

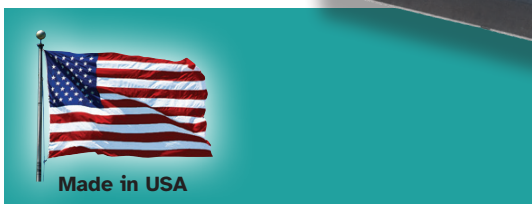
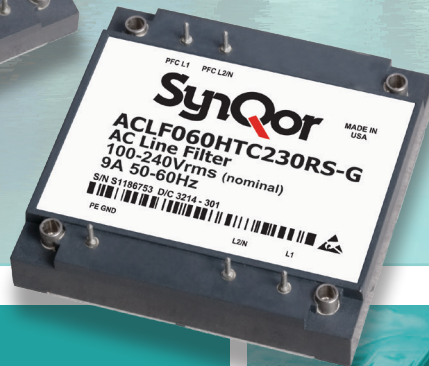
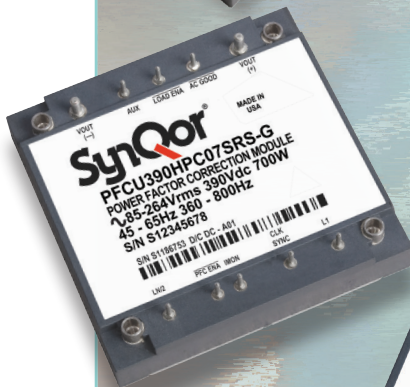


Advancing the Power Curve®

Power Converters & EMI Filters



Products for the Industrial Market Environment



006-0005954
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Next-Generation, Ruggedized Isolated DC-DC Converters for Industrial Applications

SynQor's ruggedized DC-DC converters and filters are designed for a wide range of industrial applications including those required to withstand harsh environments: railway and transportation systems, industrial motion control, information displays, factory automation and power generation systems. SynQor converters feature a two-stage power topology with synchronous-rectification that greatly improves efficiency and optimizes the power dissipated by the converter.

Operational Features

- ◆ High efficiency up to 95%
- ◆ Input voltage ranges from 9 V to 425 V
- ◆ Output power up to 600 W
- ◆ Fixed frequency switching, low output noise
- ◆ No minimum load requirement
- ◆ Full Feature option on some models
- ◆ Industry standard pin-out configurations and standard footprints
- ◆ Operating Temperature -40 °C to +100 °C
- ◆ Output Voltage Set Point $\pm 1.0\%$
- ◆ Output Voltage Ripple <1% of Vout (typ.) pk-pk
- ◆ Isolation Voltage Up to 4250 Vdc

Protection/Control Features

- ◆ Input under-voltage lockout
- ◆ Output current limit and short circuit protection
- ◆ Active back bias limit prevents damage to converter from external load induced pre-bias
- ◆ Digital output current sharing (Half Brick Zeta only)
- ◆ Output over-voltage protection
- ◆ Thermal shutdown
- ◆ Trimmable output voltages



DC Filter Modules for DC-DC Converters

SynQor provides EMI filters for InQor DC-DC converters. All EMI filters provide high levels of differential-mode and common-mode attenuation and include stabilizing bulk capacitors and damping resistors.

Operational Features

- ◆ Low DC resistance
- ◆ Differential-mode attenuation
- ◆ Common-mode attenuation
- ◆ Bulk capacitance provides input system stabilization for downstream power converters
- ◆ No electrolytic capacitors (all ceramic design)
- ◆ High-voltage isolation between chassis and input / output
- ◆ Wide temperature range operation
- ◆ Operating Temperature -40 °C to +100 °C

AC Line Filter Modules

SynQor provides AC Line filters for the Industrial PFC modules and DC-DC converters. SynQor's high-performance filters are designed to comply with industry EMI standards.

