SIEMENS

Data sheet 6EP1961-2BA00



SITOP SELECT/DIAGNOSIS MODULE/4X2-10A

SITOP select Diagnostics module 4-channel input: 24 V DC/40 A output: 24 V DC/4x 10 A Level adjustable 2-10 A

Type of the power supply network Supply voltage / at DC / rated value Output Voltage curve / at output voltage curve / at output formula for output voltage formula for output voltage relative overall tolerance / of the voltage / note number of outputs duptut current / up to 60 °C / per output / rated value adjustable current response value current / of the current- dependent overload release type of response value setting product feature product feature pratile switching of outputs bridging of equipment type of outputs connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Efficiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic per output switching characteristic per output switching characteristic per output switching characteristic per output switch-off after approx. 5 s of the excess current	Input	
input voltage / at DC overvoltage overload capability input current / at rated input voltage 24 V / rated value Output voltage curve / at output voltage curve / at output voltage curve / at output voltage formula for output voltage relative overall tolerance / of the voltage / note number of outputs adjustable current / up to 60 °C / per output / rated value adjustable current response value current / of the current- dependent overload release type of response value setting product feature • parallel switching of outputs • bridging of equipment type of outputs connection Efficiency efficiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic • of the excess current • of the excess current • of the current limitation • of the immediate switch-off / typical design of the reset device/resetting mechanism remote reset function 22 30 V at 0 A A A A A A A A A A A A A	type of the power supply network	
overvoltage overload capability input current / at rated input voltage 24 V / rated value Output voltage curve / at output voltage curve / at output formula for output voltage relative overall tolerance / of the voltage / note number of outputs output current / up to 60 °C / per output / rated value adjustable current response value current / of the current-dependent overload release type of response value setting roduct feature • parallel switching of outputs • bridging of equipment type of outputs connection Efficiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical switching characteristic • of the excess current • of the current limitation • of the immediate switch-off residual current at switch-off / typical design of the reset device/resetting mechanism remote reset function controlled DC voltage Vin A A 40 A	supply voltage / at DC / rated value	24 V
input current / at rated input voltage 24 V / rated value Output voltage curve / at output controlled DC voltage formula for output voltage relative overall tolerance / of the voltage / note number of outputs output current / up to 60 °C / per output / rated value adjustable current response value current / of the current- dependent overload release type of response value setting product feature • parallel switching of outputs • bridging of equipment type of outputs connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Efficiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical switch-off characteristic • of the excess current • of the current limitation • of the immediate switch-off / typical design of the reset device/resetting mechanism remote reset function controlled DC voltage Vin - approx. 0.3 V In accordance with the supplying input voltage 10 A 2 10 A 2 10 A 2 10 A 2 10 A 3 10 A 5 10 A 5 10 A 5 10 A 5 10 A 6	input voltage / at DC	22 30 V
Output voltage curve / at output voltage controlled DC voltage formula for output voltage Vin - approx. 0.3 V relative overall tolerance / of the voltage / note In accordance with the supplying input voltage number of outputs 4 output current / up to 60 °C / per output / rated value 10 A adjustable current response value current / of the current-dependent overload release via potentiometer type of response value setting via potentiometer product feature • parallel switching of outputs No • bridging of equipment Yes type of outputs connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Efficiency efficiency in percent 97 % power loss [W] / at rated output voltage / for rated value of the output current / typical 30 W Switch-off characteristic • of the excess current lout = 1.01.3 x set value, switch-off after approx. 5 s 100 ms • of the current limitation lout = 3.0 x set value and Vin < 20 V, switch-off after approx. 5.ms	overvoltage overload capability	35 V; 100 ms
voltage curve / at output formula for output voltage relative overall tolerance / of the voltage / note number of outputs output current / up to 60 °C / per output / rated value adjustable current response value current / of the current-dependent overload release type of response value setting product feature • parallel switching of outputs • bridging of equipment type of outputs connection Fificiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic • of the excess current • of the current limitation • of the immediate switch-off / typical design of the reset device/resetting mechanism remote reset function In accordance with the supplying input voltage In accordance with the supplying in accordance with the supplying i	input current / at rated input voltage 24 V / rated value	40 A
formula for output voltage relative overall tolerance / of the voltage / note number of outputs output current / up to 60 °C / per output / rated value adjustable current response value current / of the current- dependent overload release type of response value setting product feature	Output	
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number of outputs output current / up to 60 °C / per output / rated value adjustable current response value current / of the current- dependent overload release type of response value setting product feature • parallel switching of outputs • bridging of equipment type of outputs connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Efficiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic per output switching characteristic • of the excess current • of the current limitation • of the immediate switch-off residual current at switch-off / typical design of the reset device/resetting mechanism remote reset function 4 A A A A A A A A A A A A	formula for output voltage	Vin - approx. 0.3 V
output current / up to 60 °C / per output / rated value adjustable current response value current / of the current- dependent overload release type of response value setting product feature	relative overall tolerance / of the voltage / note	In accordance with the supplying input voltage
adjustable current response value current / of the current- dependent overload release type of response value setting product feature • parallel switching of outputs • bridging of equipment type of outputs connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Efficiency efficiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic per output switching characteristic • of the excess current • of the current limitation • of the immediate switch-off residual current at switch-off / typical design of the reset device/resetting mechanism remote reset function 2 10 A 3 10 A 3 10 A 4 10 A 5 .	number of outputs	4
