

COMPANY PROFILE

A NASDAQ company (BELFA & BELFB), Bel was founded in 1949 and is headquartered in Jersey City, New Jersey, USA. The Company manufactures and sells electronic products including DC/DC converters, transformers, connectors and connector modules, integrated line interface modules, fuses and delay lines for applications in LAN and broadband networking, telecommunications, automotive and consumer markets. Bel employs more than 9,000 people around the world and has facilities in USA, Mexico, England, Germany, China Mainland, Hong Kong and Macao. Bel is ISO9000 Certified.

Bel has two major power design centers near Boston, USA and in Hangzhou, China. The team is composed of industry veterans who have held senior positions in many of today's largest power supply companies.



The Bel Power portfolio of products includes one of the broadest ranges of non-isolated converters on the market today. These products operate from 2.5V, 3.3V, 5V or 12V rails and provide output voltages from less than 1V to 5V. A wide variety of packages are available providing output currents ranging from 1A to 150A. A family of bus converter products are available that convert a 48V bus to a 12V rail for intermediate bus architecture applications and a variety of other isolated converters operating from 24 and 48V busses are also available. Bel Power products feature high efficiency (up to 96%), high reliability, miniature size, light weight and low cost.

x7AH "Arrowhead" Series

The x7AH "Arrowhead" series are compact, non-isolated converters, available in either vertical mount or surface mount packages. These products provide up to 12A of output current from a 5V source or up to 8A of output current from a 12V source. Standard features include remote on/off, output voltage adjust, over current protection, short circuit protection and undervoltage lockout.



Arrowhead Series
 1.0A - 12A Output
 0.78 x 0.7 x 0.32 (in)
 19.8 x 17.8 x 8.1 (mm)

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number Surface Mount	Model Number Vertical Mount
3.0 ~ 5.5V	1.0, 1.2, 1.5, 1.8, 2.5, 3.3V	12A	40W	S7AH-12FXX0	V7AH-12FXX0
3.0 ~ 5.5V	0.8 ~ 3.3V	12A	40W	S7AH-12F1A0	V7AH-12F1A0
2.5V	1.0, 1.2, 1.5V	10A	15W	S7AH-10JXX0	V7AH-10JXX0
4.5 ~ 14V	0.8 ~ 5.0V	8A	40W	S7AH-08E1A0	V7AH-08E1A0
5V	0.9 ~ 3.3V	8A	26W	S7AH-08B1A0	V7AH-08B1A0
10 ~ 14V	0.9 ~ 3.3V	7A	23W	S7AH-07A1A0	V7AH-07A1A0
3.3V	0.9 ~ 2.5V	7A	17.5W	S7AH-07C1A0	V7AH-07C1A0
4.5 ~ 13.2V	1.0, 1.2, 1.5, 1.8, 2.5, 3.3, 5.0V	6A	30W	S7AH-06EXX0	V7AH-06EXX0
12V	5.0V	5A	25W	S7AH-05A500	V7AH-05A500
12V	0.9 ~ 3.3V	5A	18W	S7AH-05A1A0	V7AH-05A1A0
5V	1.0, 1.2, 1.5, 1.8, 2.5, 3.3V	5A	16.5W	S7AH-05BXX0	V7AH-05BXX0
5V	Vref2	5A	6.3W	S7AH-05BT50	V7AH-05BT50
3.3V	1.2, 1.5, 1.8, 2.5V	5A	12.5W	S7AH-05CXX0	V7AH-05CXX0
4.5 ~ 32V	1.2, 1.5, 1.8, 2.5, 3.3, 5.0V	3A	15W	S7AH-03HXX0	V7AH-03HXX0
5.0 ~ 24V	0.9 ~ 3.3V	3A	10W	S7AH-03L1A0	V7AH-03L1A0
4.5 ~ 13.2V	0.9, 1.2, 1.5, 1.8, 2.5, 3.3, 5.0V	3A	15W	S7AH-03EXX0	V7AH-03EXX0
3.0 ~ 5.5V	0.9 ~ 3.3V	3A	10W	S7AH-03F1A0	V7AH-03F1A0
12V	1.2, 1.5, 1.8, 2.5, 3.3, 5.0V	3A	15W	S7AH-03AXX0	V7AH-03AXX0
3.3V	0.9 ~ 2.5V	3A	7.5W	S7AH-03C1A0	V7AH-03C1A0
12V	5.0V	2A	10W	S7AH-02A500	V7AH-02A500
12V	0.9 ~ 3.3V	2A	7W	S7AH-02A1A0	V7AH-02A1A0
4.5 ~ 32V	1.2 ~ 3.3V	1A	3.3W	S7AH-01H1A0	V7AH-01H1A0
9.0 ~ 18V	5.0, 9.0, 12V	1A	12W	S7AH-01KXX0	V7AH-01KXX0