Operational Features

- ◆ Universal Input voltage range
- ◆ 1 kW@115 V or 2 kW@230 V
- ◆ All ceramic capacitor design
- ◆ Complies with industry EMI standards when used with SynQor PFC and DC-DC converter modules
- ◆ Internally damped
- ◆ Wide temperature range operation
- ◆ Low power dissipation
- ◆ High voltage isolation between baseplate and input/output

IQ12		V _{OUT}	3.3 V	5 V	7 V	12 V	15 V	24 V	28 V	30 V	40 V	48 V
12 V_{DC} INPUT (9-22 V_{DC} INPUT RANGE, TRANSIENT 25 V)												
Half Brick	HPC		50 A 165 W	36 A 180 W		15 A 180 W	12 A 180 W	7.5 A 180 W	6.5 A 182 W		4.5 A 180 W	3.7 A 178 W
	HTC		40 A 132 W	28 A 140 W		12 A 144 W	9.5 A 143 W	6 A 144 W	5 A 140 W		3.5 A 140 W	3 A 144 W
Quarter Brick	QTC		30 A 99 W	20 A 100 W	14 A 98 W	8 A 96 W	7 A 105 W	4 A 96 W		3 A 90 W		2 A 96 W
	QGC		20 A 66 W	15 A 75 W	10 A 70 W	6 A 72 W	5 A 75 W	3 A 72 W		2.4 A 72 W		1.5 A 72 W

IQ24		V _{OUT}	1.8 V	3.3 V	5 V	7 V	12 V	15 V	24 V	28 V	30 V	40 V	48 V	50 V
24 V_{DC} INPUT (18-36 V_{DC} INPUT RANGE, TRANSIENT 50 V)														
Half Brick	HZC				60 A 300 W		42 A 504 W	34 A 510 W	21 A 504 W	18 A 504 W		12.5 A 500 W		10 A 500 W
	HEC									14 A 392 W				8 A 400 W
	HPC	60 A 108 W	50 A 165 W	40 A 200 W		18 A 216 W	15 A 225 W	9 A 216 W	7.5 A 210 W		5.5 A 220 W	4.5 A 216 W		
	HTC		40 A 132 W	30 A 150 W		13 A 156 W	10 A 150 W	6.5 A 156 W	5.5 A 154 W		4 A 160 W	3.3 A 158 W		
Quarter Brick	QTC		30 A 99 W	24 A 120 W	17 A 119 W	10 A 120 W	8 A 120 W	5 A 120 W		4 A 120 W		2.5 A 120 W		
	QGC		25 A 83 W	18 A 90 W	13 A 91 W	7.5 A 90 W	6 A 90 W	3.7 A 89 W		3 A 90 W		1.8 A 91 W		
	QMC									2 A 60 W		1.2 A 58 W		
Sixteenth Brick	SGC		15 A 50 W	10 A 50 W	7 A 49 W	4 A 48 W	3.3 A 48 W	2 A 48 W	1.8 A 50 W			1 A 48 W		

IQ48		V _{OUT}	1.8 V	3.3 V	5 V	7 V	12 V	15 V	24 V	28 V	30 V	40 V	48 V	50 V
48 V_{DC} INPUT (34-75 V_{DC} INPUT RANGE, TRANSIENT 100 V)														
Half Brick	HZC				60 A 300 W		50 A 600 W	40 A 600 W	25 A 600 W	21.5 A 602 W		15 A 600 W		12 A 600 W
	HPC		60 A 198 W	46 A 230 W		21 A 252 W	17 A 255 W	10.5 A 252 W	9 A 252 W			5.2 A 250 W		
	HTC		45 A 149 W	34 A 170 W		16 A 192 W	13 A 195 W	8 A 192 W	7 A 196 W			4 A 192 W		
Quarter Brick	QTC		30 A 99 W	25 A 125 W	20 A 140 W	12 A 144 W	10 A 150 W	6 A 144 W		5 A 150 W		3 A 144 W		
	QGC		25 A 83 W	21 A 105 W	15 A 105 W	9 A 108 W	7 A 105 W	4.5 A 108 W		3.5 A 105 W		2.2 A 106 W		
Sixteenth Brick	SGC	28 A 50 W	15 A 50 W	10 A 50 W	7 A 50 W	4.1 A 50 W	3.3 A 50 W		1.8 A 50 W					

IQ72		V _{OUT}	3.3 V	5 V	7 V	12 V	15 V	24 V	28 V	30 V	48 V
72 V_{DC} INPUT (42-110 V_{DC} INPUT RANGE)											
Half Brick	HPC					21 A 252 W	17 A 255 W	10.4 A 250 W	9 A 252 W		5.2 A 250 W
Quarter Brick	QTC	30 A 99 W	25 A 125 W	20 A 140 W	12 A 144 W	10 A 150 W	6 A 144 W		5 A 150 W		3 A 144 W
	QGC	25 A 83 W	20 A 100 W	15 A 105 W	9 A 108 W	7 A 105 W	4.5 A 108 W				2 A 96 W

