

Passive Upper Limb Exoskeleton

LC Power — U/A



Product Overview

Pure mechanical bionic structure for precise directional assistance. Lightweight, reliable, adaptable to complex environments. Multi-level adjustable to fit different body types. Ideal for automotive assembly, power maintenance, construction, aircraft repair, agricultural picking. Reduces muscle load, improves efficiency and comfort.

Key Features

Lightweight

Carbon fiber + Oxford cloth, lightweight, ergonomic, no movement restriction.

Passive Operation

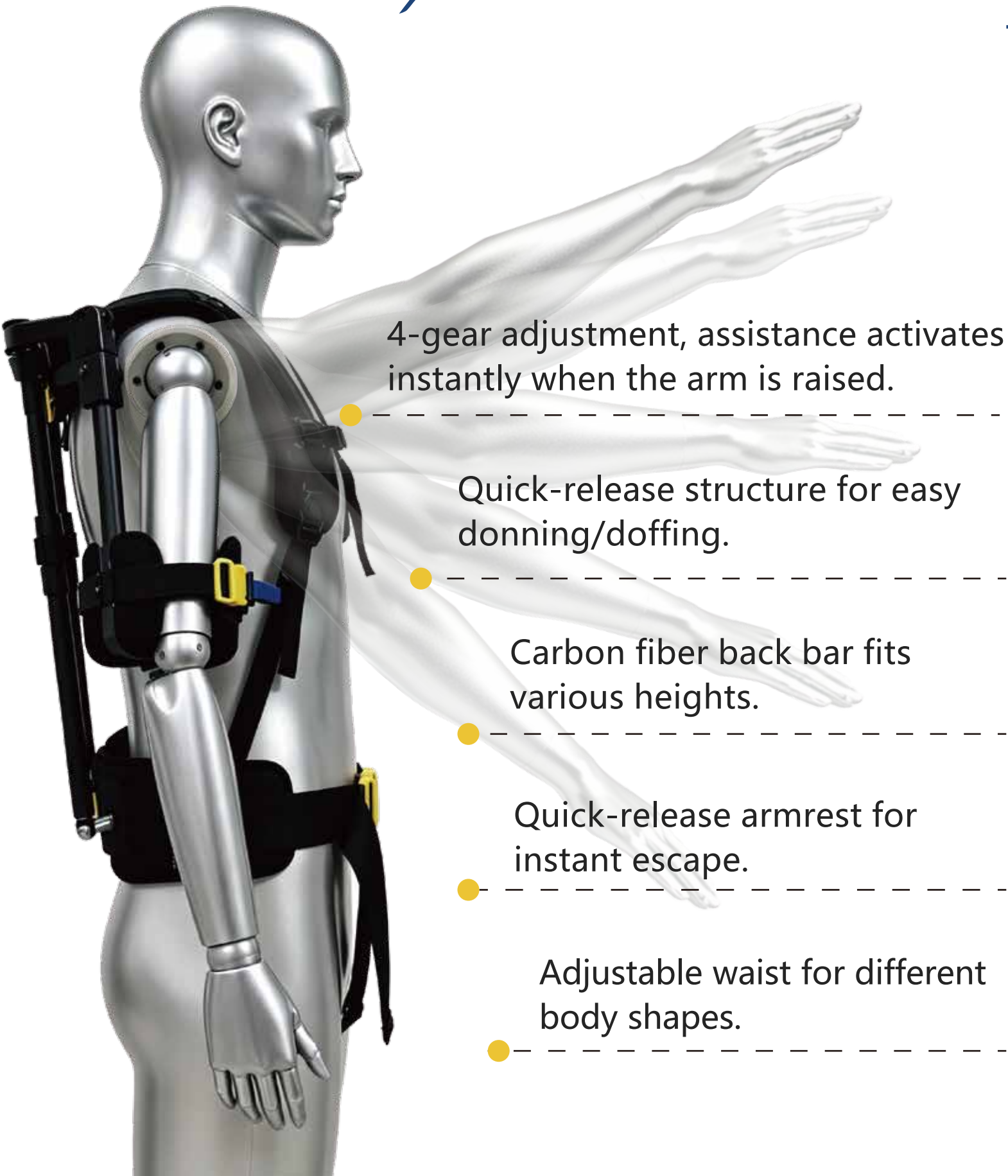
No power supply, zero energy consumption, no outage risk, safe & stable.