type of response value setting product feature • parallel switching of outputs • bridging of equipment type of outputs connection Efficiency efficiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic per output switching characteristic • of the excess current • of the current limitation • of the immediate switch-off residual current at switch-off / typical design of the reset device/resetting mechanism remote reset function No No Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 W 10 W 10 Using keys on the module 10 Using keys on the module 10 Using keys on the module	output current / up to 60 °C / per output / rated value	10 A
product feature		2 10 A
parallel switching of outputs bridging of equipment type of outputs connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Efficiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic per output switching characteristic	type of response value setting	via potentiometer
type of outputs connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Efficiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic per output switching characteristic of the excess current of the current limitation of the immediate switch-off residual current at switch-off / typical design of the reset device/resetting mechanism remote reset function Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 97 % 10 W 10 Using keys on the module Versultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 Using keys on the module	product feature	
type of outputs connection Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection Efficiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic per output switching characteristic of the excess current of the current limitation of the immediate switch-off residual current at switch-off / typical design of the reset device/resetting mechanism remote reset function Simultaneous connection of all outputs after power up of the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms programmable for sequential connection 10 the supply voltage, delay time of 24 ms or 100 ms or 100 ms or 100 ms 10 the supply voltage, delay time of 24 ms or 100 ms 10 the supply voltage, delay time of 24 ms or 100 ms 10 the supply voltage, delay time of 24 ms or 100 ms 10 the supply voltage, delay time of 24 ms or 100 ms 10 the supply voltage, delay	 parallel switching of outputs 	No
voltage, delay time of 24 ms or 100 ms programmable for sequential connection Efficiency efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic per output switching characteristic of the excess current of the current limitation of the current limitation of the immediate switch-off residual current at switch-off / typical design of the reset device/resetting mechanism remote reset function voltage, delay time of 24 ms or 100 ms programmable for sequential connection 100 ms programmable for sequential connection 100 ms programmable for sequential connection 100 ms 100 w 100 t = 1.01.3 x set value, switch-off after approx. 5 s 100 t = 1.3 x set value, switch-off after approx. 50 100 ms 100 t > set value and Vin < 20 V, switch-off after approx. 0.5 ms residual current at switch-off / typical design of the reset device/resetting mechanism remote reset function -	 bridging of equipment 	Yes
efficiency in percent power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic per output switching characteristic of the excess current of the current limitation of the immediate switch-off residual current at switch-off / typical design of the reset device/resetting mechanism remote reset function 97 % 30 W lout = 1.01.3 x set value, switch-off after approx. 5 s lout = 1.01.3 x set value, switch-off after approx. 5 s lout > set value and Vin < 20 V, switch-off after approx. 0.5 ms 20 mA Using keys on the module -	type of outputs connection	voltage, delay time of 24 ms or 100 ms programmable for sequential
power loss [W] / at rated output voltage / for rated value of the output current / typical Switch-off characteristic per output switching characteristic • of the excess current • of the current limitation • of the immediate switch-off residual current at switch-off / typical design of the reset device/resetting mechanism remote reset function 30 W 40 W 40 W 50 W 60 W	Efficiency	
the output current / typical Switch-off characteristic per output switching characteristic of the excess current of the current limitation of the immediate switch-off residual current at switch-off / typical design of the reset device/resetting mechanism remote reset function lout = 1.01.3 x set value, switch-off after approx. 5 s lout = 1.3 x set value, switch-off after approx. 50 100 ms lout > set value and Vin < 20 V, switch-off after approx. 0.5 ms 20 mA Using keys on the module	efficiency in percent	97 %
switching characteristic • of the excess current • of the current limitation • of the immediate switch-off residual current at switch-off / typical design of the reset device/resetting mechanism switching characteristic lout = 1.01.3 x set value, switch-off after approx. 5 s lout = 1.3 x set value, switch-off after approx. 50 100 ms lout > set value and Vin < 20 V, switch-off after approx. 0.5 ms residual current at switch-off / typical design of the reset device/resetting mechanism Using keys on the module remote reset function -		30 W
 of the excess current lout = 1.01.3 x set value, switch-off after approx. 5 s of the current limitation lout = 1.3 x set value, switch-off after approx. 50 100 ms of the immediate switch-off lout > set value and Vin < 20 V, switch-off after approx. 0.5 ms residual current at switch-off / typical design of the reset device/resetting mechanism Using keys on the module remote reset function 	Switch-off characteristic per output	
 of the current limitation lout = 1.3 x set value, switch-off after approx. 50 100 ms of the immediate switch-off lout > set value and Vin < 20 V, switch-off after approx. 0.5 ms residual current at switch-off / typical design of the reset device/resetting mechanism Using keys on the module remote reset function 	switching characteristic	
● of the immediate switch-off lout > set value and Vin < 20 V, switch-off after approx. 0.5 ms residual current at switch-off / typical 20 mA design of the reset device/resetting mechanism Using keys on the module remote reset function -	 of the excess current 	lout = 1.01.3 x set value, switch-off after approx. 5 s
residual current at switch-off / typical 20 mA design of the reset device/resetting mechanism Using keys on the module remote reset function -	 of the current limitation 	lout = 1.3 x set value, switch-off after approx. 50 100 ms
design of the reset device/resetting mechanism remote reset function Using keys on the module -	of the immediate switch-off	lout > set value and Vin < 20 V, switch-off after approx. 0.5 ms
remote reset function -	residual current at switch-off / typical	20 mA
	design of the reset device/resetting mechanism	Using keys on the module
Protection and monitoring	remote reset function	-
	Protection and monitoring	

