



### DC to DC Converter Features

- Compact size 1SU~3SU width (1SU = 18mm)
- 4:1 ultra-wide input range
- Protection: Short circuit / Overload / Over voltage / Input reverse polarity / Input under voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- 4000VDC I/O isolation (reinforced isolation)
- -40°C ~ +85°C ultra-wide operating temperature
- DC output adjustable  $\pm 10\%$ , (12V: 9~13.2, 24V: 21.6~28)
- 3 year warranty

This DDR series fits DIN standard surface covers, metering enclosures and switchboards!

### General Specification (Please refer to [www.procontechology.com.au](http://www.procontechology.com.au) for detailed specs)



Model No.	DDR-15	DDR-30	DDR-60
DC input range	G: 9~36VDC, L: 18~75VDC		
Line regulation (1 sec)	$\pm 0.5\%$		
Load regulation (max)	$\pm 0.5\%$ (except 3.3V and 5V output, see data sheet)		
Overload protection	110% ~ 150% hiccup, *auto recovery	110% ~ 150% constant current limiting*	105% ~ 135% constant current limiting*
Over voltage protection	115% ~ 135% shutdown O/P voltage, re-power on to recover		
Withstand voltage	I/P - O/P: 4kVDC		
Isolation resistance	100M @ 500VDC		
Working temperature (min)	-40°C ~ +85°C (refer to output derating curve)		
Safety standards	AS/NZS62368.1, IEC62368-1, UL62368-1, EAC TP TC 004 approved		
EMC standards	EN55032 class B (for DDR-60 see data sheet), EN61000-3-3, EN61000-4-2,3,4,5,6,8, EN55024, EN61000-6-2(EN50082-2)		
Size (LxWxH), Weight	17.5(1SU)x90x54.5mm, 0.068kg	35(2SU)x90x54.5mm, 0.12kg	52.5(3SU)x90x54.5mm, 0.216kg

### 15W DDR-15

Model No.	Vin (VDC)	Vout (VDC)	Iout (A)	R&N (mVp-p)	Eff. (%)
DDR-15G-3.3	9~36	3.3	3.5	50	84.0
DDR-15G-5	9~36	5	3	50	84.0
DDR-15G-12	9~36	12	1.25	60	85.0
DDR-15G-15	9~36	15	1	75	85.0
DDR-15G-24	9~36	24	0.63	100	86.0
DDR-15L-3.3	18~75	3.3	4.5	50	85.0
DDR-15L-5	18~75	5	3	50	85.0
DDR-15L-12	18~75	12	1.25	60	86.0
DDR-15L-15	18~75	15	1	75	86.0
DDR-15L-24	18~75	24	0.63	100	87.0

### 30W DDR-30

Model No.	Vin (VDC)	Vout (VDC)	Iout (A)	R&N (mVp-p)	Eff. (%)
DDR-30G-5	9~36	5	6	60	85.0
DDR-30G-12	9~36	12	2.5	75	86.0
DDR-30G-15	9~36	15	2	75	87.0
DDR-30G-24	9~36	24	1.25	100	89.0

Model No.	Vin (VDC)	Vout (VDC)	Iout (A)	R&N (mVp-p)	Eff. (%)
DDR-30L-5	18~75	5	6	60	86.0
DDR-30L-12	18~75	12	2.5	75	89.0
DDR-30L-15	18~75	15	2	75	90.0
DDR-30L-24	18~75	24	1.25	100	91.0

### 60W DDR-60

Model No.	Vin (VDC)	Vout (VDC)	Iout (A)	R&N (mVp-p)	Eff. (%)
DDR-60G-5	9~36	5	10.8	60	87.5
DDR-60G-12	9~36	12	5	75	92.0
DDR-60G-15	9~36	15	4	75	91.0
DDR-60G-24	9~36	24	2.5	100	90.0
DDR-60L-5	18~75	5	12	60	87.5
DDR-60L-12	18~75	12	5	75	91.0
DDR-60L-15	18~75	15	4	75	92.0
DDR-60L-24	18~75	24	2.5	100	92.0



DDR-120

DDR-240

DDR-480

\*Over Temperature Protection (OTP) not provided on DDR-120.

↑input reverse polarity protection provided by solid-state MOSFET circuitry.