High Efficiency

Elastic energy storage, supports up to 8kg load, reduces strain, boosts endurance.

Durable

Minimalist structure, impact-resistant, wear-resistant, low maintenance.



4-gear adjustment, assistance activates instantly when the arm is raised.

Quick-release structure for easy donning/doffing.

Carbon fiber back bar fits various heights.

Quick-release armrest for instant escape.

Adjustable waist for different body shapes.

Specification

Passive Upper Limb Exoskeleton

Basic Information			
Model	LC Power-U/A	Color	Black with yellow accents
Users	Workers with prolonged arm-raising tasks		
Scenarios	Automotive assembly, power maintenance, construction, etc.		

Hardware Parameters			
Materials	Carbon fiber + aluminum alloy		Capacity
Locking Mode	Semi-automatic	Assistance Gears	Max. 8kg
Assistance/Unlocking Angles		3 gears	
		50°-70°-90°-110° / 115°	

Fabric Details	
Outer Fabric	Wear-resistant Oxford fabric
Lining Fabric	Breathable 3D mesh fabric

Other Information			
Size	One size fits all	Net Weight	<2kg
Package	50*40*12CM	Service Number	15989175854
Warranty	1 Year	Optional Accessories	Neck support

Guangdong Langcheng Technology Co., Ltd.

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Flexible Waist Exoskeleton

LC Flex — W



Product Overview

A lightweight, unpowered lumbar flexible exoskeleton designed for frequent bending tasks. Uses elastic material deformation to store and release energy, acting as a "smart belt" that provides upward auxiliary thrust during bending. Significantly reduces lumbar strain and injury risk.

Key Features

Lightweight

Light materials plus minimalist design for comfortable, sweat-free all day.



Body-Fitted

Conforms to body contours, non-restrictive for full freedom of movement.



Strain Reduction

Precisely aids bending and standing motions, effectively reducing lumbar muscle load.



Lumbar Support

Distributes lumbar pressure to prevent strain, offering protection for standing and heavy labor.



Adjustable back fits multiple body types

No rigid compression for free movement

Thickened lumbar padding for pressure distribution

Passive all-mechanical structure for safe use

Cross-traction assistance structure for stable load reduction

Specification

Flexible Waist Exoskeleton

Basic Information					
Model	LC Flex-W	Color	Black	Users	Manual laborers
Scenarios	Industrial logistics, medical elderly care and other frequent bending scenarios				

Structural Parameters			
Assistance Type	Unpowered	Applicable Height	160-190cm
Performance Index	0-30kg (dynamic assistance adjustment)		
Energy Storage	Elastic polyester latex fiber		
Core Structure	Integrated back-lumbar support bracket + bilateral thigh linkage strap system		

Fabric Details	
Outer Fabric	Wear-resistant Oxford fabric
Lining Fabric	Breathable 3D mesh fabric

Other Information			
Size	One size fits all	Net Weight	≤1kg
Package	30*40*10CM	Service Number	15989175854
Warranty	1 Year		

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Wrist Repetitive Work Assessment Glove

LC Glove — Wrist



Product Overview

Designed for workers doing repeated strenuous wrist movements, compliant with GBZ 336-2025 carpal tunnel syndrome diagnosis standard. It adopts dual-posture sensors and edge AI to detect wrist movement angles, automatically record effective work motions, frequency, duration and stress intensity. Data can be wirelessly uploaded for PC analysis, supporting occupational health monitoring, ergonomic evaluation and workload control, and lowering risks of wrist occupational musculoskeletal injuries.

