 46~54 or 56~64; Bat. mode: (50/60±0.1%)		
Crest Factor	3:1		
Harmonic Distortion (THDv)	≤3% Linear load; ≤5% Non linear load		
Transfer Time (ms)	AC mode to Bat.mode: 0; Inverter to Bypass: 4 (Typical)		
Waveform	Pure Sinewave		
EFFICIENCY			
AC Mode	Up to 90%	Up to 91%	Up to 92%
ECO Mode	Up to 95%	Up to 96%	Up to 97%
BATTERY			
Battery Type	VRLA (Lead acid maintenance free battery)		
Battery Voltage (Vdc)	24	48	72
Battery Capacity (Ah)	S: 7/9; H: Depends on the capacity of external batteries		
Battery Quantity (pcs)	2	4	6
Typical Recharge Time (hours)	S: 4 (To 90% of full capacity)		
Charging Current (Max.) (A)	1.4	1.4	1.4
MANAGEMENT			
LED Display	Line mode, Bat.mode, ECO mode, Bypass mode, Battery low voltage, Overload & UPS fault		
LCD Display	Input voltage, Input frequency, Output voltage, Output frequency, Load percentage, Battery voltage, Inner temperature& Remaining battery backup time		
ENVIRONMENTAL			
Operating Temperature (°C)	0~40		
Storage Temperature (°C)	-25~55		
Humidity Range	20~95%RH @ 0~40°C (Non condensing)		
Altitude (m)	<1000, derating required between 1000 to 3000		
Noise Level (dB)	<50		
PHYSICAL			
Dimension WxDxH (mm)	440×325×86.5	440×460×86.5	440×600×86.5
Weight (kg)	11.3	19.5	26
STANDARDS			
Safety	IEC/EN 62040-1, IEC/EN 62477-1		
EMC	IEC/EN62040-2, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8		

1. When output voltage is 208Vac, it needs to derate to 80% of the unit capacity
2. Specifications are subject to change without prior notice
3. Data above are typical values for reference only, not as a basis for engineering design

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DELTRONICS VENUS SERIES

3:3 phase PF 1.0, POWERRANGE: 10-50 KVA

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Deltronics Venus RT Series 10-50 KVA



The Venus RT 10–50 kVA UPS is a three-phase, online double-conversion system with a true 1.0 power factor, designed to deliver stable power to critical infrastructures. Its wide input voltage range, generator compatibility, and high operating efficiency ensure continuous performance even under severe mains fluctuations.

It supports both rack and tower installations, integrates intelligent communication, advanced monitoring, and multiple protection features to ensure safe and reliable operation in industrial and corporate environments.

Features

- High power density design
- N+X parallel redundancy, support maximum 4 units in parallel Online double conversion with DSP control
- Input current harmonic: <3%
- Wide input voltage range: 138~485Vac Wide input frequency range 40~70Hz
- Configurable battery quantity 10~50kVA: (30~50pcs supportable VRLA)
- Support Lithium battery ($\pm 192Vdc$)
- Maximum charging current up to 18A(VRLA)Dual input source
- Colorful 7 inch LCD display
- Versatile LCD human-computer interface Generator compatible
- ECOmode operation for energy saving
- Self-testing when UPS startup 50/60Hz frequency converter mode Cold start
- Multiple protection function: short-circuit, overload, overheat, battery overcharge and overdischarge, output low voltage and fan fault alarm
- Multiple communication interface: USB, RS232, RS485, RS485(COM For Li-ion), Parallel port, Dry contact port, Backfeed port, Intelligent slot, SNMP card (optional)



Rear panel



SNMP card



Parallel cable

Technical Specifications

MODEL	HPM3310E-RT	HPM3315E-RT	HPM3320E-RT	HPM3325E-RT	HPM3330E-RT	HPM3340E-RT	HPM3350E-RT
Capacity (VA/W)	10k/10k	15k/15k	20k/20k	25k/25k	30k/30k	40k/40k	50k/50k
INPUT							
Nominal Voltage (Vac)	380/400/415, (3Ph+N+PE)						
Operating Voltage Range (Vac)	138~485						
Power Factor	≥0.99						
Harmonic Distortion (THDi)	≤3% Linear load						
Bypass Voltage Range (Vac)	Max.voltage: 220:+25% (Optional+10%,+15%,+20%) 230:+20% (Optional+10%,+15%) 240:+15% (Optional+10%) Min.voltage:-45% (Optional-10%,-15%,-20%,-30%)						
Bypass Frequency Range (Hz)	±10%						
OUTPUT							
Nominal Voltage (Vac)	380/400/415 (3Ph+N+PE)						
Voltage regulation	±1%						
Output Frequency (Hz)	Line Mode: ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional); Bat. Mode: (50/60±0.1%)						
Crest Factor	3:1						
Harmonic Distortion (THDv)	≤2% with linear load; ≤5% with non linear load					≤2% with linear load ≤4% with non linear load	
Overload	Load≤110%: last 60min,≤125%: last 10min,≤150%: last 1min						
EFFICIENCY							
AC Mode	Up to 95.5%						
ECO Mode	Up to 98.0%			Up to 98.5%		Up to 99.0%	
BATTERY							
Battery Type	VRLA (Lead acid maintenance free battery)						
Battery Voltage (Vdc)	Optional Voltage: ±180/±192/±204/±216/±228/±240/±252/±264/±276/±288/±300 (30/32/34/36/38/40/42/44/46/48/50pcs optional) 360~600 (30~50pcs, 30pcs default, 36~50pcs no power derating; 32~34pcs output power factor 0.9; 30pcs output power factor 0.8)						
Charging Current (Max.)(A)	18					20	
MANAGEMENT							
Alarm	Overload, utility abnormal, UPS fault, battery low, etc.						
Communication ports	USB, RS232, RS485, Parallel port, Dry contact port, REPO port, Backfeed port, SNMP card (Optional), Battery temperature sensor (Optional)					USB, RS232, RS485, Parallel port, REPO port, LBS port, Dry contact port (Backfeed/Battery breaker driver), SNMP card (Optional), Relay card (Optional), Battery temperature sensor (Optional)	
ENVIRONMENTAL							
Operating Temperature (°C)	0~40						
Storage Temperature (°C)	-25~55 (No battery)						
Humidity Range	0~95% (Non condensing)						
Altitude (m)	<1000, derating required when>1000						
Noise Level (dB)	<55					<56	<58
PHYSICAL							
Dimension WxDxH (mm)	440×670×130 (3U)					440×800×175 (4U)	
Weight (kg)	25	27		28	45	48	
STANDARDS							
Safety	IEC/EN 62040-1, IEC/EN 62477-1						
EMC	IEC/EN 62040-2 (IEC 61000-2-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11)						
Performance	IEC 62040-3: 2021, EN IEC 62040-3: 2021					/	

