

# Product data sheet

Specifications



soft starter for asynchronous motor,  
Altistart 22, control 110V, 230 to  
575V, 200 to 500hp

ATS22C59S6U

ⓘ To be discontinued

ⓘ To be discontinued on: Jun 30, 2027

ⓘ To be end-of-service on: Jun 29, 2035

## Main

Range of product	Altistart 22
Product or component type	Soft starter
Product destination	Asynchronous motors
Product specific application	Pumps and fans
Component name	ATS22
Network number of phases	3 phases
[Us] rated supply voltage	208...600 V - 15...10 %
Motor power hp	200 hp 230 V 400 hp 460 V 500 hp 575 V
Factory setting current	477 A
Power dissipation in W	251 W for standard applications
Utilisation category	AC-53A
Type of start	Start with torque control (current limited to 3.5 In)
IcL starter rating	590 A for connection in the motor supply line for standard applications
IP degree of protection	IP00

## Complementary

Assembly style	With heat sink
Function available	Internal bypass
Supply voltage limits	177...660 V
Supply frequency	50...60 Hz - 10...10 %
Network frequency	45...66 Hz
Device connection	In the motor supply line
[Uc] control circuit voltage	110 V - 15...10 % 50/60 Hz
Control circuit consumption	20 W
Discrete output number	2
Discrete output type	Relay outputs R1 230 V running, alarm, trip, stopped, not stopped, starting, ready C/ O Relay outputs R2 230 V running, alarm, trip, stopped, not stopped, starting, ready C/ O
Minimum switching current	100 mA at 12 V DC (relay outputs)

<b>Maximum switching current</b>	5 A 250 V AC resistive 1 relay outputs 5 A 30 V DC resistive 1 relay outputs 2 A 250 V AC inductive 0.4 20 ms relay outputs 2 A 30 V DC inductive 7 ms relay outputs
<b>Discrete input number</b>	3
<b>Discrete input type</b>	(LI1, LI2, LI3) logic, 5 mA 20 kOhm
<b>Discrete input voltage</b>	110 V <= 121 V
<b>Discrete input logic</b>	Positive logic LI1, LI2, LI3 at State 0: < 20 V and <= 15 mA at State 1: > 79 V, <= 2 mA
<b>Output current</b>	0.4...1 Icl adjustable
<b>PTC probe input</b>	750 Ohm
<b>Communication port protocol</b>	Modbus
<b>Connector type</b>	1 RJ45
<b>Communication data link</b>	Serial
<b>Physical interface</b>	RS485 multidrop
<b>Transmission rate</b>	4800, 9600 or 19200 bps
<b>Installed device</b>	31
<b>Protection type</b>	Phase failure: line Thermal protection: motor Thermal protection: starter
<b>Marking</b>	CE
<b>Type of cooling</b>	Forced convection
<b>Operating position</b>	Vertical +/- 10 degree
<b>Height</b>	455 mm
<b>Width</b>	304 mm
<b>Depth</b>	339.7 mm
<b>Product weight</b>	50 kg

## Environment

<b>Electromagnetic compatibility</b>	Conducted and radiated emissions level A conforming to IEC 60947-4-2 Damped oscillating waves level 3 conforming to IEC 61000-4-12 Electrostatic discharge level 3 conforming to IEC 61000-4-2 Immunity to electrical transients level 4 conforming to IEC 61000-4-4 Immunity to radiated radio-electrical interference level 3 conforming to IEC 61000-4-3 Voltage/current impulse level 3 conforming to IEC 61000-4-5
<b>Standards</b>	IEC 60947-4-2
<b>Product certifications</b>	GOST C-Tick UL CSA CCC
<b>Vibration resistance</b>	1 gn (f= 13...200 Hz) conforming to IEC 60068-2-6 1.5 mm (f= 2...13 Hz) conforming to IEC 60068-2-6
<b>Shock resistance</b>	15 gn for 11 ms conforming to IEC 60068-2-27
<b>Noise level</b>	56 dB
<b>Pollution degree</b>	Level 2 conforming to IEC 60664-1
<b>Relative humidity</b>	0...95 % without condensation or dripping water conforming to IEC 60068-2-3
<b>Ambient air temperature for operation</b>	-10...40 °C (without derating) 40...60 °C (with current derating 2.2 % per °C)

