

DS450DC-3/ DS550DC-3

450 - 550 Watts
Distributed Power System

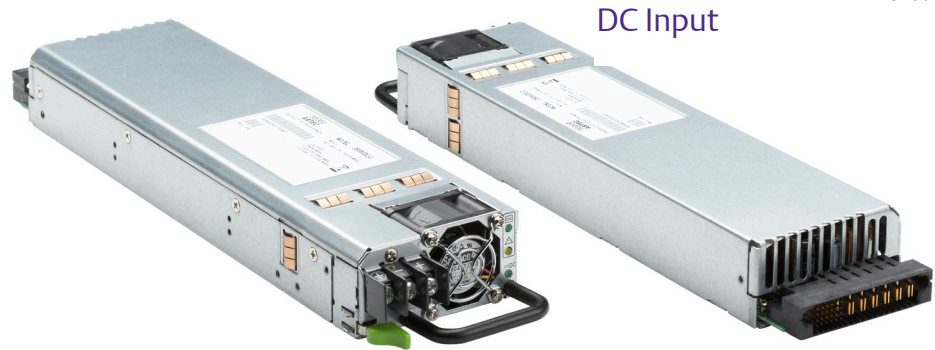
Distributed Power Bulk Front-End
Total Output Power: 450 - 550 Watts
+12 Vdc main Output
+3.3 Vdc Stand-by Output
DC Input 36 - 75 Vdc

Special Features

- 1U X 2U Form Factor
- 10.3 W / in³ (DS550)
8.4 W / in³ (DS450)
- +12 Vdc Output
- +3.3 Vdc Stand-By
- No Minimum Load Required
- Hot Plug Operation
- N + 1 Redundant
- Internal OR'ing Fets
- Active Current Sharing
- Built-in Cooling Fans
(40 mm x 28 mm)
- I²C Communication Interface Bus
- EERPOM for FRU Data
- Amber LED Status, Fan_Fail
- Green LED Status, Power Good /
DC_OK Status (VIN_GOOD)
- Internal Fan Speed Control
- Fan Fail Tach Output Signal
- One Year Warranty

Safety

- UL/cUL 60950 (UL Recognized)
- NEMKO+ CB Report EN60950
- EN60950
- CE Mark
- China CCC



Electrical Specifications

Input

Input range:	36 - 75 Vdc
Frequency:	DC input
Inrush current:	21 A maximum
Efficiency:	EVT: 87% @ 72 Vdc; 87.4% @ 75 Vdc
Conducted EMI:	FCC Subpart J EN55022 Class A
Radiated EMI:	FCC Subpart J EN55022 Class A
Power factor:	N/A
Leakage current:	N/A No touch current required.
Hold up time:	1 ms minimum

Output

Main DC voltage:	+12 V
Stand-By:	+3.3 Vsb
Adjustment range:	Factory Set, no pot adjustments
Regulation:	+12 Vdc; +5%/-5% +3.3 Vsb; +5%/-5%
Over current:	See Table 1 next page
Over voltage:	+12 Vdc; 13.5 - 15 Vdc +3.3 Vsb; 3.76 - 4.30 Vdc
Under voltage:	+12 Vdc; 10.5 V - 11.0 V +3.3 Vsb; 2.77 - 3.00 Vdc
Turn-on delay:	< 3 seconds, EVT: 2 seconds
+12 V Output Rise Time:	3 - 300 mS



Logic Control

PS_ON/L: (Power supply enable)	The power supply output will be enabled when this signal is pulled low (< 0.8 V). HIGH = Output V1 OFF LOW = Output V1 ON
VIN_GOOD/H (Input OK):	Active High signal asserted when the input voltage rises above the min input voltage specified. This signal is internally pulled up through 4.7 K ohms to the 3.3 V housekeeping voltage.
POK/H (Output OK):	Active High signal asserted when the output is within regulation. This signal is internally pulled up through 1.0 K ohms to the 3.3 V housekeeping voltage.
TACH_1:	This open collector signal generates two pulses per each fan revolution. This signal is eternally pulled up to the housekeeping voltage.
PS_KILL:	This signal will cause the output to shut down when drive high (> 24 V) or left floating. The PS_KILL will cause the output to latch off and requires recycle of PS_ON or DC input to reset.
Digital Control:	PMBus - I ² C compliant

