

Solutions for UPS bypasses



인피니언 전력반도체 솔루션
가상부스에 오신 걸 환영합니다!



Infineon Technologies Bipolar



Infineon Technologies Bipolar

Eco Line

straight, efficient, functional

Modules
Eco Block



Solder Bond



Pressure Contact

Power Line

reliable, powerful, valuable

Modules
Power Block



Diodes
Power Chip



Soft Starters
Power Start



Discs
Power Disc



Prime Line

unique, optimized, leading

Modules
Prime Block



Solder Bond



Pressure Contact

Diodes
Prime Soft



Discs
Prime Disc



Press Pack IGBT
Prime Switch



System Line

specific, complete, versatile

Stacks/Assemblies
Power Stack



Fittings
Power Fit



Solutions for UPS bypasses

Motivation

- › We offer a very broad thyristor module and disc portfolio for UPS bypasses, extending from 100 kVA up to 3 MVA
- › Options depend on customer focus
 - Cost: Eco line / Power line
 - Performance: Highest power density with Prime line
- › Following the trend, we are introducing new modules in 1800 V

100 kVA – 800 kVA

- › Infineon Eco Block
- › Infineon Prime Block
- › Solder contact modules: 20-50 mm



> 800 kVA

- › Infineon Power Block
- › Infineon Prime Block
- › Pressure contact modules: 50-70 mm



- › Infineon Power Disc
- › Infineon Prime Disc
- › Ceramic discs 75-111 mm



- › Infineon Power Stack
- › Ceramic discs W1C and W3C



Solutions for UPS bypasses

Modules in solder contact

Eco Block – SC

Prime Block – SC



Package	20 mm	34 mm	50 mm
Blocking voltage	1600 V	1600 V	1600 V
Sales name	TT60N16SOF TT60N16SOFB01	TT160N16SOF TT190N16SOF	TT280N16SOF TT320N16SOF (+TIM)
	TT120N16SOF TT120N16SOFB01	TT240N16SOF	TT390N16SOF
		1800 V	1800 V
		TT190N18SOF TT240N18SOF	TT280N18SOF TT320N18SOF
			TT390N18SOF

Solutions for UPS bypasses

Modules in pressure contact

Eco Block – SC

Prime Block – SC

Power Block – PC



Package

50 mm

60 mm

70 mm - Single

Blocking voltage

1600 V

1600 V

1600 V

Sales name

TT250N16KOF

TT251N16KOF

TT270N16KOF

TT285N16KOF

TT330N16AOF

TT330N16KOF

1800 V

TT210N18KOF

TT215N18KOF

TT250N18KOF

TT251N18KOF

TT330N18AOF

New

eTT580N16P60

eTT630N16P60

TT570N16KOF

TT600N16KOF

TT820N16KOF

1800 V

eTT580N18P60

eTT630N18P60

New

TT570N18KOF

TT600N18KOF

New

TT800N18KOF

New

eTZ1100N16P70

TZ800N16KOF

TZ860N16KOF

1800 V

TZ800N18KOF

Solutions for UPS bypasses

Power Disc / Prime Disc in 75 mm



T1190N16TOF

T1190N18TOF

For higher power requirements, the double-side cooled disc devices in standard housings with 75 mm diameter offer best-in-class current rating (Prime line)

T1400N16H75

T1400N18H75

New

- › Sampling from 10/2020, SOP 01/2021
- › Under evaluation – SOP 2021

T1500N16TOF

T1500N18TOF

T1700N16H75

T1700N18H75

New

- › Sampling from 10/2020, SOP 01/2021
- › Under evaluation – SOP 2021

T1900N16TOF

T1900N18TOF

New

- › Sampling from 04/2020
- › SOP 10/2020

Solutions for UPS bypasses

Prime Discs in 100/111 mm



For higher power requirements, the double-side cooled disc devices in standard housings with 100/111 mm diameter offer best-in-class current rating (Prime line)