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DELTRONICS SATURN SERIES

DHP44 Model 3:3 phase PF 1.0
POWERRANGE: 10-40 KVA

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Deltronics Saturn Series 10-40 KVA

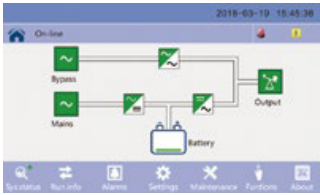
The Saturn DHP44 10–40kVA Series is a three-phase online double-conversion UPS engineered for applications that demand high performance and continuous stability. It delivers high efficiency, a wide input voltage range, and a true 1.0 power factor to ensure reliable power supply even during significant fluctuations.

It supports both VRLA and lithium battery configurations, offers multiple communication interfaces, and includes advanced protection features, ensuring safe operation in corporate and industrial environments.

Features

- High power density design
- N+X parallel redundancy, support maximum 4 units in parallel
- Online double conversion with DSP control
- Input current harmonic: <3%
- Wide input voltage range: 208~478Vac
- Wide input frequency range 40~70Hz
- Optimization battery group, the quantity of battery
10~30kVA:
16/18/20pcs (30~50pcs supportable)
40kVA: 30~50pcs
- Maximum charging current up to 20A (Settable)
- Dual input source (Optional for standard unit)
- Colorful 2.4 inch TFT LCD display and 7 inch LCD display
- LCD are optional
- Versatile LCD human-computer interface
- Generator compatible
- ECO mode operation for energy saving
- Intelligent fan speed regulation
- Self-testing when UPS startup
- 50/60Hz frequency converter mode
- Cold start
- The output can meet 100% unbalanced load
- Multiple protection function: short-circuit, overload, overheat, battery overcharge and overdischarge, output low voltage and fan fault alarm
- Multiple communication interface: USB, RS232, RS485, Parallel port, Dry contact, Intelligent slot, SNMP card (Optional), Dry contact card (Optional), Battery temperature sensor (Optional)

LCD



7 inch colourful LCD



Battery cabinet (Optional)



Optimized battery configuration
7Ah/9Ah (12V)

