



50 to 600 Watts; 1 to 3 outputs

Features

- RoHS Compliant (VE versions)
- Inputs 24, 48, and 300 Vdc
- Any output: 1 to 95 Vdc
- Meets EN55022 Class A conducted emissions (See Notes)
- cULus, cTUVus (60950-1)
- CE marked (LVD)
- 80 – 90% efficiency
- Up to 10 W/cubic inch
- Master disable
- Overvoltage shutdown

Product Highlights

ComPAC delivers up to 600 W from one, two, or three outputs in a package just 0.99" (25,2 mm) in height with the field proven performance, high efficiency and high reliability inherent in Vicor's component level power converters. ComPAC meets conducted emissions of EN55022 Class A. ComPAC is offered with input voltage ranges optimized for industrial and telecommunication applications and provides extended input overvoltage capability, undervoltage lockout, and master disable.

Packaging Options

Conduction Cooled Models Available Add "-CC" to the end of the part number.

(Consult factory for details.)

Extended heat sink available add "-H1" to end of part number.

ComPAC Configuration Chart

Substitute VE- for VI- for RoHS compliant versions			
Configuration	Output Power	# of Modules	Dimensions
Single Output			
VI-LC 	50 – 200 W	1	8.6" x 2.5" x 0.99" (218,4 x 63,5 x 25,2 mm)
VI-MC 	100 – 400 W	2	8.6" x 4.9" x 0.99" (218,4 x 124,5 x 25,2 mm)
VI-NC 	300 – 600 W	3	8.6" x 7.3" x 0.99" (218,4 x 185,4 x 25,2 mm)
Dual Output			
VI-PC 	100 – 400 W	2	8.6" x 4.9" x 0.99" (218,4 x 124,5 x 25,2 mm)
VI-QC 	150 – 600 W	3	8.6" x 7.3" x 0.99" (218,4 x 185,4 x 25,2 mm)
Triple Output			
VI-RC 	150 – 600 W	3	8.6" x 7.3" x 0.99" (218,4 x 185,4 x 25,2 mm)

• Input Voltage

Nominal	Input Range Full Power	Maximum Power ^a	Low Line 75% Max. Power	Transient ^b
1 = 24 V	21 – 32 V	(1)	18	36
W = 24 V	18 – 36 V	(1)	n/a	n/a
3 = 48 V	42 – 60 V	(2)	41	72
N = 48 V	36 – 76 V	(2)	n/a	n/a
6 = 300 V	200 – 400 V	(2)	188	425
^a Max. Output Per Module				
(1)	5 V Outputs	>5 V Outputs	<5 V Outputs	
(2)	150 W	150 W	30 A	
	200 W	200 W	40 A	

^b Transient voltage for one second

• Product Grade Temps. °C

Grade	Operating	Storage
E =	-10 to +85	-20 to +100
C =	-25 to +85	-40 to +100
I =	-40 to +85	-55 to +100
M =	-55 to +85	-65 to +100

Temperatures apply to product case.

• Output Power/Current

V _{OUT} ≥ 5 V	V _{OUT} < 5 V
W = 100 W	W = 20 A
V = 150 W	V = 30 A
U = 200 W	U = 40 A
S = 300 W	S = 60 A
Q = 400 W	Q = 80 A

• Output Voltage

Z = 2 V	2 = 15 V
Y = 3.3 V	N = 18.5 V
O = 5 V	3 = 24 V
X = 5.2 V	L = 28 V
W = 5.5 V	J = 36 V
V = 5.8 V	K = 40 V
T = 6.5 V	4 = 48 V
R = 7.5 V	H = 52 V
M = 10 V	F = 72 V
1 = 12 V	D = 85 V
P = 13.8 V	B = 95 V

• Output Power/Current

V _{OUT} ≥ 5 V	V _{OUT} < 5 V
Y = 50 W	Y = 10 A
X = 75 W	X = 15 A
W = 100 W	W = 20 A
V = 150 W	V = 30 A
U = 200 W	U = 40 A

• Output Power/Current

V _{OUT} ≥ 5 V	V _{OUT} < 5 V
S = 300 W	S = 60 A
P = 450 W	P = 90 A
M = 600 W	M = 120 A

COMPAC SPECIFICATIONS

(typical at $T_{BP} = 25^{\circ}\text{C}$, nominal line and 75% load, unless otherwise specified, V_{NOM} is factory set output voltage and I_{NOM} is maximum rated output current.)