Environmental Specifications

Operating temperature:	-10 °C to 50 °C
Storage temperature:	-40 °C to +70 °C
Altitude, operating:	10,000 ft.
Electromagnetic susceptibility / Input transients:	- EN61000-3-2, -3-3 - EN61000-4-2, 4-3, 4-4, -4-5, 4-11 Level - EN55024:1998
RoHS & lead-free compliant (no tantalum caps.)	
Humidity:	20 to 90% RH, non-condensing
Shock and vibration specifications	complies with Astec Std. Specifications, Q3205
MTBF (observed):	500K Hrs at 80%, 40 °C

Ordering Information

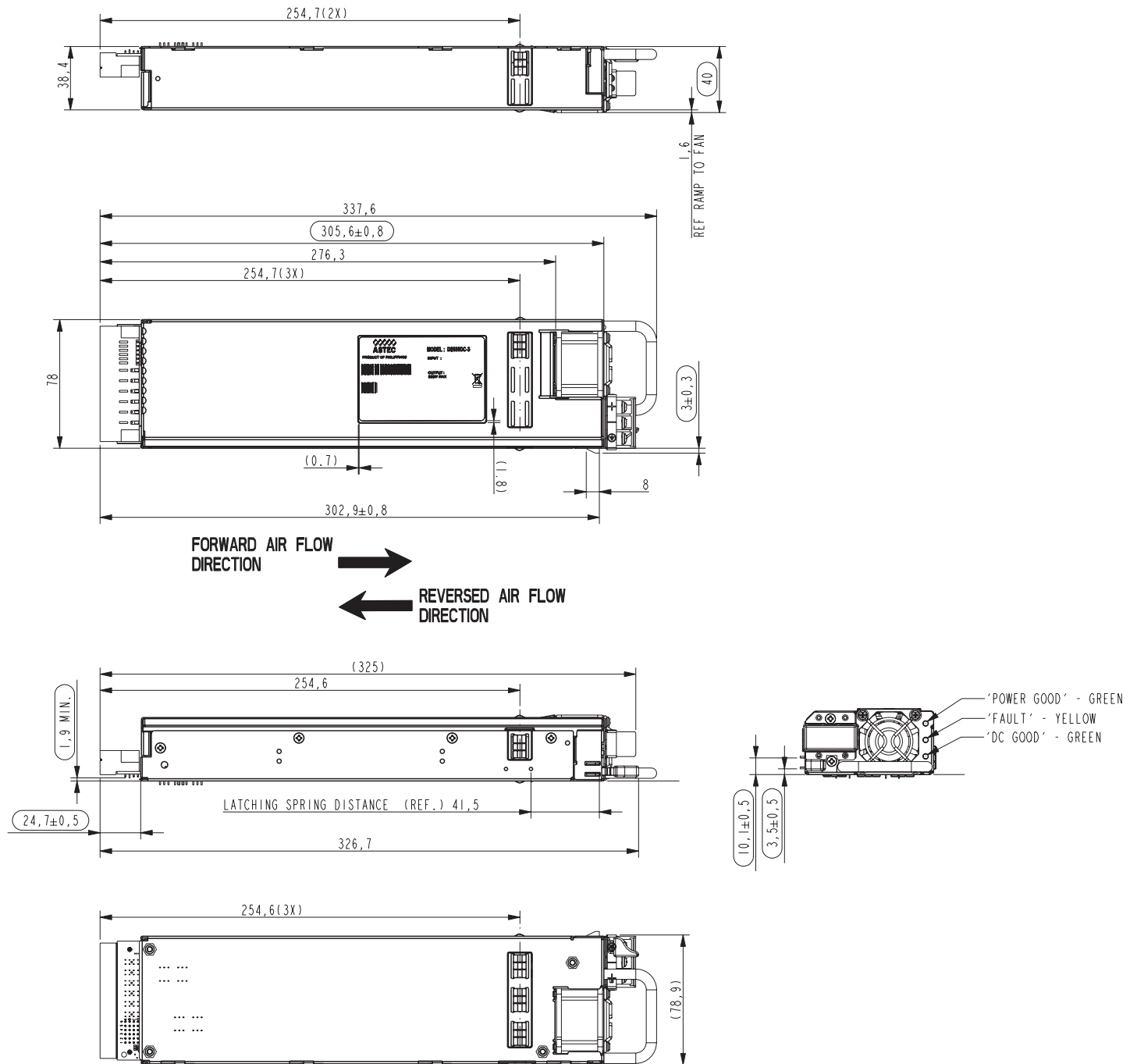
Output	Nominal Output Voltage Set Point	Set Point Tolerance	Total Regulation	Minimum Current	Maximum Current	Output Ripple P/P	Over Current	Options
DS450DC-3	12.0 Vdc 3.3 Vsb	± 0.2% ± 1%	+5 / -3% +5 / -4%	0 A 0 A	37.0 A 3.0 A	120 mV 60 mV	39.5 - 44.4% 4.9 A Avg, 7 A max	Standard
DS450DC-3-002	12.0 Vdc 3.3 Vsb	± 0.2% ± 1%	+5 / -3% +5 / -4%	0 A 0 A	37.0 A 3.0 A	120 mV 60mV	39.5 - 44.4% 4.9 A Avg, 7 A max	Reverse Air
DS550DC-3	12.0 Vdc 3.3 Vsb	± 0.2% ± 1%	+5 / -3% +5 / -4%	0 A 0A	45.0 A 3.0 A	120 mV 60 mV	48.0A - 54.0A 4.9 A Avg, 7 A max	Standard
DS550DC-3-003	12.0 Vdc 3.3 Vsb	± 0.2% ± 1%	+5 / -3% +5 / -4%	0 A 0 A	45.0 A 3.0 A	120 mV 60 mV	48.0A - 54.0A 4.9 A Avg, 7 A max	Reverse Air