IQ1B		V _{OUT}	3.3 V	5 V	7 V	12 V	15 V	24 V	28 V	30 V	40 V	48 V
110 V_{DC} INPUT (66-160 V_{DC} INPUT RANGE, TRANSIENT 170 V)												
Half Brick	HPC			48 A 240 W		21 A 252 W	17 A 255 W	10 A 240 W	9 A 252 W		6.3 A 252 W	5.2 A 250 W
	HTC			34 A 170 W		16 A 192 W	13 A 195 W	8 A 192 W	7 A 196 W		5 A 200 W	4 A 192 W
Quarter Brick	QTC	30 A 99 W	25 A 125 W	20 A 140 W	12 A 144 W	10 A 150 W	6 A 144 W		5 A 150 W		3 A 144 W	
	QGC	23 A 76 W	18 A 90 W	15 A 105 W	9 A 108 W	7 A 105 W	4.5 A 108 W		3.5 A 105 W		2 A 96 W	

LISTED BY PACKAGE AND OUTPUT VOLTAGE

2:1 INPUT RATIO

IQ2H	Vout	5 V	28 V	48 V
150 Vdc INPUT (90-210 Vdc INPUT RANGE, TRANSIENT 250 V)				
Quarter Brick	QTC	30 A 150 W	5.35 A 150 W	3.13 A 150 W

IQ4H	Vout	3.3 V	5 V	12 V	15 V	24 V	28 V	40 V	48 V
385 Vdc INPUT (180-425 Vdc INPUT RANGE, TRANSIENT 475 V)									
Full Brick	FTC		80 A 400 W	50 A 600 W	40 A 600 W	25 A 600 W	21.4 A 600 W	15 A 600 W	12.5 A 600 W
Half Brick	HTC	60 A 198 W	50 A 250 W	25 A 300 W	20 A 300 W	12.5 A 300 W	10.7 A 300 W		6.3 A 300 W
Quarter Brick	QTC	30 A 99 W	30 A 150 W	13 A 156 W	10 A 150 W	6.25 A 150 W	5.35 A 150 W		3.13 A 150 W

4:1 INPUT RATIO

IQ18	Vout	1.8 V	3.3 V	5 V	7 V	12 V	15 V	24 V	28 V	30 V	40 V	48 V
18 Vdc INPUT (9-36 Vdc INPUT RANGE, TRANSIENT 40 V)												
Half Brick	HPC		50 A 165 W	36 A 180 W		15 A 180 W	12 A 180 W	7.5 A 180 W	6.5 A 182 W		4.5 A 180 W	3.7 A 178 W
	HTC		40 A 132 W	28 A 140 W		12 A 144 W	9.5 A 143 W	6 A 144 W	5 A 140 W		3.5 A 140 W	3 A 144 W
Quarter Brick	QTC		30 A 99 W	20 A 100 W	14 A 98 W	8 A 96 W	7 A 105 W	4 A 96 W		3 A 90 W		2 A 96 W
	QGC		20 A 66 W	15 A 75 W	10 A 70 W	6 A 72 W	5 A 75 W	3 A 72 W		2.4 A 72 W		1.5 A 72 W
Sixteenth Brick	SGC	25 A 45 W	15 A 50 W	10 A 50 W	7.1 A 50 W	4 A 48 W	3.3 A 50 W	2 A 48 W				1 A 48 W

IQ36	Vout	3.3 V	5 V	7 V	12 V	15 V	24 V	28 V	30 V	40 V	48 V
36 Vdc INPUT (18-75 Vdc INPUT RANGE)											
Half Brick	HPC	50 A 165 W	40 A 200 W	30 A 210 W	18 A 216 W	14 A 210 W	9 A 216 W	7.5 A 210 W		5.5 A 220 W	4.5 A 216 W
	HTC	40 A 132 W	30 A 150 W	22 A 154 W	13 A 156 W	10 A 150 W	6.5 A 156 W	5.5 A 154 W		4 A 160 W	3.2 A 154 W
Quarter Brick	QTC	30 A 99 W	24 A 120 W	17 A 119 W	10 A 120 W	8 A 120 W	5 A 120 W		4 A 120 W		2.5 A 120 W
	QGC	25 A 83 W	18 A 90 W	13 A 91 W	7.5 A 90 W	6 A 90 W	3.7 A 89 W		3 A 90 W		1.8 A 86 W

