

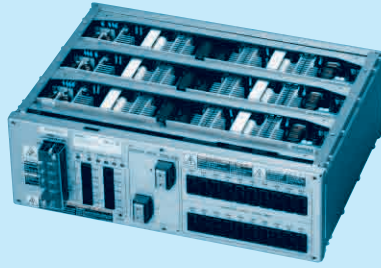
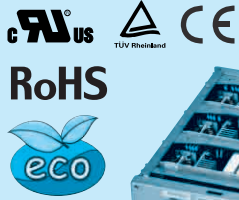
SCHA 10000T/SCDA 10000T

SC H A 10000 T -48 -□

① ② ③ ④ ⑤ ⑥ ⑦

Recommended EMI/EMC Filter TAC-50-223

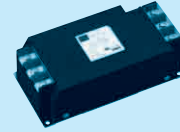
- ① Series name
- ② External form
H:Wide front interface
D:Compact front interface
- ③ Single output
- ④ Output wattage
- ⑤ Three-phase input
- ⑥ Output voltage
- ⑦ Optional



SCHA10000T



SCDA10000T



SPECIFICATIONS

	MODEL	SCHA10000T-48	SCDA10000T-48	
INPUT	VOLTAGE[V]	AC160 - 264 3 φ		
	CURRENT[A]	ACIN200V	35typ	
	FREQUENCY[Hz]	50/60 (47 - 63)		
	EFFICIENCY[%]	ACIN200-240V	90typ	
	POWER FACTOR	ACIN200-240V	0.99typ (Io=100%)	
	INRUSH CURRENT[A]	ACIN240V *1	60typ / 80typ (Primary inrush current /Secondary inrush current) (More than 3 sec. to re-start)	
	LEAKAGE CURRENT[mA]	5.0max (ACIN 240V 60Hz, Io=0 - 100%, According to IEC60950-1)		
OUTPUT	VOLTAGE[V]	48		
	CURRENT[A]	208		
	WATTAGE[W]	9,984		
	LINE REGULATION[mV]	192max		
	LOAD REGULATION[mV]	720max		
	RIPPLE[mVp-p]	0 to +50°C *2	150max	
	RIPPLE NOISE[mVp-p]	0 to +50°C *2	200max (BW:500MHz)	
	TEMPERATURE REGULATION[mV]	0 to +50°C	240max	
	DRIFT[mV]	*3	192max	
	START-UP TIME[ms]	*6	750max (ACIN 200V, Io=100%)	
	HOLD-UP TIME[ms]	20typ (ACIN200V, Io=100%)		
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	43.2 - 52.8			
OUTPUT VOLTAGE SETTING[V]	47.0 - 49.0			
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Activate over 105% - 120% of rated current and recovers automatically. (Shut down if low-voltage protection activated)		
	OVERVOLTAGE PROTECTION[V]	*4	56.0 - 59.0 (shut down)	
	LOW-VOLTAGE PROTECTION[V]	*4	28.8 - 33.6 (shut down)	
	OPERATING INDICATION	LED : Green (48VDC output), White (AC IN)		
	ALARM OUTPUT	Detecting low input voltage, detecting open phase, detecting low output voltage		
REMOTE ON/OFF (SYSTEM ON/OFF)	Provided			
ISOLATION	(INPUT) - (OUTPUT - SYSTEM ON/OFF - REMOTE SIGNAL ON/OFF - ALARM)	AC3,000V 1minute, Cutoff current = 100mA, DC2,200V 1minute, Cutoff current = 1mA (At Room Temperature) DC500V 50MΩ min (At Room Temperature)		
	(INPUT) - (FG)	AC2,000V 1minute, Cutoff current = 100mA, DC2,200V 1minute, Cutoff current = 1mA (At Room Temperature) DC500V 50MΩ min (At Room Temperature)		
	(OUTPUT - SYSTEM ON/OFF - REMOTE SIGNAL ON/OFF - ALARM) - (FG)	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)		
	(OUTPUT) - (SYSTEM ON/OFF - REMOTE SIGNAL ON/OFF - ALARM)	AC100V 1minute, Cutoff current = 50mA, DC100V 10MΩ min (At Room Temperature)		
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	0 to +50°C, 20 - 85%RH (Non condensing), 3,000m(10,000feet) max (Refer to Cooling method)		
	STORAGE TEMP., HUMID. AND ALTITUDE	-25 to +85°C, 20 - 90%RH (Non condensing), 9,000m(30,000feet) max		
	VIBRATION	10 - 55Hz, 19.6m/s ² (2G), 3minutes period, 30 minutes each along X, Y and Z axis		
	IMPACT	196.1m/s ² (20G), 11ms, once each along X, Y and Z axis		
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1 complies		
	CONDUCTED NOISE	Complies with EN55011 Group1-A, EN55022-A, CISPR22-A, FCC part15 classA, additional EMI/EMC Filter required for meeting class B		
	HARMONIC ATTENUATOR	Complies with IEC61000-3-12		
OTHERS	CASE SIZE/WEIGHT *5	459 X 150 X 320mm [18.07 X 5.91 X 12.6 inches] (W X H X D)/23kg max	310.5 X 150 X 510mm [12.22 X 5.91 X 20.08 inches] (W X H X D)/20kg max	
	COOLING METHOD	Forced cooling (require external fan)		

