

# TDK-Lambda DC-DC Converters



**Features:** • Compact size • No tantalum capacitor and no aluminum electrolytic capacitor are used • Output voltage tolerance  $\pm 3\%$  at single output,  $\pm 5\%$  at dual output units • PWB halogen-free • Input fuse • No external components required • 5-sided metal shielded • 500VAC input to output isolation **Note:** For safety and EMI certifications please see series data sheets

Dimensions in mm

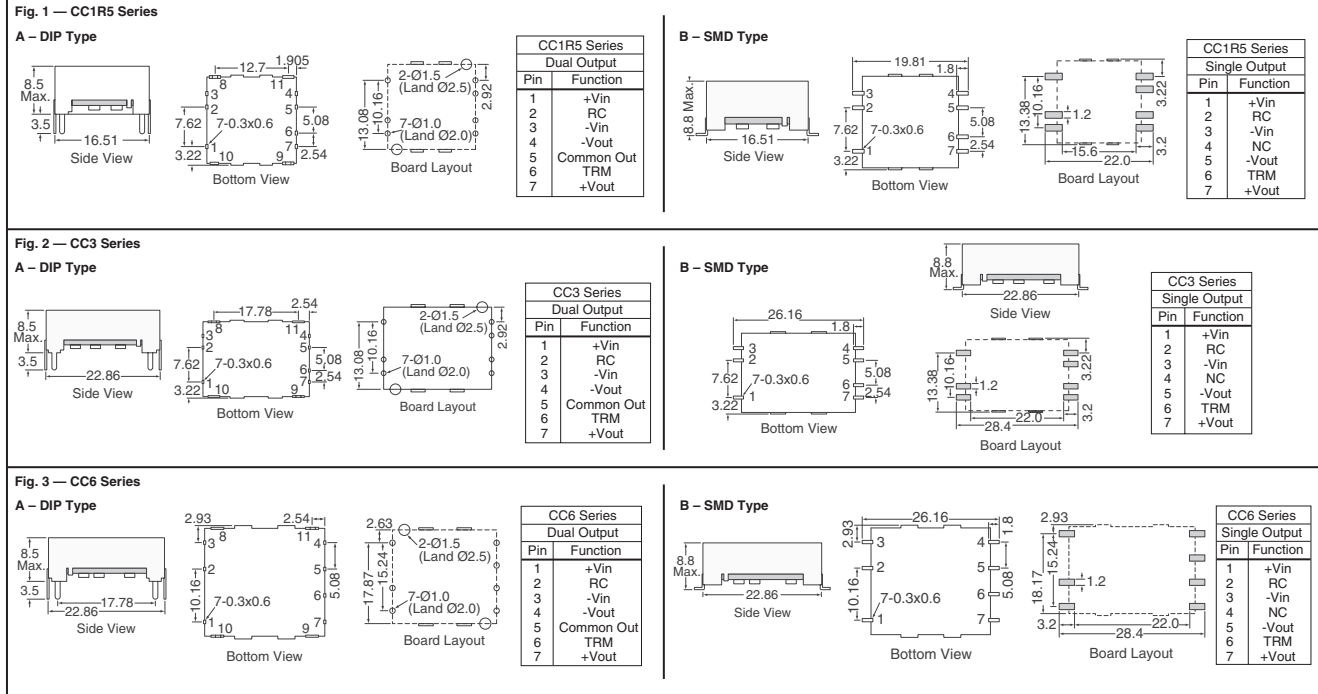


Fig.	Input Voltage (V)	Output Voltage (V)	Output Current (A)	Output Power (W)	Digi-Key Part No.	Price Each 10	TDK-Lambda Part No.
<b>CC1R5 Series — Single Output</b>							
1A	4.5 - 9	3.3	.400	1.5	445-2444-ND	6.97	CC1R5-0503SF-E
	4.5 - 9	5	.300	1.5	445-2446-ND	6.97	CC1R5-0505SF-E
	4.5 - 9	12 - 15	.125	1.5	445-2448-ND	6.97	CC1R5-0512SF-E
	9 - 18	3.3	.400	1.5	445-2450-ND	6.97	CC1R5-1203SF-E
	9 - 18	5	.300	1.5	445-2452-ND	6.97	CC1R5-1205SF-E
	9 - 18	12 - 15	.125	1.5	445-2455-ND	6.97	CC1R5-1212SF-E
	18 - 36	3.3	.400	1.5	445-2456-ND	6.97	CC1R5-2403SF-E
	18 - 36	5	.300	1.5	445-2457-ND	6.97	CC1R5-2405SF-E
	18 - 36	12 - 15	.125	1.5	445-2459-ND	6.97	CC1R5-2412SF-E
	36 - 76	3.3	.400	1.3	445-3264-ND	6.97	CC1R5-4803SF-E
	36 - 76	5	.300	1.5	445-3265-ND	6.97	CC1R5-4805SF-E
	36 - 76	12 - 15	.100	1.5	445-3266-ND	6.97	CC1R5-4812SF-E
1B	4.5 - 9	3.3	.400	1.5	445-2445-ND	6.97	CC1R5-0503SR-E
	4.5 - 9	5	.300	1.5	445-2447-ND	6.97	CC1R5-0505SR-E
	4.5 - 9	12 - 15	.125	1.5	445-2449-ND	6.97	CC1R5-0512SR-E
	9 - 18	3.3	.400	1.5	445-2451-ND	6.97	CC1R5-1203SR-E
	9 - 18	5	.300	1.5	445-2453-ND	6.97	CC1R5-1205SR-E
	9 - 18	12 - 15	.100	1.5	445-3268-ND	6.97	CC1R5-1212SR-E
	18 - 36	3.3	.400	1.3	445-3269-ND	6.97	CC1R5-2403SR-E
	18 - 36	5	.300	1.5	445-3270-ND	6.97	CC1R5-2405SR-E
	18 - 36	12 - 15	.100	1.5	445-3271-ND	6.97	CC1R5-2412SR-E
	36 - 76	3.3	.400	1.3	445-3272-ND	6.97	CC1R5-4803SR-E
