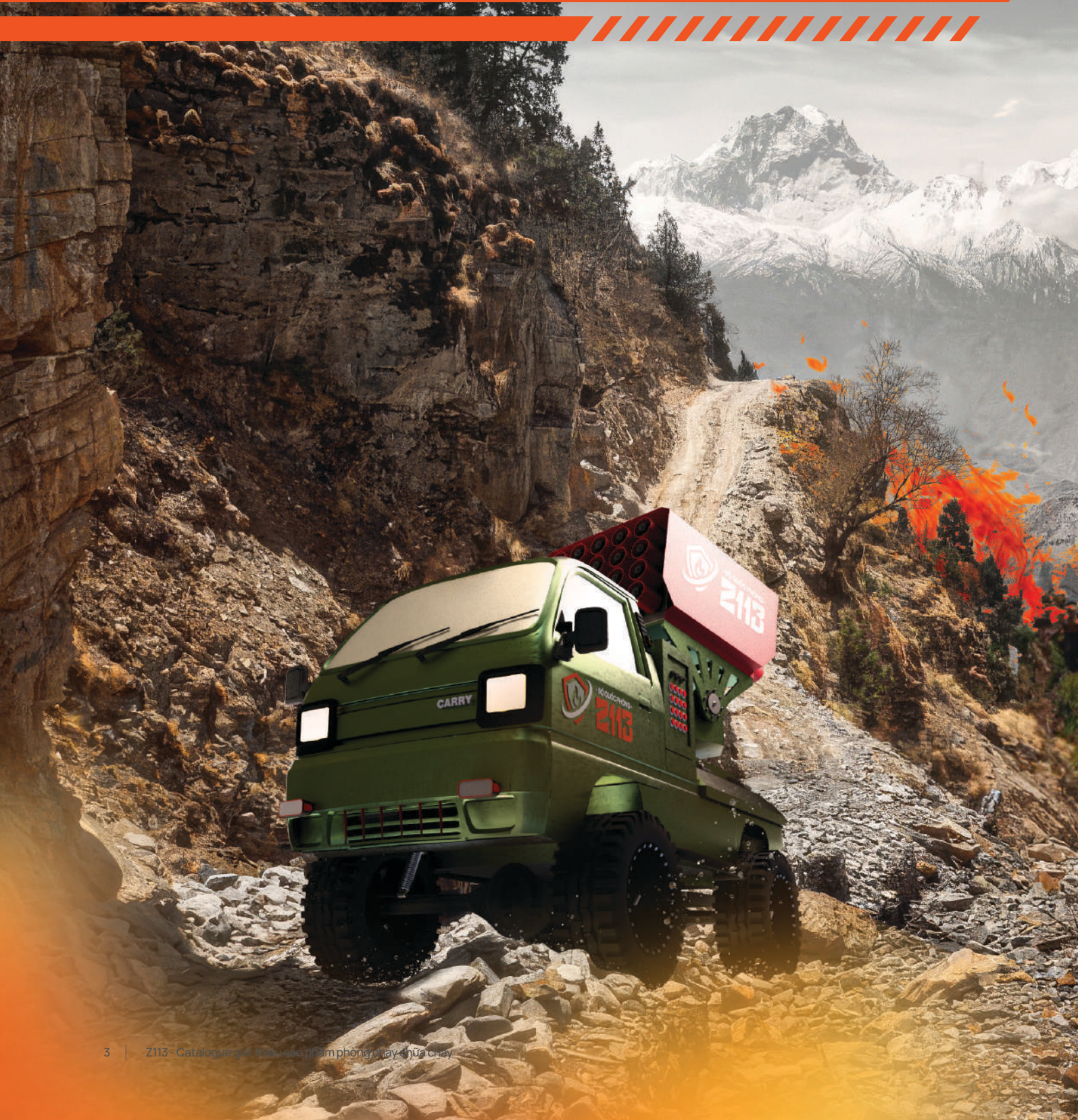




13 MECHANICS AND CHEMICALS
ONE MEMBER LIMITED LIABILITY COMPANY

FIREFIGHTING & FIRE PROTECTION PRODUCTS CATALOGUE





CONTENTS

- 04 Z113 FIRE EXTINGUISHER BALL

- 05 ABC DRY CHEMICAL FIRE EXTINGUISHER

- 06 ABC SPHERICAL FIRE EXTINGUISHER

- 07 FIRE EXTINGUISHER SYSTEM

- 08 SHOULDER FIRE HOSE

- 10 UNMANNED AERIAL VEHICLE (UAV)
FOR FIREFIGHTING



Z113 FIRE EXTINGUISHER BALL

FIRE EXTINGUISHING CAPABILITIES



Type A

Fires in ordinary combustible materials (such as wood, paper, plastics)