*1 The current of input surge to a built-in noise filter (0.2ms or less) is excluded.

*2 Measured by 500MHz oscilloscope.

*3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

*4 To recover output voltage, recycle input voltage after 3 or more seconds.

*5 Case size contains neither the terminal blocks, connector and screw nor.

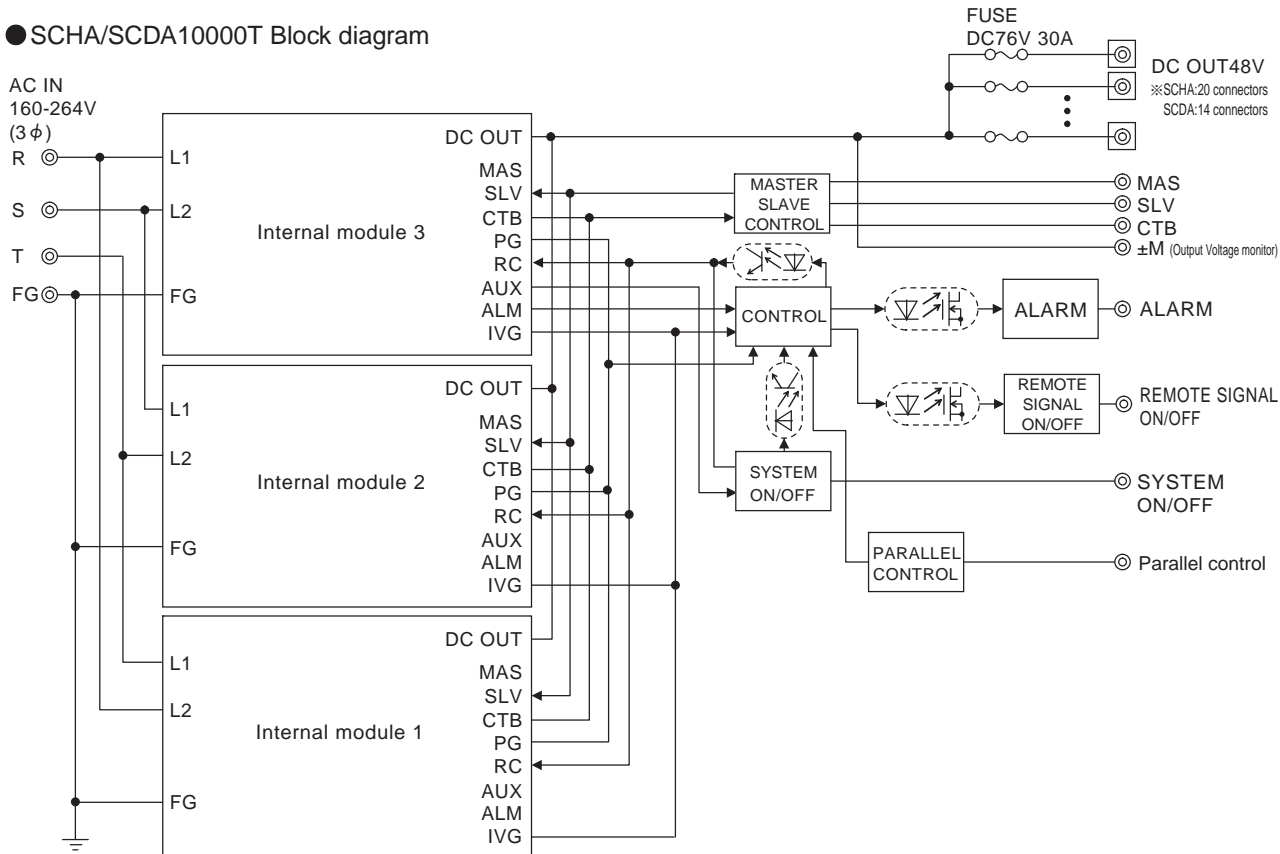
*6 When input voltage recycling is needed for output recovery, AC power shall be removed and cycled after 3 seconds to reset the protection circuit.