	36 - 76	5	.300	1.5	445-3273-ND	6.97	CC1R5-4805SR-E
	36 - 76	12 - 15	.100	1.5	445-3274-ND	6.97	CC1R5-4812SR-E
<b>CC1R5 Series — Dual Output</b>							
1A	4.5 - 9	$\pm 12 - 15$	.600	1.5	445-2447-ND	6.97	CC1R5-0512DF-E
	9 - 18	$\pm 12 - 15$	.600	1.5	445-2454-ND	6.97	CC1R5-1212DF-E
	18 - 36	$\pm 12 - 15$	.600	1.5	445-2458-ND	6.97	CC1R5-2412DF-E
	36 - 76	$\pm 12 - 15$	.050	1.5	445-3312-ND	6.97	CC1R5-4812DF-E
	4.5 - 9	$\pm 12 - 15$	.050	1.5	445-3313-ND	6.97	CC1R5-0512DR-E
	9 - 18	$\pm 12 - 15$	.050	1.5	445-3314-ND	6.97	CC1R5-1212DR-E
1B	4.5 - 9	$\pm 12 - 15$	.050	1.5	445-3315-ND	6.97	CC1R5-0512DR-E
	9 - 18	$\pm 12 - 15$	.050	1.5	445-3316-ND	6.97	CC1R5-1212DR-E
	18 - 36	$\pm 12 - 15$	.050	1.5	445-3317-ND	6.97	CC1R5-2412DR-E
	36 - 76	$\pm 12 - 15$	.050	1.5	445-3318-ND	6.97	CC1R5-4812DR-E
	4.5 - 9	$\pm 12 - 15$	.800	3.0	445-2462-ND	8.06	CC3-0503SF-E
	4.5 - 9	5	.600	3.0	445-2464-ND	8.06	CC3-0505SF-E
4.5 - 9	12 - 15	.250	3.0	445-2466-ND	8.06	CC3-0512SF-E	
2A	9 - 18	3.3	.800	3.0	445-2468-ND	8.06	CC3-1203SF-E
	9 - 18	5	.600	3.0	445-2470-ND	8.06	CC3-1205SF-E
	9 - 18	12 - 15	.250	3.0	445-2473-ND	8.06	CC3-1212SF-E
	18 - 36	3.3	.800	3.0	445-2474-ND	8.06	CC3-2403SF-E
	18 - 36	5	.600	3.0	445-2475-ND	8.06	CC3-2405SF-E
	18 - 36	12 - 15	.250	3.0	445-2477-ND	8.06	CC3-2412SF-E
	36 - 76	3.3	.800	2.5	445-3275-ND	8.06	CC3-4803SF-E
	36 - 76	5	.600	3.0	445-3276-ND	8.06	CC3-4805SF-E
	36 - 76	12 - 15	.200	3.0	445-3277-ND	8.06	CC3-4812SF-E
	4.5 - 9	3.3	.800	3.0	445-2463-ND	8.06	CC3-0503SR-E
	4.5 - 9	5	.600	3.0	445-2465-ND	8.06	CC3-0505SR-E
	4.5 - 9	12 - 15	.250	3.0	445-2467-ND	8.06	CC3-0512SR-E
2B	9 - 18	3.3	.800	3.0	445-2469-ND	8.06	CC3-1203SR-E
	9 - 18	5	.600	3.0	445-2471-ND	8.06	CC3-1205SR-E
	9 - 18	12 - 15	.200	3.0	445-3279-ND	8.06	CC3-1212SR-E
	18 - 36	3.3	.800	2.5	445-3280-ND	8.06	CC3-2403SR-E
	18 - 36	5	.600	3.0	445-3281-ND	8.06	CC3-2405SR-E
	18 - 36	12 - 15	.200	3.0	445-3282-ND	8.06	CC3-2412SR-E