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Ambient air temperature for storage	-25...70 °C
Operating altitude	<= 1000 m without derating > 1000...< 2000 m with current derating of 2.2 % per additional 100 m

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## Packing Units

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Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	53.5 cm
Package 1 Width	40.0 cm
Package 1 Length	57.5 cm
Package 1 Weight	35.75 kg

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## Contractual warranty

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Warranty	18 months
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## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Use Better

#### Materials and Substances

Packaging made with recycled cardboard	No
Packaging without single use plastic	No
<a href="#">EU RoHS Directive</a>	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	74d74380-6cb3-4414-bfb8-7b8212ccd88c
California proposition 65	<b>WARNING:</b> This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="#">www.P65Warnings.ca.gov</a>

### Use Again

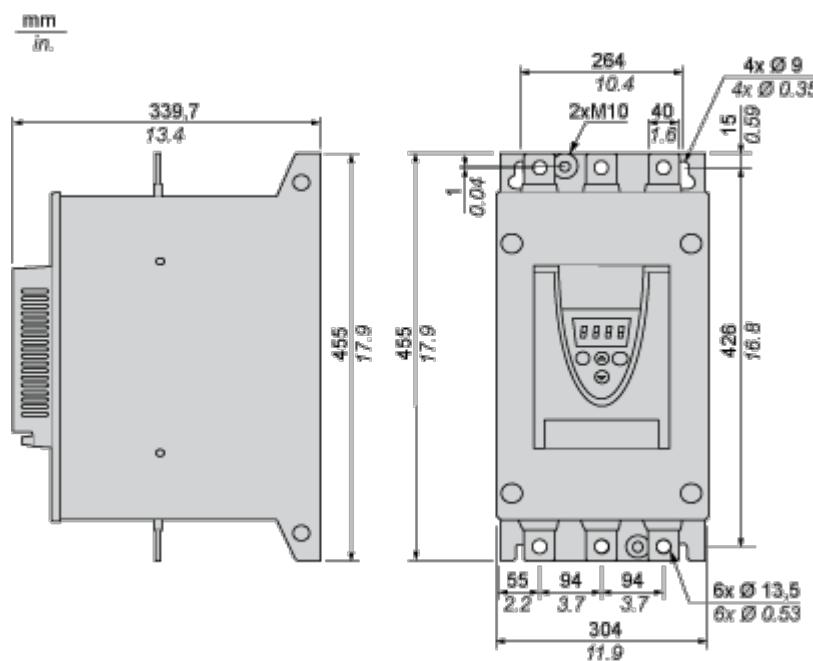
#### Repack and remanufacture

Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

## Dimensions Drawings

## Frame Size E

## Dimensions



## Mounting and Clearance

## Precautions

## Standards

The Altistart 22 soft starter is compliant with pollution Degree 2 as defined in NEMA ICS1-1 or IEC 60664-1. For environment pollution degree 3, install the Altistart 22 soft starter inside a cabinet type 12 or IP54.

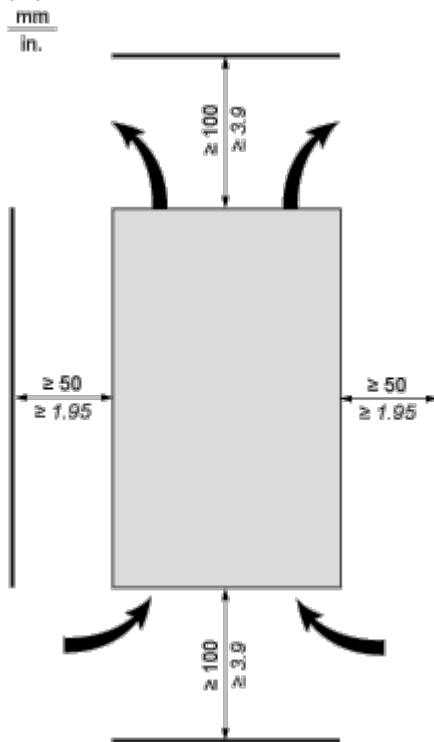
**DANGER****HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

ATS22 soft starters are open devices and must be mounted in a suitable enclosure.