T2180N16TOF

T2180N18TOF

T2600N16TOF

T2600N18TOF

New

- › Sampling from 04/2020
- › SOP 10/2020

T3160N16TOF

T3160N18TOF

T3800N16TOF

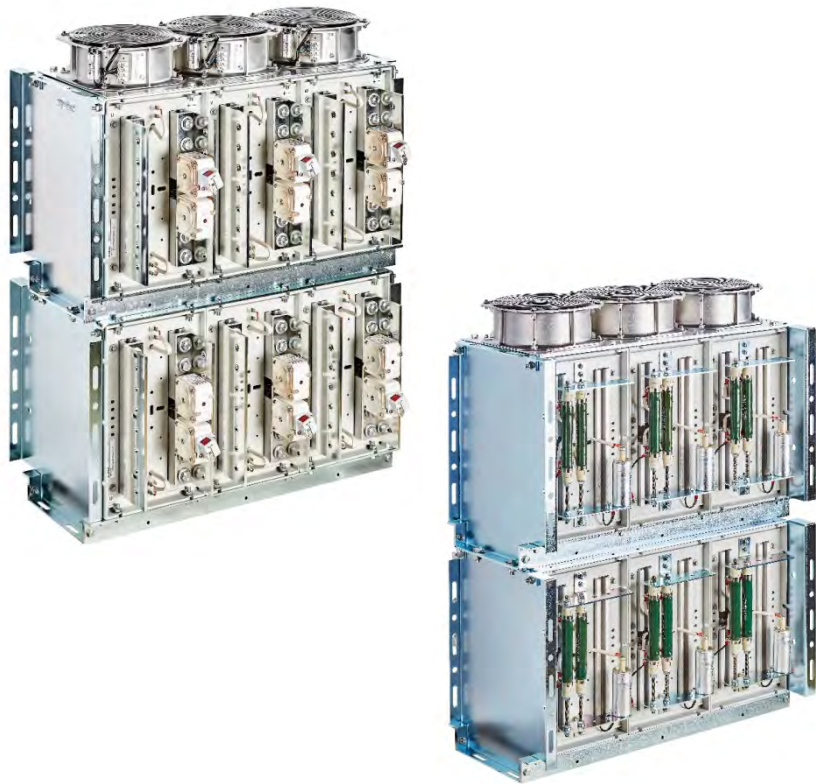
T3800N18TOF

New

- › Sampling from 04/2020
- › SOP 10/2020

Solutions for UPS bypasses

UPS stacks



For customers looking to benefit from our vast experience in mounting the disc devices on a heatsink, our stack department offers these pre-assembled cooling blocks or fully integrated standard solutions with fans, fuses and snubber circuits.

Each standard stack solution can also be customized for better integration into the customer's design. Such customized bypass solutions – frequently used in data centers – can easily go up to 6 MVA by paralleling the disc devices and using water cooling.

Solutions for UPS bypasses

UPS stacks – 1-phase (W1C)

Line voltage	400 V		480 V	
Power range [kVA]	Cooling block	Complete stack	Cooling block	Complete stack
750	2T1500N KE02	W1C 400/400-1938-KE02-2T1500N-LRC4		
1000	2T1900N KE02 2T1500N KE02*	W1C 400/400-2200-KE02-2T1900N-LRC4	2T1500N KE02	W1C 480/480-1938-KE02-2T1500N-LRC4
1200	2T2180N KE02	W1C 400/400-2345-KE02-2T2180N-LRC4	2T1900N KE02	W1C 480/480-2200-KE02-2T1900N-LRC4
1500	2T3160N KE02	W1C 400/400-2915-KE02-2T3160N-LRC4	2T2600N KE02	W1C 480/480-2640-KE02-2T2600N-LRC4
1600	2T3800N KE02 2T3160N KE02*	W1C 400/400-3304-KE02-2T3800N-LRC4	2T3160N KE02 2T2600N KE02*	W1C 480/480-2915-KE02-2T3160N-LRC4
2000	2 x T3800N KE01	W1C 400/400-4005-2KE01-2T3800N-LRC4	2T3800N KE02	W1C 480/480-3304-KE02-2T3800N-LRC4
2400	2 x 2T2600N KE02	2 x W1C 400/400-2640-KE02-2T2600N-LRC4	2 x T3800N KE01	W1C 480/480-4005-2KE01-2T3800N-LRC4
3000	2 x 2T3800N KE02	2 x W1C 400/400-3304-KE02-2T3800N-LRC4	2 x 2T3160N KE02	2 x W1C 480/480-2915-KE02-2T3160N-LRC4

Conditions: Air flow 200 l/s, * is 250 l/s, $T_A=40^{\circ}\text{C}$, 150% overload for 1 min, 125% overload for 10 min, 85% of nominal line voltage in continuous operation,
L: Fan; RCx: Snubber; (T: Temperature sensor, S: Fuses)