Please contact us when it's necessary to restart the power supply in less than 3 seconds.

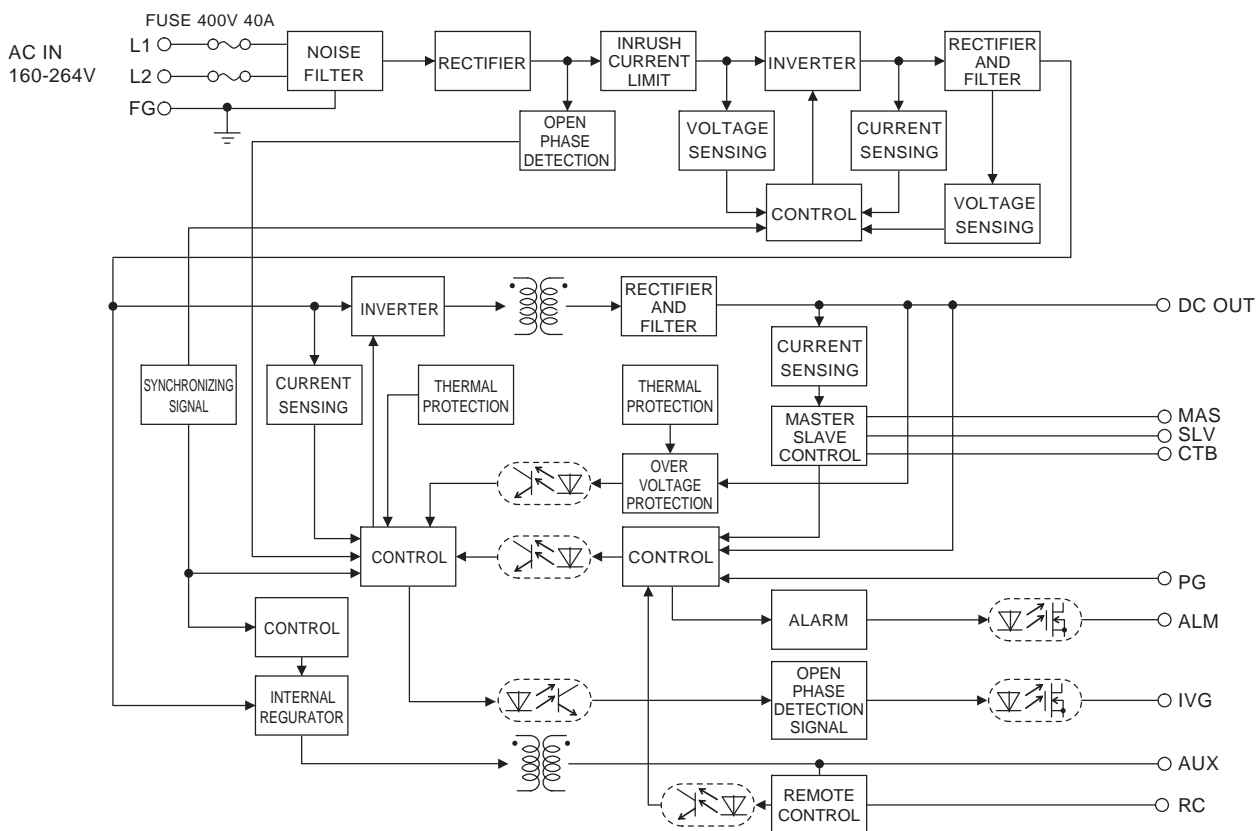
SCHA/SCDA1000T Block diagram

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● SCHA/SCDA1000T Block diagram