IQ70	Vout	3.3 V	5 V	7 V	12 V	15 V	24 V	28 V	30 V	48 V
70 Vdc INPUT (34-135 Vdc INPUT RANGE)										
Half Brick	HPC		44 A 220 W		20 A 240 W	16 A 240 W	10 A 240 W	8.5 A 238 W		5 A 240 W
Quarter Brick	QTC	30 A 99 W	24 A 120 W	18 A 126 W	11 A 132 W	8.6 A 129 W	5.5 A 132 W		4.4 A 132 W	2.7 A 130 W

IQ90	Vout	3.3 V	5 V	7 V	12 V	15 V	24 V	28 V	30 V	48 V
90 Vdc INPUT (34-160 Vdc INPUT RANGE)										
Half Brick	HPC		40 A 200 W		19 A 228 W	15 A 225 W	9.5 A 228 W	8 A 224 W		4.6 A 221 W
Quarter Brick	QTC	30 A 99 W	24 A 120 W	17 A 119 W	10 A 120 W	8 A 120 W	5 A 120 W		4 A 120 W	2.5 A 120 W
	QGC	23 A 76 W	17 A 86 W	12 A 84 W	7 A 84 W	5.5 A 83 W	3.5 A 84 W		2.8 A 84 W	1.8 A 86 W
	QMC	15 A 50 W	10 A 50 W	7 A 49 W	4 A 48 W	3.3 A 50 W	2 A 48 W		1.6 A 48 W	1 A 48 W

LISTED BY PACKAGE AND OUTPUT VOLTAGE

8:1 INPUT RATIO	IQ32	V _{OUT}	3.3 V	5 V	7 V	12 V	15 V	24 V	28 V	30 V	40 V	48 V	50 V
	32 V _{DC} INPUT (9-75 V _{DC} INPUT RANGE, TRANSIENT 100 V)												
	Half Brick	HZC		50 A 250 W		21 A 252 W	17 A 255 W	10 A 240 W	9 A 252 W		6 A 240 W		5 A 250 W
		HPC	45 A 149 W	32 A 160 W		13 A 156 W	11 A 165 W	6.7 A 161 W	5.8 A 162 W		4 A 160 W	3.4 A 163 W	
		HTC	33 A 109 W	24 A 120 W		10 A 120 W	8 A 120 W	5 A 120 W	4.5 A 126 W		3 A 120 W	2.5 A 120 W	
	Quarter Brick	QTC	25 A 83 W	17 A 85 W	12 A 84 W	7 A 84 W	5.5 A 83 W	3.5 A 84 W		2.8 A 84 W		1.8 A 86 W	
		QGC	15 A 50 W	10 A 50 W	7 A 49 W	4 A 48 W	3.3 A 50 W	2 A 48 W		1.6 A 48 W		1 A 48 W	
	IQ64	V _{OUT}	3.3 V	5 V	7 V	12 V	15 V	24 V	28 V	30 V	40 V	48 V	
	64 V _{DC} INPUT (18-135 V _{DC} INPUT RANGE)												
	Half Brick	HPC	50 A 165 W	36 A 180 W		16 A 192 W	13 A 195 W	8 A 192 W	7 A 196 W		5 A 200 W	4 A 192 W	
Quarter Brick	QTC	27 A 89 W	20 A 100 W	14 A 98 W	8 A 96 W	6.5 A 98 W	4 A 98 W		3.2 A 96 W		2 A 96 W		
	QGC		10 A 50 W		4 A 48 W	3.3 A 50 W	2 A 48 W				1 A 48 W		

12:1 RATIO	IQ68	V _{OUT}	5 V	12 V	24 V	48 V
	68 V _{DC} INPUT (12-150 V _{DC} INPUT RANGE, TRANSIENT 170 V)					
	Half Brick	HGC	10.6 A 53 W	4.4 A 53 W	2.2 A 53 W	
	Quarter Brick	QMC	5.3 A 25 W	2.2 A 26 W	1.1 A 26 W	0.55 A 26 W



InQor EMI DC & AC Filters

MODEL NUMBER	INPUT VOLTAGE		OUTPUT CURRENT	ISOLATION VOLTAGE (TO COMMON-MODE / BASEPLATE)	MAXIMUM DC RESISTANCE @ 100 °C	DIFFERENTIAL-MODE ATTENUATION	COMMON-MODE ATTENUATION
	CONTINUOUS	SURGE (<100MS)					
QUARTER BRICK							
IQ040PFQTx30	±40 V	±50 V	30 A	2250 V	20 mΩ	>80 dB @ 250 kHz	>36 dB @ 250 kHz
IQ080PFQTx20	±80 V	±100 V	20 A	2250 V	32 mΩ	>80 dB @ 250 kHz	>36 dB @ 250 kHz
IQ200PFQTx10	±200 V	±250 V	10 A	2250 V	70 mΩ	>80 dB @ 250 kHz	>50 dB @ 250 kHz
IQ500PFQTx04	±500 V	±630 V	4.0 A	2500 V	180 mΩ	>80 dB @ 500 kHz	>50 dB @ 500 kHz