x7AH "Arrowhead" Boost Converters



Arrowhead Boost
0.5A - 3A Output
0.78 x 0.7 x 0.32 (in)
19.8 x 17.8 x 8.1 (mm)

The x7AH "Arrowhead" boost converters are compact, non-isolated converters, available in either vertical mount or surface mount packages. These products provide up to 3A of output current from a 3.3V source. Standard features include remote on/off, output voltage adjust and burst mode operation at light load.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number Surface Mount	Model Number Vertical Mount
3.3V	5.0V	3A	15W	S7AH-03C500	V7AH-03C500
3.3V	5.0V	1.5A	7.5W	S7AH-02C500	V7AH-02C500
3.0 ~ 5.5V	-5V, -12V	1A	6W	S7AH-01FXXN	V7AH-01FXXN
3.3V	12, 15V	0.8A	10W	S7AH-01CXX0	V7AH-01CXX0
3.0 ~ 5.5V	12, 15V	0.8A	10W	S7AH-01FXX0	V7AH-01FXX0

V7PB "SIP" Series



V7PB-06F Series
6A Output
2.0 x 0.55 x 0.36 (in)
50.8 x 14.0 x 9.1 (mm)

The V7PB-06F series are part of Bel's low cost non-isolated converters. These products use a SIP package for ease of layout and space savings. The output is closely regulated and the efficiency is typically 94% at 3.3V output at full load. Standard features include remote on/off, programmable output voltage, over current protection, short circuit protection, over-temperature protection, undervoltage lockout and Power Good function.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number Active High	Model Number Active Low
2.5 ~ 5.5V	0.75 ~ 3.3V	6A	20W	V7PB-06F1A0	V7PB-06F1AL

Change the first letter of the model number from "V" to "0" for horizontal mount package.



V7PB-10x Series
10A Output
2.0 x 0.55 x 0.39 (in)
50.8 x 14.0 x 9.8 (mm)

The V7PB-10x series are 10A modules in the standard SIP package. These converters are available in a range of output voltages from 0.9V to 5.0V. The standard features include remote on/off, output voltage adjust, over current protection and undervoltage lockout.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number Active High	Model Number Active Low
12V	1.0, 1.2, 1.5, 1.8, 2.5, 3.3, 5.0V	10A	50W	V7PB-10AXX0	V7PB-10AXXL
5V	0.9, 1.2, 1.5, 1.8, 2.5, 3.3V	10A	33W	V7PB-10BXX0	V7PB-10BXXL
3.3V	0.9, 1.2, 1.5, 1.8, 2.5V	10A	25W	V7PB-10CXX0	V7PB-10CXXL
3.0 ~ 13.2V	1.0, 1.2, 1.5, 1.8, 2.5, 3.3, 5.0V	10A	50W	V7PB-10DXX0	V7PB-10DXXL



V7PB-15x Series
15A Output
2.0 x 0.55 x 0.39 (in)
50.8 x 14.0 x 9.8 (mm)

The V7PB-15x series are 15A modules in the standard SIP package. These converters are available in a range of output voltages from 0.9V to 3.63V. The standard features include remote on/off, output voltage adjust, over current protection and undervoltage lockout.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number Active High	Model Number Active Low
3.3V	0.9, 1.2, 1.5, 1.8, 2.5V	15A	38W	V7PB-15CXX0	V7PB-15CXXL
4.5 ~ 13.2V	5.0V	15A	75W	V7PB-15E500	V7PB-15E50L
4.5 ~ 13.2V	0.9 ~ 3.3V	15A	50W	V7PB-15E1A0	V7PB-15E1AL