■ INPUT SPECIFICATIONS

Parameter	E-Grade			C-, I-, M-Grade			Unit	Test Conditions
	Min	Typ	Max	Min	Typ	Max		
24 V	21	24	32	21	24	32	Vdc	See Fusing Information on Page 3
24 V Wide	18	24	36	18	24	36	Vdc	
48 V	42	48	60	42	48	60	Vdc	
48 V Wide	36	48	76	36	48	76	Vdc	
300 V	200	300	400	200	300	400	Vdc	
No load power dissipation ^a	1.35		2	1.35		2	Watts	
Master disable input current ^a (Absolute max., 20 mA)	4			4			mA	Sink or source to disable optocoupler (See Section 18 ComPAC Technical Description in VI-200/VI-J00 Applications Manual)
Quiescent Input current logic disable ^a		7	10		7	10	mA	Current drawn from source when disabled

^a For MC, PC series, multiply value by 2; for NC, QC, RC series, multiply value by 3.

■ OUTPUT SPECIFICATIONS (Applies to each output individually)

Parameter	E-Grade			C-, I-, M-Grade			Units	Test Conditions
	Min	Typ	Max	Min	Typ	Max		
Set point accuracy		1%	2%		0.5%	1%	V_{NOM}	
Load / line regulation			0.5%		0.05%	0.2%	V_{NOM}	LL to HL, 10% to full load
Load / line regulation			1%		0.2%	0.5%	V_{NOM}	LL to HL, no load to full load
Output temperature drift		0.02			0.01	0.02	$^{\circ}\text{C}$	Over rated temperature range
Long term drift		0.02			0.02		%/1 k hrs.	
Output ripple								
2 V, 3.3 V			150		60	100	mVp-p	20 MHz bandwidth
5 V			250		100	150	mVp-p	20 MHz bandwidth
10 – 48 V			3%		0.75%	1.5%	V_{NOM} p-p	20 MHz bandwidth
Output voltage trimming ^a	50%		110%	50%		110%	V_{NOM}	
Total remote sense compensation ^a	0.5			0.5			Volts	0.25 V maximum allowable drop in –Out lead
OVP set point		125%		115%	125%	135%	V_{NOM}	Recycle power to restart
Current limit	105%		135%	105%		125%	I_{NOM}	Automatic restart
Short circuit current ^b	20%		140%	20%		130%	I_{NOM}	

^a 10 V, 12 V and 15 V outputs, trim range $\pm 10\%$. Consult factory for wider trim range.

^b Output voltages of 5 V or less incorporate foldback current limiting, outputs greater than 5 V incorporate straight line current limiting.

CONFIGURABLE SPECIFICATIONS (Cont.)**■ THERMAL CHARACTERISTICS**

Parameter	E-Grade			C-, I-, M-Grade			Units	Test Conditions
	Min	Typ	Max	Min	Typ	Max		
Efficiency		78 – 88%			80 – 90%			for 5 V outputs and higher
Shut down temp. — case ^a	90	95	105	90	95	105	°C	Cool and recycle power to restart
Operating temp. — case			85			85	°C	See Thermal Curves

^a Shut down temperature threshold is above maximum operating temperature. For over temperature protection, external means of disable should be employed below maximum operating temperature.

■ ISOLATION CHARACTERISTICS

Parameter	E-Grade			C-, I-, M-Grade			Unit	Test Conditions
	Min	Typ	Max	Min	Typ	Max		
Isolation								
Input to output	4,242			4,242			Vdc	
Output to case	707			707			Vdc	
Input to case	2,121			2,121			Vdc	

■ MECHANICAL SPECIFICATIONS

Parameter	E-Grade			C-, I-, M-Grade			Units	Test Conditions
	Min	Typ	Max	Min	Typ	Max		
Weight ^a	19.2			19.2			Ounces	
	544			544			Grams	

^a For MC, PC series, multiply value by 2; for NC, QC, RC series, multiply value by 3.