InQor DC Filter

FAMILY	CONT. INPUT VOLTAGE	FILTER TYPE	PACKAGE SIZE	PERFORMANCE SERIES	THERMAL DESIGN	MAX. I _{OUT}	OPTIONS DESCRIPTION		
							ENABLE LOGIC	PIN LENGTH	FEATURES
IQ	040:±40 V 080:±80 V 200:±200 V 500:±500 V	PF: Passive Filter	Q: Quarter Brick	T: Tera	C: Encased V: Flanged Baseplate	30:30 A 20:20 A 10:10 A 04: 4 A	S: Standard	R: 0.180"	S: Standard

Example: IQ080PFQTC20NRS-G For valid part numbers, refer to the website or contact your local sales representative or distributor.

InQor AC Line Filters

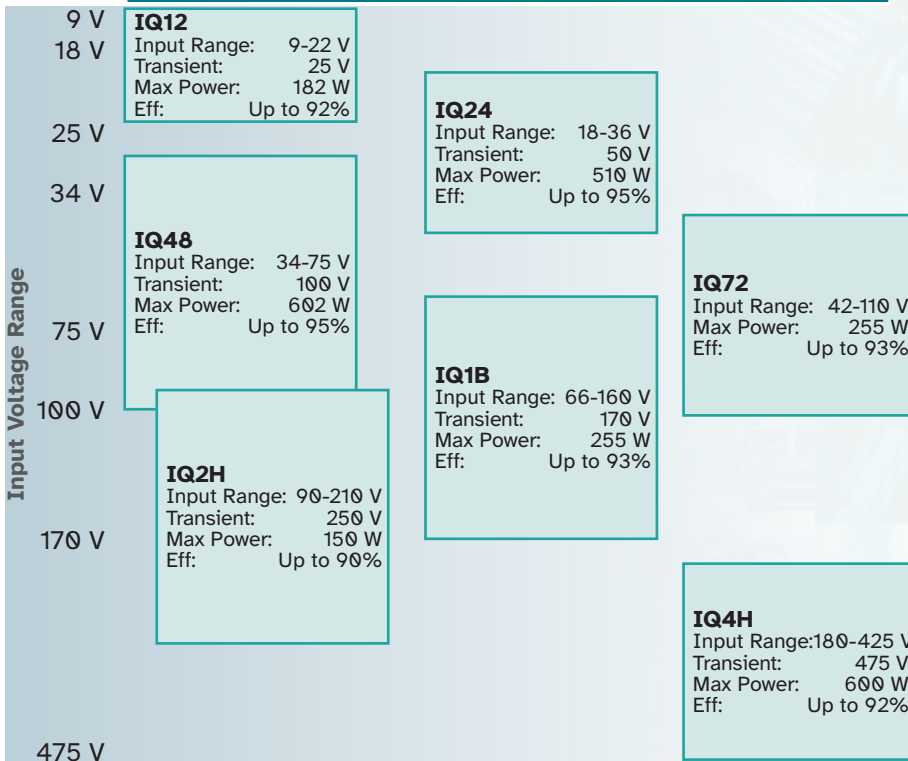
MODEL NUMBER	AC LINE FREQUENCY	AC LINE VOLTAGE	OUTPUT CURRENT	P _{OUT} ^{MAX} (115 V / 230 V)	DISSIPATION P _{OUT} ^{MAX}	ISOLATION VOLTAGE (TO BASEPLATE)
ACLFUNVETx230	50 / 60 Hz & 400 Hz	85-264 Vrms	5 Arms	500 W/1 kW	4.5 W	2150 V _{PK}
ACLF060HTx230	50 / 60 Hz	85-264 Vrms	9 Arms	1 kW/2 kW	15.8 W	2150 V _{PK}

Refer to the website, contact your local sales representative or distributor for valid part numbers. Specifications change without notice.