V7PF "SIP" Series



V7PF Series
15/20A Output
1.2 x 1.0 x 0.46 (in)
30.5 x 25.4 x 11.6 (mm)

The V7PF Series are 15A or 20A modules using a SIP package. The standard features include remote on/off, wide output voltage trim (0.9V-5V, 20A max.) over current protection, undervoltage lockout, power good output signal and source/sink capability for termination applications.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number
12V	0.9 ~ 5.0V	20A	100W	V7PF-20A1A0
12V	0.9 ~ 5.0V	15A	75W	V7PF-15A1AC
5V	0.9 ~ 3.3V	15A	49.5W	V7PF-15B1AC

The outline dimensions for V7PF-20A1A0 is 1.2x1.1x0.46(in) or 30.5x27.9x11.6(mm).

V7PG "SIP" Series



V7PG SIP Series
30/40A Output
2.4 x 1.25 x 0.5 (in)
61.0 x 31.8 x 12.3 (mm)

The V7PG/07PG Series are two-phase, non-isolated step down DC/DC converters that operate from a nominal 12V source. These converters have output voltages that can be set from 0.9V to 5.0V with an external resistor. Standard features include remote on/off, over current protection, thermal protection, output voltage adjust and remote sense. These products may be used almost anywhere low-voltage silicon is being employed and a 12V source is available.

Input Voltage	Output Voltage	Max. Output Current	Model Number Vertical Mount	Model Number Horizontal Mount
12V	0.9 ~ 5.0V	40A	V7PG-40A1AE	07PG-40A1AE
12V	0.9 ~ 5.0V	30A	V7PG-30A1AE	07PG-30A1AE

Specialty SIPs



V7PC-04C Series
5V Boost at 4 A
2.5 x 0.55 x 0.35 (in)
63.5 x 14.0 x 8.9 (mm)

The V7PC-04C500 module is a boost converter in the standard SIP package. It provides 20W of 5V power. The standard features include over current protection, undervoltage lockout and remote on/off.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number
3.3V	5.0V	4A	20W	V7PC-04C500



V7PC-10AT Series
Tracking SIP
2.5 x 0.55 x 0.37 (in)
63.5 x 14.0 x 9.4 (mm)

The V7PC-10AT55 is a tracking buck converter in the standard SIP package. It provides up to 20W of output power and is designed specifically to power DDR memory where a tracking voltage is required. The output tracks to 50% of the voltage applied to the Vref pin.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number
12V	Vref / 2	10A	25W	V7PC-10AT55

S7DB "Diamondback" Series

The S7DB "Diamondback" series are compact, non-isolated converters in surface mount package. These products provide up to 30A of output current and excellent thermal performance. Standard features include remote On/Off, remote sense, output voltage adjust, over current protection, short circuit protection and undervoltage lockout.



Diamondback Series
4A - 20A Output
1.22 x 0.83 x 0.35 (in)
31.0 x 21.0 x 8.8 (mm)

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number
4.5 ~ 5.5V	1.0 ~ 2.5V	30A	75W	S7DB-30BI AH
4.7 ~ 13.2V	1.0, 1.2, 1.5, 1.8, 2.5, 3.3, 5.0V	20A	100W	S7DB-20EXXH
5V	1.2, 1.5, 1.8, 2.5, 3.3V	12A	40W	S7DB-12BX00
5V	0.9 ~ 3.3V	12A	40W	S7DB-12BI AH
3.3V	1.2, 1.5, 1.8, 2.5V	12A	30W	S7DB-12CX00
3.3V	0.9 ~ 2.5V	12A	30W	S7DB-12C1AH
4.5 ~ 13.2V	1.0, 1.2, 1.5, 1.8, 2.5, 3.3, 5.0V	10A	50W	S7DB-10EXXH
5V	1.2, 1.5, 1.8, 2.5, 3.3V	8A	26W	S7DB-08BX00
3.3V	1.2, 1.5, 1.8, 2.5V	8A	20W	S7DB-08CX00
12V	1.2, 1.5, 1.8, 2.5, 3.3, 5.0V	7A	35W	S7DB-07AXX0
3.3V	5.0V	4A	20W	S7DB-04C500
9.0 ~ 32V	12V	3.5A	42W	S7DB-04HX20