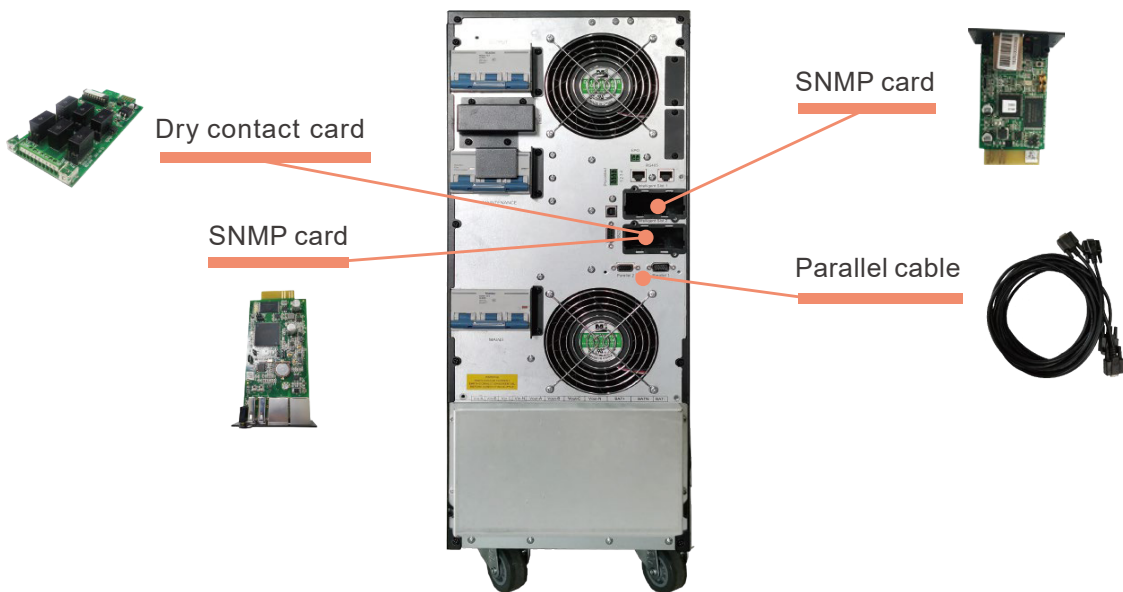
High energy efficiency

Wide input voltage range

Compatible with VRLA and lithium batteries

Comprehensive protection against overload and electrical faults

High-performance three-phase UPS



Technical Specifications

MODEL	DHP44B-10K	DHP44B-15K	DHP44B-20K	DHP44B-30K	DHP44B-40K
Capacity (VA/W)	10k/10k	15k/15k	20k/20k	30k/30k	40k/40k
INPUT					
Nominal Voltage (Vac)	380/400/415 (3Ph+N+PE)				
Operating Voltage Range (Vac)	305~478 (Full load); 208~478 (50% load)				
Power Factor	≥0.99				
Harmonic Distortion (THDi)	≤3% Linear load				
Bypass Voltage Range (Vac)	Max.voltage: 220: +25% (Optional +10%, +15%, +20%) 230: +20% (Optional +10%, +15%) 240: +15% (Optional +10%) Min.voltage: -45% (Optional -20%, -30%)				
Bypass Frequency Range (Hz)	50/60±10%				
OUTPUT					
Nominal Voltage (Vac)	380/400/415 (3Ph+N+PE)				
Voltage Regulation	±1%				
Output Frequency (Hz)	Line mode: ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional); Bat. mode: 50/60 (±0.1%)				
Crest Factor	3:1				
Harmonic Distortion (THDv)	≤2% Linear load; ≤5% Non linear load				
Overload	AC mode	≤110% 60min, ≤125% 10min, ≤150% 1min, >150% immediately turn to bypass			
	Bat.mode	≤110% 10min, ≤125% 1min, ≤150% 5s, >150% immediately shut down			
EFFICIENCY					
AC Mode	Up to 93.5%	Up to 94.5%		Up to 95.2%	
ECO Mode	Up to 98.0%	Up to 98.2%		Up to 98.6%	
BATTERY					
Battery Type	VRLA (Lead acid maintenance free battery)				
Battery Voltage (Vdc)	Chassis 1: ±120 (20pcs 9Ah)(20pcs 7Ah, 2×20pcs 7/9Ah, 3×20pcs 7/9Ah optional) Chassis 2: ±96Vdc (16pcs 9Ah)	±120 (2×20pcs 9Ah) (2×20pcs 7Ah, 3×20pcs 7/9Ah optional)	±120 (3×20pcs 9Ah)(3×20pcs 7Ah optional)	±180 (2×30pcs 9Ah)(2×30pcs 7Ah optional)	
Charging Current (Max.)(A)	1.35 (2.7 Optional)	2.7	4.05	2.7	
ENVIRONMENTAL					
Operating Temperature (°C)	0~40				
Storage Temperature (°C)	-25~55 (No battery)				
Humidity Range	0~95% (Non condensing)				
Altitude (m)	<1000, derating required when>1000				
Noise Level (dB)	<55	<58	<61	<64	
PHYSICAL					
Dimension WxDxH (mm)	Chassis 1: 250×900×868	250×900×868			
	Chassis 2: 250×645×715				
Weight (kg)	Chassis 1: 129 (20pcs 9Ah)	186 (2×20pcs 9Ah)	187 (2×20pcs 9Ah)	236 (3×20pcs 9Ah)	239 (2×30pcs 9Ah)
	Chassis 2: 80 (16pcs 9Ah)				
STANDARDS					
Safety	IEC/EN 62040-1, IEC/EN 62477-1				
EMC	IEC/EN 62040-2 (IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2)				

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Technical Specifications

MODEL	DHP44-10K	DHP44-15K	DHP44-20K	DHP44-30K	DHP44-40K
Capacity (VA/W)	10k/10k	15k/15k	20k/20k	30k/30k	40k/40k
INPUT					
Nominal Voltage (Vac)	380/400/415 (3Ph+N+PE)				
Operating Voltage Range (Vac)	305~478 (Full load); 208~478 (50% load)				
Power Factor	≥0.99				
Harmonic Distortion (THDi)	≤3% Linear load				
Bypass Voltage Range (Vac)	Max.voltage: 220: +25% (Optional +10%, +15%, +20%) 230: +20% (Optional +10%, +15%) 240: +15% (Optional +10%) Min.voltage: -45% (Optional -20%, -30%)				
Bypass Frequency Range (Hz)	50/60±10%				
OUTPUT					
Nominal Voltage (Vac)	380/400/415 (3Ph+N+PE)				
Voltage Regulation	±1%				
Output Frequency (Hz)	Line mode: ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional); Bat. mode: 50/60 (±0.1%)				
Crest Factor	3:1				
Harmonic Distortion (THDv)	≤2% Linear load; ≤5% Non linear load				
Overload	AC mode	≤110% 60min, ≤125% 10min, ≤150% 1min, >150% immediately turn to bypass			
	Bat.mode	≤110% 10min, ≤125% 1min, ≤150% 5s, >150% immediately shut down			
EFFICIENCY					
AC Mode	Up to 93.5%	Up to 94.5%		Up to 95.2%	
ECO Mode	Up to 98.0%	Up to 98.2%		Up to 98.6%	
BATTERY					
Battery Type	VRLA (Lead acid maintenance free battery)				
Battery Voltage (Vdc)	10~30kVA: ±96/108/120; battery quantity (16~20pcs, 16pcs default, 20pcs no power derating; 18pcs output power factor 0.8/0.9; 16pcs output power factor 0.7/0.8)				40kVA: ±180~300 (30~50pcs)
	±180~300 (30~50pcs)				
Charging Current (Max.)(A)	14	16	18	20	20
ENVIRONMENTAL					
Operating Temperature (°C)	0~40				
Storage Temperature (°C)	-25~55 (No battery)				
Humidity Range	0~95% (Non condensing)				
Altitude (m)	<1000, derating required when>1000				
Noise Level (dB)	<55	<58	<61	<64	
PHYSICAL					
Dimension WxDxH (mm)	250×580×655				
Weight (kg)	35	39	40	43	46
STANDARDS					
Safety	IEC/EN 62040-1, IEC/EN 62477-1				
EMC	IEC/EN 62040-2 (IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2)				