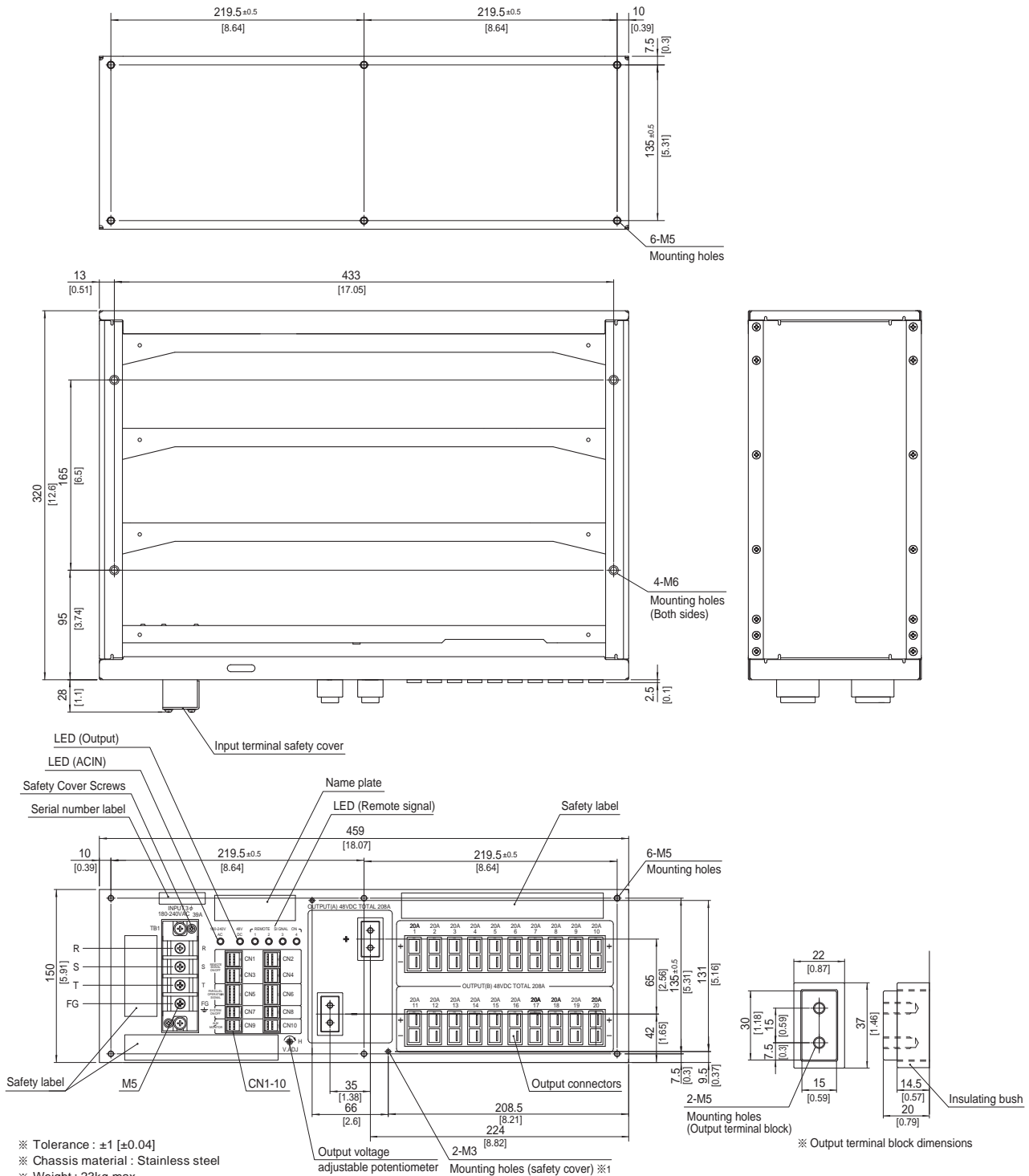


● Internal module Block diagram



SCHA1000T external view

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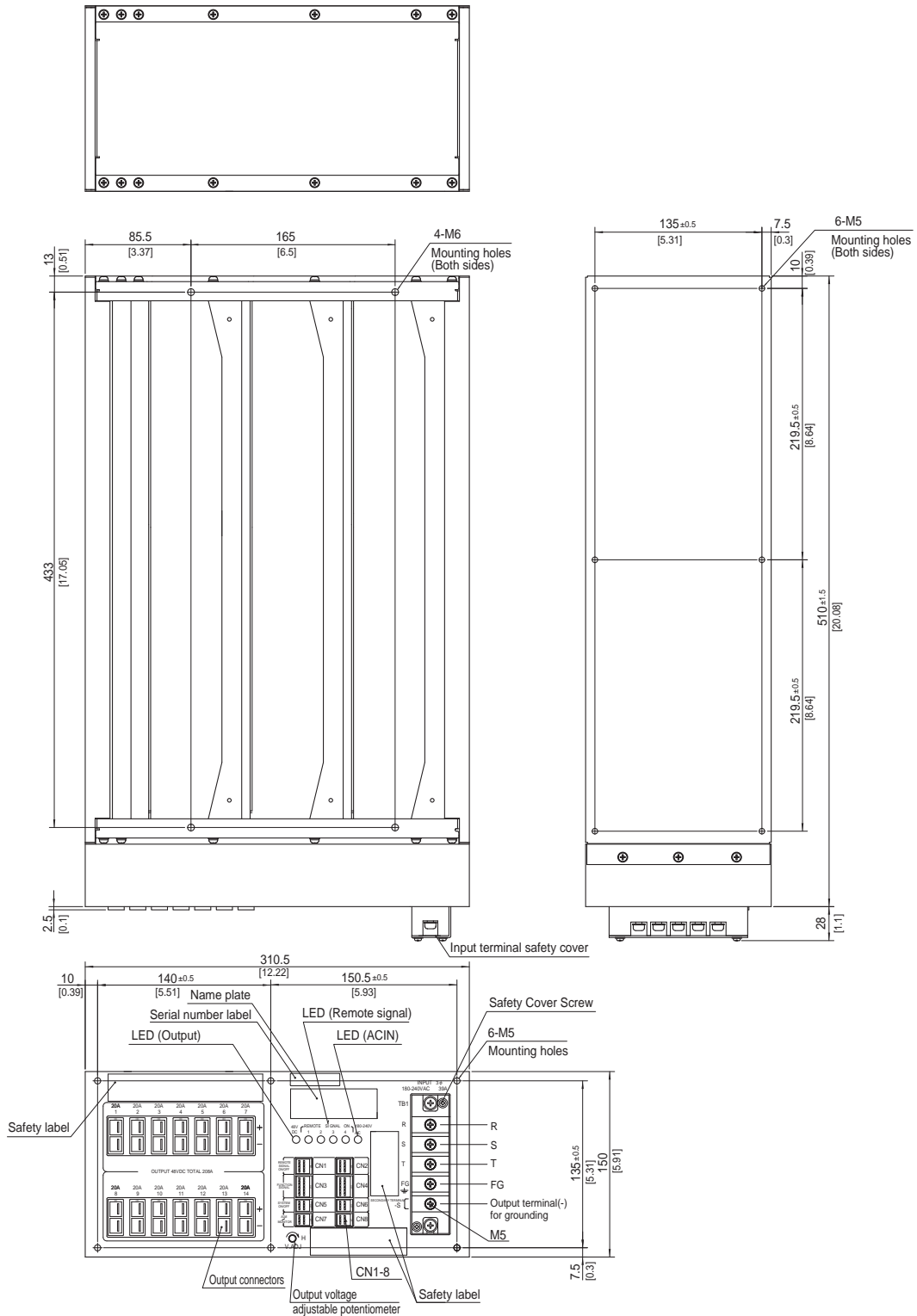
- ※ Tolerance : ± 1 [± 0.04]
- ※ Chassis material : Stainless steel
- ※ Weight : 23kg max
- ※ PCB Material/thickness : FR-4 / 1.6mm [0.04]
- ※ Dimensions in mm, []=inches
- ※ Screw tightening torque : M5 Mounting Hole 3.0N · m (30.7kgf · cm) max
- : M6 Mounting Hole 5.4N · m (55.2kgf · cm) max
- : M5 Mounting Hole(Output terminal block) 2.7N · m (27.6kgf · cm) max
- : M5 Input terminal 3.0N · m (30.7kgf · cm) max
- : M3 Mounting Hole (safety cover) 0.6N · m (6.2kgf · cm) max
- : M3 Input terminal safety cover 0.6N · m (6.2kgf · cm) max

- ※ LED (ACIN) : White with AC input
- ※ LED (Output) : Green with 48VDC output
- ※ LED (Remote signal) : Green (Indicates Remote signal status)

※ 1 Bus-bar safety cover, optional accessory.

SCDA1000T external view

SC



※ Tolerance : ±1 [±0.04]

※ Chassis material : Stainless steel

※ Weight : 20kg max

※ PCB Material/thickness : FR-4 / 1.6mm [0.04]

※ Dimensions in mm, []=inches

※ Screw tightening torque : M5 Mounting Hole 3.0N · m (30.7kgf · cm) max
 : M6 Mounting Hole 5.4N · m (55.2kgf · cm) max
 : M5 Input terminal 3.0N · m (30.7kgf · cm) max
 : M3 Input terminal safety cover 0.6N · m (6.2kgf · cm) max

※ LED (ACIN) : White with AC input

※ LED (Output) : Green with 48VDC output

※ LED (Remote signal) : Green (Indicates Remote signal status)

