SPECIFICATIONS (1/2)

PA644-01-01B

	TEMS			MODEL		CUS350MP-1000-24	CUS350MP-1000-30	CUS350MP-1000-36	CUS350MP-1000
NPUT									
Ir	Input Voltage Range (*5)(*15)					8	85 - 265VAC (47 - 63)		
E	Efficiency Con		vection cooling	100/115VAC	%		90/	91	
			(Typ.) (*2)	200/230VAC	%		93/	94	
		Forced air cooling		100/115VAC	%	90/91			
			(Typ.) (*3)	200/230VAC	%		93/94		
Ir	Input Current Co		Convection cooling 100/115VAC		Α		4.0/	3.6	
	-	(Typ.) (*2) 200/230VAC		Α		2.0/1.7			
			Forced air cooling 100/115VAC		А	5.7/4.9			
			0		А		2.9/	2.5	
Ь	(Typ.) (*3) 200/230VAC rush Current (Typ) (*4)(*6) 100/200VAC		A						
				21	Designed to meet IEC61000-3-2				
	PFHC (*4) Power Factor (Typ) (*4) 100/200VAC			_	0.98/0.93				
					-	0.98/0.95			
						24	20	26	40
	Nominal Output Voltage				V	24	30	36	48
	Dutput Voltage Setting				-		±1		
N	Maximum Output Current				Α	14.6	11.65	9.7	7.3
L			Forced air cooling		Α	20.8	16.6	13.8	10.4
	eak Output Current			(*1)	Α	41.7	33.3	27.7	20.9
N	Maximum Output Powe	er	Convection cooli	ng	W	350.4	349.5	349.2	350.4
			Forced air coolin	g	W	499.2	498.0	496.8	499.2
Р	Peak Output Power			(*1)	W	1000.8	999.0	997.2	1003.2
	Maximum Line Regulat	ion		(*7)(*8)	mV	96	120	144	192
	Maximum Load Regulation (*7)(*9)				mV	192	240	288	384
	Temperature Coefficien								50.
	Maximum Ripple & Noise 0≤Ta≤50°C			-	Less than 0.02% / °C 1% of output voltage				
10	maximum rappie & NO	150	(*7)		-		2% of outp	-	
	Dutnut V-lt D		(*7)	-20 <u><</u> Ta<0°C	- V	24.0 - 26.4	2% of outp 27.0 - 30.0	36.0 - 42.0	45.0 - 48.0
	Output Voltage Range			(TT) (#0)		24.0 - 20.4	27.0 - 30.0		43.0 - 48.0
Н	Iold-up Time		Convection cooli		ms				
L			Forced air coolin		ms		1:		
	eakage Current.			(*12)	-	ļ	Less than		
	Over Current Protection			(*10)	Α	42.2 -	33.7 -	28.0 -	21.2 -
	Over Voltage Protection	n		(*11)	V	28.1 -	31.1 -	44.1 -	50.1 -
UNC	TION								
R	Remote ON/OFF Control (*16)			-		Poss	ible		
R	Remote Sensing			-	None				
	Parallel Operation			-	None				
	Series Operation (*16)			-	Possible				
					5V / 0.3A				
					-				
S	Standby Supply				-				
S	Standby Supply RONMENT				-		5V / (0.3A	
S NVIR	Standby Supply RONMENT Operating Temperature			(*13)	-		5V / (-20 - +	ЗА -70°С	
S NVIR O S	Standby Supply RONMENT Operating Temperature Storage Temperature				-		5V / (-20 - + -30 - +	0.3A -70°C -75°C	
S INVIR O S O	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity						5V / 0 -20 - + -30 - + 30 - 90%RH (N	0.3A -70°C -75°C o Condensing)	
S INVIR O S O S	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity			(*13)			5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N	0.3A -70°C -75°C o Condensing) o Condensing)	
S INVIR O S O S	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity						5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N	0.3A 70°C 75°C o Condensing) o Condensing) 5Hz (Sweep for 1min))
S INVIR O S V	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity /ibration			(*13)			5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N At no operating, 10 - 5: 19.6m/s ² Constant,	0.3A 70°C 75°C o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each.)