Type B

Fires in flammable liquids



Type E

Fires involving energized electrical equipment



QUALITY STANDARD



Product is certified by ISO 9001:2015 Quality Management System QUACERT



Product is manufactured according to the company standard TCCS 01:2023/Z113



OPERATION DESCRIPTION

- ▶ When in contact with a flame, the fire extinguisher ball will ignite and automatically activate after 3-10 seconds.
- ▶ The discharge of extinguishing powder in the ball is performed by the bursting pressure of the gas located in the center of the ball, which has the ability to suppress the combustion reaction and isolate the fire from the air.
- ▶ It prevents the spread of combustion gases into the fire area, thereby extinguishing small, newly formed fires.

FEATURES & TECHNICAL SPECIFICATIONS	TYPE					
	400 g	600 g	1300 g	2000 g	4000 g	6000 g
Ball diameter	105±2mm	110±2mm	147±2mm	195±2mm	209±2mm	237±2mm
Ball weight	400±50mm	600±50mm	1150±150mm	2000±300mm	4000±300	6000±300
Activation noise	80±115dB	80±115dB	80±115dB	80±115dB	80±115dB	80±115dB
Effective extinguishing area	≤1m ³	≤1m ³	≤3m ³	≤6m ³	≤8m ³	≤10m ³
Activation time when in contact with fire	≤10s	≤10s	≤10s	≤10s	≤10s	≤10s



ABC DRY CHEMICAL FIRE EXTINGUISHER

FIRE EXTINGUISHING CAPABILITIES



Type A

Fires in ordinary combustible materials (such as wood, paper, plastics)



Type B

Fires in flammable liquids



Type E

Fires involving energized electrical equipment



Type C

Gas Fire



01. Handle
02. Safety lock
03. Trigger
04. Pressure gauge
05. Cylinder
06. Body
07. Hose

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Product is manufactured according to the company standard TCCS 01:2023/Z113

FEATURES & TECHNICAL SPECIFICATIONS

TYPE

	3 kG	4 kG	6 kG	8 kG
Package dimensions (length x diameter)	450x130 mm	450x140 mm	600x155 mm	580x175 mm
Packaging dimensions (length x width x height)	140x140x460 mm	150x150x460 mm	165x165x610 mm	185x185x590 mm
Dry chemical weight	3 kG	4 kG	6 kG	8 kG
Fire extinguisher weight	5 kG	6,5 kG	9,2 kG	11,5 kG
Operating temperature	-10 ÷ 60°C	-10 ÷ 60°C	-10 ÷ 60°C	-10 ÷ 60°C
Extinguishing agent composition (ABC powder)	NH ₄ H ₂ PO ₄ (NH ₄) ₂ SO ₄	NH ₄ H ₂ PO ₄ (NH ₄) ₂ SO ₄	NH ₄ H ₂ PO ₄ (NH ₄) ₂ SO ₄	NH ₄ H ₂ PO ₄ (NH ₄) ₂ SO ₄
Spray range	≥4m	≥4m	≥4m	≥4m
Discharge time	≥9s	≥13s	≥26s	≥32s
Fire extinguishing effectiveness	2A.55B	2A.55B	3A.89B	4A.144B
Equilibrium pressure (Pms)	1,5 MPa	1,5 MPa	1,5 MPa	1,5 MPa
Test pressure (Pt)	2,5 MPa	2,5 MPa	2,5 MPa	2,5 MPa
Minimum burst pressure (Pb)	5,5 MPa	5,5 MPa	5,5 MPa	5,5 MPa



ABC SPHERICAL FIRE EXTINGUISHER

FIRE EXTINGUISHING CAPABILITIES



Type A

Fires in ordinary combustible materials (such as wood, paper, plastics)