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DHP44-BT 10-40kVA Battery Pack Specification

MODEL	DHP44 BT40120N	DHP44 BT80120N	DHP44 BT80180N	DHP44 BT60180N	DHP44 BT80240N
BATTERY SYSTEM					
Battery Type	VRLA (Lead acid maintenance free battery)				
Typical Battery Recharge Time (hours)	6~8 (To 90% of full capacity)				
Typical Battery Life (years)	3~5, depend on discharging cycle and ambient temperature				
System Voltage (Vdc)	±120		±180		±240
Battery Quantity (pcs)	2×20	4×20		2×30	2×40
Capacity (Ah)	7/9				
PHYSICAL					
Dimension WxDxH(mm)	250×619×616 (With caster)		250×900×868 (With caster)		
Weight (kg)	122/134	244/265		200/215	244/265
ENVIRONMENTAL					
Operating Environment (°C)	0~40				
Humidity Range	0~95% (Non condensing)				
Altitude	<1000, derating required when >1000				
Noise Level (dB)	<40				
STANDARDS					
Safety	IEC/EN 62040-1, IEC/EN 62477-1				

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3. Remark: DHP44B BT80240N "DHP44" means series; "BT" means Battery Tower cabinet; "80" means battery number inside the cabinet; "240" means the battery system voltage; "N" means battery with neutral connection.

DELTRONICS SATURN SERIES

DHP44 MODEL 3:3 phase PF 1.0
POWERRANGE:50-200 KVA

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Deltronics Saturn Series 50-200 KVA

The Saturn DHP44 Series is a three-phase online double-conversion UPS with a true 1.0 power factor, engineered to deliver maximum stability in demanding applications. Its wide input voltage range and high efficiency —95.5% in online mode and up to 99% in ECO mode— ensure reliable performance even under significant power fluctuations.

It supports both VRLA and lithium battery systems and allows parallel operation of up to six units. The UPS handles fully inductive or capacitive loads, includes LBS functionality for synchronization between independent units, and offers multiple communication interfaces. Its robust design and compliance with international standards guarantee safe, dependable operation in industrial and corporate environments.

Features

- Wide input voltage range 138-485Vac (Phase voltage 80-280Vac), no derating when input voltage ≥ 305 Vac
- High input power factor, it is up to 0.99
- 3-level inverter topology, the efficiency can be up to 95.5%
- Support parallel expanded operation: maximum is 6 units
- Support sharing batteries for the UPS in parallel
- Power Walk in function, reduces the start current impact to system, and reduce the capacity of generator
- Output power factor is 1.0, UPS can supply power to 100% unbalanced load
- High adaptability for load, it can connect full inductive load or capacitive load
- Compatible with VRLA or lithium battery
- LBS function can realize 2 independent UPSs work in synchronization, and enhance the reliability of the system
- Support USB, RS485, RS232, SNMP and dry contact card

Technical Specifications

MODEL	DHP44-50K	DHP44-60K	DHP44-80K	DHP44-100K	DHP44-120K	DHP44-150K	DHP44-160K	DHP44-180K	DHP44-200K	
Capacity (VA/W)	50k/50k	60k/60k	80k/80k	100k/100k	120k/120k	150k/150k	160k/160k	180k/180k	200k/200k	
INPUT										
Nominal Voltage (Vac)	380/400/415 (3Ph+N+PE)									
Operating Voltage Range (Vac)	138~305 for 40% load; 305~485 for 100% load									
Power Factor	≥0.99									
Harmonic Distortion (THDi)	≤3% Linear load									
Bypass Voltage Range (Vac)	Max.voltage: 220: +25% (Optional +10%, +15%, +20%) 230: +20% (Optional +10%, +15%) 240: +15% (Optional +10%) Min.voltage: -45% (Optional -10%, -15%, -20%, -30%)									
Bypass Frequency Range (Hz)	50/60±10%									
OUTPUT										
Nominal Voltage (Vac)	380/400/415 (3Ph+N+PE)									
Voltage Regulation	±1%									
Output Frequency (Hz)	Line mode: Synchronize with input, when the input frequency >±10% (±1%/±2%/±4%/±5% optional), output 50/60 (±0.1); Bat. mode: (50/60±0.2%)									
Crest Factor	3:1									
Harmonic Distortion (THDv)	≤2% with linear load; ≤4% with non linear load									
Overload	Inverter Mode	≤110% 60min, ≤125% 10min, ≤150% 1min, >150% 1.2s shut down inverter							≤110% 60min, ≤125% 1min, >125% 1.2s shut down inverter	
	Bypass Mode	30°C: 135% for long term; 40°C: 125% for long term; >100%, 100ms								
EFFICIENCY										
AC Mode	Up to 95.5%									
ECO Mode	Up to 99%									
BATTERY										
Battery Type	VRLA/Li-ion									
Battery Voltage (Vdc)	360~600									
Charging Current(Max.)(A)	20		40			60				
ENVIRONMENTAL										
Operating Temperature (°C)	0 ~ 40									
Storage Temperature (°C)	-25~55 (No battery)									
Humidity Range	0~95% (Non condensing)									
Altitude (m)	1000, derating required when >1000									
Noise Level (dB)	<55	<58	<60	<62	<63	<64	<66	<66	<66	
PHYSICAL										
Dimension WxDxH (mm)	250×828×868			442×850×1200						
Weight (kg)	80	83	144	147	152	190	200	220	230	
STANDARDS										
Safety	IEC/EN 62040-1, IEC/EN 62477-1									
EMC	IEC/EN 62040-2 (IEC 61000-2-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11)									