S INVIR O S V	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity			(*13)			5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N 31 no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ²	0.3A 70°C 75°C o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. t (time : 11 ± 5 ms))
S INVIR O S O S V	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity /ibration			(*13)		A	5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N At no operating, 10 - 5: 19.6m/s ² Constant,	0.3A 70°C 75°C o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. t (time : 11 ± 5 ms))
S NVIR O S V S C	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity /ibration			(*13) (*17) (*17)		A	5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N 31 no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ²	0.3A 70°C 75°C o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. t (time : 11 ± 5 ms))
S NVIR O S O S V S C S S S S S S S S S S S S S	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity Vibration Shock Cooling			(*13) (*17) (*17)			5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N 31 no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ²	0.3A 70°C o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. i (time : 11 ± 5 ms) / Forced air cooling	
S NVIR O S O S V S C S S S S S S S S S S S S S	Standby Supply RONMENT Deerating Temperature Storage Temperature Deerating Humidity Storage Humidity /ibration Shock Cooling LTION			(*13) (*17) (*17)		Input - FG : 2.0kVAC	5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N At no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling	0.3A 70°C 75°C o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA	AC (10mA) 2xMC
S NVIR S S V S S S S O L A	Standby Supply RONMENT Deerating Temperature Storage Temperature Deerating Humidity Storage Humidity /ibration Shock Cooling LTION			(*13) (*17) (*17)		Input - FG : 2.0kVAC	5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N At no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling	0.3A 70°C o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA 0mA) 1xMOPP for 1	AC (10mA) 2xM0 min
S NVIR S O S O S O L S O L S O L S	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity Vibration Shock Cooling ATION Withstand Voltage solation Resistance			(*13) (*17) (*17)	- - - - -	Input - FG : 2.0kVAC	5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N At no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2	0.3A 70°C o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA 0mA) 1xMOPP for 1	AC (10mA) 2xM0 min
SINVIR CO SSOLA V SSOLA V SSOLA	Standby Supply RONMENT Deperating Temperature Storage Temperature Deperating Humidity Storage Humidity /ibration Shock Cooling TTION Withstand Voltage solation Resistance DARD AND COMPLI.			(*13) (*17) (*17)	- - - - -	Input - FG : 2.0kVAC Outj More than	5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N At no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2	0.3A -70°C o Condensing) o Condensing) SHz (Sweep for 1min) X,Y,Z 1hour each. i (time : 11 ± 5 ms) / Forced air cooling 	AC (10mA) 2xM0 min : 500VDC
S NVIR O S O S O S O C S O L S O L S O L S O T A NI	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity Vibration Shock Cooling ATION Withstand Voltage solation Resistance			(*13) (*17) (*17)	- - - - -	Input - FG : 2.0kVAC Outj More than Approved	5V / 0 -20 - 4 -30 - 1 -30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N Xt no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling Convection Cooling Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2 100MΩ at 25°C and 7 d by IEC/EN/UL/CSA	0.3A $70^{\circ}C$ $75^{\circ}C$ o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. $(time : 11 \pm 5 ms)$ / Forced air cooling put - Output : 4.0kVA $10^{\circ}MCP$ for 1 $10^{\circ}RH$ Output - FG $62368-1$ (Altitude \leq	AC (10mA) 2xM0 min : 500VDC 5,000m)
