BEFORE USING THE POWER SUPPLY UNIT

Pay attention to all warnings and cautions before using the unit. Incorrect usage could lead to an electrical shock, damage to the unit or a fire hazard

Warning Symbols

CAUTION	
. CAUTION, POSSIBILITY OF ELECTRIC SHOCK	
. READ INSTRUCTION MANUAL BEFORE CONNECTING TO MAINS.	
. ALL POWER SOURCES SHALL BE DISCONNECTED BEFORE SERVICING TO AVOID SHOCK HAZARD	

WARNING: No modification of this product is allowed.
WARNING: The protection provided by this product can be impaired if it is used in a manner not specified by the manufacturer
CAUTION: High Touch Current. Connect to earth before connecting to supply
ATTENTION: Courant de contact élevé. Connecter à la terre avant de connecter à l'alimentation.
WARNING: Connect to earth before connecting to supply
External circuit breaker max 32A

NOTICE:

Installation:
WARNING: Current exceeds 10A
Cross section of the PE connector should be at least 2.5mm^2 if cable/wire is protected with conduit. If the cable/wire is not protected the minimum is 4mm^2

AC Input
Caution – risk of electric shock and energy hazard. Disconnecting one power supply line disconnects only one power supply module. To isolate the unit completely, disconnect all power supply lines. Terminal blocks should only be used by professional workers to connect AC cables.
Do not connect to mains supply exceeding the input voltage and frequency rating.
AC cables are not provided with the unit. Refer to table below for recommended AC cables.
Use Copper Conductors for terminals on rack.

Min – 12AWG (3.3mm^2) Rated min 300Vac, 90°C for supply and ground connection.
Terminal Lug – Use UL approved insulated terminal lugs.

DC Output

Min – 1/0AWG (53.5mm^2) Rated min 300Vac, 90°C

Use Copper Conductors for terminals on rack.

Rack Mount

A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
C) Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
D) Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
E) Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

Note: CE and UKCA MARKING

CE Marking, when applied to a product covered by this instruction manual indicates compliance with the Low Voltage Directive in that it complies with EN62368-1, EMC Directive and with the ROHS Directive.
UKCA marking when applied to any DRB480 product indicates compliance with the Electrical Equipment (Safety) Regulations 2016 in that it complies with EN62368-1 and with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Unit Nomenclature

Note: All output voltages/variants may not be available as standard units. Refer to datasheet for standard product range. These (and other variants) may be available as non-standard or custom units, please contact our sales team for details.
HFE3500 models as described below:

Unit Product Code: HFE3500-y/abcde

Where:

y - Channel 1 output voltage 24V or 48V (See output Parameters table below)

a - Standby Output Voltage
- F = 5V @ 2A
- T = 12V @ 1A

b - Digital Interface
- S = PMBus (fitted as standard)

c - Airflow
- Blank = Standard airflow
- R = Reverse airflow

d - Fuse Options
- D = Dual AC fuse
- E = Single AC fuse in the live line

e - Coating Options
- Blank = No coating
- -CO = Coating
- -COx = Alternate Coating

Example: HFE3500-48/FSD
For a HFE3500, 48V with 5V standby, PMBus and dual fuse

Input Parameters

Parameter	62368-1, 61010-1
Nominal input voltage	100 - 240Vac 200 – 240Vac*
Input voltage range	85 – 264Vac** 180 – 264Vac*
Input frequency range	47 – 440Hz
Maximum input current	25Arms 22Arms*