Fig.	Input Voltage (V)	Output Voltage (V)	Output Current (A)	Output Power (W)	Digi-Key Part No.	Price Each 10	TDK-Lambda Part No.	
2B	36 - 76	3.3	.800	2.5	445-3283-ND	8.06	CC3-4803SR-E	
	36 - 76	5	.600	3.0	445-3284-ND	8.06	CC3-4805SR-E	
	36 - 76	12 - 15	.200	3.0	445-3285-ND	8.06	CC3-4812SR-E	
<b>CC3 Series — Dual Output</b>								
2A	4.5 - 9	$\pm 12 - 15$	.125	3.0	445-2465-ND	8.06	CC3-0512DF-E	
	9 - 18	$\pm 12 - 15$	.125	3.0	445-2472-ND	8.06	CC3-1212DF-E	
	18 - 36	$\pm 12 - 15$	.125	3.0	445-2476-ND	8.06	CC3-2412DF-E	
	36 - 76	$\pm 12 - 15$	.100	3.0	445-3317-ND	8.06	CC3-4812DF-E	
	4.5 - 9	$\pm 12 - 15$	.100	3.0	445-3318-ND	8.06	CC3-0512DR-E	
	9 - 18	$\pm 12 - 15$	.100	3.0	445-3319-ND	8.06	CC3-1212DR-E	
2B	18 - 36	$\pm 12 - 15$	.100	3.0	445-3320-ND	8.06	CC3-2412DR-E	
	36 - 76	$\pm 12 - 15$	.100	3.0	445-3321-ND	8.06	CC3-4812DR-E	
	<b>CC6 Series — Single Output</b>							
	3A	4.5 - 9	3.3	1.2	6.0	445-2478-ND	11.47	CC6-0503SF-E
		4.5 - 9	5	1.0	6.0	445-2480-ND	11.47	CC6-0505SF-E
		4.5 - 9	12 - 15	.500	6.0	445-2482-ND	11.47	CC6-0512SF-E
9 - 18		3.3	1.2	6.0	445-2484-ND	11.47	CC6-1203SF-E	
9 - 18		5	1.2	6.0	445-2486-ND	11.47	CC6-1205SF-E	
9 - 18		12 - 15	.500	6.0	445-2489-ND	11.47	CC6-1212SF-E	
18 - 36		3.3	1.2	6.0	445-2490-ND	11.47	CC6-2403SF-E	
18 - 36		5	1.2	6.0	445-2491-ND	11.47	CC6-2405SF-E	
18 - 36		12 - 15	.500	6.0	445-2493-ND	11.47	CC6-2412SF-E	
36 - 76		3.3	1.2	5.0	445-3286-ND	11.47	CC6-4803SF-E	
36 - 76		5	1.2	6.0	445-3287-ND	11.47	CC6-4805SF-E	
36 - 76		12 - 15	.400	6.0	445-3288-ND	11.47	CC6-4812SF-E	
3B	4.5 - 9	3.3	1.2	6.0	445-2479-ND	11.47	CC6-0503SR-E	
	4.5 - 9	5	1.0	6.0	445-2481-ND	11.47	CC6-0505SR-E	
	4.5 - 9	12 - 15	.500	6.0	445-2483-ND	11.47	CC6-0512SR-E	
	9 - 18	3.3	1.2	6.0	445-2485-ND	11.47	CC6-1203SR-E	
	9 - 18	5	1.2	6.0	445-2487-ND	11.47	CC6-1205SR-E	
	9 - 18	12 - 15	.400	6.0	445-3290-ND	11.47	CC6-1212SR-E	
	18 - 36	3.3	1.2	5.0	445-3291-ND	11.47	CC6-2403SR-E	
	18 - 36	5	1.2	6.0	445-3292-ND	11.47	CC6-2405SR-E	
	18 - 36	12 - 15	.400	6.0	445-3293-ND	11.47	CC6-2412SR-E	
	36 - 76	3.3	1.2	5.0	445-3294-ND	11.47	CC6-4803SR-E	
	36 - 76	5	1.2	6.0	445-3295-ND	11.47	CC6-4805SR-E	
	36 - 76	12 - 15	.400	6.0	445-3296-ND	11.47	CC6-4812SR-E	
<b>CC6 Series — Dual Output</b>								
3A	4.5 - 9	$\pm 12 - 15$	.250	6.0	445-2481-ND	11.47	CC6-0512DF-E	
	9 - 18	$\pm 12 - 15$	.250	6.0	445-2488-ND	11.47	CC6-1212DF-E	
	18 - 36	$\pm 12 - 15$	.250	6.0	445-2492-ND	11.47	CC6-2412DF-E	
	36 - 76	$\pm 12 - 15$	.200	6.0	445-3322-ND	11.47	CC6-4812DF-E	
	4.5 - 9	$\pm 12 - 15$	.200	6.0	445-3323-ND	11.47	CC6-0512DR-E	
	9 - 18	$\pm 12 - 15$	.200	6.0	445-3324-ND	11.47	CC6-1212DR-E	
3B	18 - 36	$\pm 12 - 15$	.200	6.0	445-3325-ND	11.47	CC6-2412DR-E	
	36 - 76	$\pm 12 - 15$	.200	6.0	445-3326-ND	11.47	CC6-4812DR-E	
	<b>CC10 Series — Single Output</b>							
	4A	4.5 - 9	3.3	2.5	10	445-2430-ND	18.88	CC10-0503SF-E
		4.5 - 9	5	2.0	10	445-2431-ND	18.88	CC10-0505SF-E
		4.5 - 9	12 - 15	.800	10	445-2433-ND	18.88	CC10-0512SF-E
9 - 18		3.3	2.5	10	445-2434-ND	18.88	CC10-1203SF-E	
9 - 18		5	2.0	10	445-2435-ND	18.88	CC10-1205SF-E	
9 - 18		12 - 15	1.0	10	445-2437-ND	18.88	CC10-1212SF-E	