※ Output terminal(-) for grounding

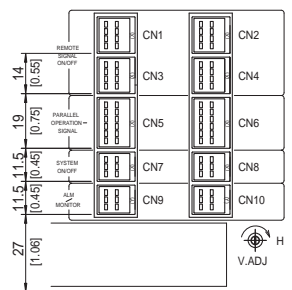
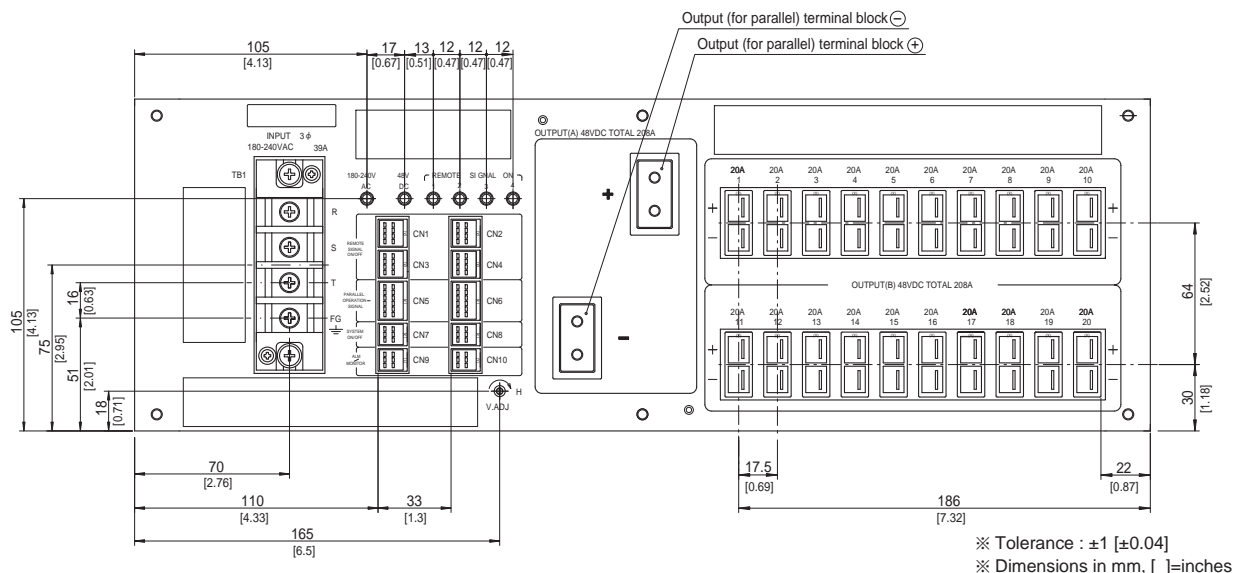
-Output terminal(-) is internally connected to DC48V Output (-).

-Output terminal(-) : For grounding to stabilize secondary output by connecting to system ground (earth).

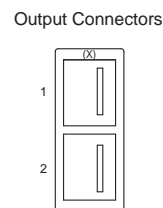
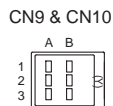
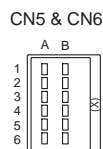
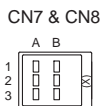
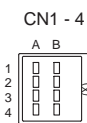
-Can not draw current through output terminal(-) for grounding.

SCHA1000T external view (front panel)

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CN1-10 location dimensions



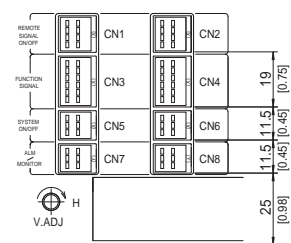
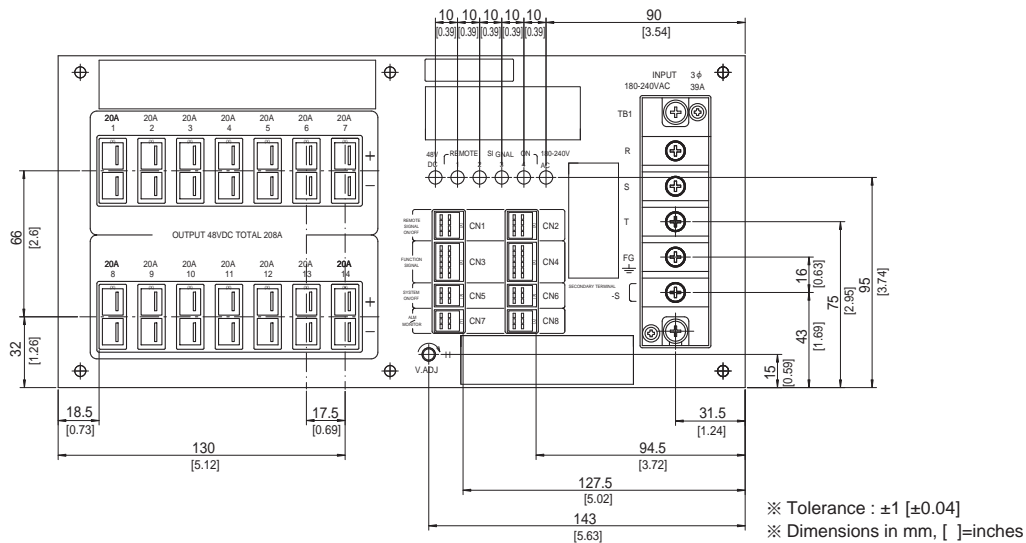
Connector pin numbers