### General Specification (Please refer to [www.procontechology.com.au](http://www.procontechology.com.au) for detailed specs)



Model No.		DDR-120	DDR-240	DDR-480
DC input range		A: 9~18V plus B, C, D	B: 16.8~33.6V, C: 33.6~67.2V, D: 67.2~154VDC	
Line regulation (1 sec)		±0.5%		
Load regulation (max)		±1%		
Overload protection		150% rated output power for more than 3 seconds* and then constant current O/P of 105~135% with auto-recovery. *5 seconds DDR-480		
Over voltage protection		120%~135% Shut down O/P voltage, re-power on to recover		
Withstand voltage		I/P-O/P: 4kVDC, I/P-FG: 2.5kVDC, O/P-FG: 0.71kVDC (2.5k VDC for DDR-120)		
Isolation resistance		100M @ 500VDC		
Working temperature (min)		-40°C ~ +70°C (80°C for DDR-480) (refer to output derating curve)		
Safety standards	Industrial	AS/NZS62368.1, CB IEC62368-1, UL62368-1, EAC TP TC 004, approved		
	Railway	EN50155/IEC60571 including IEC61373 shock & vibration, EN50121-3-2 EMC; EN45545-2 fire protection (except type A)		
EMC standards		EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8, EN50121-3-2 (except type A)		
Size (LxWxH), Weight		32x125.2x102mm, 0.51kg	40x125.2x113.5mm, 0.76kg	85.5x125.2x128.5mm, 1.375kg

### 120W



Model No.	Vin (VDC)	Vout (VDC)	Iout+ (A)	R&N (mVp-p)	Eff. (%)
DDR-120A-12	9~18	12	8.3	50	88.5
DDR-120A-24	9~18	24	4.2	50	88.5
DDR-120A-48	9~18	48	2.1	50	88.5
DDR-120B-12	16.8~33.6	12	10	50	89.0
DDR-120B-24	16.8~33.6	24	5	50	89.5
DDR-120B-48	16.8~33.6	48	2.5	50	91.0
DDR-120C-12	33.6~67.2	12	10	50	89.5
DDR-120C-24	33.6~67.2	24	5	50	91.0
DDR-120C-48	33.6~67.2	48	2.5	50	92.0
DDR-120D-12	67.2~154	12	10	50	89.5
DDR-120D-24	67.2~154	24	5	50	91.0
DDR-120D-48	67.2~154	48	2.5	50	91.5

### 240W



Model No.	Vin (VDC)	Vout (VDC)	Iout+ (A)	R&N (mVp-p)	Eff. (%)
DDR-240B-24	16.8~33.6	24	10	80	90.0
DDR-240B-48	16.8~33.6	48	5	100	90.0

### DC to DC Converter Features

- ITE and Railway Safety
- 2:1 wide input range
- 150% peak load capability for > 3/5\* seconds
- Protection:
  - Short circuit / Overload / Over voltage / Over Temp\* / Input reverse polarity / Input under voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- 4000VDC I/O isolation (reinforced isolation)
- -40~+70°C (80°C for DDR-480) wide operating temp.
- DC output adjustable 0~17%
- DC OK relay and Remote on/off for DDR-240/480
- Current sharing up to 960W (3+1) for DDR-240
- Current sharing up to 1920W (3+1) for DDR-480
- 3 year warranty

Model No.	Vin (VDC)	Vout (VDC)	Iout+ (A)	R&N (mVp-p)	Eff. (%)
DDR-240C-24	33.6~67.2	24	10	80	90.0
DDR-240C-48	33.6~67.2	48	5	100	92.0
DDR-240D-24	67.2~154	24	10	80	92.0
DDR-240D-48	67.2~154	48	5	100	92.5

### 480W



Model No.	Vin (VDC)	Vout (VDC)	Iout+ (A)	R&N (mVp-p)	Eff. (%)
DDR-480B-12	16.8~33.6	12	33.4	100	90.0
DDR-480B-24	16.8~33.6	24	20	120	91.0
DDR-480B-48	16.8~33.6	48	10	150	90.5
DDR-480C-12	33.6~67.2	12	33.4	100	91.0
DDR-480C-24	33.6~67.2	24	20	120	92.0
DDR-480C-48	33.6~67.2	48	10	150	92.0
DDR-480D-12	67.2~154	12	33.4	100	91.0
DDR-480D-24	67.2~154	24	20	120	92.0
DDR-480D-48	67.2~154	48	10	150	93.0

+150% peak for 3 seconds then 105~135% constant current  
\*5 seconds for the DDR-480