Metcal PS-900
60W SmartHeat® Soldering System
Data Sheet

Technical Specification

Power Supply

Ambient Operating Temperature	10 - 40°C (50° - 104°F)
Maximum Enclosure Temperature	65°C (149°F)
Input Line Voltage	100 - 240 VAC
Power Consumption	90 Watts Max.
Input Line Frequency	50/60 Hz
Output Power	**60 Watts Max.***
Output Frequency	**450 KHz**
Power Cord (3-wire)	183cm,18/3 SJT
Dimensions W x D x H	80 x 160 x 115mm (3.1" x 6.3" x 4.5")

* RF SmartHeat Technology provides greater power. For more details, visit www.metcal.com/smartheat

Soldering Handle and Coil Assembly

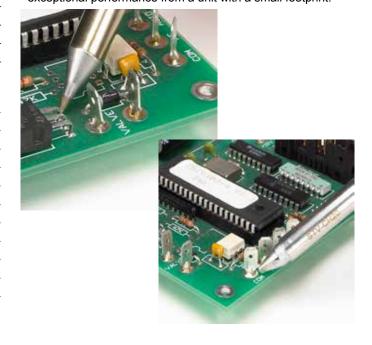|	
Tip-to-Ground Potential	< 2 mV
Tip-to-Ground Resistance	< 2 ohms
Idle Temperature Repeatability	± 1.1°C in still air
Handle Cord Assembly Length	122cm – burn proof, ESD safe
Connector	3-pin power connector
Overall length (with tip)	230mm (9.06") with standard tips
Grip diameter	13mm (0.51")
Tip to grip	58mm (2.28")
Tip shaft diameter	8.0mm (0.31")
Tip length	82 to 93mm (3.25" x 3.66") Typical
Workstand W x D x H	105 x 175 x 90mm (4.1" x 6.9" x 3.5")

PS-900 Features and Benefits

- Powerful, easy to use unit with a small footprint.

- Large selection of blade and soldering tips ensures that the PS-900 can handle your project requirements

- SmartHeat® technology operates at lower and safer temperatures and eliminates overshoot.

- No calibration required which saves money and down-time.

Power And Control

Metcal's PS-900 Soldering System, powered by SmartHeat® technology, is a powerful, cost-effective soldering system with a small benchtop footprint. The PS-900 provides exceptional thermal control and enables operators to produce high quality, repeatable solder connections with exceptional speed.

The PS-900 is designed for lead-free soldering, multilayer boards and thermally demanding components. With SmartHeat® technology, the PS-900 can solder at lower temperatures even in demanding lead-free soldering processes. Operators using the PS-900 are more productive and materials are safe from temperatures that can damage other components.

The PS-900 with SmartHeat® is easy to use, eliminates calibration time and hassle and requires very little maintenance. Moreover, the soldering tips are designed for long life which reduces overall operating costs. Metcal's PS-900 is the best choice for small or large production environments which need exceptional performance from a unit with a small footprint.

PS-900 System and Accessories

Part No.	Photo	Description
PS-900		Complete System
Includes:		
PS-PW900	1	Power Supply
PS-HC3	2	Hand-piece (PS-H3) and Coil Assembly (PS-CA3)
WS2-NS	3	Workstand, Black
SFV-CH15A	6	Economical and Affordable Chisel Solder Tip 1.5mm (.06")
Other Accessories Available:		
PS-H3	4	Hand-piece only (does not include PS-CA3 Coil Assembly)
PS-CA3	5	Coil Assembly for SxV Soldering Tips (9) and CxV Blade Tips (10) Only
WS2		Auto-sleep Workstand, Black
WS2G		Auto-sleep Workstand, Green
AC-CP2	7	Tip Removal Pad
PS-900 Accessories For Use With PHT Tips		
PS-CA1	8	Coil Assembly for PHT Soldering Tips Only
PS-HC1		Hand-piece (PS-H3) and Coil Assembly (PS-CA1)
PS-H3	4	Hand-piece only, NO PS-CA1 Coil Assembly

10
SxV Soldering Tips
See pgs. 3 - 4

9
CxV Blade Tips
See pg. 4

Also Available - PS-900-Solar Soldering

PS-900-Solar

Designed specifically for the solar industry, Metcal's PS-900 Solar Unit can solder wires, tabs and stringers without causing damage to expensive solar materials.