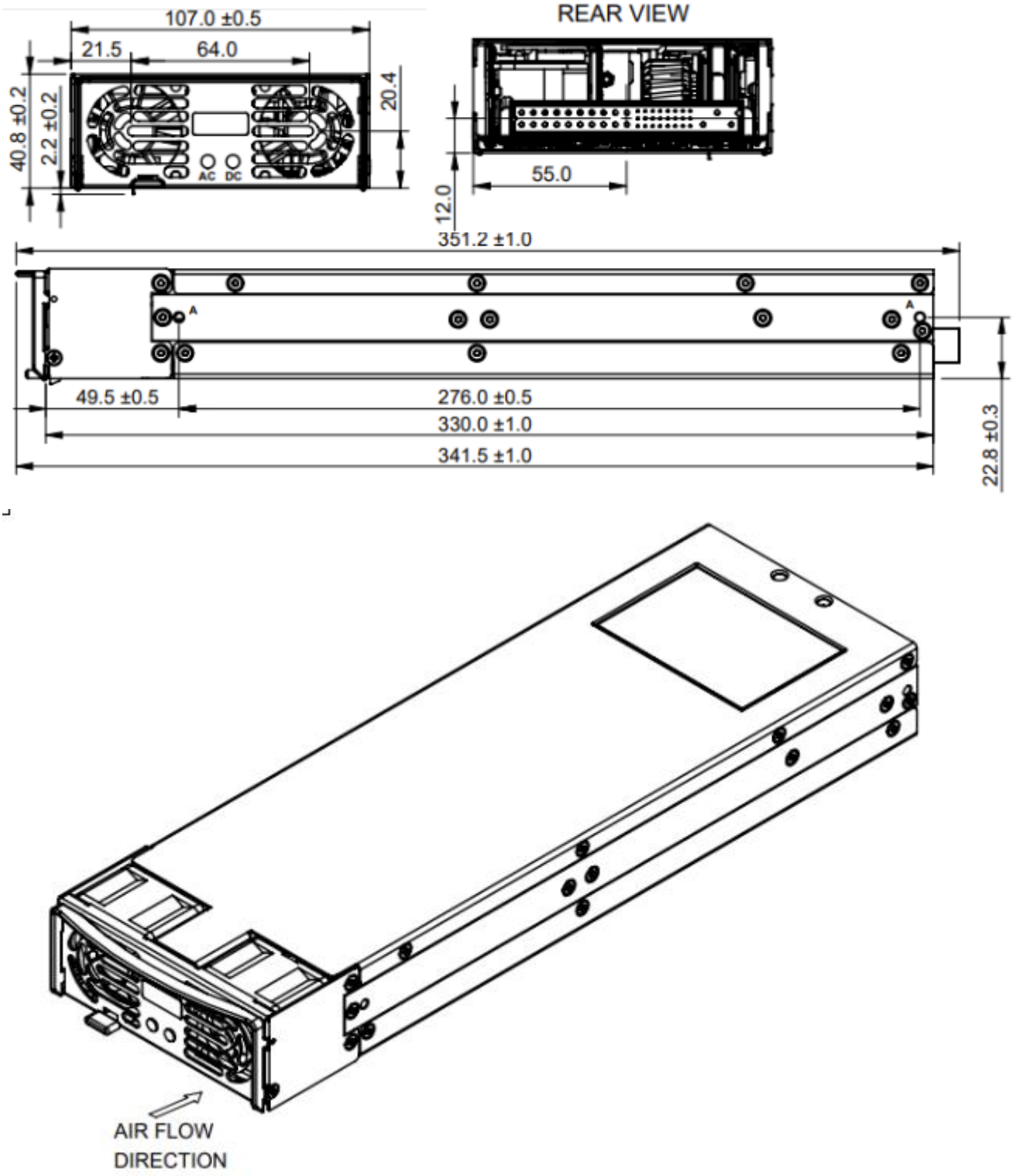
*Input for 3504W models
**Ouput power is derated 1.3% per Vac between 85-89.9Vac

Output Parameters

The HFE3500 standard models are shown in the table below. These models are fan cooled. The output parameters are shown in the tables below.