S NVIR O S O S O S O C S O L S O L S O L S O T A NI	Standby Supply RONMENT Deperating Temperature Storage Temperature Deperating Humidity Storage Humidity /ibration Shock Cooling TTION Withstand Voltage solation Resistance DARD AND COMPLI.			(*13) (*17) (*17)	- - - - -	Input - FG : 2.0kVAC Outj More than Approved Approved	5V / 0 -20 - 4 -30 - 4 -30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N Xt no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2 100MΩ at 25°C and 7 d by IEC/EN/UL/CSA d by IEC/EN/ES/CSA	0.3A $70^{\circ}C$ $75^{\circ}C$ o Condensing) o Condensing) SHz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA 0mA) 1xMOPP for 1 0%RH Output - FG 62368-1 (Altitude \leq 60601-1 (Altitude \leq	AC (10mA) 2xM0 min : 500VDC 5,000m) 4,000m)
SINVIR CO SSOLA V SSOLA V SSOLA	Standby Supply RONMENT Deperating Temperature Storage Temperature Deperating Humidity Storage Humidity /ibration Shock Cooling TTION Withstand Voltage solation Resistance DARD AND COMPLI.		E	(*13) (*17) (*17)	- - - - -	Input - FG : 2.0kVAC Outj More than Approved Approved	5V / 0 -20 - 4 -30 - 4 -30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N Xt no operating, 10 - 5; 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2 100MΩ at 25°C and 7 d by IEC/EN/UL/CSA d by IEC/EN/ES/CSA I by IEC/EN62477-1 (1)	0.3A $70^{\circ}C$ $75^{\circ}C$ o Condensing) o Condensing) SHz (Sweep for 1min) X,Y,Z 1hour each. $(11\pm 5 \text{ ms})$ / Forced air cooling put - Output : 4.0kVA 0mA) 1xMOPP for 1 $70^{\circ}RH$ Output - FG .62368-1 (Altitude \leq 60601-1 (Altitude \leq (OVC III) (Altitude \leq	AC (10mA) 2xMC min : 500VDC 5,000m) 4,000m) 2,000m)
S NVIR O S S C S O LA S S O LA S S O LA	Standby Supply RONMENT Deperating Temperature Storage Temperature Deperating Humidity Storage Humidity //ibration Shock Cooling ATION Withstand Voltage solation Resistance DARD AND COMPLI Safety			(*13) (*17) (*17) (*13)	- - - - -	Input - FG : 2.0kVAC Outj More than Approved Approved Designed to meet 1	5V / 0 -20 - 4 -30 - 4 -30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N Xt no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2 100MΩ at 25°C and 7 d by IEC/EN/UL/CSA d by IEC/EN/ES/CSA Iby IEC/EN62477-1 Den-an appendix 8 at	0.3A $70^{\circ}C$ $75^{\circ}C$ o Condensing) o Condensing) SHz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA 10mA) 1xMOPP for 1 10%RH Output - FG 62368-1 (Altitude \leq 60601-1 (Altitude \leq 100VAC (creepage distantion)	AC (10mA) 2xMC min : 500VDC 5,000m) 4,000m) 2,000m) nee and clearance only
SOLA SOLA	Standby Supply RONMENT Deperating Temperature Storage Temperature Deperating Humidity Storage Humidity /ibration Shock Cooling TTION Withstand Voltage solation Resistance DARD AND COMPLI.		Convection cooli	(*13) (*17) (*17) (*13) ng (*14)	- - - - - - - -	Input - FG : 2.0kVAC Outj More than Approved Approved Designed to meet I Designed to meet I	5V / 0 -20 - 4 -30 - 4 -30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N tt no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2 100MΩ at 25°C and 7 d by IEC/EN/UL/CSA d by IEC/EN/ES/CSA Iby IEC/EN/ES/CSA to meet EN55011/EN5	0.3A $70^{\circ}C$ $75^{\circ}C$ o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA 20mA) 1xMOPP for 1 20%RH Output - FG .62368-1 (Altitude \leq 60601-1 (Altitude \leq 100VAC (creepage distan 55032-B, FCC-ClassB	AC (10mA) 2xMC min : 500VDC 5,000m) 4,000m) 2,000m) nee and clearance only 5, VCCI-B