PS-900-Solar uses SmartHeat® technology and a special hand-piece to deliver the precise heat needed for reliable connections. SmartHeat's internal microprocessor enables the unit to operate at lower temperatures to help eliminate micro-cracking or stressing expensive material.

For more information about Metcal's PS-900-Solar Soldering System or any Metcal product, **visit www.Metcal.com or contact your local Metcal representative.**

STV-DRH440A
Hoof Tip 4mm (.157")

0.187"
4.75mm
0.52"
13.2mm
0.157"
4mm
12

Part No.	Photo	PS-900-Solar
PS-PW900	1	Power Supply
PS-900-PC9	11	Hand-piece with 9' Cord (274cm)
PS-CA3	5	Coil Assembly
STV-DRH440A	12	High Performance Soldering Tip
WS2-NS	3	Workstand
AC-CP2	7	Tip Removal Pad
SxV Tips	10	Soldering Tips (SOLD SEPARATELY)

Compatible with: PS-900, MFR-1120, MFR-2220, MFR-2222 Systems,
PS-HC3, MFR-H2-ST and MFR-H2-ST2 hand-pieces, PS-CA3, MFR-CA2 and MFR-CA3 Coil Assemblies

SxV SOLDERING TIPS

CHISEL

0.719" / 18.3mm, 0.04" / 1.0mm	SFV-CH10A / STV-CH10A / SCV-CH10A
.54" / 13.7mm, .04" / 1.0mm	SFV-CH10AR / STV-CH10AR / SCV-CH10AR
0.43" / 11.0mm, 0.04" / 1.0mm	SFV-CH10 / STV-CH10 / SCV-CH10
0.44" / 11.3mm, 0.06" / 1.5mm	SFV-CH15A / STV-CH15A / SCV-CH15A
.528" / 13.4mm, .06" / 1.5mm	SFV-CH15AR / STV-CH15AR / SCV-CH15AR
0.06" / 1.5mm, 0.48" / 12.2mm	SFV-CHB15 / STV-CHB15 / SCV-CHB15
.528" / 13.4mm, .07" / 1.8mm	SFV-CH18AR / STV-CH18AR / SCV-CH18AR
0.43" / 11.0mm, 0.08" / 2.0mm	SFV-CH20 / STV-CH20 / SCV-CH20
.719" / 18.3mm, 0.094" / 2.4mm	SFV-CH24A / STV-CH24A / SCV-CH24A
.528" / 13.4mm, .10" / 2.5mm	SFV-CH25AR / STV-CH25AR / SCV-CH25AR

CHISEL

0.43" / 11.0mm, 0.1" / 2.5mm	SFV-CH25 / STV-CH25 / SCV-CH25
.12" / 3.0mm, .65" / 16.5mm	SFV-CH30AR / STV-CH30AR / SCV-CH30AR
0.44" / 11.3mm, 0.2" / 5.0mm	SFV-CH50A / STV-CH50A / SCV-CH50A
.461" / 11.7mm, .197" / 5.0mm	SFV-CH50AR / STV-CH50AR / SCV-CH50AR
0.4" / 10.0mm, 0.2" / 5.0mm	SFV-CH50 / STV-CH50 / SCV-CH50

CONICAL

.724" / 18.4mm, .01" / 0.3mm	SFV-CNL03AR / STV-CNL03AR / SCV-CNL03AR
0.016" / 0.40mm, 0.61" / 15.5mm, 0.21" / 5.4mm	SFV-CNB04A / STV-CNB04A / SCV-CNB04A
0.72" / 18.2mm, 0.016" / 0.4mm	SFV-CN05A / STV-CN05A / SCV-CN05A
.016" / 0.4mm, 19.6mm / .77"	SFV-CNB04AR / STV-CNB04AR / SCV-CNB04AR
0.53" / 13.6mm, 0.016" / 0.4mm	SFV-CNL04 / STV-CNL04 / SCV-CNL04

F = FR4 / Fiberglass, for most standard applications **T** = Temperature Sensitive **C** = Ceramic for high thermal demand applications.

