

# Use at high temperatures

## Power dissipated and resistance per pole

<b>Compact INS</b>	<b>40</b>	<b>63</b>	<b>80</b>	<b>100</b>	<b>125</b>	<b>160</b>		
Rating (A)	40	63	80	100	125	160		
Resistance per pole (mΩ)	0.3	0.3	0.3	0.2	0.2	0.2		
Power dissipated per pole (W)	0.5	1.2	1.9	2	3.1	5.1		
<b>Compact INS/INV</b>	<b>100</b>	<b>160</b>	<b>200</b>	<b>250</b>	<b>320</b>	<b>400</b>	<b>500</b>	<b>630</b>
Rating (A)	100	160	200	250	320	400	500	630
Resistance per pole (mΩ)	0.15	0.15	0.15	0.15	0.06	0.06	0.06	0.06
Power dissipated per pole (W)	1.5	4	6	9.5	6.1	9.6	15	24
<b>Compact INS/INV</b>	<b>800</b>	<b>1000</b>	<b>1250</b>	<b>1600</b>	<b>2000</b>	<b>2500</b>		
Rating (A)	800	1000	1250	1600	2000	2500		
Resistance per pole (mΩ)	0.024	0.024	0.024	0.024	0.012	0.012		
Power dissipated per pole (W)	16	24	38	62	48	75		



## Temperature derating

<b>Compact INS</b>	<b>40</b>	<b>63</b>	<b>80</b>	<b>100</b>	<b>125</b>	<b>160</b>		
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### Front connection with bare-cable connectors or lugs

Thermal current Ith at	60 °C	40	63	80	100	125	160		
	65 °C	40	63	80	100	125	160		
	70 °C	40	63	80	100	125	150		

<b>Compact INS/INV</b>	<b>100</b>	<b>160</b>	<b>200</b>	<b>250</b>	<b>320</b>	<b>400</b>	<b>500</b>	<b>630</b>
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### Front connection / rear connection

Thermal current Ith at	60 °C	100	160	200	250	320	400	500	630
	65 °C	100	160	200	250	320	400	500	590
	70 °C	100	160	200	250	320	400	500	550

### Front connection with right-angle terminal extension + bare-cable connectors

Thermal current Ith at	55 °C	100	160	200	250	320	400	500	630
	60 °C	100	160	200	250	320	400	500	590
	65 °C	100	160	200	250	320	400	500	550
	70 °C	100	160	200	240	320	400	500	510

### Front connection / rear connection with ammeter or CT module

Thermal current Ith at	40 °C	100	160	200	250	320	400	500	600
	50 °C	100	160	200	250	320	400	500	575
	55 °C	100	160	200	250	320	400	500	540
	60 °C	100	160	200	240	320	400	500	505
	65 °C	100	160	200	230	320	400	480	480
	70 °C	100	160	200	210	320	400	450	450

<b>Compact INS/INV</b>	<b>630b</b>	<b>800 with or without term. shield</b>	<b>1000 with or without term. shield</b>	<b>1250 with term. shield</b>	<b>without term. shield</b>	<b>1600 with term. shield</b>	<b>without term. shield</b>	<b>2000 with term. shield</b>	<b>2500 without term. shield</b>
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### Direct connection by flat-facing bars <sup>[1]</sup>

Thermal current Ith at	40 °C	630	800	1000	1250	1250	1600	1600	2000	2500
	45 °C	630	800	1000	1250	1250	1570	1600	2000	2500
	50 °C	630	800	1000	1250	1250	1500	1550	2000	2500
	55 °C	630	800	1000	1250	1250	1420	1470	2000	2500
	60 °C	630	800	1000	1250	1250	1340	1390	2000	2500
	65 °C	630	800	1000	1250	1250	1250	1300	2000	2500
	70 °C	630	800	1000	1060	1210	1060	1210	2000	2400

### Connection by flat-facing bars via spreaders, without terminal shields <sup>[2]</sup>

Thermal current Ith at	40 °C	630	800	1000	1250	1600		-	-
	45 °C	630	800	1000	1250	1600		-	-
	50 °C	630	800	1000	1250	1580		-	-
	55 °C	630	800	1000	1250	1500		-	-
	60 °C	630	800	1000	1250	1420		-	-
	65 °C	630	800	1000	1250	1330		-	-
	70 °C	630	800	1000	1240	1240		-	-

### Connection of edgewise bars via vertical connection adapters or cables via vertical connection adapters with cable-lug adapters

Thermal current Ith at	40 °C	630	800	1000	1250	1600	1600	-	-
	45 °C	630	800	1000	1250	1600	1600	-	-
	50 °C	630	800	1000	1250	1600	1600	-	-
	55 °C	630	800	1000	1250	1600	1600	-	-
	60 °C	630	800	1000	1250	1600	1600	-	-
	65 °C	630	800	1000	1250	1520	1560	-	-
	70 °C	630	800	1000	1250	1410	1450	-	-

[1] INS/INV1600: 4 bars 50 x 5. [2] INS/INV1600: 3 bars 80 x 5.

Note: thermal current Ith in Amps (QA).