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DELTRONICS VENUS SERIES

3:3 phase PF 1.0, POWERRANGE: 10-30 KVA

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Deltronics Venus RT Series 10-30 KVA



The Venus RT 10–30 kVA UPS is a three-phase, online double-conversion system with a true 1.0 power factor, designed to deliver stable power to critical infrastructures. Its wide input voltage range, generator compatibility, and high operating efficiency ensure continuous performance even under severe mains fluctuations.

It supports both rack and tower installations, integrates intelligent communication, advanced monitoring, and multiple protection features to ensure safe and reliable operation in industrial and corporate environments.

Features

- High power density design
- N+X parallel redundancy, support maximum 4 units in parallel Online double conversion with DSP control
- Input current harmonic: <3%
- Wide input voltage range: 138~485Vac Wide input frequency range 40~70Hz
- Configurable battery quantity 10~30kVA: (30~50pcs supportable VRLA)
- Support Lithium battery ($\pm 192Vdc$)
- Maximum charging current up to 18A(VRLA) Dual input source
- Colorful 7 inch LCD display
- Versatile LCD human-computer interface Generator compatible
- ECO mode operation for energy saving
- Self-testing when UPS startup 50/60Hz frequency converter mode Cold start
- Multiple protection function: short-circuit, overload, overheat, battery overcharge and overdischarge, output low voltage and fan fault alarm
- Multiple communication interface: USB, RS232, RS485p, RS485(COM For Li-ion), Parallel port, Dry contact port, Backfeed port, Intelligent slot, SNMP card (optional)



Rear panel



SNMP card



Parallel cable

Technical Specifications

Model		VN-33-10KRT	VN-33-15KRT	VN-33-20KRT	VN-33-25KRT	VN-33-30KRT
Capacity (VA/Watts)		10k /10k	15k /15k	20k /20k	25k /25k	30k /30k
INPUT						
Input	Rectifier input	Rated AC Input Voltage	380/220Vac, 400/230Vac or 415/240Vac, 50/60Hz (3Phase+Neutral+PE)			
		Input Voltage Range (Startup/Operating)	138~485Vac for 40% load			
		Input Voltage Range (Operating)	305~485Vac for full-load			
		Frequency	50 or 60Hz (40-70Hz Range)			
		Power Factor	0.99 (100% linear load)			
		Harmonic distortion (THDI)	≤3% (100% linear load)			
	Bypass input	Rated AC Voltage	380/220Vac, 400/230Vac or 415/240Vac, 50/60Hz (3Phase+Neutral+PE)			
		Bypass voltage Range	220Vac Upper limit: +25%(optional +10%,+15%,+20%) 230Vac Upper limit: +20%(optional +10%,+15%) 240Vac Upper limit:+15%(optional +10%)			
			Lower limit: -45% (optional -10%, -15%, -20%, -30%)			
		Bypass frequency Range	±10%			
		Synchronization - Window	±1%/±2%/±4%/±5%/±10% optional (default:±10%)			
		Up stream protection, bypass line	Thermomagnetic circuit-breaker, rated up to 125% of nominal output current. IEC 60947-2 curve C.			
		Overload Capacity	Load≤130%: continue r' 200%: last 1minr'≥200%: last 100ms shutdown UPS			
	Current rating of neutral cable (A)	1.7×In				
OUTPUT						
Inverter Output	Power factor	0.9				
	Rated AC Voltage 1	380/220Vac, 400/230Vac or 415/240Vac, 50/60Hz (3Phase+Neutral+PE)				
	Voltage Regulation	±1%				
	Transient Voltage Response	±5% (linear load)				
	Phase Balance	120° ±1° (100% unbalanced load)				
	Frequency	1.Line Mode: synchronize with input when input frequency ' ±10% (±1%/±2%/±4%/±5% optional), output (50/60±0.1%)Hz. 2.Battery Mode:(50/60±0.1%)Hz				
	Crest factor	3:1				
	Harmonic distortion (THD)	≤2% (linearload), ≤4% (non linearload)				
Overload Capacity	AC Mode	Load≤105%:continue r'≤110%:last 60minr'≤125%: last 10minr'≤150%: last 1minr' 150% turn to bypass immediately				
	Bat. Mode	Load≤105%:continue r'≤110%:last 60minr'≤125%: last 10minr'≤150%: last 1minr' 150% shut down UPS immediately				
Efficiency	Normal mode	Up to 95.5%				
BATTERY						
Battery Voltage	VRLA battery	±192/204/216/228/240Vdc (Settable, ±192/204V: output power factor 0.9)				
	Lithium battery	±192Vdc				
Charge Current(A)	charge current can be set according to battery capacity installed	Max. current 13A (limited by input current)				
SYSTEM FEATURES						
Transfer Time	Synchronous transfer	Utility to Battery : 0ms; Utility to bypass: 0ms				
	Asynchronous transfer	Asynchronous transfer: 15ms (50 Hz), 13.3ms (60 Hz)				
Parallel system	Up to 4					
Alarms	overload, utility abnormal, UPS fault, battery low, etc.					
Protection	short circuit, overload, over temperature, battery low, fan fault alarm.					
Communication Interface	USB, RS232,RS485, Parallel port, Dry contact, Intelligent slot, SNMP card(optional),Battery temperature sensor(optional)					
ENVIRONMENTAL						
Environment	Operating Temperature	0°C~40°C				
	Storage Temperature	-25°C~55°C (battery)				
	Humidity	0~95% non condensing				
	Acoustical Noise	<58dB from 1M distance				
	Altitude	Up to 1,000 m, without derating				
PHYSICAL						
Dimension W×D×H (mm)		440x670x131 (3U)				
Net weight (kg)		25	27		28	
STANDARDS						
Safety certifications		IEC 62040-1:2017 AMD1:2021				
EMC		IEC 62040-2:2016/EN62040-2-2018				