† Positive Logic ‡ 100/200VAC

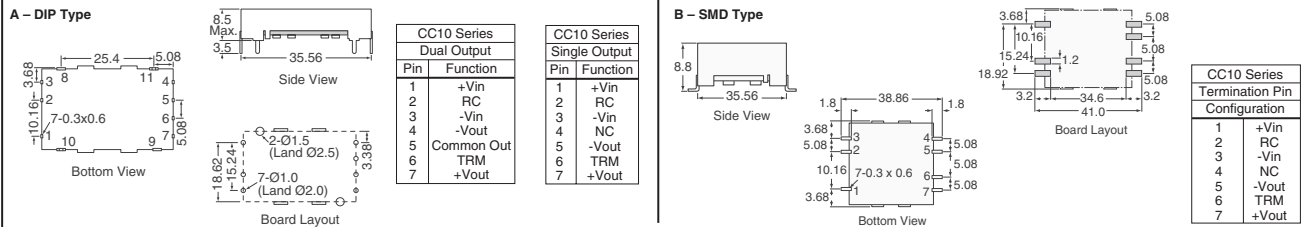
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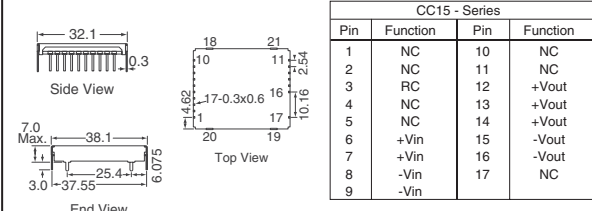
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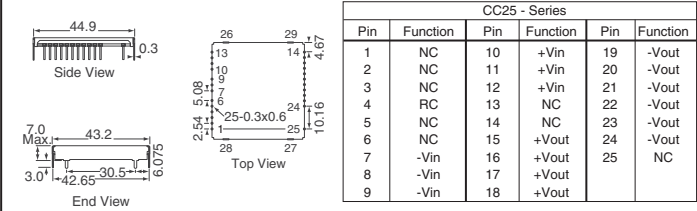
**Fig. 4 — CC10 Series**