■ FUSING INFORMATION

Input Voltage	24 V	48 V	300 V
LC series (200 W)	10 A	7 A	2 A
MC, PC series (400 W)	20 A	15 A	4 A
NC, QC, RC series (600 W)	35 A	25 A	6 A

CONFIGURABLE SPECIFICATIONS (Cont.)**■ AGENCY APPROVALS**

Safety Standards	Markings	Notes
ANSI / ISA 12.12.01 - 2012, C22.2 No. 213-M1987 UL / CSA / EN / IEC 60950-1	cURus cURus, cTÜVus, CE Marked	Low Voltage Directive and RoHS Recast Directive as applicable.

■ EMI/EMC Characteristics (Performed on selected samples representative of the ComPac product family.)

Parameter	Notes
Conducted Emissions EN 55022, class A	3 Module configurations may require additional filter components under certain line and load conditions to comply with EN55022 class A.
ESD IEC 61000-4-2 level 4	Top, Bottom and Sides

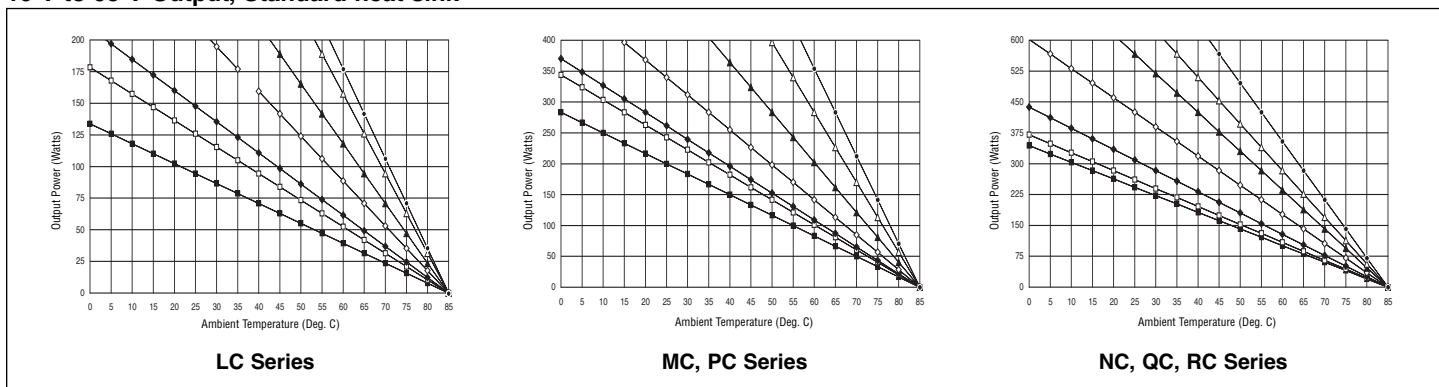
THERMAL CURVES

■ FREE AIR □ 50 LFM ◆ 100 LFM ◇ 250 LFM ▲ 500 LFM △ 750 LFM ● 1000 LFM

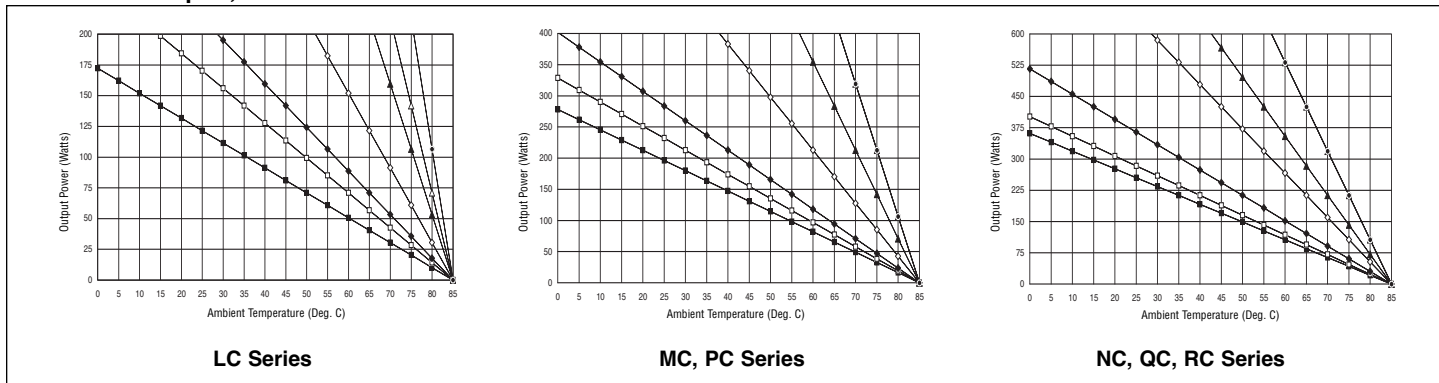
2 V to 7.5 V Output, Standard heat sink



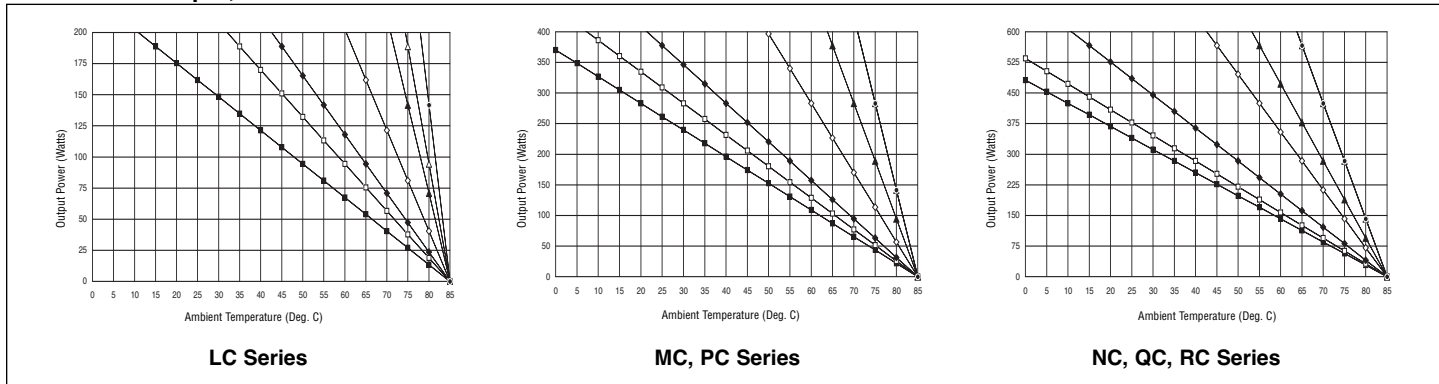
10 V to 95 V Output, Standard heat sink



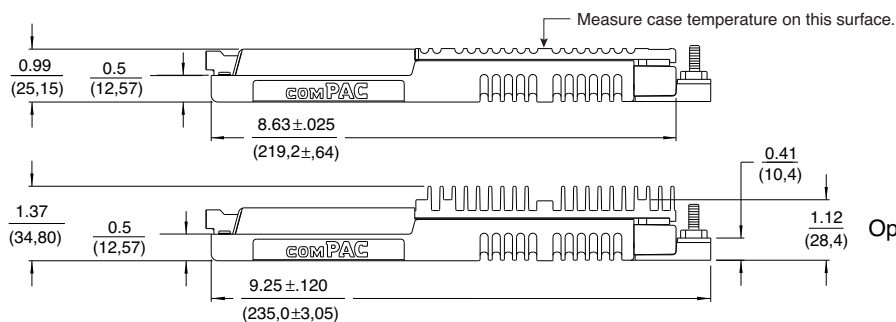
2 V to 7.5 V Output , H1 heat sink



10 V to 95 V Output, H1 heat sink



INPUTS	
1	Ground
2	-Input
3	+Input
4	Disable-
5	Disable+
OUTPUTS	
A	+Output
B	+Sense
C	Trim
D	-Sense
E	-Output