Failure to follow these instructions will result in death or serious injury.

**Air Circulation**

Leave sufficient free space to help the air required for cooling purposes to circulate from the bottom to the top of the unit.

**Overheating**

To avoid the soft starter to overheat, respect the following recommendations:

- Mount the Altistart 22 Soft Starter within  $\pm 10^\circ$  of vertical.
- Do not locate the Altistart 22 Soft Starter near heat radiating elements.
- Electrical current through the Altistart 22 Soft Starter will result in heat losses that must be dissipated into the ambient air immediately surrounding the soft starter. To help prevent a thermal fault, provide sufficient enclosure cooling and/or ventilation to limit the ambient temperature around the soft starter.
- If several soft starters are installed in a control panel, arrange them in a row. Do not stack soft starters. Heat generated from the bottom soft starter can adversely affect the ambient temperature around the top soft starter.

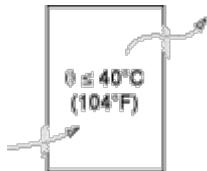
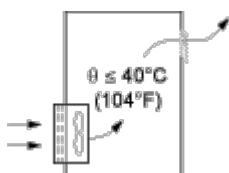
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**Wall mounted or Floor-standing Enclosure with IP 23 Degree of protection**

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**Introduction**

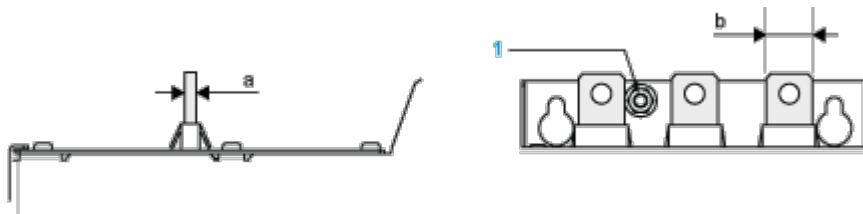
To help proper air circulation in the soft starter, grilles and forced ventilation can be installed.