SCHA1000T Functions & Connectors

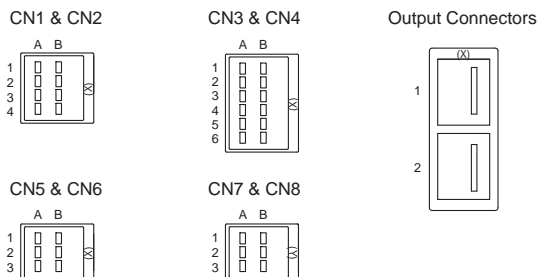
Connector	Housing	Mfr.	Pin No.	Function	
Output connector	1-353080-2	1-179958-2	1	Output (+)	
			2	Output (-)	
CN1-CN4	1318125-1	1-1318119-4	Tyco Electronics AMP	1A	Remote signal ON/OFF 1+
				1B	Remote signal ON/OFF 1-
				2A	Remote signal ON/OFF 2+
				2B	Remote signal ON/OFF 2-
				3A	Remote signal ON/OFF 3+
				3B	Remote signal ON/OFF 3-
				4A	Remote signal ON/OFF 4+
				4B	Remote signal ON/OFF 4-
CN5 & CN6	1318126-1	1-1318118-6	Tyco Electronics AMP	1A,1B	MAS: Master
				2A,2B	SLV: Slave
				3A,3B	CTB: Current balance
				4A,4B	PCNT: Parallel control
				5A,5B	COM:GND
				6A,6B	N.C.
CN7 & CN8	1318124-1	1-1318119-3	Tyco Electronics AMP	1A,1B	System ON/OFF +
				3A,3B	System ON/OFF -
				2A,2B	N.C.
CN9 & CN10	1318124-2	2-1318119-3	Tyco Electronics AMP	1A,1B	Alarm +
				3A,3B	Alarm -
				2A	+M: Output voltage monitor+
				2B	-M: Output voltage monitor-

SCDA10000T external view (front panel)