Type B

Fires in flammable liquids



Type E

Fires involving energized electrical equipment



Type C

Gas Fire



- 01 Hanging hook
- 02 Tank
- 03 Pressure gauge
- 04 Sprinkler
- 05 Heat sensor

QUALITY STANDARD



Product is certified by ISO 9001:2015 Quality Management System QUACERT



Product is manufactured according to the company standard TCCS 01:2023/Z113

FEATURES & TECHNICAL SPECIFICATIONS

TYPE

	6 kG	8 kG	12 kG
Package dimensions (length x diameter)	205x270 mm	245x304 mm	275x304 mm
Package dimensions (length x width x height)	280x280x290 mm	310x310x340 mm	310x310x360 mm
Dry chemical weight	6 kG	8 kG	12 kG
Fire extinguisher weight	9 kG	12,5 kG	19,5 kG
Operating temperature of the fire extinguisher	-30 ÷ 60°C	-30 ÷ 60°C	-30 ÷ 60°C
Extinguishing agent composition (ABC powder)	NH ₄ H ₂ PO ₄ (NH ₄) ₂ SO ₄	NH ₄ H ₂ PO ₄ (NH ₄) ₂ SO ₄	NH ₄ H ₂ PO ₄ (NH ₄) ₂ SO ₄
Operating temperature of the thermal sensor	68 ± 3°C	68 ± 3°C	68 ± 3°C
Spray coverage area	12m ²	12m ²	12m ²
Discharge time	≥9s	≥13s	≥26s
Fire extinguishing effectiveness	3A.89B.C	4A.89B.C	6A.144B.C
Equilibrium pressure (Pms)	1,5 MPa	1,5 MPa	1,5 MPa
Test pressure (Pt)	2,5 MPa	2,5 MPa	2,5 MPa
Minimum burst pressure (Pb)	5,5 MPa	5,5 MPa	5,5 MPa



FIRE EXTINGUISHER

DPCC-13



★ OUTSTANDING FEATURES

Extinguishes large-scale fires in hard-to-reach areas, far from water sources that ordinary fire trucks cannot access.

★ HIGH MOBILITY

Quickly deploys to extinguish fires, highly effective in extinguishing forest fires, chemical warehouses, and large-scale gas stations.

FIRE EXTINGUISHER

Barrel Length	1,000 mm
Bore Diameter	100 mm
Barrel Weight	9 kg
Maximum Range	200 m
Theoretical Firing Rate	6 shots/minute
Fire Extinguishing Capability	Type A
Deployment Time	10s
Ignition Source	9V Battery
Safety Modes	3 levels

100MM FIRE EXTINGUISHER ĐCC-100-200



Barrel Diameter	100 mm	Fire Extinguishing Capability	Kiểu A
Overall Length	628 mm	Projectile Type	Propellant Projectile
Fire Extinguisher Weight	4,7 kg	Activation Energy	0.5A electrical source
ABC Extinguishing Agent Weight	3 kg	Activation Mode	Impact activation or 5-second delay
Maximum Range	180 m		

DISTANCE SENSOR



Measurement Range	05:1000 m
Accuracy	1.000 mm
Laser Wavelength	905 nm

SURVEILLANCE CAMERA

Image sensor resolution	12 MP
Video output resolution	Full HD 1920x1080



WIRELESS CONTROL STATION

Screen	IPS LCD 11 inch
Chipset	Snapdragon 750G
RAM	4GB/64GB
Battery	10,000 mAh
Operating System	Android 11
Control Program	DCPP.Z113

CENTRAL CONTROL UNIT



Potential for unintentional activation
The system operates on a separate 12V power supply, allowing for individual firing of each unit in sequence from 1 to 20.



SHOULDER-MOUNTED FIREFIGHTING LAUNCHER

OPCC100-13

DESCRIPTION



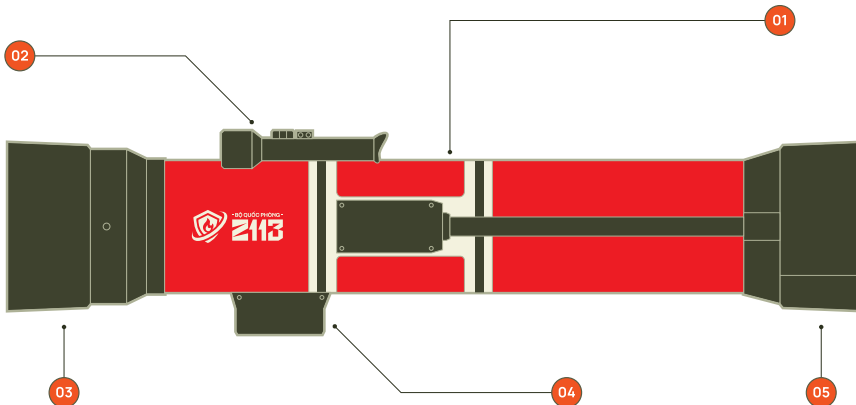
Personal firefighting launcher is designed based on the shoulder fire launcher, carrying 100mm fire extinguishing ammunition which has firing range further than 100 meters. This type of ammunition contains 03kg of fire extinguishing powder.



Extinguishing fires occurred in difficult-to-reach locations such as corridors, balconies. The launcher can also be used for long-distance approach or between tall buildings.