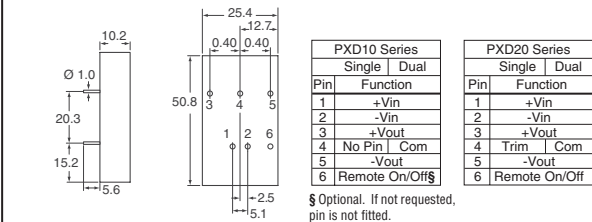
**Fig. 5 — CC15 Series**



**Fig. 6 — CC25 Series**



**Fig. 7 — PXD Series**



**Fig. 8 — PXE Series**

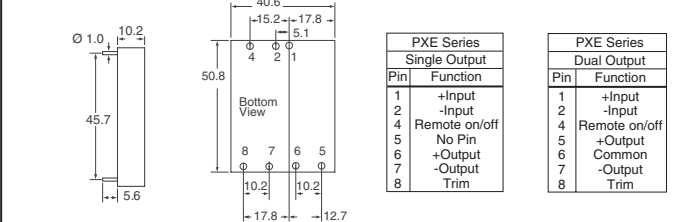


Fig.	Input Voltage (V)	Output Voltage (V)	Output Current (A)	Output Power (W)	Digi-Key Part No.	Price Each 10	TDK-Lambda Part No.
4A	18-36	3.3	2.5	10	445-2438-ND	18.88 18.30	CC10-2403SF-E
	18-36	5	2.0	10	445-2439-ND	18.88 18.30	CC10-2405SF-E
	18-36	12-15	1.0	10	445-2441-ND	18.88 18.30	CC10-2412SF-E
	36-76	3.3	2.5	10	445-3297-ND	18.88 18.30	CC10-4803SF-E
	36-76	5	2.0	10	445-3298-ND	18.88 18.30	CC10-4805SF-E
	36-76	12-15	.800	10	445-3299-ND	18.88 18.30	CC10-4812SF-E
4B	4.5-9	3.3	2.5	6.6	445-3300-ND	18.88 18.30	CC10-0503SR-E
	4.5-9	5	2.0	10	445-3301-ND	18.88 18.30	CC10-0505SR-E
	4.5-9	12-15	.640	10	445-3302-ND	18.88 18.30	CC10-0512SR-E
	9-18	3.3	2.5	6.6	445-3303-ND	18.88 18.30	CC10-1203SR-E
	9-18	5	2.0	10	445-3304-ND	18.88 18.30	CC10-1205SR-E
	9-18	12-15	.800	10	445-3305-ND	18.88 18.30	CC10-1212SR-E
4A	18-36	3.3	2.5	10	445-3306-ND	18.88 18.30	CC10-2403SR-E
	18-36	5	2.0	10	445-3307-ND	18.88 18.30	CC10-2405SR-E
	18-36	12-15	.800	10	445-3308-ND	18.88 18.30	CC10-2412SR-E
	36-76	3.3	2.5	10	445-3309-ND	18.88 18.30	CC10-4803SR-E
	36-76	5	2.0	10	445-3310-ND	18.88 18.30	CC10-4805SR-E
	36-76	12-15	.800	10	445-3311-ND	18.88 18.30	CC10-4812SR-E
<b>CC10 Series — Dual Output</b>							
4A	4.5-9	±12-15	.400	10	445-2432-ND	18.88 18.30	CC10-0512DF-E
	9-18	±12-15	.450	10	445-2436-ND	18.88 18.30	CC10-1212DF-E
	18-36	±12-15	.450	10	445-2440-ND	18.88 18.30	CC10-2412DF-E