Optional heat sink (H1)

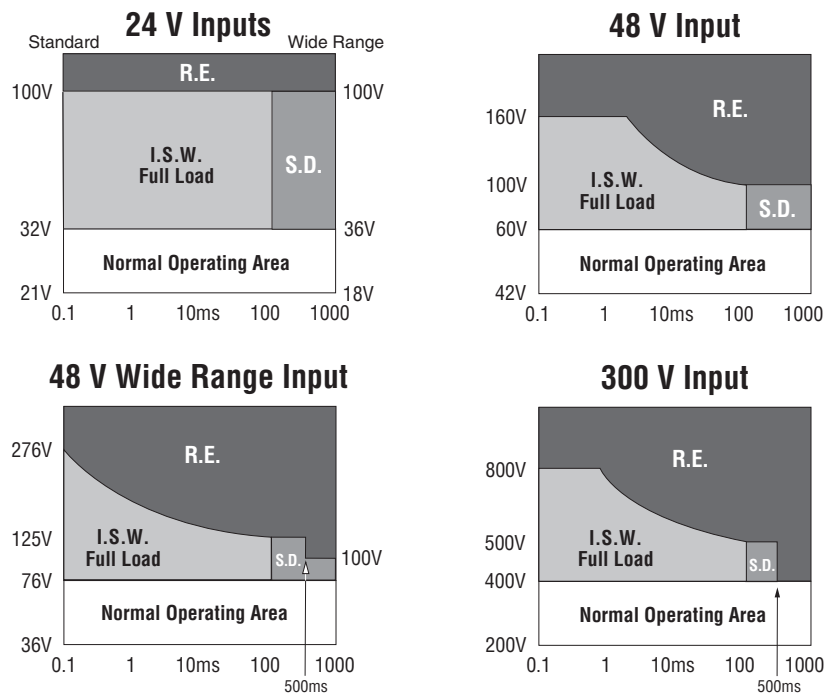
The drawing shows the 1000 Series 10-Pin D-Sub Connector with the following dimensions:

