

GROUND MOUNTED DIRECT SYSTEMS



MDV SERIES

OPEN CIRCUIT SPLIT SYSTEM



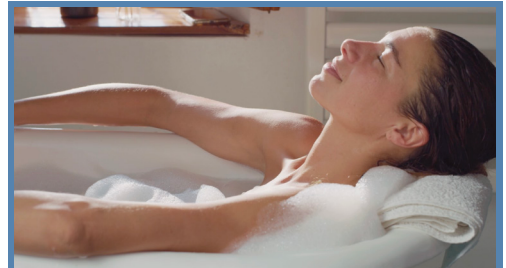
Solahart MDV series is an open circuit split system solar water heater with roof mounted slimline collectors and a tank that can be installed discreetly on the ground.

MDV solar storage tank systems provide savings on your hot water energy consumption. Solar energy is transferred directly to the water as it is moved through the collectors by a circulator and the heated water is stored in the ground-mounted tank.

This system is available with two types of solar collectors: The L collector with its polyester powder coated aluminium absorber plate which provides economical service in medium to high solar gain areas, and the higher efficiency CSA2007 Envelope collector with its sputtered selective surface copper absorber plate which is suitable for use in lower solar gain areas.

These direct systems have limited frost protection and are not suitable for harsh water regions. ^

How you benefit:



HOT WATER IN ANY WEATHER

Electric or gas boosting for hot water regardless of the weather



OPTIMAL PERFORMANCE

L Collector Provides optimal performance in medium to high solar gain areas.



HIGH PERFORMANCE

CSA2007 Collector Provides higher performance in low to medium solar gain areas.



LOW VISUAL IMPACT

Slim roof-mounted collectors with a tank installed discreetly on the ground.



REDUCED ENERGY USE

Water heating energy use may be reduced by up to **65% to 75%** and could save up to 0.7 to 2.5 tonnes of CO₂ emissions per annum when replacing an electric water heater. #

MODELS	MLV - DIRECT SYSTEMS							MCS07V - DIRECT SYSTEMS			
Systems	272MLV	273MLV	322MLV	323MLV	412MLV	413MLV	414MLV	272MCS07V	322MCS07V	412MCS07V	413MCS07V
Tank model	270MDV	270MDV	320MDV	320MDV	410MDV	410MDV	410MDV	270MDV	320MDV	410MDV	410MDV
Collector model	L	L	L	L	L	L	L	CSA2007	CSA2007	CSA2007	CSA2007
Collector number	2	3	2	3	2	3	4	2	2	2	3
Solahart Warranty*	5/3/2							5/3/2			

Solar Storage Tank	Model	270MDV	320MDV	410MDV
Installation		Indoor / Outdoor		
Nominal storage capacity	litres	270	320	410
	US gal	71.3	84.5	108.3
Boost capacity	litres	140	170	220
	US gal	37	44.9	58.10
Weight empty	kg	76	91	113
	lbs	168	201	249
Weight full	kg	346	417	529
	lbs	763	920	1167
Height	m	1.395	1.640	1.840
	in	54.9	64.6	72.5
Width	m	0.640	0.640	0.690
	in	25.2	25.2	27.2
Depth	m	0.680	0.680	0.730
	in	26.8	26.8	28.7
Solar controller kit	PN 299293	1	1	1

Collectors		L Collectors	CSA2007 Collectors
Aperture (heating) area	m ² / ft ²	1.87 / 20	1.87 / 20
Dimensions	length - mm / in	1943 / 76.5	1996 / 78.6
	width - mm / in	1027 / 40.5	1043 / 41.1
	height - mm / in	83 / 3.3	82 / 3.2
Working pressure	kPa / psi	1000 / 145	1000 / 145
Capacity	litres / US gal	1.5 / 0.4	1.5 / 0.4
Weight empty	kg / lbs	32 / 71	36 / 80
Weight full incl. fittings	kg / lbs	34 / 75	38 / 84
Absorber surface		Black polyester powder coat	Tinox sputtered selective
Absorber material		Aluminium	Copper
Riser material		Copper tube	Copper tube
Tray material		0.7 mm aluminium	N/A
Frame material		N/A	Extruded aluminium
Insulation material	Base	38 mm polyester blanket	38 mm glass wool blanket
Glass		3.2 mm tempered low iron	3.2 mm tempered low iron

Electric Boost Specifications				
Heating unit type		Copper sheath immersion element		
Supply voltage		240 V 50 Hz		
Recovery rate @ 240 V temperature rise of:				
Rating kW	Current Amps	30°C litres/hour	40°C litres/hour	50°C litres/hour
3.6	15	103	77	62

Water Supply		
TPR valve setting	kPa / psi	1000 / 145
ECV ⁽²⁾ setting	kPa / psi	850 / 125
Max. supply pressure with ECV	kPa / psi	680 / 100
Max. supply pressure without ECV	kPa / psi	800 / 115
Min. supply pressure	kPa / psi	200 / 29
Water connections	cold	Rp 3/4
	hot	Rp 3/4
	solar	DN15 compression fittings (solar hot and solar cold inlets to tank Rp 3/4)

Collector Installation		2	3	4
Roof area dimensions				
Length ⁽¹⁾	m	2.0	2.0	2.0
	in	78.8	78.8	78.8
Width ⁽¹⁾	m	2.3	3.4	4.5
	in	90.6	133.9	177.2
Solar kits - L collector				
Collector kit	PN 12104297	1	1	1
Collector add on kit	PN 12104405	0	1	2
Solar kits - CSA2007 collector				
Collector kit	PN 12103016	1	1	N/A
Collector add on kit	PN 12103017	0	1	N/A

⁽¹⁾ An additional 0.9m (35.4in) should be left on all four sides of the installation for safe access and servicing.

⁽²⁾ Expansion Control Valve (ECV) is not supplied.

The Streamline MLV and MCS07V systems can be installed as a solar preheater with a Rheem 26L gas booster water heater. Refer to the Rheem gas continuous flow water heater specification sheet for further details on the gas booster.

Specifications and designs included in this data sheet are subject to change without notice.

Energy savings of up to 65% to 75% shown are based on Australian Government approved TRNSYS simulation modelling of a Solahart 322MLV and 322MCS07V and using a medium load in Zone 3 and apply when replacing an electric water heater. Any savings will vary depending upon your location, type of Solahart system installed, orientation and inclination of the solar collectors, type of water heater being replaced, hot water consumption and fuel tariff. Maximum financial savings off your hot water bill are achievable when replacing an electric water heater on continuous tariff. Refer to solahart.com.au for more information.

* Solahart Warranty Details: 5/3/2 warranty; 5 year cylinder and collector supply, 3 year cylinder and collector labour, 2 year parts supply including labour; applies to a single family domestic dwelling only. All other applications have a 3/1/1 warranty; 3 year cylinder supply, 1 year collector supply, 1 year parts supply, 1 year labour.

^ Limited Frost Protection - these systems have a level of freeze protection designed to guard against freeze conditions. These systems have a Solahart warranty for freeze damage (Australia only - conditions apply) when the water heater is installed at an altitude not exceeding 400 m above sea level. Harsh water regions - the Solahart warranty may not apply if the water heater is connected to a water supply which: is scaling with a saturation index >+0.8, or; is corrosive with a saturation index <-1.0, or; has a Total Dissolved Solids content >2500mg/L.