**Ventilation Grilles****Forced Ventilation Unit**

## Connections and Schema

Power Terminal

## Bar Style

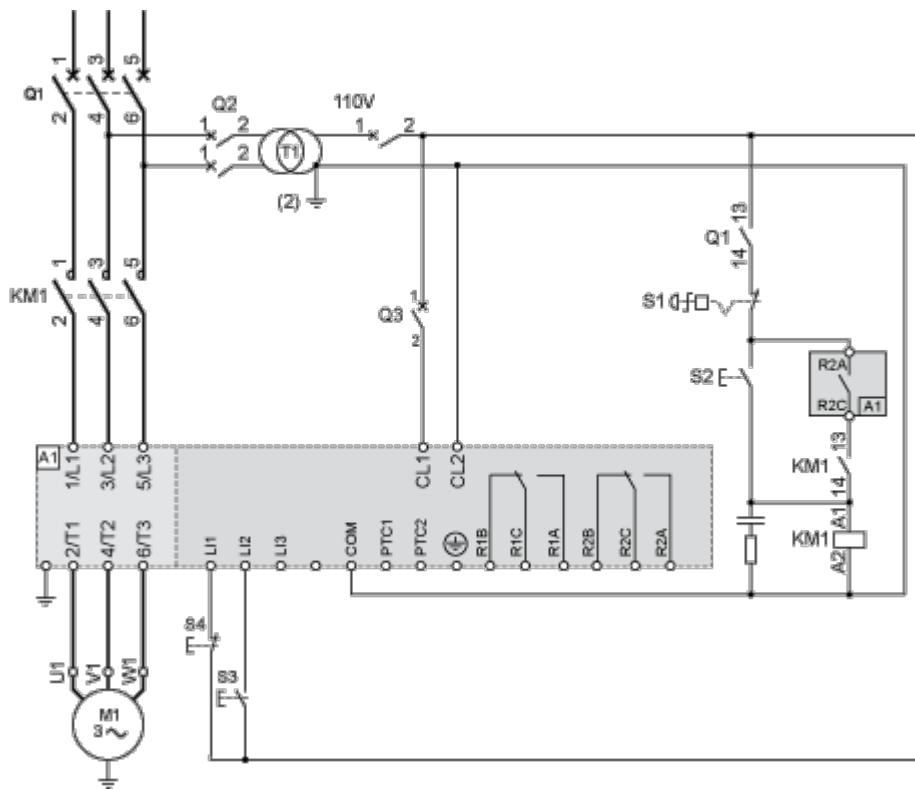


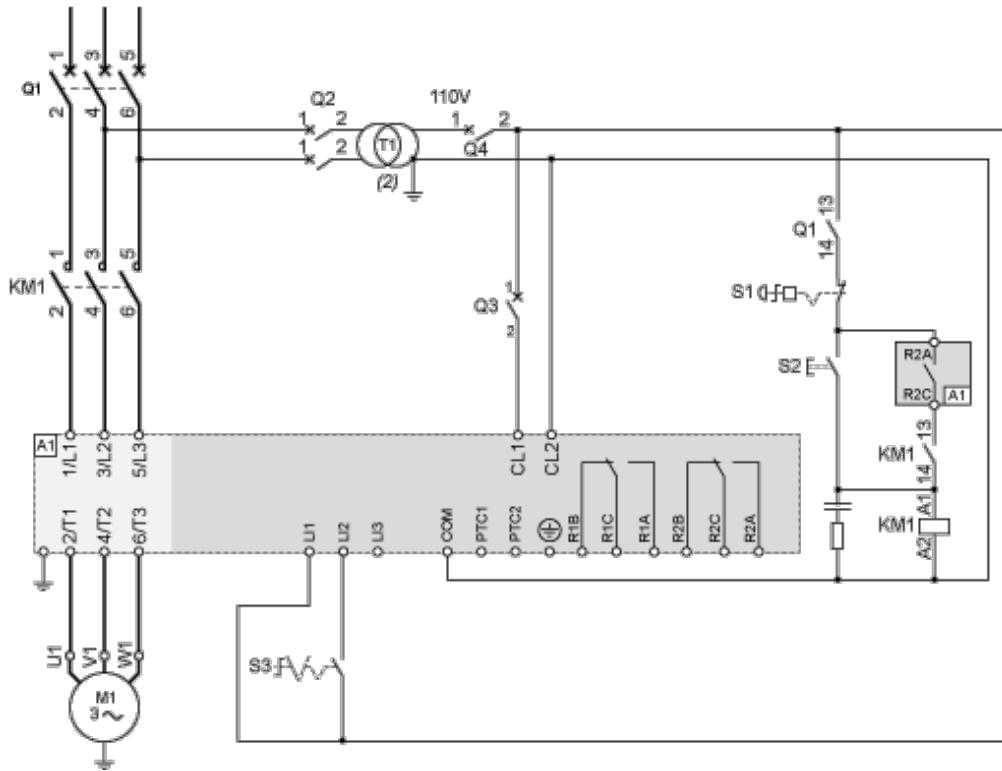
Power supply and output to motor	Bar	b	40 mm (1.18 in)
		a	5 mm (0.2 in)
		Bolt	M12 (0.47 in)
	Cable and protective cover	Size	2X240 mm <sup>2</sup>
		Gauge	2X500 MCM
		Protective cover	LA9F703
		Tightening torque	57 N.m 498.75 lb.in

## Power connections, minimum required wiring section

IEC cable mm <sup>2</sup> (Cu 70°C/158°F) (1)	UL cable AWG (Cu 75°C/167°F) (1)
2 X 185	2 X 500 MCM