- Pin 1 to Pin 5:** 0.91 (23,1) inches (23,1 mm)
- Pin 5 to Pin 10:** 2.54 (64,5) inches (64,5 mm)
- Pin 10 to Pin 15:** 0.20 (5,1) inches (5,1 mm)
- Pin 15 to Pin 20:** 0.20 (5,1) inches (5,1 mm)
- Pin 20 to Pin 25:** 0.18 (4,6) inches (4,6 mm)
- Pin 25 to Pin 30:** 0.19 (4,8) inches (4,8 mm)
- Pin 30 to Pin 35:** 2.156 (54,76) inches (54,76 mm)
- Pin 35 to Pin 40:** 6.00 (152,4) inches (152,4 mm)
- Pin 40 to Pin 45:** 2.76 (70,1) inches (70,1 mm)
- Pin 45 to Pin 50:** 0.25 (6,4) inches (6,4 mm)
- Pin 50 to Pin 55:** 0.25 (6,4) inches (6,4 mm)
- Pin 55 to Pin 60:** 0.25 (6,4) inches (6,4 mm)
- Pin 60 to Pin 65:** 0.25 (6,4) inches (6,4 mm)
- Pin 65 to Pin 70:** 0.25 (6,4) inches (6,4 mm)
- Pin 70 to Pin 75:** 0.25 (6,4) inches (6,4 mm)
- Pin 75 to Pin 80:** 0.25 (6,4) inches (6,4 mm)
- Pin 80 to Pin 85:** 0.25 (6,4) inches (6,4 mm)
- Pin 85 to Pin 90:** 0.25 (6,4) inches (6,4 mm)
- Pin 90 to Pin 95:** 0.25 (6,4) inches (6,4 mm)
- Pin 95 to Pin 100:** 0.25 (6,4) inches (6,4 mm)
- Pin 100 to Pin 105:** 0.25 (6,4) inches (6,4 mm)
- Pin 105 to Pin 110:** 0.25 (6,4) inches (6,4 mm)
- Pin 110 to Pin 115:** 0.25 (6,4) inches (6,4 mm)
- Pin 115 to Pin 120:** 0.25 (6,4) inches (6,4 mm)
- Pin 120 to Pin 125:** 0.25 (6,4) inches (6,4 mm)
- Pin 125 to Pin 130:** 0.25 (6,4) inches (6,4 mm)
- Pin 130 to Pin 135:** 0.25 (6,4) inches (6,4 mm)
- Pin 135 to Pin 140:** 0.25 (6,4) inches (6,4 mm)
- Pin 140 to Pin 145:** 0.25 (6,4) inches (6,4 mm)
- Pin 145 to Pin 150:** 0.25 (6,4) inches (6,4 mm)
- Pin 150 to Pin 155:** 0.25 (6,4) inches (6,4 mm)
- Pin 155 to Pin 160:** 0.25 (6,4) inches (6,4 mm)
- Pin 160 to Pin 165:** 0.25 (6,4) inches (6,4 mm)
- Pin 165 to Pin 170:** 0.25 (6,4) inches (6,4 mm)
- Pin 170 to Pin 175:** 0.25 (6,4) inches (6,4 mm)
- Pin 175 to Pin 180:** 0.25 (6,4) inches (6,4 mm)
- Pin 180 to Pin 185:** 0.25 (6,4) inches (6,4 mm)
- Pin 185 to Pin 190:** 0.25 (6,4) inches (6,4 mm)
- Pin 190 to Pin 195:** 0.25 (6,4) inches (6,4 mm)
- Pin 195 to Pin 200:** 0.25 (6,4) inches (6,4 mm)
- Pin 200 to Pin 205:** 0.25 (6,4) inches (6,4 mm)
- Pin 205 to Pin 210:** 0.25 (6,4) inches (6,4 mm)
- Pin 210 to Pin 215:** 0.25 (6,4) inches (6,4 mm)
- Pin 215 to Pin 220:** 0.25 (6,4) inches (6,4 mm)
- Pin 220 to Pin 225:** 0.25 (6,4) inches (6,4 mm)
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- Pin 230 to Pin 235:** 0.25 (6,4) inches (6,4 mm)
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- Pin 240 to Pin 245:** 0.25 (6,4) inches (6,4 mm)
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- Pin 310 to Pin 315:** 0.25 (6,4) inches (6,4 mm)
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- Pin 390 to Pin 395:** 0.25 (6,4) inches (6,4 mm)
- Pin 395 to Pin 400:** 0.25 (6,4) inches (6,4 mm)
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- Pin 410 to Pin 415:** 0.25 (6,4) inches (6,4 mm)
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- Pin 420 to Pin 425:** 0.25 (6,4) inches (6,4 mm)
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- Pin 495 to Pin 500:** 0.25 (6,4) inches (6,4 mm)
- Pin 500 to Pin 505:** 0.25 (6,4) inches (6,4 mm)
- Pin 505 to Pin 510:** 0.25 (6,4) inches (6,4 mm)
- Pin 510 to Pin 515:** 0.25 (6,4) inches (6,4 mm)
- Pin 515 to Pin 520:** 0.25 (6,4) inches (6,4 mm)
- Pin 520 to Pin 525:** 0.25 (6,4) inches (6,4 mm)
- Pin 525 to Pin 530:** 0.25 (6,4) inches (6,4 mm)
- Pin 530 to Pin 535:** 0.25 (6

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LONG TERM SAFE OPERATING AREA CURVES

(1% duty cycle max., $Z_s = .5$, for short duration transient capability refer to specifications)



I.S.W.: Input surge withstand, no degradation of performance. **R.E.:** Ratings Exceeded **S.D.:** Shutdown

Vicor's comprehensive line of power solutions includes high density AC-DC and DC-DC modules and accessory components, fully configurable AC-DC and DC-DC power supplies, and complete custom power systems.

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Vicor Corporation

25 Frontage Road
Andover, MA, USA 01810
Tel: 800-735-6200
Fax: 978-475-6715

email

Customer Service: custserv@vicorpower.com

Technical Support: apps@vicorpower.com

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<http://moschip.ru/get-element>

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Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

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Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9