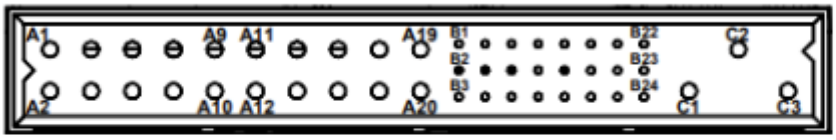
Output	Input Voltage	Nomenclature Designation	V_{out} Nominal (V)	V_{out} Range (V)	Max I_{out} (A)	Max P_{out} (W)
CH1	100-240Vac	24	24	24.0 – 27.6	84	2016
		48	48	48.0 – 55.2	42	
	200-240Vac	24	24	24.0 – 27.6	146	3504
		48	48	48.0 – 55.2	73	
Standby Option	-	F	5	Fixed	2	10
	-	T	12	Fixed	1	12

Outline drawing for HFE3500 Units



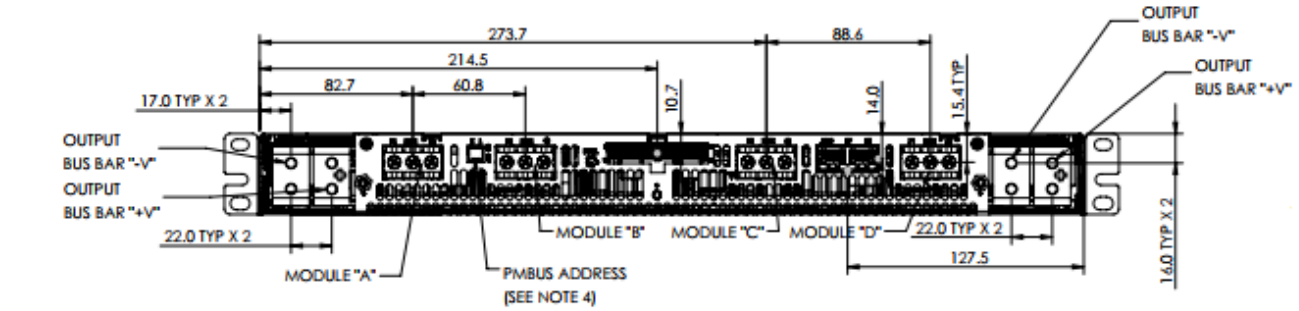
Connections

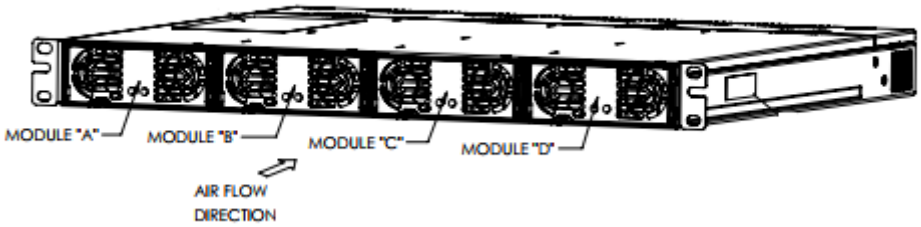
IN/OUT CONNECTOR - REAR VIEW

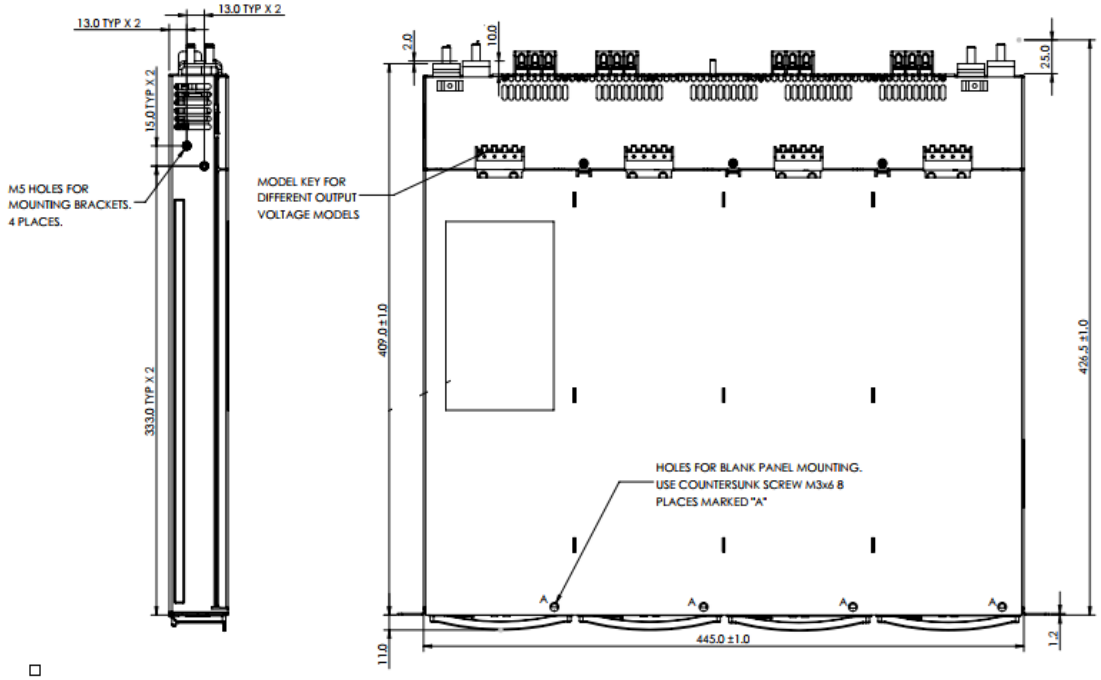


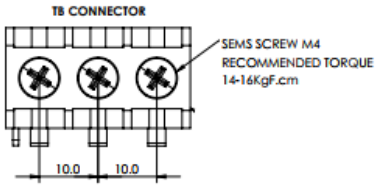
PIN No.	FUNCTION	PIN No.	FUNCTION
A1 - A10	-VO	B14	A1
A11 - A20	+VO	B15	DC_OK
B1	SIGNAL_RTN	B16	A0
B2	PS_EXIST	B17	SDA
B3	+V_STBY (NOTE 3)	B18	TEMP_ALARM_SR
B4	-SENSE	B19	V_REF_EXT
B5	A2	B20	SMB_ALERT
B6	CS	B21	AC_FAIL_OUT
B7	ENABLE	B22	5V_TRIM
B8	V_PROG	B23	NC
B9	+SENSE_IN	B24	NC