fuse protection type / at input	Plade type fire per cutout (equipped when delivered with 15 A fire)
fuse protection type / at input	Blade-type fuse per output (equipped when delivered with 15 A fuse)
display version / for normal operation	Two-color LED per output: green LED for "Output switched through"; red LED for "Output switched off due to overcurrent"
design of the switching contact / for signaling function	Common signal contact (NO contact, rating 0.5 A/24 V DC)
Safety	<u>, </u>
galvanic isolation / between input and output at switch-off	No
standard / for safety	according to EN 60950-1 and EN 50178
operating resource protection class	Class III
protection class IP	IP20
Approvals	
certificate of suitability	
CE marking	Yes
UL approval	Yes; UL-Recognized (UL 2367) File E328600; cULus-Listed (UL 508, CSA C22.2 No. 107.1) File E197259
• ATEX	Yes; ATEX (EX) II 3G Ex nA nC IIC T4 Gc; cCSAus Class I, Div. 2, Group ABCD, T4
standard / for explosion protection	ATEX (EN 60079-0, -15); cCSAus (CSA E60079-0, -15; UL 60079-0, -15; UL 1604)
certificate of suitability	
shipbuilding approval	No
EMC	
standard	
for emitted interference	EN 55022 Class B
 for interference immunity 	EN 61000-6-2
environmental conditions	
ambient temperature	
during operation	0 60 °C; with natural convection
during operation during transport	-40 +85 °C
during storage	-40 +85 °C
environmental category / acc. to IEC 60721	Climate class 3K3, 5 95% no condensation
Mechanics	
type of electrical connection	screw-type terminals
at input	+24 V: 2 screw terminals for 0.5 16 mm²; 0 V: 2 screw terminals for
• at input	0.5 4 mm ²
at output	Output 1 4: 1 screw terminal each for 0.22 4 mm ²
for signaling contact	2 screw terminals for 0.22 4 mm ²
for auxiliary contacts	-
width / of the enclosure	72 mm
height / of the enclosure	90 mm
depth / of the enclosure	90 mm
installation width	72 mm
mounting height	190 mm
required spacing	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
net weight	0.4 kg
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
product component / included	4x blade-type fuse 15 A
MTBF / at 40 °C	616 675 h
other information	Specifications at rated input voltage and ambient temperature +25 °C
	(unless otherwise specified)