"Bobcat" Series



Bobcat Series
3A - 6A Output
0.8 x 0.45 x 0.25 (in)
20.3 x 11.4 x 6.4 (mm)

The x7BA Bobcat series are non-isolated converters that deliver up to 6A of output current with full load efficiency of 92% at 5.0V output. These converters are available in either vertical mount or surface mount packages and are fully compatible with industry standards. Standard features include remote On/Off, programmable output voltage, over-temperature protection, over current protection, short circuit protection, undervoltage lockout and sequencing function.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number Surface Mount	Model Number Vertical Mount
8.3 ~ 14V	0.75 ~ 5.0V	6A	30W	S7BA-06A2AL	
10 ~ 14V	0.75 ~ 6.0V	6A	36W		V7BA-06A1AL
4.5 ~ 14V	0.75 ~ 5.0V	6A	30W	S7BA-06E2AL	V7BA-06E2AL
2.4 ~ 5.5V	0.75 ~ 3.3V	6A	20W	S7BA-06F2AL	V7BA-06F2AL
4.5 ~ 14V	0.75 ~ 5.0V	3A	15W	S7BA-03E1AL	V7BA-03E1AL
8.3 ~ 14V	0.75 ~ 5.0V	3A	15W	S7BA-03A1AL	V7BA-03A1AL

Change the last character of the part from "L" to "0" to indicate active high. The outline dimensions indicated on the left are for surface mount modules and that for vertical mount modules are: 1 x 0.5 x 0.25 (in), or 25.4 x 12.7 x 6.4 (mm), except for V7BA-03A1AL which should be: 0.9 x 0.4 x 0.25 (in), or 22.9 x 10.2 x 6.4 (mm).



Bobcat Series
10A - 16A Output
1.3 x 0.53 x 0.32 (in)
33.0 x 13.5 x 8.1 (mm)

The x7BC Bobcat series are non-isolated converters that deliver up to 16A of output current with full load efficiency of 94% at 3.3V output. These converters are available in either vertical mount or surface mount packages and are fully compatible with industry standards. Standard features include remote On/Off, programmable output voltage, over-temperature protection, over current protection, short circuit protection, undervoltage lockout and sequencing function.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number Surface Mount	Model Number Vertical Mount
8.3 ~ 14V	0.75 ~ 5.0V	16A	80W	S7BC-16A2AL	
4.5 ~ 14V	0.75 ~ 3.3V	16A	53W	S7BC-16E2AL	V7BC-16E2AL
2.4 ~ 5.5V	0.75 ~ 3.3V	16A	53W	S7BC-16F2AL	V7BC-16F2AL
8.3 ~ 14V	0.75 ~ 5.0V	10A	50W	S7BC-10A2AL	
10 ~ 14V	1.2, 1.5, 1.8, 2.5, 3.3, 5.0V	10A	50W	S7BC-10AXXL	
4.5 ~ 14V	0.75 ~ 3.3V	10A	33W	S7BC-10E2AL	V7BC-10E2AL
2.4 ~ 5.5V	0.75 ~ 3.3V	10A	33W	S7BC-10F2AL	V7BC-10F2AL

Change the last character of the part from "L" to "0" to indicate active high. The outline dimensions indicated on the left are for surface mount modules and that for vertical mount modules are: 2 x 0.5 x 0.36 (in), or 50.8 x 12.7 x 9.1 (mm).