B10	A3	C1	EARTH
B11	I_PROG	C2	NEUTRAL
B12	INHIBIT	C3	LINE
B13	SCL		

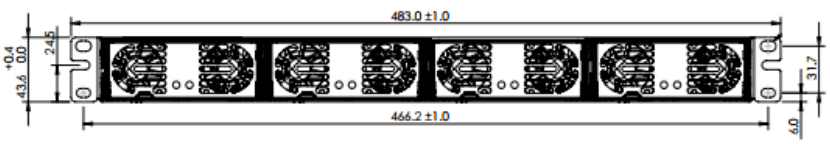
Outline drawings for HFE3500 Rack











Rack Connections

CONNECTOR DESCRIPTION: ILPT-120-01-L-D-RA-K (SAMTEC)
SIGNALS & CONTROL CONNECTOR PINS ASSIGNMENT
MATING CONNECTOR: IPD1-20-D-K (SAMTEC)

1	-SENSE	11	TEMP_ALM_A	21	DC_OK_A	31	NC
2	-LS	12	TEMP_ALM_B	22	DC_OK_B	32	PS_EXIST_A
3	+SENSE	13	TEMP_ALM_C	23	DC_OK_C	33	PS_EXIST_B
4	+LS	14	TEMP_ALM_D	24	DC_OK_D	34	PS_EXIST_C
5	V_PROG	15	NC	25	NC	35	PS_EXIST_D
6	TRIM	16	AC_FAIL_A	26	SIGNAL RETURN	36	NC
7	I_PROG	17	AC_FAIL_B	27	INHIBIT_A	37	SIGNAL RETURN
8	+5V_TRIM	18	AC_FAIL_C	28	INHIBIT_B	38	+V_AUX **
9	V_REF	19	AC_FAIL_D	29	INHIBIT_C	39	ENABLE
10	-SENSE	20	NC	30	INHIBIT_D	40	SIGNAL RETURN

** +5V FOR HFE3500-XX/FX / +12V FOR HFE3500-XX/TX MODULES

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