**110 Vac control, Logic Inputs (LI) 110 Vac, 3-wire control**

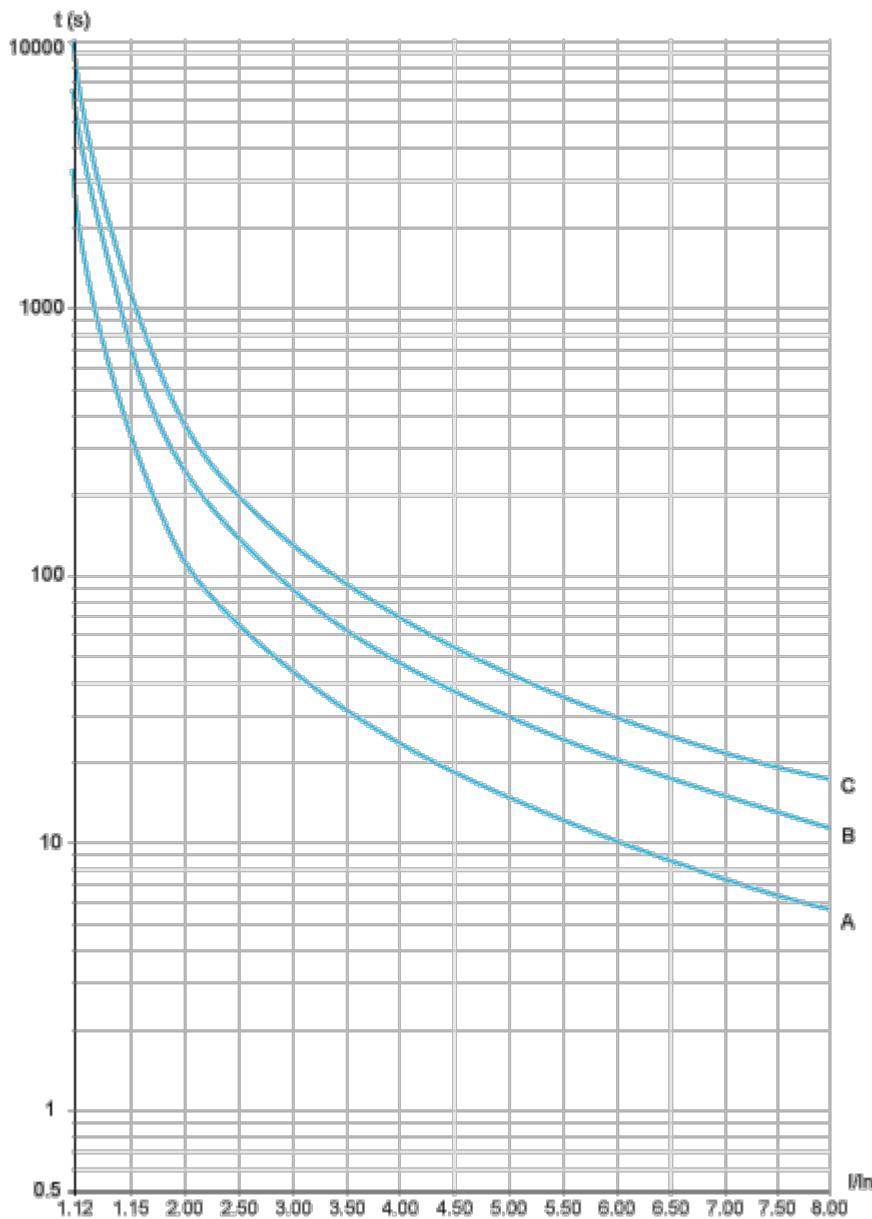


110 Vac control, Logic Inputs (LI) 110 Vac, 2-wire control, freewheelstop

## Performance Curves

## Motor Thermal Protection - Cold Curves

## Curves



A Class 10

B Class 20

C Class 30

## Trip time for a Standard Application (Class 10)

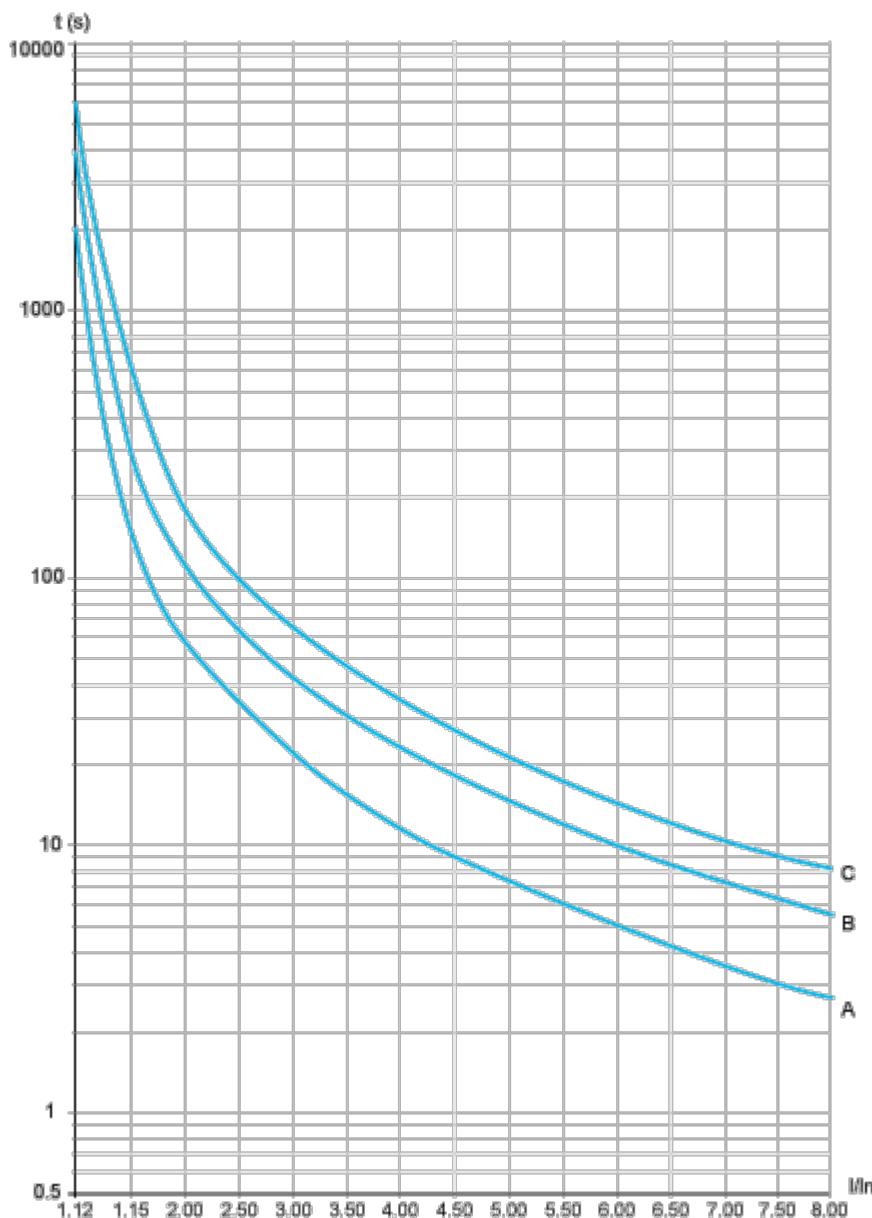
3.5 $I_n$
32 s

## Trip time for a Severe Application (Class 20)

3.5 ln
63 s

**Trip time for a Severe Application (Class 30)**

3.5 ln
95 s

**Motor Thermal Protection - Warm Curves****Curves**

A Class 10

B Class 20

C Class 30

**Trip time for a Standard Application (Class 10)**

3.5 In
16 s

**Trip time for a Severe Application (Class 20)**

3.5 In
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32 s

**Trip time for a Severe Application (Class 30)**

3.5 ln

48 s

Image of product / Alternate images

Alternative

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