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DELTRONICS ROOM COOLING SA Series

Available in five models, Capacities from 5kW to 20kW and in three air flow systems (Downflow, UpFlow, & Displacement)



Deltronics SA Room Cooling

Small and Medium Data Center Room High-efficiency Precision cooling

Deltronics SA series precision cooling adopts the design of large air volume and high sensible heat raCo (SHR) to meet the needs of computer room; The precisely matched high-efficiency cooling system is designed for all-weather operaCon in full 24 hours of 365 days and is equipped with large-area evaporator to ensure the opCmal energy-saving operaCon of the unit all the Cme.

Features

High Reliability

- Refrigerant leakage or insufficient detecCon funcCon.
- Water leakage detecCon funcCon (opConal)
- Dual power supply and lightning protecCon funcCons Supported (opConal)
- Wide input voltage design, opConal phase loss and error protecCon, over-voltage and under-voltage protecCon funcCons.
- The unit is designed for uninterrupted, efficient and reliable operaCon 365 days×24 hours a day.
- The unit is suitable for severely cold areas, and can operate reliably at a low temperature of -40°C aGer opConal low-temperature components.
- 7 inches display

Stepless Speed Regulation Compressor

- The unit adopts inverter stepless speed regulaCon compressor, which can accurately control cooling capacity output by regulaCng the rotaConal speed of compressor, matching the heat load change operaCon.

High-efficient and Reliable Cooling Solution

- Wet-film humidificaCon, 0 power consumpCon.
- Stepless fan speed regulaCon, air volume adjusted as needed.
- Three-direcCon return air design to increase the return air area and improve the return air efficiency.
- The design of small enthalpy difference in large air volume ensures that the sensible heat raCo (SHR) $\geq 90\%$.
- Intelligent unit control avoids the compeCCve operaCon of mulCple coolings and configures the cooling capacity as needed.
- High-efficiency and high-quality components match the well-designed refrigeraCon system, and annual energy efficiency raCo (AEER) is up to 4.19.
- Standard R410A environmentally friendly refrigerant.



Intelligent Controller

- Precise microcomputer control system, large-screen display, with multi-level password protection and experts fault diagnosis function
- Equipped with the standard RS485 communication interface and supported the remote monitoring
- SNMP Monitoring
- Wide input voltage design, with self-recovery function after power resume, lack phase protection, fault phase protection and over or low voltage protection function is optional to ensure the unit uninterrupted working
- It can flexibly switch from the main unit to the backup unit automatically to achieve the automatic switch and rotation

◆ Technical Parameters

▼DX Unit (Air-cooled Type)

SA	Unit	005			007			012			017			020		
Unit configuration	-	Single cooling	Constant temperature	Constant temperature and humidity	Single cooling	Constant temperature	Constant temperature and humidity	Single cooling	Constant temperature	Constant temperature and humidity	Single cooling	Constant temperature	Constant temperature and humidity	Single cooling	Constant temperature	Constant temperature and humidity
Total cooling capacity ^①	kW		5.5			7.5			12.5			17.5			20.5	
Sensible capacity ^②	kW		5.2			6.8			11.3			16.1			19.1	
Air volume	m ³ /h		2000			2250			3000			5000			5000	
Heating capacity	kW	-	2	2	-	2	2	-	2	2	-	4	4	-	4	4
Humidification capacity (Wet film humidification)	kg/h	-	-	1.5	-	-	2	-	-	2	-	-	2.5	-	-	2.5
Number of compressor	pcs		1			1			1			1			1	
Number of fan	pcs		1			1			1			1			1	
Voltage	V		220			220			380			380			380	
Frequency	Hz		50/60			50/60			50/60			50/60			50/60	
Full load current	A	11.0	20.5	21.0	16.2	25.3	25.8	8.4	15.7	16.2	15.5	29.5	30.0	18.0	31.5	32.0
Unit weight	kg	94	96	107	104	106	108	134	136	138	158	160	162	167	168	170
Unit width	mm		600			600			600			750			750	
Unit depth	mm		500			500			500			650			650	
Unit height	mm		1850			1850			1850			1850			1850	