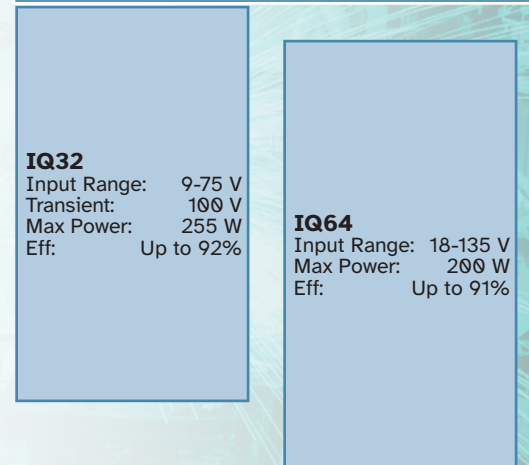
PRODUCT FAMILY MATRIX



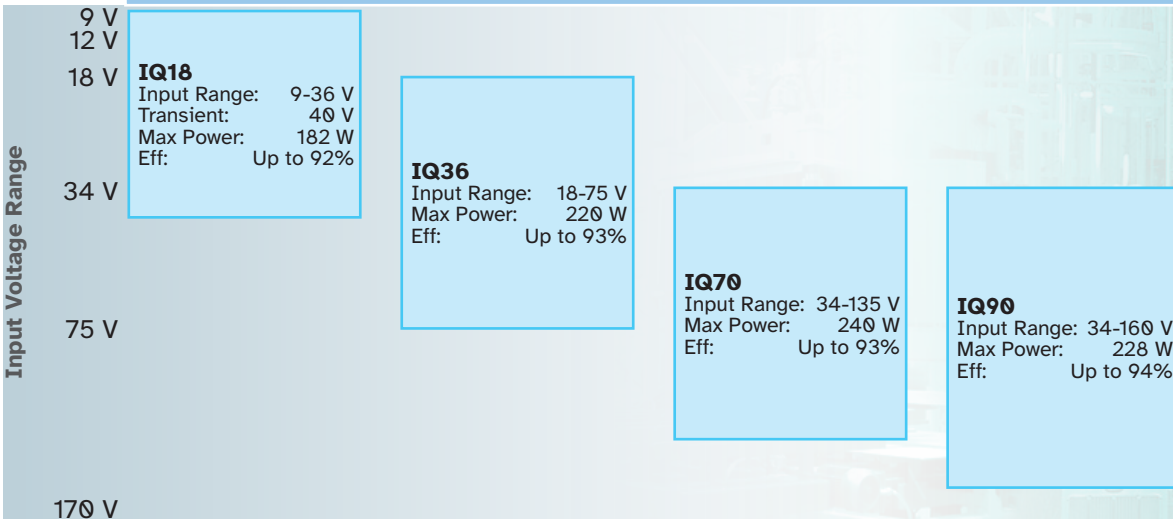
2:1 INPUT RATIO



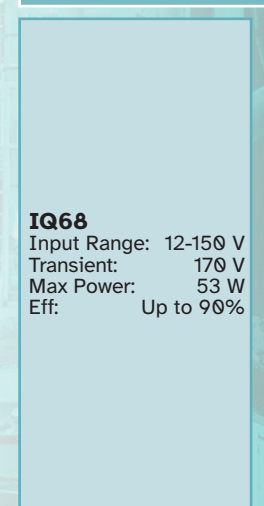
8:1 INPUT RATIO



4:1 INPUT RATIO



12:1 INPUT RATIO



InQor Isolated DC-DC Converter

FAMILY	CONT. INPUT VOLTAGE	OUTPUT VOLTAGE	PACKAGE SIZE	PERFORMANCE SERIES	THERMAL DESIGN	MAX. IOUT	OPTIONS DESCRIPTION		
							ENABLE LOGIC	PIN LENGTH	FEATURES
IQ	12: 9-22 V	012: 1.2 V	S: Sixteenth Brick Q: Quarter Brick H: Half Brick F: Full Brick	K: Kilo M: Mega G: Giga T: Tera P: Peta E: Exa Z: Zeta	C: Encased D: Encased, Non-threaded Baseplate V: Encased, Flanged Baseplate	60: 60 A 50: 50 A 30: 30 A 10: 10 A 06: 6 A 02: 2 A (not all shown)	N: Negative	R: 0.180"	S: Standard F: Full Feature
	18: 9-36 V	015: 1.5 V							
	24: 18-36 V	018: 1.8 V							
	32: 9-75 V	025: 2.5 V							
	36: 18-75 V	033: 3.3 V							
	48: 34-75 V	050: 5 V							
	64: 18-135 V	070: 7 V							
	68: 12-150 V	120: 12 V							
	70: 34-135 V	150: 15 V							
	72: 42-110 V	240: 24 V							
	90: 34-160 V	280: 28 V							
	1B: 66-160 V	300: 30 V							
	2H: 90-210 V	400: 40 V							
	4H: 180-425 V	480: 48 V							
	500: 50 V								

Part Numbering Example: IQ1B480QTC03NRS-G For valid part numbers, refer to the website or contact your local sales representative or distributor.