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CN1-8 location dimensions



Connector pin numbers

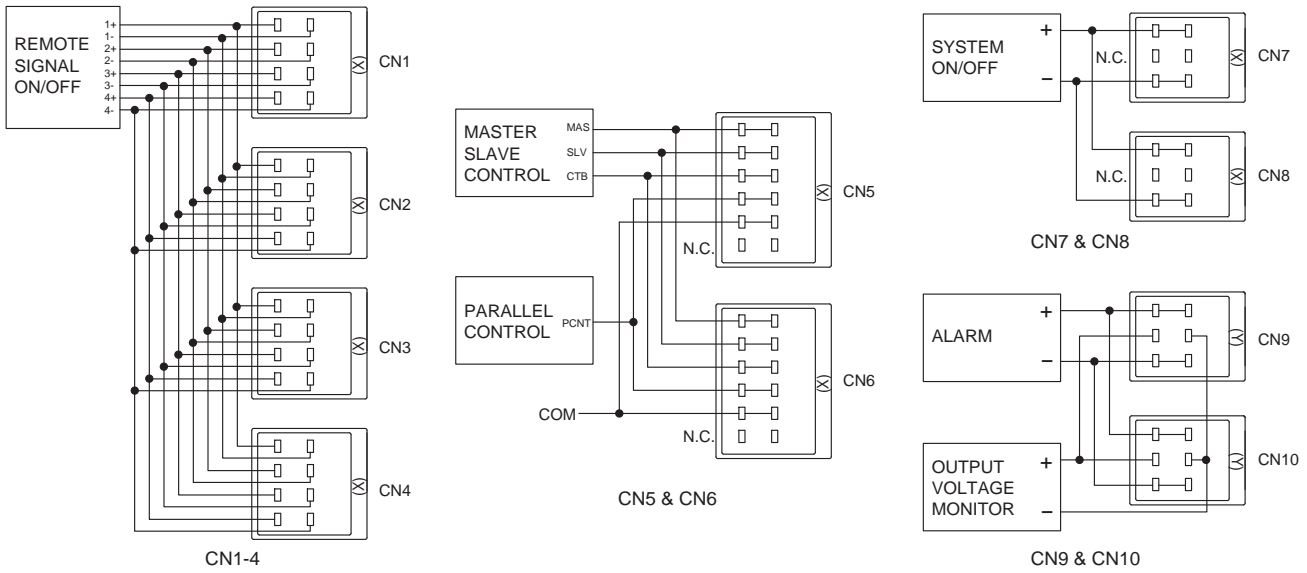
SCDA10000T Functions & Connectors

Connector	Housing	Mfr.	Pin No.	Function	
Output connector	1-353080-2	1-179958-2	Tyco Electronics AMP	1	Output (+)
				2	Output (-)
CN1 & CN2	1318125-1	1-1318119-4	Tyco Electronics AMP	1A	Remote signal ON/OFF 1+
				1B	Remote signal ON/OFF 1-
				2A	Remote signal ON/OFF 2+
				2B	Remote signal ON/OFF 2-
				3A	Remote signal ON/OFF 3+
				3B	Remote signal ON/OFF 3-
				4A	Remote signal ON/OFF 4+
				4B	Remote signal ON/OFF 4-
CN3 & CN4	1318126-1	1-1318118-6	Tyco Electronics AMP	1A,1B	MAS: Master
				2A,2B	SLV: Slave
				3A,3B	CTB: Current balance
				4A,4B	PCNT: Parallel control
				5A,5B	COM:GND
				6A,6B	N.C.
CN5 & CN6	1318124-1	1-1318119-3	Tyco Electronics AMP	1A,1B	System ON/OFF +
				3A,3B	System ON/OFF -
				2A,2B	N.C.
CN7 & CN8	1318124-2	2-1318119-3	Tyco Electronics AMP	1A,1B	Alarm +
				3A,3B	Alarm -
				2A	+M: Output voltage monitor+
				2B	-M: Output voltage monitor-

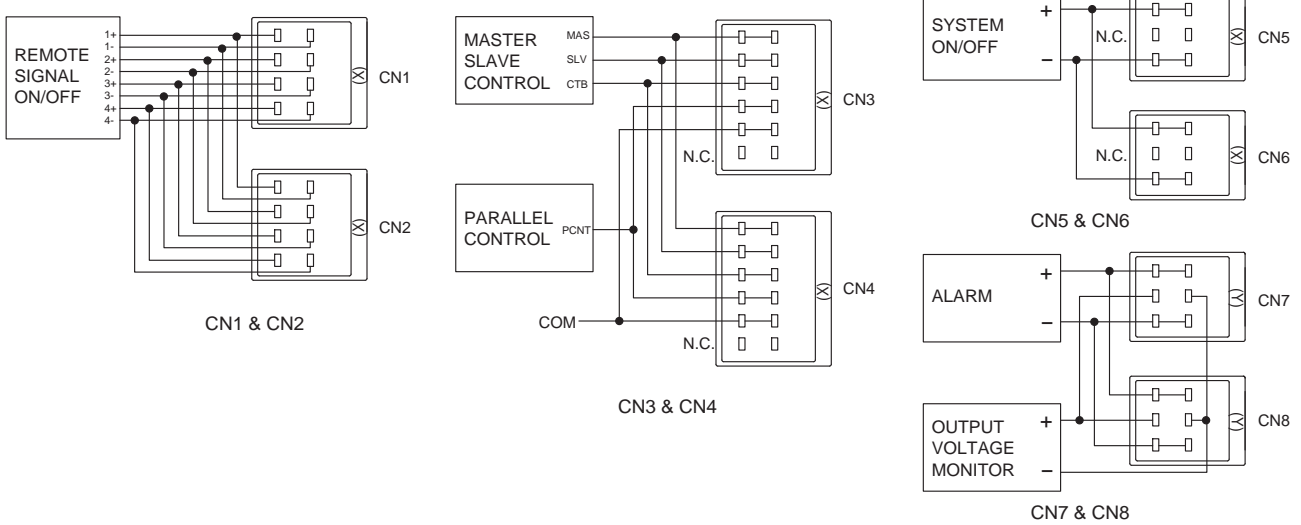
Connection diagram of function connectors

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● SCHA10000T



● SCDA10000T



Basic characteristics data

Model	Circuit method	Switching frequency [kHz]	Input current [A]	Rated input fuse	Inrush current protection circuit	PCB/Pattern		
						Material	Single sided	Double sided
SCHA 10000T	Active filter	65	35	400V 40A	SCR	FR-4		Double and Multi
	Forward converter	130						
SCDA 10000T	Active filter	65	35	400V 40A	SCR	FR-4		Double and Multi
	Forward converter	130						

* The value of input current is at ACIN 200V 3 φ and rated load.