Key Features

Precision Sensor

Dual-point attitude sensing eliminates whole-arm movement interference. Accurately captures wrist angles.



Real-Time Processing

Onboard glove computing for angle calculation, motion counting and data statistics. No external device needed.



Wireless Data Sync

Wireless sync to PC for real-time angle curves and work reports. Data storable, exportable and traceable.



Stable & Reliable

Vibration and interference resistant for high-intensity environments in electronics, automotive, assembly and furniture manufacturing.



Half-finger design fits multiple hand sizes

Lightweight and responsive

Gloves fit snugly without slack

Adjustable wristband for various sizes

Specification

Wrist Repetitive Work Assessment Glove

Basic Information		
Model	LC Glove-W	
Scenarios	Occupational disease prevention hospitals, CDC occupational health departments, third-party occupational health testing institutions, etc.	

Measurement Performance			
Angle Range	±180°	Recognition Threshold	15° (customizable)
Dynamic/Static Accuracy		≤±1.5° / ≤±0.3°	
Frequency Counting	Automatically counts ≥4 motions per minute		
Work Duration	Daily working hour accumulation		
Measurement Dimensions	Wrist flexion/extension, radial/ulnar deviation angles		

Other Information			
Size	XS, S, M, L, XL	Net Weight	200g
Package	25*28*7CM	Service Number	15989175854
Warranty	1 Year		

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PCM Cooling Vest

LC Frost — PCM/A



Product Overview

Built with high-energy-density Phase Change Material (PCM) that absorbs heat at a constant temperature (~23°C). Delivers consistent comfort cooling. One cold storage cycle provides 1-2 hours of cooling at 35°C. Reusable thousands of times – a wearable "mini air conditioner" solution.

Key Features

Mild Cooling

Phase change temperature (22–28°C) aligns with human comfort zone. Gentle, non-irritating cooling avoids discomfort or cold risk from sudden temperature drops.



Passive Cooling

All-physical, power-free cooling with no electricity or water needed. Portable and wearable. No wires, noise or energy consumption – unrestricted movement.



Stable Performance

C17 n-alkane PCM delivers stable, long-lasting cooling with no significant degradation. Consistent performance for reliable cooling.



Eco-Friendly

Plant/biomass-based C17 n-alkane PCM (non-petroleum derived). Biodegradable and environmentally friendly.



Specification

PCM Cooling Vest

Basic Information

Model	LC Frost - PCM/A	Color	Transparent (customizable)
Users	Workers in high-temperature environments		
Scenarios	High-temperature environments		