Metcal PS-900
SxV Soldering Tips / CxV Blade Tips

METCAL™

Compatible with: PS-900, MFR-1120, MFR-2220, MFR-2222 Systems, PS-HC3, MFR-H2-ST and MFR-H2-ST2 hand-pieces, PS-CA3, MFR-CA2 and MFR-CA3 Coil Assemblies

SxV SOLDERING TIPS

CONICAL

Dimensions	Part Numbers
.53" 13.7mm / .02" / 0.5mm	SFV-CN05AR / STV-CN05AR / SCV-CN05AR
0.34" 8.5mm / 0.02" 0.5mm	SFV-CN05 / STV-CN05 / SCV-CN05
0.51" 13.0mm / 0.02" 0.5mm	SFV-CNB05 / STV-CNB05 / SCV-CNB05
0.71" 18.0mm / 0.04" 1.0mm	SFV-CNL10A / STV-CNL10A / SCV-CNL10A
.59" 15.0mm / .04" 1.0mm	SFV-CNL10AR / STV-CNL10AR / SCV-CNL10AR
0.51" 13.0mm / 0.04" 1.0mm	SFV-CNL10 / STV-CNL10 / SCV-CNL10
0.59" 15.0mm / 0.056" 1.4mm	SFV-CNL14 / STV-CNL14 / SCV-CNL14
0.55" 14.0mm / 0.8" 2.0mm	SFV-DRH20 / STV-DRH20 / SCV-DRH20
0.59" 15.0mm / 0.08" 2.0mm	SFV-CNL20 / STV-CNL20 / SCV-CNL20
.06" 2.03mm / 0.58" 14.0mm / 0.54" 13.6mm	SFV-WV20 / STV-WV20 / SCV-WV20

KNIFE

Dimensions	Part Numbers
2.4mm 0.095" / 1mm 0.039" / 0.20" 5.0mm / 45° / 2mm 0.079"	SFV-DRK45A / STV-DRK45A / SCV-DRK45A
2.4mm .095" / 5.0mm .20" / 45° / 14mm .55"	SFV-DRK50 / STV-DRK50 / SCV-DRK50

HOOF

Dimensions	Part Numbers
45° 2.0mm / .08" / 20.7mm .81"	SFV-DRH420AR / STV-DRH420AR / SCV-DRH420AR
0.10" 2.5mm / 45° / 0.51" 13.0mm	SFV-DRH20CP / STV-DRH20CP / SCV-DRH20CP
3.0mm 45° / .12" / 20.4mm 0.8"	SFV-DRH430AR / STV-DRH430AR / SCV-DRH430AR
	STV-DRH630AR / SCV-DRH630AR
0.137" 3.47mm / 0.48" 12.2mm / 0.079" 2mm	SFV-DRH420A / STV-DRH420A / SCV-DRH420A
0.14" 3.6mm / 45° / 0.51" 13.0mm	SFV-DRH30CP / STV-DRH30CP / SCV-DRH30CP
	SFV-DRH440R / STV-DRH440R / SCV-DRH440R
45°	SFV-DRH640AR / STV-DRH640AR / SCV-DRH640AR
0.18" 4.6mm / 45° / 0.51" 13.0mm	SFV-DRH40CP / STV-DRH40CP / SCV-DRH40CP
0.187" 4.75mm / 0.52" 13.2mm / 0.160" 4mm	SFV-DRH440A / STV-DRH440A / SCV-DRH440A
.74" 18.7mm / .12" 3.0mm / 45°	SFV-DRK30AR / STV-DRK30AR / SCV-DRK30AR
18.7mm .74" / 1.8mm .07" / 4.5mm .18" / 45°	SFV-DRK45AR / STV-DRK45AR / SCV-DRK45AR

CxV BLADE TIPS

			A
2" 1m / 0.36" 9.1mm	CFV-BL100	CCV-BL100	10mm (.40")
	CFV-BL250	CCV-BL250	25mm (1")
A	CFV-BL350	CCV-BL350	35mm (1.4")
	CFV-BL400	CCV-BL400	40mm (1.6")
	CFV-BL500	CCV-BL500	50mm (2")

F = FR4 / Fiberglass, for most standard applications **T** = Temperature Sensitive **C** = Ceramic for high thermal demand applications.