High-Voltage Non-isolated Converters



High Voltage, Non-isolated DC-DC Converters for Industrial Applications

The high input voltage NiQor family of DC-DC converters offers unique solutions for converting high-powered, variable voltages to a wide range of output voltages. The converter is a non-isolated buck-boost regulator, which employs synchronous rectification to achieve extremely high conversion efficiency. These products are suitable for use in IBA, or to provide a regulated output voltage from a variable voltage source such as a battery. They can be configured to 'buck' the input voltage down or 'boost' the input voltage up using a single external resistor.

BATTERY CHARGING

- ◆ Provides the power conversion platform for battery charging
- ◆ Output current limit is externally controlled for constant-current charging
- ◆ Current can be set with an external resistor or an active circuit
- ◆ Current analog signal provided for instrumentation and control functions
- ◆ Ideal diode output stage with zero back-drive currents prevents discharge of battery when not charging
- ◆ Output voltage set-point is independently controlled through trim pin
- ◆ Unit will smoothly transition between current and voltage modes as charging cycle needs charge

Operational Features

- ◆ Ultra-high efficiency up to 96%
- ◆ Wide input voltage ranges:
 - ◆ 9-20 V (NQ20); 9-40 V (NQ40); 9-60 V (NQ60); 9-90 V (NQ90)
- ◆ Buck or Buck/Boost Mode available
- ◆ Maximum input/output currents up to 55 A
- ◆ Suitable for use in Intermediate Bus Architectures
- ◆ On-board input and output filtering
- ◆ No minimum load requirement
- ◆ Remote sense and wide output voltage trim



Protection/Control Features

- ◆ Input under-voltage lockout (UVLO)
- ◆ Output current limit (OCP) and short circuit protection
- ◆ Output over-voltage protection (OVP)
- ◆ Thermal shutdown (OTP)
- ◆ Output voltage trim

9-20 VDC INPUT RANGE		
NQ20	SERIES	0-20 V
Quarter Brick	QG	40 A
Eighth Brick	ET	20 A
	EG	10 A

9-40 VDC INPUT RANGE		
NQ40	SERIES	0-40 V
Half Brick	HG	55 A
Quarter Brick	QT	35 A
	QG	30 A
Eighth Brick	EP	20 A
	ET	15 A
	EG	8 A

9-60 VDC INPUT RANGE		
NQ60	SERIES	0-60 V
Half Brick	HG	40 A
Quarter Brick	QT	25 A
	QG	20 A
Eighth Brick	EP	15 A
	ET	10 A
	EG	5 A

9-90 VDC INPUT RANGE		
NQ90	SERIES	0-90 V
Half Brick	HG	26 A
Quarter Brick	QT	18 A
Eighth Brick	EP	10 A

FAMILY	INPUT VOLTAGE	MODE	OUTPUT VOLTAGE	PACKAGE SIZE	SERIES	THERMAL DESIGN	MAXIMUM CURRENT	OPTIONS DESCRIPTION:		
								ENABLE LOGIC	PIN LENGTH	FEATURE SET
NQ	20: 9-20 V	T: Buck (1/8 & 1/4)	20: 0-20 V 40: 0-40 V 60: 0-60 V 90: 0-90 V	E: Eighth Brick Q: Quarter Brick H: Half Brick	G: Giga T: Tera P: Peta	C: Encased D: Encased, Non-threaded Baseplate V: Encased, Flanged Baseplate	05: 5 A	N: Neg.	K: 0.110" N: 0.145" R: 0.180" Y: 0.250"	S: Standard (1/8 & 1/4 only) C: Current monitor output/trimmable current limit (1/8 & 1/4 only) F: Current share/trimmable current limit (half brick only)
	08: 8 A									
	10: 10 A									
	15: 15 A									
	20: 20 A									
26: 26 A										
30: 30 A										
40: 40 A										

Part Numbering Example: NQ20W20ETC20NRS-G For valid part numbers, refer to the website or contact your local sales representative or distributor.