“Keystone” Series

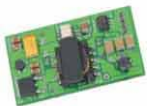


Keystone Series
25A Output
1.7 x 1.1 x 0.49 (in)
43.2 x 27.9 x 12.5 (mm)

The Keystone Series are overmolded surface mount non-isolated modules operating from 3V to 15V input voltage, with 6-bit Digital output programming 50mV / 100mV increments. Standard features include analog trim, current share, remote on/off, power good signal and Microprocessor controlled features.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number Active High	Model Number Active Low
3.0 ~ 15V	0.7 ~ 5.3V	25A	100W	S7KS-25D1P0	S7KS-25D1PL

1" x 2" Isolated Series



1" x 2" Isolated Series
0.5A - 2A Output
2.0 x 1.0 x 0.47 (in)
50.8 x 25.4 x 11.9 (mm)

The 07LC-10T series are isolated DC/DC converters that operate from 36 ~ 72V source. These units provide up to 12W of output power and are designed to be very cost effective. Standard features include remote on/off, and over current protection. Output pins are compatible with industrial standard.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number
36 ~ 72V	3.3V	2A	6.6W	07LC-10T033
36 ~ 72V	5V	2A	10W	07LC-10T050
36 ~ 72V	12V	1A	12W	07LC-10T120
36 ~ 72V	24V	0.5A	12W	07LC-10T240



1" x 2" Isolated Series
2.5A - 7A Output
2.0 x 1.0 x 0.44 (in)
50.8 x 25.4 x 11.2 (mm)

The 07LC-25T series are isolated DC/DC converters that operate from 36 ~ 75V source. These units provide up to 30W of output power and are designed to be very cost-effective. Standard features include remote on/off, over current protection and undervoltage lockout. Output pins are compatible with industrial standard.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number
36 ~ 75V	3.3V	7A	23W	07LC-25T033
36 ~ 75V	5.0V	5A	25W	07LC-25T050
36 ~ 75V	12V	2.5A	30W	07LC-25T120

1/16 Brick Isolated Converter Series



1/16 Brick Converter
Max. 25A Output
1.3 x 0.9 x 0.38 (in)
33.0 x 22.9 x 9.6 (mm)

The S7SB-50T series are isolated DC/DC converters that operate from a nominal 48V source. These units provide up to 50W of output power from a nominal 48V input and are designed to be highly efficient and low cost. Features include remote on/off, over current protection and undervoltage lockout. Footprint is compatible with DOSA standard.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number
36 ~ 75V	1.0, 1.2, 1.5, 1.8, 2.5, 3.3, 5.0, 12V	25A	50W	S7SB-50TXXX

1/8 Brick Isolated Converter Series



07CY - 60T Series
5A - 15A Output
2.3 x 0.9 x 0.41 (in)
58.4 x 22.9 x 10.4 (mm)

The 07CY-60T series are isolated DC/DC converters that operate from a nominal 48V source. These units provide up to 60W of output power from a nominal 48V input and are designed to be highly efficient and low cost. Features include remote on/off, over current protection and undervoltage lockout. Output pins are compatible with industrial standard.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number
36 ~ 75V	3.3V	15A	50W	07CY-60T033
36 ~ 75V	5.0V	11A	55W	07CY-60T050
36 ~ 75V	12V	5A	60W	07CY-60T120



07CY - 85T Series
8.33A - 25A Output
2.3 x 0.9 x 0.4 (in)
58.4 x 22.9 x 10.2 (mm)

The 07CY-85T series are isolated DC/DC converters that are provided in a compact, 1/8 brick industry standard package. These products provide up to 100W of output power from a nominal 48V input and are designed to be highly efficient and low cost. Standard features include remote On/Off, over current protection, short circuit protection, over-temperature protection and undervoltage lockout.

Input Voltage	Output Voltage	Max. Output Current	Max. Output Power	Model Number Active High	Model Number Active Low
36 ~ 75V	3.3V	25A	85W	07CY-85T033	07CY-85T03L
36 ~ 75V	5.0V	20A	100W	07CY-85T050	07CY-85T05L
36 ~ 75V	12.0V	8.33A	100W	07CY-85T120	07CY-85T12L

Bus Converter Series

1/16 Brick Bus Converter
8.5A - 10A Output
 1.3 x 0.9 x 0.38 (in)
 33.0 x 22.9 x 9.6 (mm)

Bel's family of Bus Converters are designed for Intermediate Bus Architecture applications. In these applications the Bus Converter isolates and steps down a primary distribution bus (usually 48V) to a lower voltage bus (typically 6 - 12V). This intermediate bus is used to power downstream non-isolated point-of-load converters that generate the voltages required by the various semiconductor devices in the system. These converters are designed to be low cost, high density and provide typical full load efficiency of around 96%.