▼Outdoor unit

KSA	Unit	007		010		018		024		028	
Heat exchange capacity	kW		7.6		10.4		18.1		23.8		27.2
Full load current	A		0.5		0.7		1.4		1.7		1.7
Unit weight	kg		38		48		60		118		135
Unit width	mm		905		944		988		1118		1118
Unit depth	mm		346		420		440		480		480
Unit height	mm		611		803		1257		1560		1560

Notes:

1. The above parameters are based on indoor return air conditions of 24 °C, 50% RH, and outdoor ambient temperature of 35 °C;
2. The outdoor unit needs to be powered from the indoor unit;
3. The minimum working environment temperature for standard outdoor units is -20 °C, and with low-temperature kits, the minimum working environment temperature is -40 °C;
4. If there is a demand for customized products, please contact us.
5. Shenzhen Kstar Science & Technology Co., Ltd. reserves the right of final interpretation of the data without prior notice if the data in the tables changed due to

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DELTRONICS ROOM COOLING MA Series

Available in eleven models, Capacities from 25kW to 120kW and in three air flow systems (Downflow, UpFlow, & Displacement)



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Deltronics MA Room Cooling

Medium and Big Data Center Room High-efficiency Precision cooling

Deltronics MA series precision cooling adopts the design of large air volume and high sensible heat ratio (SHR) to meet the needs of computer room; The precisely matched high-efficiency cooling system is designed for all-weather operation in full 24 hours of 365 days and is equipped with large-area evaporator to ensure the optimal energy-saving operation of the unit all the time.

Features

High Reliability

- Refrigerant leakage or insufficient detection function.
- Water leakage detection function (optional)
- Dual power supply and lightning protection functions Supported (optional)
- Wide input voltage design, optional phase loss and error protection, over-voltage and under-voltage protection functions.
- The unit is designed for uninterrupted, efficient and reliable operation 365 days×24 hours a day.
- The unit is suitable for severely cold areas, and can operate reliably at a low temperature of -40°C after optional low-temperature components.
- Modular design

Stepless Speed Regulation Compressor

- The unit adopts inverter stepless speed regulation compressor, which can accurately control cooling capacity output by regulating the rotational speed of compressor, matching the heat load change operation.

High-efficient and Reliable Cooling Solution

- Wet-film humidification, 0 power consumption.
- Stepless fan speed regulation, air volume adjusted as needed.
- Electronic expansion valve
- The design of small enthalpy difference in large air volume ensures that the sensible heat ratio (SHR) ≥90%.
- Intelligent unit control avoids the competitive operation of multiple coolings and configures the cooling capacity as needed.
- High-efficiency and high-quality components match the well-designed refrigeration system, and annual energy efficiency ratio (AEER) is up to 4.19.
- Standard R410A environmentally friendly refrigerant.



EC FANS



INVERTER COMPRESSOR

Intelligent Controller

- MA Series adopts powerful professional precision air conditioner intelligent control system to realize high-efficient, energy-saving, stable and reliable control of the unit with superior performance.
- Standard RS485 intelligent communication interface, SNMP optional
- Graphical state display and temperature & humidity curve display
- Alarm notification and it can record more than 3000 alarm logs
- Multi-level password protection
- Auto restart when mains recovers
- 7" color touch screen, friendly HMI on,
- Fault phase protection and over or low voltage protection function is optional to ensure the unit uninterrupted working
- It can flexibly switch from the main unit to the backup unit automatically to achieve the automatic switch and rotation

Technical Parameters

▼DX Unit (Inverter Compressor)

SA	Unit	025	030	035	040 (Single)	050 (Single)	040 (Dual)	050 (Dual)	060	080	100	120
Total cooling capacity ¹⁾	kW	27.0	32.0	36.5	42.0	52.5	44.5	53.0	63.0	84.0	105.0	123.0
Sensible capacity ¹⁾	kW	27.0	32.0	36.5	42.0	52.5	44.5	53.0	63.0	84.0	105.0	123.0
Air volume	m ³ /h	8500	10000	11000	12000	13500	12500	13500	18700	21600	26000	26500
Heating capacity	kW	9	9	9	9	9	9	9	12	12	12	12
Number of compressors	pcs	1	1	1	1	1	2	2	2	2	2	2
Humidification capacity (Wet film humidification)	kg/h	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Humidification capacity (Electrode humidification)	kg/h	6.0	8.0	8.0	8.0	8.0	3.5	3.5	10.0	10.0	12.0	12.0
Number of fan	pcs	1	1	1	1	1	1	1	2	2	2	2
Fan type	/	EC fan										
Full load current (Cooling only)	A	23	25	32	36	42	37	40	50	72	84	86
Full load current (With heater and humidifier)	A	32.5	36.3	39.2	41.5	50.4	45.5	54.3	60.1	71.3	86.3	100.5
Unit weight	kg	350	370	380	390	410	490	510	680	700	790	800
Unit width	mm	1128	1128	1128	1128	1128	1178	1178	2228	2228	2228	2228
Unit depth	mm	995	995	995	995	995	995	995	995	995	995	995
Unit height	mm	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975
Condenser	KCS	032	042	048	054	064	028*2	032*2	042*2	054*2	064*2	084*2

