MHP650 Series

- Medical Safety Approvals
- End Fan, Top Fan & U Channel Mechanical Options
- –20 °C to +70 °C Operation
- 5 V Standby
- AC OK, Remote On/Off and Active Current Share
- Load Dependant Variable Fan Speed
- Screw Terminals
- 3 Year Warranty

The MHP650 AC-DC power supply provides upto 650 W of output power in three mechanical packages to provide installation flexibility in a range of medical applications.

The unit comprises of a main output with voltages from 12-48 VDC and two peripheral outputs providing a 12 VDC fan supply and a 5 VDC standby supply which can be utilitsed with the signals and control features of the unit to provide detection of loss of AC input and remote on/off control.

Multiple units can used in parallel via the current share facility, providing higher power solutions. Inherently low earth leakage current, and conducted EMC compliance to Class B also simplify higher power system design.

Packaged in a compact 8” (203 mm) x 4” (102 mm) x 2.6” (65 mm) and carrying IEC60601 family safety approvals, the MHP650 has a load dependant variable speed fan, is fully protected with overtemperature shutdown and provides full power from -20 ºC to 50 ºC and 50% power at +70 ºC.

Models and Ratings

End Fan Models (-EF)

Output Voltage V1	Max Output Current V1	Fan Supply V2	Standby Supply V3	Max Output Power	Model Number
12 V	50.0 A	Not Available	5 V / 0.2 A	607 W	MHP650PS12-EF
15 V	40.0 A	Not Available	5 V / 0.2 A	607 W	MHP650PS15-EF
24 V	27.0 A	Not Available	5 V / 0.2 A	657 W	MHP650PS24-EF
28 V	23.0 A	Not Available	5 V / 0.2 A	651 W	MHP650PS28-EF
36 V	18.0 A	Not Available	5 V / 0.2 A	657 W	MHP650PS36-EF
48 V	13.5 A	Not Available	5 V / 0.2 A	657 W	MHP650PS48-EF

Top Fan Models (-TF)

Output Voltage V1	Max Output Current V1	Fan Supply V2	Standby Supply V3	Max Output Power	Model Number
12 V	50.0 A	Not Available	5 V / 0.2 A	607 W	MHP650PS12-TF
15 V	40.0 A	Not Available	5 V / 0.2 A	607 W	MHP650PS15-TF
24 V	27.0 A	Not Available	5 V / 0.2 A	657 W	MHP650PS24-TF
28 V	23.0 A	Not Available	5 V / 0.2 A	651 W	MHP650PS28-TF
36 V	18.0 A	Not Available	5 V / 0.2 A	657 W	MHP650PS36-TF
48 V	13.5 A	Not Available	5 V / 0.2 A	657 W	MHP650PS48-TF

U Channel Models

Output Voltage V1	Max Output Current V1	Fan Supply V2	Standby Supply V3	Max Output Power[1]	Model Number
12 V	50.0 A	12 V / 0.5 A	5 V / 0.2 A	601 W	MHP650PS12
15 V	40.0 A	12 V / 0.5 A	5 V / 0.2 A	601 W	MHP650PS15
24 V	27.0 A	12 V / 0.5 A	5 V / 0.2 A	651 W	MHP650PS24
28 V	23.0 A	12 V / 0.5 A	5 V / 0.2 A	655 W	MHP650PS28
36 V	18.0 A	12 V / 0.5 A	5 V / 0.2 A	651 W	MHP650PS36
48 V	13.5 A	12 V / 0.5 A	5 V / 0.2 A	651 W	MHP650PS48

1. U Channel models require a minimum of 5.5 ms airflow from the system for cooling

Input Characteristics

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	85	115/230	264	VAC	Derate output power < 90 VAC. See fig. 1.
Input Frequency	47	50/60	63	Hz	
Power Factor		>0.9			EN61000-3-2 class A compliant
Input Current - No Load		0.15/0.3		A	115/230 VAC
Input Current - Full Load		6.5/3.2		A	115/230 VAC
Inrush Current			40	A	230 VAC cold start, 25 °C
Earth Leakage Current		90/175	250	µA	115/230 VAC/50 Hz (Typ.), 264 VAC/60 Hz (Max.)
Input Protection	T16 A / 250 V internal fuse in both line and neutral				

Input Derating Curve

Figure 1