4B	36-76	±12-15	.360	10	445-3327-ND	18.88 18.30	CC10-4812DF-E
	4.5-9	±12-15	.320	8.5	445-3328-ND	18.88 18.30	CC10-0512DR-E
	9-18	±12-15	.360	10	445-3329-ND	18.88 18.30	CC10-1212DR-E
4B	18-36	±12-15	.360	10	445-3330-ND	18.88 18.30	CC10-2412DR-E
	36-76	±12-15	.360	10	445-3331-ND	18.88 18.30	CC10-4812DR-E
	<b>CC15 Series</b>						
5	18-36	3.3	4.5	15	445-2442-ND	25.77 24.69	CC15-2403SF-E
	18-36	5	3.0	15	445-2443-ND	25.77 24.69	CC15-2405SF-E
<b>CC25 Series</b>							
6	18-36	3.3	7.5	25	445-2460-ND	49.32 47.88	CC25-2403SF-E
	18-36	5	5.0	25	445-2461-ND	49.32 47.88	CC25-2405SF-E
<b>PXD Series — Single Output</b>							
7	9-18	5	4.0	20	285-1511-ND	46.46 44.29	PXD2012S05
	9-18	12	1.67	20	285-1512-ND	46.46 44.29	PXD2012S12
	9-18	15	1.33	20	285-1513-ND	46.46 44.29	PXD2012S15
	9-36	5	2.0	10	285-1499-ND	39.93 37.76	PXD1024WS05P
	9-36	5	2.0	10	285-1500-ND	41.38 39.21	PXD1024WS05P
	9-36	12	0.83	10	285-1501-ND	39.93 37.76	PXD1024WS12
	9-36	15	0.67	10	285-1502-ND	39.93 37.76	PXD1024WS15
	18-36	5	4.0	20	285-1516-ND	46.46 44.29	PXD2024S05
	18-36	12	1.67	20	285-1517-ND	46.46 44.29	PXD2024S12
	18-36	15	1.33	20	285-1518-ND	46.46 44.29	PXD2024S15
	18-75	5	2.0	10	285-1506-ND	39.93 37.76	PXD1048WS05
	18-75	12	0.83	10	285-1507-ND	39.93 37.76	PXD1048WS12
18-75	15	0.67	10	285-1508-ND	39.93 37.76	PXD1048WS15	
36-75	3.3	2.0	6.6	285-1503-ND	37.75 36.30	PXD1048S3P3	
36-75	5	4.0	20	285-1521-ND	46.46 44.29	PXD2048S05	
36-75	12	1.67	20	285-1522-ND	46.46 44.29	PXD2048S12	
36-75	15	1.33	20	285-1523-ND	46.46 44.29	PXD2048S15	