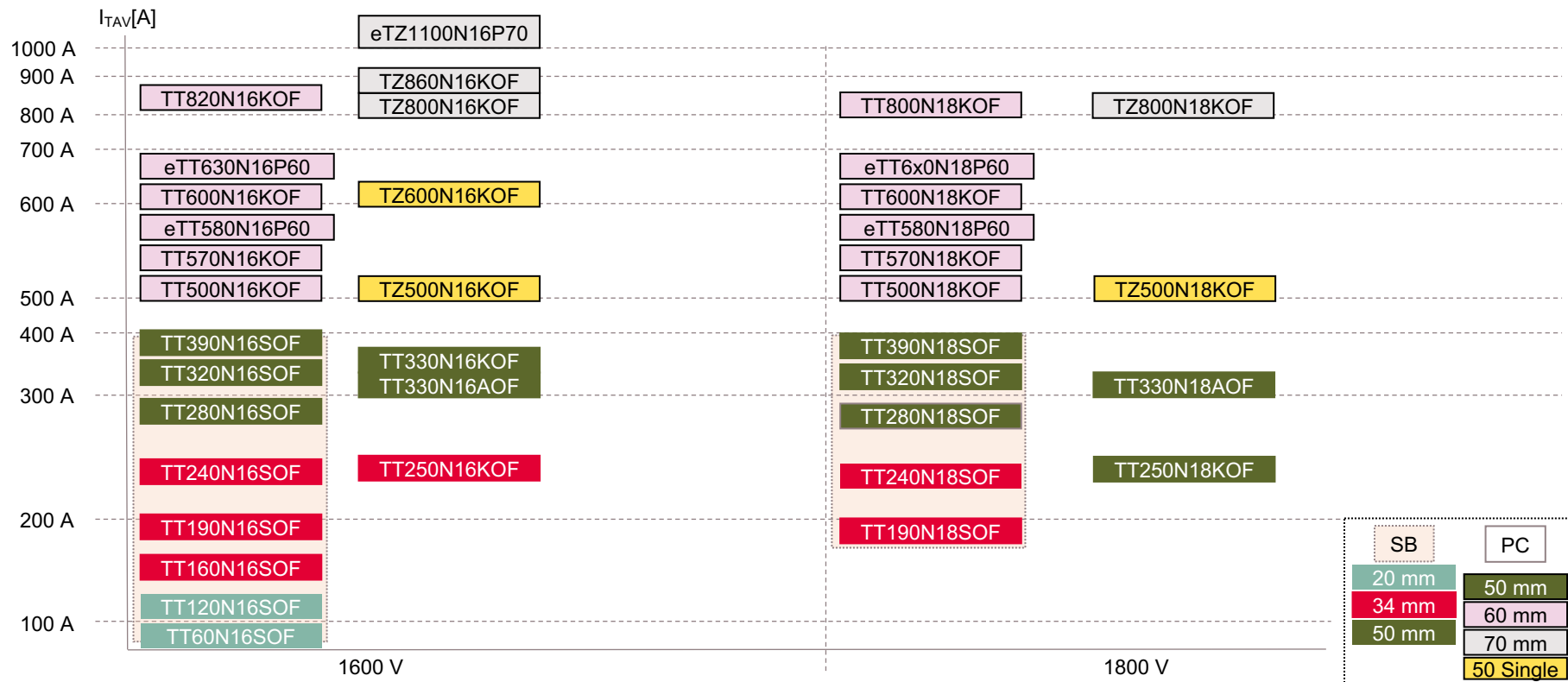
Solutions for UPS bypasses

UPS stacks – 3-phase (W3C)

Line voltage	400 V		480 V	
Power range [kVA]	Cooling block	Complete stack	Cooling block	Complete stack
750	3 x 2T1500N KE02	W3C 400/400-1938-3KE02-6T1500N-LRC4		
1000	3 x 2T1900N KE02 3 x 2T1500N KE02*	W3C 400/400-2200-3KE02-6T1900N-LRC4	3 x 2T1500N KE02	W3C 480/480-1938-3KE02-6T1500N-LRC4
1200	3 x 2T2180N KE02	W3C 400/400-2345-3KE02-6T2180N-LRC4	3 x 2T1900N KE02	W3C 480/480-2200-3KE02-6T1900N-LRC4
1500	3 x 2T3160N KE02	W3C 400/400-2915-3KE02-6T3160N-LRC4	3 x 2T2600N KE02	W3C 480/480-2640-3KE02-6T2600N-LRC4
1600	3 x 2T3800N KE02 3 x 2T3160N KE02*	W3C 400/400-3304-3KE02-6T3800N-LRC4	3 x 2T3160N KE02 3 x 2T2600N KE02*	W3C 480/480-2915-3KE02-6T3160N-LRC4
2000	6 x T3800N KE01	W3C 400/400-4005-6KE01-6T3800N-LRC4	3 x 2T3800N KE02	W3C 480/480-3304-3KE02-6T3800N-LRC4
2400	6 x 2T2600N KE02	2 x W3C 400/400-2640-3KE02-6T2600N-LRC4	6 x T3800N KE01	W3C 480/480-4005-6KE01-6T3800N-LRC4
3000	12 x T3800N KE01	2 x W3C 400/400-4005-6KE01-6T3800N-LRC4	6 x 2T3160N KE02	2 x W3C 480/480-2915-3KE02-6T3160N-LRC4

Conditions: Air flow 200 l/s, * is 250 l/s, T_A=40°C, 150% overload for 1 min, 125% overload for 10 min, 85% of nominal line voltage in continuous operation,
L: Fan; RCx: Snubber; (T: Temperature sensor, S: Fuses)

Overview of UPS bypass thyristor modules up to 1800 V



UPS, UPS By-Pass and Static Transfer Systems



Infineon Technologies Biolar



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