The launcher has high mobility characteristic with rapid fire extinguishing capability. This product is mostly effective against chemical fire or forest



01 Launch tube

02 Scope

03 Muzzle

04 Trigger

05 Breech

FIRE EXTINGUISHER

Launch tube length	1.000 mm
Tube Caliber	100 mm
Maximum speed	9 kg
ABC extinguishing powder mass	3 kg
Maximum range	30 m
Theoretical firing speed	6 rounds/minute
Capability of extinguishing	Type A
Deployment duration	10 s
Activation	9V battery
Safety mode	3 modes

RED & GREEN LASER SIGHT

Power	20W
Maximum range	20 ÷ 100 m



100MM FIRE EXTINGUISHING PROJECTILE ĐCC-100-30

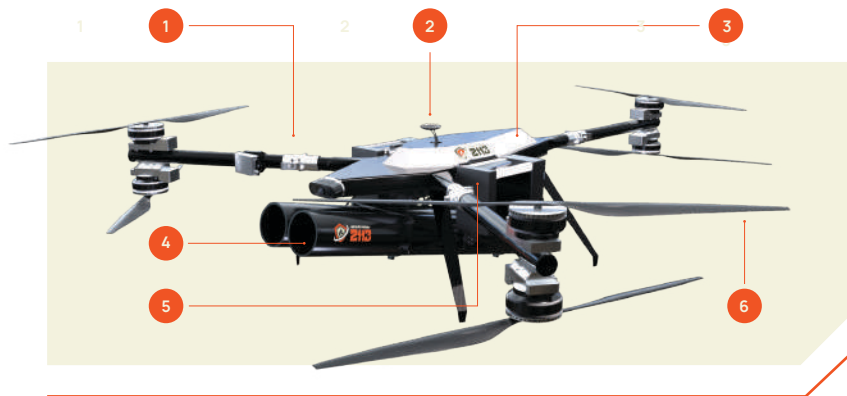
Caliber	100 mm
Total length	628 mm
Weight	4,7 kg
Mass of extinguishing powder	3 kg
Max firing range	120 m
Ammunition type	Rocket
Activation source	0,5A power supply
Activation mode	Detonation or 5-second delay activation
Fire extinguishing capability	Type A
Glass breakthrough ability (30m distance)	
<ul style="list-style-type: none"> • Tempered glass thickness • Double-layer laminated glass thickness 	10 mm 0 mm
Safe distance from the center of explosion	3 m





FIREFIGHTING UNMMANED AERIAL VEHICLE (UAV)

UAV-50



- 1 Rotor arms
- 2 GNSS
- 3 UAV body
- 4 Firefighting launcher x2
- 5 Battery
- 6 Rotor blades

Highlighted feature

Dual firefighting launcher capable of carrying 02 firefighting rockets

High mobility

Extinguish fires in high-rise buildings, hard-to-reach high-altitude fire areas

TECHNICAL SPECIFICATION

UNMMANED AERIAL VEHICLE

Dimension in operation	2500 x 2500 x600 mm
Dimension when folded	1500 x 1500 x600 mm
Maximum flight speed	70 km/h
Maximum payload	20 kg
Full payload flight time (15kg)	20 minutes
Maximum operating altitude (AGL)	500 m
Operating frequency	2,4 ÷ 2,48 GHz
Maximum transmission range	5 km
Operatable temperature	0° + 40°C

FIREFIGHTING LAUNCHER MODULE

Number of launchers	02
Launcher length	1.000 mm
Unloaded mass	6 kg
Maximum shooting range	30 m



FIREFIGHTING AMMUNITION 100MM ĐCC-100-30



Caliber	100 mm
Ammunition length	628 mm
Ammunition weight	4,7 kg
ABC powder weight	3 kg
Maximum shooting range	120 m
Type	Rocket
Power	0,5A power source
Activation type	On impact or 5s delay activation
Firefighting rate	Type A
Blast radius	3 m

HANDHELD CONTROLLER

Operating frequency	2,4 ÷ 2,48 GHz
Working time	6 ÷ 20h
LCD screen size	7 inch
Battery capacity	20.000 mAh
Weight	1.034 kg

FIRE EXTINGUISHER SPRAY MODULE

Số lượng bình	2
Dung tích dung dịch chữa cháy	12 L

LIFEBUOY & MEDICAL SUPPLY DROP MODULE

Bag dimension	260 x 300 x 260 mm
Maximum payload	15 kg
Maximum carrier size	250 x 290 x 250 mm
Control mode	Remote control
Effective range	5 km
Number of Lifebuoys	02

FIRE-EXTINGUISHER BALL DROP MODULE

Capacity	04 balls
ABC extinguisher powder mass	12 kg



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