Fig.	Input Voltage (V)	Output Voltage (V)	Output Current (A)	Output Power (W)	Digi-Key Part No.	Price Each 10	TDK-Lambda Part No.	
<b>PXD Series — Dual Output</b>								
7	9-18	±12	±0.833	20	285-1509-ND	49.37 47.19	PXD2012D12	
	9-18	±15	±0.667	20	285-1510-ND	49.37 47.19	PXD2012D15	
	9-36	±12	±0.416	10	285-1497-ND	42.11 39.93	PXD1024WD12	
	9-36	±15	±0.333	10	285-1498-ND	42.11 39.93	PXD1024WD15	
	18-36	±12	±0.833	20	285-1514-ND	49.37 47.19	PXD2024D12	
	18-36	±15	±0.667	20	285-1515-ND	49.37 47.19	PXD2024D15	
	18-75	±12	±0.416	10	285-1504-ND	42.11 39.93	PXD1048WD12	
	18-75	±15	±0.333	10	285-1505-ND	42.11 39.93	PXD1048WD15	
	36-75	±12	±0.833	20	285-1519-ND	49.37 47.19	PXD2048D12	
	36-75	±15	±0.667	20	285-1520-ND	49.37 47.19	PXD2048D15	
	<b>PXE Series — Single Output</b>							
	8	9-18	3.3	6.0	18	285-1541-ND	61.71 58.08	PXE3012S3P3
9-18		5	6.0	30	285-1538-ND	61.71 58.08	PXE3012S05	
9-18		12	2.5	30	285-1539-ND	61.71 58.08	PXE3012S12	
9-18		15	2.0	30	285-1540-ND	61.71 58.08	PXE3012S15	
9-36		5	4.0	20	285-1527-ND	48.64 45.74	PXE2024WS05	
9-36		12	1.67	20	285-1528-ND	48.64 45.74	PXE2024WS12	
9-36		15	1.33	20	285-1529-ND	48.64 45.74	PXE2024WS15	
10-40		12	2.5	30	285-1547-ND	70.42 67.52	PXE3024WS12	
18-36		5	6.0	30	285-1544-ND	61.71 58.08	PXE3024S05	
18-36		12	2.5	30	285-1545-ND	61.71 58.08	PXE3024S12	
18-36		15	2.0	30	285-1546-ND	61.71 58.08	PXE3024S15	
8		18-75	5	4.0	20	285-1533-ND	48.64 45.74	PXE2048WS05
	18-75	12	1.67	20	285-1534-ND	48.64 45.74	PXE2048WS12	
	18-75	15	1.33	20	285-1535-ND	48.64 45.74	PXE2048WS15	
	36-75	5	6.0	30	285-1550-ND	61.71 58.08	PXE3048S05	
	36-75	12	2.5	30	285-1551-ND	61.71 58.08	PXE3048S12	
	36-75	15	2.0	30	285-1552-ND	61.71 58.08	PXE3048S15	
	<b>PXE Series — Dual Output</b>							
	8	9-18	±12	±1.25	30	285-1536-ND	67.52 63.89	PXE3012D12
		9-18	±15	±1.0	30	285-1537-ND	67.52 63.89	PXE3012D15
		9-36	±5	±2.0	20	285-1524-ND	55.18 52.28	PXE2024WD05
		9-36	±12	±0.833	20	285-1525-ND	55.18 52.28	PXE2024WD12
		9-36	±15	±0.666	20	285-1526-ND	55.18 52.28	PXE2024WD15
18-36		±12	±1.25	30	285-1542-ND	67.52 63.89	PXE3024D12	
18-36		±15	±1.0	30	285-1543-ND	67.52 63.89	PXE3024D15	
18-75		±5	±2.0	20	285-1530-ND	55.18 52.28	PXE2048WD05	
18-75		±12	±0.833	20	285-1531-ND	55.18 52.28	PXE2048WD12	
18-75		±15	±0.666	20	285-1532-ND	55.18 52.28	PXE2048WD15	
36-75		±12	±1.25	30	285-1548-ND	67.52 63.89	PXE3048D12	
36-75		±15	±1.0	30	285-1549-ND	67.52 63.89	PXE3048D15	
<b>PXF Series — Single Output</b>								
9	9-18	5	8	40	285-1555-ND	69.70 66.07	PXF4012S05	
	9-18	12	3.333	40	285-1556-ND	69.70 66.07	PXF4012S12	
	9-18	15	2.666	40	285-1557-ND	69.70 66.07	PXF4012S15	
	18-36	3.3	8	40	285-1564-ND	69.70 66.07	PXF4024S3P3	