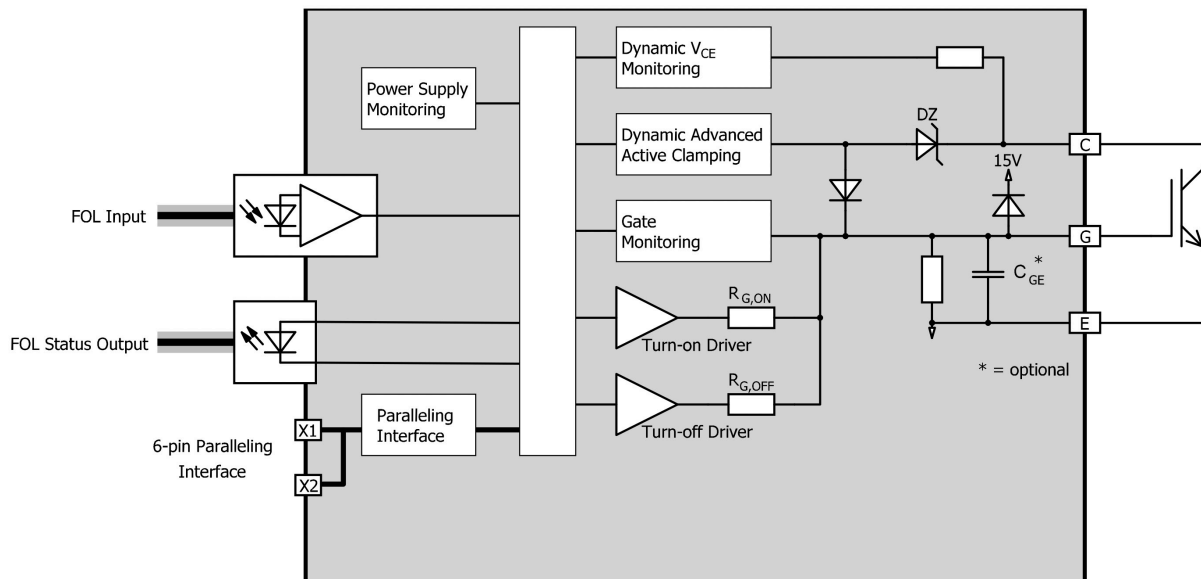


SCALE™ -2 Plug-and-Play Gate Driver 1SP0630

- Compact, single-channel gate driver solution
- For power modules up to 3300 V blocking voltage
- 30 A peak output gate current
- 1.6 W output power at maximum operating temperature
- Optimized for 130 x 140 mm single IGBT high-power modules

1SP0630 Functional Block Diagram



PIHPAE_0006

Applications

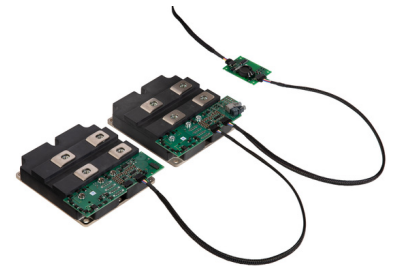
- Railway inverters
- Industrial drives
- Other industrial applications

Product Details

Parameter	Min	Typical	Max	Unit
Nominal supply voltage	23.5	25	30	V
Supply current 1SP0630x2Mx @ $f_{IN} = 0$ Hz		44		mA
Per additional 1SP0635D2Sx @ $f_{IN} = 0$ Hz		35		mA
Supply current, full load 1SP0630x2Mx		118		mA
Output power (1SP0630V2Mx or 1SP0630SMx)			1.6	W
Output power (1SP0635D2Sx)		2.6		W
Gate voltage		+15/-10		V
Peak output current (gate current)	-30		+30	A
Switching frequency (f_s^{-1})	0		10	kHz
Duty cycle	0		100	%
Creepage distance primary-secondary ²	21			mm
Clearance distance primary-secondary ²	21			mm
Dielectric test voltage ²	6			kV _{RMS}
Partial discharge extinction voltage ²	3.63			kV _{pK}
Operating temperature	-40		+85	°C

1 Maximum switching frequency depends on the IGBT gate charge. See data sheet for actual value of specific driver.

2 Provided by external DC/DC ISO6125R-33



Full assembly:
1SP0630V + 1SP0635D + ISO6125

Design Support

Available Products 1SP0630 products list (www.power.com/1SP0630)

Application Note AN-1301: Do's and don'ts with SCALE-2 gate drivers (www.power.com/an-1301)