PCM Parameters

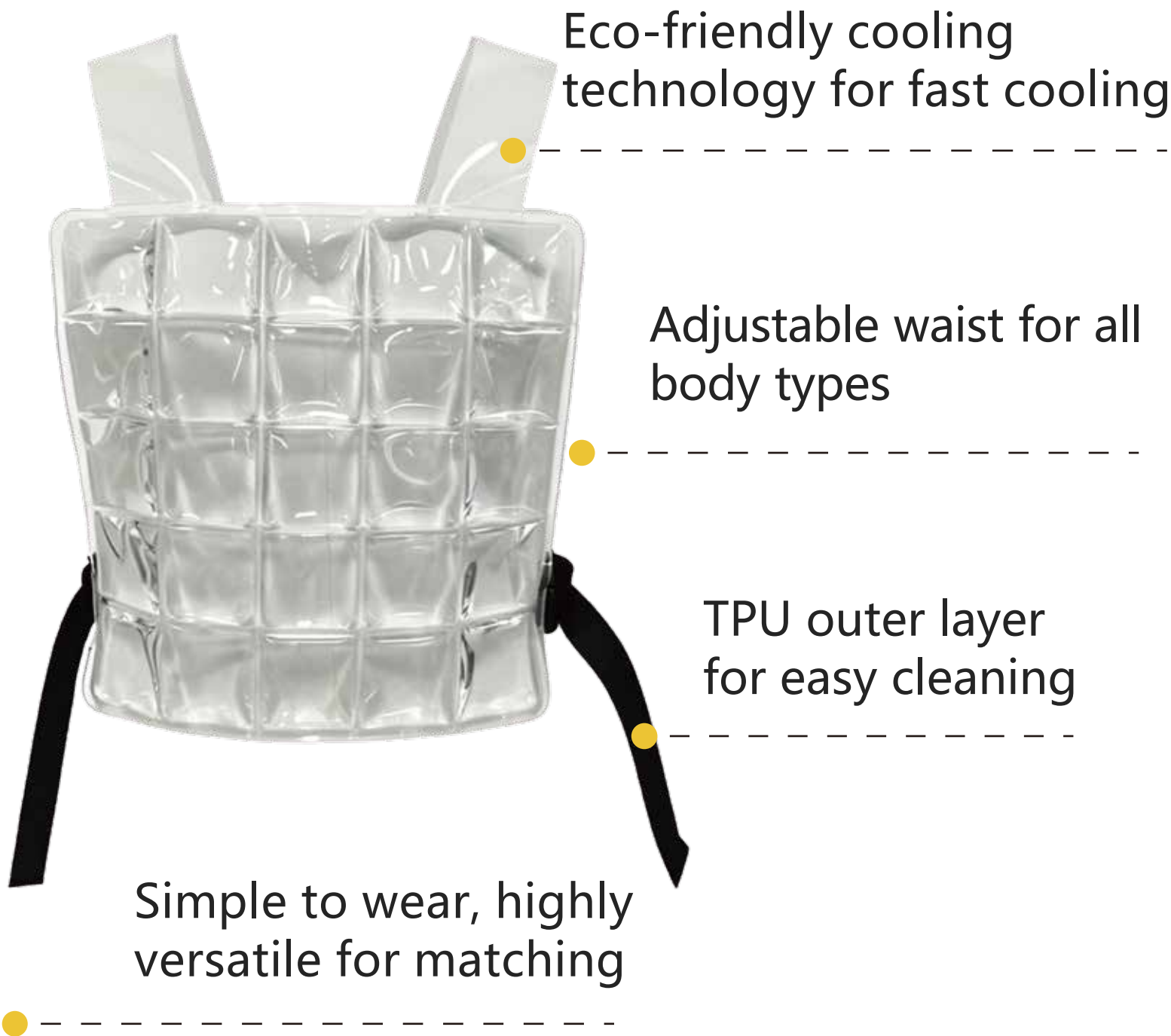
Heat of Fusion/(J/g)	225	Phase Change Temperature	22.08°C
Cooling Duration	1~2 hours (reference based on labor intensity and ambient temperature)		
Cold Storage Duration	Frozen at -18°C for 1 hour, refrigerated at 0-4°C for 1-2 hours		

Fabric Details

Material	TPU
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Other Information

Size	One size fits all	Net Weight	0.55kg
Package	30*40*10CM	Service Number	15989175854
Warranty	1 Year	Optional Accessories	PCM Color



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Flame Retardant PCM Cooling Vest

LC Frost — PCM/G



Product Overview

Built with high-energy-density Phase Change Material (PCM) that absorbs heat at a constant temperature (~23°C). Delivers consistent comfort cooling. One cold storage cycle provides 1-2 hours of cooling at 35°C. Reusable thousands of times – a wearable "mini air conditioner" solution.

Key Features

Mild Cooling

Phase change temperature (22–28°C) aligns with human comfort zone. Gentle, non-irritating cooling avoids discomfort or cold risk from sudden temperature drops.



Passive Cooling

All-physical, power-free cooling with no electricity or water needed. Portable and wearable. No wires, noise or energy consumption – unrestricted movement.



Stable Performance

C17 n-alkane PCM delivers stable, long-lasting cooling with no significant degradation. Consistent performance for reliable cooling.



Eco-Friendly

Plant/biomass-based C17 n-alkane PCM (non-petroleum derived). Biodegradable and environmentally friendly.



