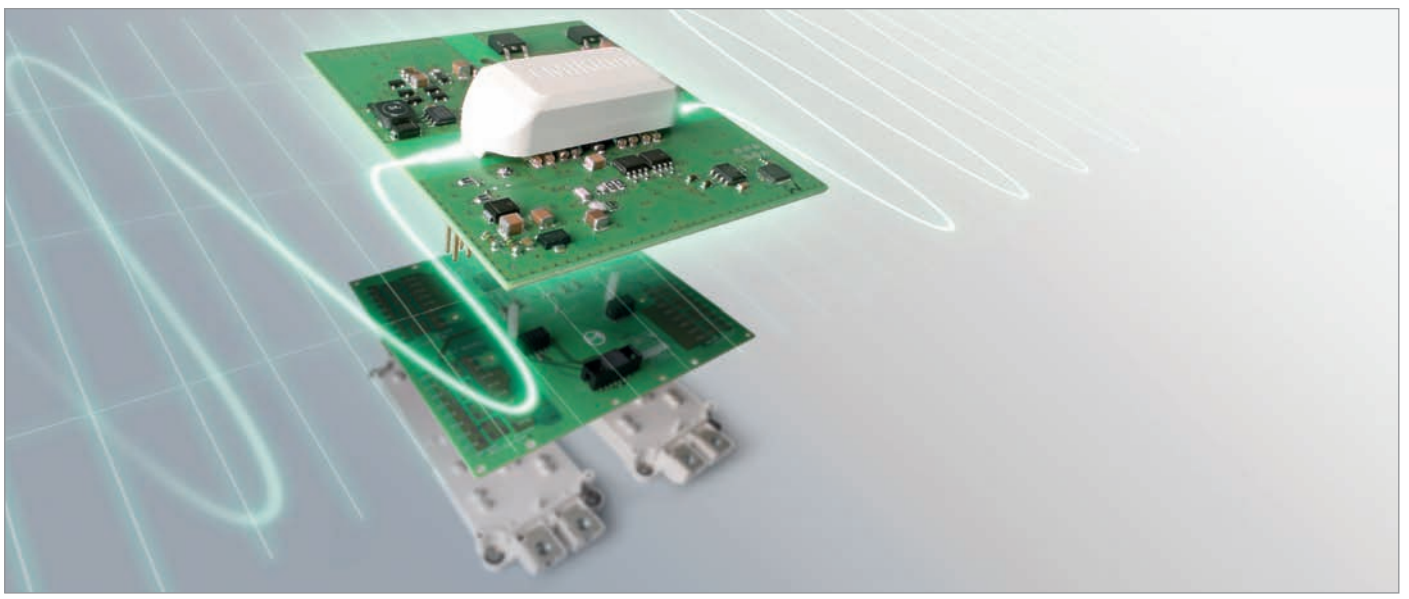
SKYPER®

Robust IGBT Driver



Applications

SKYPER 32 is solid driving in x-ray devices, industrial drives and process control applications. SKYPER 42 meets the requirements of induction heating/ welding applications that call for high currents, durable solar inverters and variable industrial motor drives between 300 kW to 1.5 MW. The powerful SKYPER 52 is ideal for use in high-power applications such as wind turbines. SKYPER drivers are highly robust two-channel IGBT drivers used to control 50 - 9000 Amp IGBT modules. Boasting a mean time between failures of more than two million hours, the service life of this driver is triple that of standard IGBT drivers. SKYPER 32, 42 and 52 can drive 600 V, 1200 V and 1700 V IGBT modules.

Product range

SKYPER 32 R UL/ 32 PRO R UL/ 32 R/ 32 PRO R:	50 mA/ 15 A	50 kHz
SKYPER42 R:	150 mA/ 30 A	100 kHz
SKYPER 52 R:	300 mA/ 50 A	100 kHz

Benefits

Robust driving technology

- Integrated power and signal transformer provide galvanic insulation
- Internal power supply
- Low coupling capacitance with 100 kV/dt ruggedness
- Steady stabilized gate voltage for safe switching characteristic
- Dynamic short-circuit protection, soft turn-off, dead-time generation and voltage monitoring
- EMC with unique interlayer connection and short-pulse suppression
- SKYPER 52 works as a digital driver, providing differential inputs, digital signal transmission and IntelliOff to rule out voltage spikes

Easy assembly with customized adaptor boards

- Adaptor boards for paralleling SEMiX 3S/ 4S modules, SKiM modules and wire-bonded modules like SEMITRANS
- Decoupled and symmetric gate control to reduce current and voltage peaks
- Assembly service for gate resistors and VCE components for adaptor boards on request

Driver Electronics - SEMIDRIVER

Type	Channels	V_{CE} V	$V_{G(on)}$ V	$V_{G(off)}$ V	$I_{outPEAK}$ A	$Q_{out/pulse}$ µC	f_{max} kHZ	V_{isolIO} kV	dv/dt kV/µs
Driver									
SKHI 10/12 R	1	1200	15	-8	8	9.6	100	2500	75
SKHI 10/17 R	1	1700	15	-8	8	9.6	100	4000	75
SKHI 23/12 R	2	1200	15	-8	8	4.8	100	2500	75
SKHI 23/17 R	2	1700	15	-8	8	4.8	100	4000	75
SKHIT 01 R [1]	3	528	-	-	-	-	10	2500	-
Driver Core									
SKHI 21A R [2]	2	1200	15	0	8	4	50	2500	50
SKHI 22 A/B H4 R	2	1700	15	-7	8	4	50	4000	50
SKHI 22 A/B R	2	1200	15	-7	8	4	50	2500	50
SKHI 24 R	2	1700	15	-8	15	5	50	4000	50
SKYPER 32 PRO R	2	1700	15	-7	15	6.3	50	4000	50
SKYPER 32 PRO R UL	2	1700	15	-7	15	6.3	50	4000	50
SKYPER 32 R	2	1700	15	-7	15	2.5	50	4000	50
SKYPER 32 R UL	2	1700	15	-7	15	2.5	50	4000	50
SKYPER 42 R	2	1700	15	-8	30	50	100	4000	100
SKYPER 52 R	2	1700	15	-15	50	100	100	4000	100
SKHI 61 R	6	900	14.9	-6.5	2	1	50	2500	15
SKHI 71 R	7	900	14.9	-6.5	2	1	50	2500	15
Adaptor Board									
Board 1 SKYPER 32 R	2	1700	15	-7	15	2.5	50	4000	50
Board 1 SKYPER 32PRO R	2	1700	15	-7	15	6.3	50	4000	50
Board 2 // 4S SKYPER 42 R	2	1700	15	-8	30	50	100	4000	100
Board 2 generic SKYPER 42 R	2	1700	15	-8	30	50	100	4000	100
Board 2//3S SKYPER 42 R	2	1700	15	-8	30	50	100	4000	100
Board 2s SKYPER 32 R	2	1700	15	-7	15	2.5	50	4000	50
Board 2s SKYPER 32PRO R	2	1700	15	-7	15	6.3	50	4000	50
Board 3s SKYPER 32 R	2	1700	15	-7	15	2.5	50	4000	50
Board 3s SKYPER 32PRO R	2	1700	15	-7	15	6.3	50	4000	50
Board 4s SKYPER 32 R	2	1700	15	-7	15	2.5	50	4000	50
Board 4s SKYPER 32PRO R	2	1700	15	-7	15	6.3	50	4000	50

Footnotes

[1] Thyristor Driver

[2] MOSFET Driver