S NVIR S O S S V V S C C S OLA S S OLA S S C C	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity /ibration Shock Cooling ATHON Withstand Voltage Solation Resistance DARD AND COMPLI. Safety Conducted Emission		Convection cooli Forced air coolin	(*13) (*17) (*17) (*13) (*13) g (*14)	- - - - -	Input - FG : 2.0kVAC Out More than Approved Approved Designed to meet I Designed t	5V / 0 -20 - + -30 - + -30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N tt no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2 100MΩ at 25°C and 7 d by IEC/EN/UL/CSA d by IEC/EN/ES/CSA l by IEC/EN/ES/CSA l by IEC/EN62477-1 0 Den-an appendix 8 at to meet EN55011/EN5 0 meet EN55011/EN5	$\begin{array}{c} 0.3A \\ \hline \\ .70^{\circ}C \\ \hline \\ .75^{\circ}C \\ \hline \\ o \ Condensing) \\ \hline \\ o \ Condensing) \\ \hline \\ 5Hz \ (Sweep \ for \ 1min) \\ \hline \\ X,Y,Z \ 1hour \ each. \\ \hline \\ (time : 11 \pm 5 \ ms) \\ \hline \\ / \ Forced \ air \ cooling \\ \hline \\ \hline \\ / \ Forced \ air \ cooling \\ \hline \\ put \ - \ Output : 4.0kVA \\ \hline \\ (0mA) \ 1xMOPP \ for \ 1 \\ \hline \\ (0^{\circ}RH \ Output \ - \ FG \\ \hline \\ .62368-1 \ (Altitude \leq \\ 60601-1 \ (Altitude \leq \\ 60601-1 \ (Altitude \leq \\ 100VAC \ (creepage \ distar \\ \hline \\ 5032-B, \ FCC-ClassB \\ \hline \\ 5032-A, \ FCC-ClassA \\ \hline \end{array}$	AC (10mA) 2xMC min : 500VDC 5,000m) 4,000m) 2,000m) nee and clearance only 5, VCCI-B 5, VCCI-A
SOLA SOLA SOLA SOLA SOLA	Standby Supply RONMENT Deperating Temperature Storage Temperature Deperating Humidity Storage Humidity //ibration Shock Cooling ATION Withstand Voltage solation Resistance DARD AND COMPLI Safety		Convection cooli	(*13) (*17) (*17) (*13) (*13) g (*14)	- - - - - - - -	Input - FG : 2.0kVAC Out More than Approved Approved Designed to meet 1 Designed t Designed t	5V / 0 -20 - + -30 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N tr no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2 100MΩ at 25°C and 7 d by IEC/EN/UL/CSA d by IEC/EN/UL/CSA d by IEC/EN/ES/CSA l by IEC/EN/ES/CSA l by IEC/EN62477-1 (Den-an appendix 8 at to meet EN55011/EN5 to meet EN55011/EN5	0.3A 70°C 75°C o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA (0mA) 1xMOPP for 1 70%RH Output - FG 62368-1 (Altitude \leq 60601-1 (Altitude \leq 60601-1 (Altitude \leq 100VAC (creepage distant 5032-B, FCC-ClassB 5032-B, FCC-ClassB 5032-B, FCC-ClassB	AC (10mA) 2xM0 min : 500VDC 5,000m) 4,000m) 2,000m) ace and clearance only 5, VCCI-B 4, VCCI-A 5, VCCI-B
SOLA SOLA SOLA SOLA CC CC	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity /ibration Shock Cooling ATHON Withstand Voltage Solation Resistance DARD AND COMPLI. Safety Conducted Emission		Convection cooli Forced air coolin	(*13) (*17) (*17) (*13) (*13) g (*14) ng (*14)	- - - - - - - -	Input - FG : 2.0kVAC Out More than Approved Approved Designed to meet 1 Designed t Designed t	5V / 0 -20 - + -30 - + -30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N tt no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2 100MΩ at 25°C and 7 d by IEC/EN/UL/CSA d by IEC/EN/ES/CSA l by IEC/EN/ES/CSA l by IEC/EN62477-1 0 Den-an appendix 8 at to meet EN55011/EN5 0 meet EN55011/EN5	0.3A 70°C 75°C o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA (0mA) 1xMOPP for 1 70%RH Output - FG 62368-1 (Altitude \leq 60601-1 (Altitude \leq 60601-1 (Altitude \leq 100VAC (creepage distant 5032-B, FCC-ClassB 5032-B, FCC-ClassB 5032-B, FCC-ClassB	AC (10mA) 2xM0 min : 500VDC 5,000m) 4,000m) 2,000m) nce and clearance only 5, VCCI-B 4, VCCI-A 5, VCCI-A 5, VCCI-B