Specification

PCM Cooling Vest

Basic Information

Model	LC Frost - PCM/G	Color	Blue (customizable)
Users	Workers in high-temperature environments		
Scenarios	High-temperature environments		

PCM Parameters

Heat of Fusion/(J/g)	225	Phase Change Temperature	22.08°C
Cooling Duration	1~2 hours (reference based on labor intensity and ambient temperature)		
Cold Storage Duration	Frozen at -18°C for 1 hour, refrigerated at 0-4°C for 1-2 hours		

Fabric Details

Material	Antistatic and flame retardant fabric
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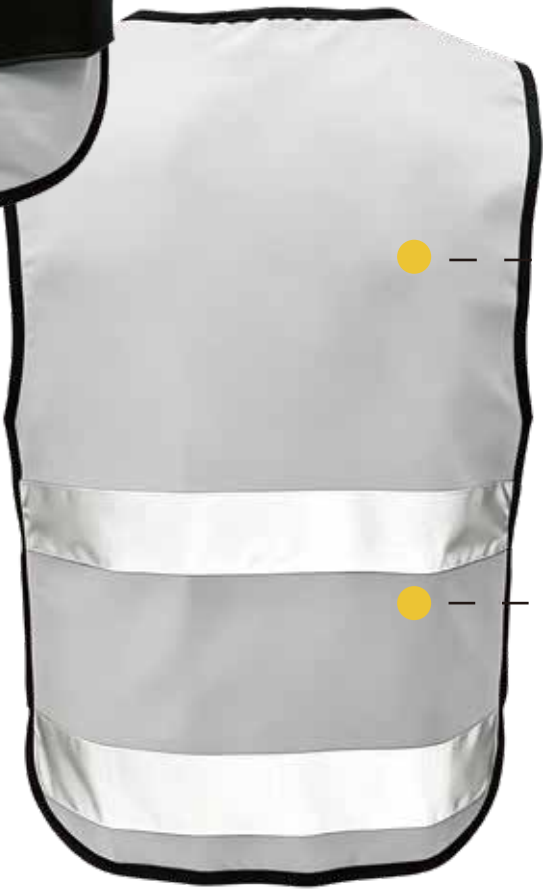
Other Information

Size	One size fits all	Net Weight	0.96kg
Package	30*40*10CM	Service Number	15989175854
Warranty	1 Year	Optional Accessories	Reflective strip



Wear-resistant outer fabric

Elastic magic tape waistband fits all body shapes



Eco-friendly, fast cooling

Safety warning reflective strips

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Semiconductor Water Cooling Vest

LC Frost — TEC/W



Product Overview

This semiconductor water-cooled vest is an active wearable cooling device. Powered by thermoelectric cooling chips and water circulation system, it delivers steady, adjustable torso cooling for staff working in high-temperature conditions. It applies to firefighting, public security, power, construction, sanitation and other industries with extreme heat exposure.

Key Features

Accurate Temp Control

Instant cooling after startup. Intelligent host supports multi-level temperature adjustment to keep body comfortably cool, no passive cooling limits. Optional phase change strips boost cooling efficiency.



Breathable

Built-in quiet rear fan dissipates back heat fast; chest fan brings facial cooling, optimizing air circulation.



Durable Battery

High-capacity battery sustains 2-4 hours continuous use, fits long-time intense work. Light design ensures free movement and comfort.



Safe Performance

Fully enclosed water circuit adapts to tough working scenarios with stable and secure operation.