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DELTRONICS ROW COOLING RC

Available in three widths, 300mm, 400mm and 600mm, Capacities from 25 kW to 70 kW and in three system formats



Features

Real-time Monitoring of the Heat Load

- RC series unit is compatible with multiple temperature sensors, monitoring the heat load change real-time, and directly control the supply air temperature (the inlet air temperature of servers), that is safe, reliable, and energy saving, making sure that the inlet air temperature of servers conform to the requirements and the equipment running in the best state

Stepless Speed Regulation Compressor

- The unit adopts inverter stepless speed regulation compressor, which can accurately control cooling capacity output by regulating the rotational speed of compressor, match the heat load change of heat source in real time, and achieve accurate cooling and high energy efficient operation.

Deltronics RC Row Cooling

RC series precision row cooling is elaborately designed for the specific cooling needs of the new generation of high heat density data center racks.

The design is close to heat source application. It adopts brand-new airflow distribution method and serves the data center with high reliability, high efficiency, energy saving, accurate measurability and flexibility.

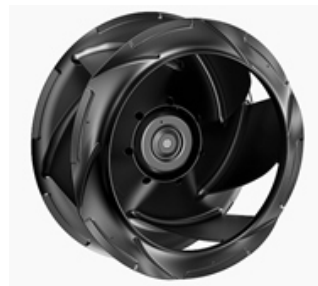
It solves intractable problems in practice with technologies such as real-time monitoring, dynamic coordinated output, cabinet size design and no need for raised floor to ensure the uninterrupted, high-efficient and reliable operation of key equipment for 24 hours of 365 days

Redundant Fan Design

- RC series units are standard with the EC fan that can rapidly response to the output requirements; the effect of energy saving in the part load mode is remarkable, up to 30% higher than the conventional AC fan.

Inverter Compressor

- RC series unit adopts inverter stepless speed regulation compressor, which can accurately control cooling capacity output by regulating the rotational speed.



▼DX Unit (Air-cooled Type)

FS***	Unit	007		012		007		012	
Compressor type	-	Fix speed compressor				Inverter compressor			
The unit configuration	/	Constant temperature	Constant temperature and humidity	Constant temperature	Constant temperature and humidity	Constant temperature	Constant temperature and humidity	Constant temperature	Constant temperature and humidity
Total cooling capacity ¹⁾	kW	7.5	7.5	12.5	12.5	7.5	7.5	12.5	12.5
Sensible capacity ¹⁾	kW	7.5	7.5	12.5	12.5	7.5	7.5	12.5	12.5
Air volume	m ³ /h	3400	3400	3600	3600	3400	3400	3600	3600
Number of fan	pcs	4	4	4	4	4	4	4	4
Fan type	-	AC Fan				EC Fan			
Direction of air supply	-	Side air supply/return				Side air supply/return			
Heating capacity	kW	2	2	2	2	2	2	2	2
Humidification capacity (Wet film humidification)	kg/h	-	2	-	2	-	2	-	2
Voltage	V	220	220	380	380	220	220	220	220
Full load current	A	23.5	24.0	19.5	20.0	32.8	33.3	40.5	41.0
Unit weight	kg	208	210	223	225	208	210	223	225
Unit width	mm	300	300	300	300	300	300	300	300
Unit depth	mm	1200/1400	1200/1400	1200/1400	1200/1400	1200/1400	1200/1400	1200/1400	1200/1400
Unit height	mm	2000	2000	2000	2000	2000	2000	2000	2000
Outdoor unit model	KCS	010		018		010		018	

▼DX Unit (Air-cooled Type)

FS***	Unit	025	025	030	030	040	050	060	070
Compressor type	-	Inverter Compressor							
Total cooling capacity ¹⁾	KW	25.5	25.5	30.5	30.5	42.8	52.0	65.0	70.0
Sensible capacity ¹⁾	KW	25.5	25.5	30.5	30.5	42.8	52.0	65.0	70.0
Air volume	m ³ /h	5050	7000	5050	8000	9500	11000	12500	14200
Fan type	-	EC Fan							
Heating capacity	kW	3.5	3.5	3.5	6.0	6.0	9.0	9.0	9.0
Humidification capacity (Wet film humidification)	kg/h	2.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5
Number of compressors	pcs	1	1	1	1	1	1	1	1
Voltage	V	380	380	380	380	380	380	380	380
Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Full load current (Cooling only)	A	20.0	20.0	30.0	30.0	32.0	35.0	46.0	50.0
Full load current (With heater and humidifier)	A	30.0	30.0	36.5	36.5	38.5	46.0	55.0	60.0
Unit width	mm	300	600	300	600	600	600	600	600
Unit depth	mm	1100/1200	1100/1200	1100/1200	1100/1200	1100/1200	1100/1200	1100/1200	1200
Unit height	mm	2000/2200	2000/2200	2000/2200	2000/2200	2000/2200	2000/2200	2000/2200	2000/2200
Unit weight	kg	230	265	240	290	290	345	360	375
Number of fans	pcs	6	2	6	2	3	3	3	3
Outdoor unit model	KCS	032	032	042	042	054	064	084	096

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