*Over current latches off if overcurrent lasts over 1 second, otherwise it is auto recovery.

*For 5 Vsb, consult marketing.

Mechanical Drawing

Rev. 03.15.11_79
DS450DC/DS550DC
3 of 4



DC Output Connector Pinout Assignment

Male connector as viewed from the rear of the supply:

D1	D2	D3	D4	D5	D6						
C1	C2	C3	C4	C5	C6	PB1	PB2	PB3	PB4	PB5	PB6
B1	B2	B3	B4	B5	B6						
A1	A2	A3	A4	A5	A6						

P1 - Power Supply Side

1. FCI Power Blade 51721 series
51721-10002406AA
2. Molex Power Connector
SD-87667 series
87667-7002

Mating Connector (System Side)

1. FCI Power Blade
51741-10002406CC
Strait Pins
2. FCI Power Blade
51761-10002406AA
Right Angle

Pin	Signal Name
PB 1	+12 V Return
PB 2	+12 V Return
PB 3	+12 V Return
PB 4	+12 V
PB 5	+12 V
PB 6	+12 V
A1	PS_KILL
A2	+12 V_Current Share
A3	Return
A4	Write Protect
A5	PS A0
A6	+3.3 V SB
B1	Return
B2	12 V RTN Sense
B3	Return
B4	+3.3 V SB
B5	SDA
B6	-PS_ON/L
C1	Return
C2	Tach_1
C3	Return
C4	+3.3 V SB
C5	SCL *
C6	VIN_GOOD/H
D1	-Present/L
D2	+12 V_Sense
D3	Return
D4	+3.3 V SB
D5	Alert/L (S_INT)
D6	POK/H (PWROK/H)

* Supports I²C standard mode (100 kHz) only

Americas

5810 Van Allen Way
Carlsbad, CA 92008
USA
Telephone: +1 760 930 4600
Facsimile: +1 760 930 0698

Europe (UK)

Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX
United Kingdom
Telephone: +44 (0) 1384 842 211
Facsimile: +44 (0) 1384 843 355

Asia (HK)

14/F, Lu Plaza
2 Wing Yip Street
Kwun Tong, Kowloon
Hong Kong
Telephone: +852 2176 3333
Facsimile: +852 2176 3888

For global contact, visit:

www.Emerson.com/EmbeddedPower
techsupport.embeddedpower@emerson.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Emerson Network Power.

The global leader in enabling business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power**
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
©2011 Emerson Electric Co.



ООО «НИОКРсистемс» - это оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов. Реализуемая нашей компанией продукция насчитывает более полумиллиона наименований.

Благодаря этому наша компания предлагает к поставке практически не ограниченный ассортимент компонентов как оптовыми, мелкооптовыми партиями, так и в розницу.

Благодаря развитой сети поставщиков, помогаем в поиске и приобретении экзотичных или снятых с производства компонентов.

Наша компания это:

- Гарантия качества поставляемой продукции
- Широкий ассортимент
- Минимальные сроки поставок
- Техническая поддержка
- Подбор комплектации
- Индивидуальный подход
- Гибкое ценообразование
- Работаем по 275 ФЗ