Anti-static material, soft and comfortable

Adjustable waistband fits all body shapes



Adjustable temperature

Circulating air supply to keep dry

Specification

Semiconductor Water Cooling Vest

Basic Information			
Model	LC Frost - TEC/W	Color	Grey (customizable)
Users	Workers in high-temperature environments		
Scenarios	High-temperature environments		

Semiconductor Parameters			
Cooling Capacity	80W	Rated Voltage	24V
Rated Power	100W	Cooling Response Time	Stable in 2min
Single Battery Life	1~2 hours (reference based on labor intensity and ambient temperature)		

Fabric Details	
Outer Fabric	Antistatic and flame retardant fabric
Lining Fabric	TPU

Other Information			
Size	One size fits all	Net Weight	<3kg
Package	50*40*12CM	Service Number	15989175854
Warranty	1 Year	Optional Accessories	PCM

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Direct-Cooling Semiconductor Vest

LC Frost—TEC/D



Product Overview

This direct-cooling semiconductor cooling vest is active personal cooling gear leveraging the Peltier effect. Adopting high-performance TEC modules, it needs no refrigerant or compressor. Direct contact heat absorption and rapid heat dissipation enable instant cooling and smart temperature regulation. Ideal for high-temperature work, medical protection and outdoor use.

Key Features

Direct Cooling

No ice or water coolant required, cools immediately when powered on, semiconductor cooling chips conduct cooling directly, fast cooling speed and more precise temperature control.



Low Noise

No compressor operation noise, only low-noise cooling fans with almost zero vibration, suitable for quiet operation scenarios.



Long Battery Life

Matched with high-capacity special batteries, it can work continuously for 2-8 hours, meeting the single operation duration of most high-intensity services.



Eco-friendly

No refrigerant required, simple and convenient, no pipeline leakage risk; cooling chip life exceeds 20,000 hours, almost no daily maintenance required.



- – – – Instant Cooling without Pre-cooling
- – – – Tailored to fit the body shape, unrestricted operation activities
- – – – Low-noise cooling fans, no noise or stuffiness after long wearing
- – – – Modular detachable and washable, breathable fabric

Specification

Direct-Cooling Semiconductor Vest

Basic Information			
Model	LC Frost - TEC/D	Color	Black
Users	Workers in high-temperature environments		
Scenarios	High-temperature environments		

Semiconductor Parameters			
Cooling Capacity	45W	Rated Voltage	12V
Rated Power	60W	Cooling Response Time	Stable in 2s
Single Battery Life	1.5-4.5 hours (single battery lasts 1.5 hours,3 batteries included)		

Fabric Details	
Outer Fabric	Antistatic and flame retardant fabric

Other Information			
Size	One size fits all	Net Weight	~1.5kg
Package	50*40*12CM	Service Number	15989175854
Warranty	1 Year		

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Compressor Water Cooling Vest

LC Frost — ACC/W



Product Overview

Langcheng compressor water-cooled vest applies micro inverter compressor and liquid circulation refrigeration. Its closed-loop system circulates low-temperature water to evenly dissipate body heat. Featuring high cooling power, wide temperature range and stable constant temperature, it serves as professional high-temperature protective cooling gear.

Key Features

Active Cooling

Instant cooling on startup. Multi-level temperature adjustment maintains comfortable body temperature. Optional ice crystals enhance cooling speed.



Lightweight

Built-in slim cooling structure weighs under 4kg, ensuring unrestricted motion and comfy wear.



Long Endurance

High-capacity battery supports 2-4 hours continuous operation, suited for long intensive tasks.



Stable Performance

Fully sealed water circuit prevents leakage. Waterproof and shockproof for harsh working conditions.



Anti-static material, soft and comfortable

Adjustable waistband fits all body shapes



Adjustable temperature



Circulating air supply to keep dry

Specification

Compressor Water Cooling Vest

Basic Information			
Model	LC Frost - ACC/W	Color	Grey
Users	Workers in high-temperature environments		
Scenarios	High-temperature environments		

Compressor Parameters			
Cooling Capacity	60-300W	Rated Voltage	24V
Rated Power	110W	Cooling Response Time	Stable in 3m
Single Battery Life	1~2 hours (reference based on labor intensity and ambient temperature)		

Fabric Details	
Outer Fabric	Antistatic and flame retardant fabric
Lining Fabric	TPU

Other Information			
Size	One size fits all	Net Weight	<4kg
Package	50*40*12CM	Service Number	15989175854
Warranty	1 Year		

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