Sixteenth Brick Bus Converters

Input Voltage	Nominal Output Voltage	Max. Output Current	Max. Output Power	Turns Ratio	Model Number
38 ~ 55V	8V	10A	80W	6:1	S7CA-10S08L
36 ~ 75V	8V	10A	80W	6:1	S7CA-10T08L
38 ~ 55V	12V	8.5A	100W	4:1	S7CA-08S12L


1/8 Brick Bus Converter
12A - 20A Output
 2.28 x 0.9 x 0.32 (in)
 57.9 x 22.9 x 8.1 (mm)

Eighth Brick Bus Converters

Input Voltage	Nominal Output Voltage	Max. Output Current	Max. Output Power	Turns Ratio	Model Number
36 ~ 55V	10V	20A	190W	5:1	07CR-20S10L
36 ~ 60V	8V	18A	144W	6:1	07CR-18S08L
36 ~ 75V	8V	15A	120W	6:1	07CR-15T08L
36 ~ 60V	12V	12A	144W	4:1	07CR-12S12L


1/4 Brick Bus Converter
20A - 36A Output
 2.3 x 1.45 x 0.48 (in)
 58.4 x 36.8 x 12.2 (mm)

Quarter Brick Bus Converters

Input Voltage	Nominal Output Voltage	Max. Output Current	Max. Output Power	Turns Ratio	Model Number
36 ~ 55V	10V	36A	300W	5:1	07CM-36S10L
36 ~ 55V	12V	27A	300W	4:1	07CM-27S12L
36 ~ 55V	12V	20A	240W	4:1	07CM-20S12L


1/2 Brick Bus Converter
70A Output
 2.4 x 2.28 x 0.45 (in)
 60.9 x 57.9 x 11.4 (mm)

Half Brick Bus Converters

Input Voltage	Nominal Output Voltage	Max. Output Current	Max. Output Power	Turns Ratio	Model Number
36 ~ 55V	10V	70A	500W	5:1	07CN-70S10L

Low Power Isolated Series

Low Power Isolated Series
25mA - 28mA Output
 0.90 x 0.40 x 0.34 (in)
 22.9 x 10.2 x 8.6 (mm)

The V7XZ-01RD series are part of the low cost isolated DC to DC Power Module series. The modules use a SIP package for ease of layout and space savings. Other modules with different input voltage (such as 12V) are available upon request.

Input Voltage	Nominal Output Voltage	Max. Output Current	Max. Output Power	Model Number
24V	22.5V (dual)	28mA	1.3W	V7XZ-01RD10
24V	27V (dual)	25mA	1.3W	V7XZ-01RD20

G7Nx "VRM" Series

G7NA-30D180

Bel provides a wide variety of both custom and standard voltage regulator modules (VRMs) to power the latest microprocessors. These converters range in power from 30A up to 150A. Our latest VRM 10.2 compatible product is also capable of power AMD Opteron type processors as well. These products are designed to meet the stringent dynamic response and high current requirements posed by today's microprocessor applications.


G7NC-C5A250

Input Voltage	Output Voltage	Max. Output Current	VRM Spec.	Model Number
12V	0.8 ~ 2.5V	150A	VRM10.2	G7NC-C5A250
12V	0.83 ~ 1.6V	120A	VRM10.1	G7NC-C2A160
12V	1.1 ~ 1.85V	80A	VRM9.1	G7NB-81A180
3.0 ~ 15V	1.05 ~ 3.65V	30A	VRM8.5	G7NA-30D180

More to come...

Bel Power Products is continually developing new isolated and non-isolated DC/DC converters in a wide variety of packages for a broad array of applications. Please give us a call or send us e-mail if you do not see a product that would meet your needs. E-mail inquiries may be addressed to techhelp@belfuse.com