Power Factor Correction



Isolated Power Factor Correction

Power Factor Correction Modules

The PFCQor Power Factor Correction module is an essential building block of an AC-DC power supply. Used in conjunction with a hold-up capacitor, SynQor's high efficiency DC-DC converters and SynQor's AC line filter, the PFCQor will draw a nearly perfect sinusoidal current (PF>0.99) from a single phase AC input. Up to three PFCQor modules can be paralleled to achieve higher power. The module is supplied completely encased to provide protection from the harsh environments seen in many industrial and transportation environments.

Operational Features

- ◆ Universal input voltage range: 85-264 Vrms*
- ◆ Universal input frequency range: 45 - 63 Hz / 360 - 800 Hz
- ◆ Up to 700 W output power
- ◆ ≥ 0.99 Power Factor
- ◆ High efficiency: >96% (230 Vrms), >94% (115 Vrms)
- ◆ Internal inrush current limit
- ◆ Auxiliary 10 V bias supply
- ◆ 100°C max baseplate temperature at full power
- ◆ Up to three modules can be paralleled with current sharing (HB only)
- ◆ Compatible with SynQor IQ4H Converters and AC line filters

Protection/Control Features

- ◆ PFC Enable
- ◆ Load Enable (also: Power Out Good signal)
- ◆ AC Power Good Signal (HB only)
- ◆ Clock synchronization (HB only)
- ◆ Output current monitor / active current sharing (HB only)
- ◆ Input current limit along with auto-recovery short circuit protection
- ◆ Auto-recovery input under / over-voltage protection
- ◆ Auto-recovery output over-voltage protection
- ◆ Auto-recovery thermal shutdown

Family	Vin Range	Vout	Package Size	Perf. Level	Thermal Design	Output Power	Input Phases	Pin Style	Feature Set
PFC	U: 85-264 Vrms	390: 390 V	Q: Quarter-brick H: Half-brick	P: Peta	C: Encased D: Encased, Non-threaded Baseplate V: Encased, Flanged Baseplate	04: 350 W 07: 700 W	S: Single-Phase	R: 0.180"	S: Standard (Parallel Capability HB Only)

Part Numbering Example: PFCU390HPC07SRS-G For valid part numbers, refer to the website or contact your local sales representative or distributor.

* The label shows a narrower input voltage range to be consistent with labeling requirements of IEC60950-1, Section 1.7

Isolated Power Factor Correction Modules

The PFICQor Isolated Power Factor Correction module is a high power, high efficiency AC-DC converter. It operates from a universal AC input and generates an isolated output. Both regulated and semi-regulated (droop version) modules are available. Used in conjunction with a hold-up capacitor, and SynQor's AC line filter, the PFICQor will draw a nearly perfect sinusoidal current (PF>0.99) from a single phase AC input. The module is supplied completely encased to provide protection from the harsh environments seen in many industrial and transportation environments.

Operational Features

- ◆ Isolated output, 325 W output power
- ◆ Universal input frequency range: 47 - 63 Hz / 360 - 800 Hz
- ◆ High efficiency: >92% (230 Vrms)
- ◆ ≥ 0.99 Power Factor
- ◆ Internal inrush current limit
- ◆ Auxiliary 10 V bias supply, primary-side referenced
- ◆ Can be paralleled (droop version only)
- ◆ -40 °C to +100 °C Operating Temperature
- ◆ Compatible with SynQor AC line filters

Protection/Control Features

- ◆ PFC Enable
- ◆ AC Power Good Signal
- ◆ DC Power Good Signal
- ◆ Input current limit and auto-recovery short circuit protection
- ◆ Auto-recovery input under/over-voltage protection
- ◆ Auto-recovery over-voltage protection
- ◆ Auto-recovery thermal shutdown

Family	Vin Range	Vout	Package Size	Perf. Level	Thermal Design	Output Current	Output Logic	Pin Style	Feature Set
PFIC	U: 85-264 Vrms	12: 12 V 24: 24 V 28: 28 V 48: 48 V	H: Half-brick	T: Tera	C: Encased D: Encased, Non-threaded Baseplate V: Encased, Flanged Baseplate	07: 7 A 12: 12 A 14: 14 A 27: 27 A	N: Negative	R: 0.180"	S: Standard D: Droop

Part Numbering Example: PFICU12HTC27NRS-G For valid part numbers, refer to the website or contact your local sales representative or distributor.