SOLA SOLA	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity /ibration Shock Cooling ATHON Withstand Voltage Solation Resistance DARD AND COMPLI. Safety Conducted Emission		Convection cooli Forced air coolin Convection cooli	(*13) (*17) (*17) (*13) (*13) g (*14) ng (*14)	- - - - - - - - - - - - - - - - - - -	Input - FG : 2.0kVAC Outp More than Approved Approved Designed to meet 1 Designed to meet 1 Designed t	5V / 0 -20 - + -30 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N tr no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2 100MΩ at 25°C and 7 d by IEC/EN/UL/CSA d by IEC/EN/UL/CSA d by IEC/EN/ES/CSA l by IEC/EN/ES/CSA l by IEC/EN62477-1 (Den-an appendix 8 at to meet EN55011/EN5 to meet EN55011/EN5	0.3A $70^{\circ}C$ $75^{\circ}C$ o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA 20mA) 1xMOPP for 1 70%RH Output - FG $62368-1$ (Altitude \leq $60601-1$ (Altitude \leq $60601-1$ (Altitude \leq $60001-1$ (Altitude \leq 100VAC (creepage distant 5032-B, FCC-ClassB 5032-A, FCC-ClassB 5032-A, FCC-ClassA	AC (10mA) 2xM0 min : 500VDC 5,000m) 4,000m) 2,000m) nce and clearance only 8, VCCI-B 4, VCCI-A 5, VCCI-A
SOLA SOLA	Standby Supply RONMENT Operating Temperature Storage Temperature Storage Humidity Storage Humidity /ibration Shock Cooling XTION Withstand Voltage solation Resistance DARD AND COMPLL Safety Conducted Emission Radiated Emission		Convection cooli Forced air coolin Convection cooli	(*13) (*17) (*17) (*13) (*13) g (*14) g (*14) g (*14) g (*14)	- - - - - - - - - - - - - - - - - - -	Input - FG : 2.0kVAC Outp More than Approved Approved Designed to meet 1 Designed to meet 1 Designed t	5V / 0 -20 - + -30 - + -30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N tt no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2 100MΩ at 25°C and 7 d by IEC/EN/UL/CSA d by IEC/EN/UL/CSA d by IEC/EN/ES/CSA l by IEC/EN/ES/CSA l by IEC/EN/ES/CSA to meet EN55011/EN5 to meet EN55011/EN5 to meet EN55011/EN5 to meet EN55011/EN5	$\begin{array}{c} 0.3A \\ \hline \\ 70^{\circ}C \\ \hline \\ o \ Condensing) \\ \hline \\ o \ Condensing) \\ \hline \\ o \ Condensing) \\ \hline \\ SHz \ (Sweep \ for \ Imin) \\ X,Y,Z \ Ihour \ each. \\ \hline \\ \hline \\ (time : 11 \pm 5 \ ms) \\ \hline \\ Forced \ air \ cooling \\ \hline \\ \hline \\ (time : 11 \pm 5 \ ms) \\ \hline \\ / \ Forced \ air \ cooling \\ \hline \\ \\ put \ - \ Output : 4.0kVA \\ 0mA) \ IxMOPP \ for \ 1 \\ \hline \\ (0mA) \ IxMOPP \ for \ 1 \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	AC (10mA) 2xM0 min : 500VDC 5,000m) 4,000m) 2,000m) nce and clearance only 8, VCCI-B 4, VCCI-A 5, VCCI-A
SOLA SOLA SOLA SOLA SOLA SOLA SOLA SOLA	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity /ibration Shock Cooling XTION Withstand Voltage solation Resistance DARD AND COMPLL Safety Conducted Emission Radiated Emission mmunity		Convection cooli Forced air coolin Convection cooli	(*13) (*17) (*17) (*13) (*13) g (*14) g (*14) g (*14) g (*14)		Input - FG : 2.0kVAC Outy More than Approved Approved Designed to meet 1 Designed to Designed to Designed to Designed to	5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N theorem is a straight of the straight	0.3A $70^{\circ}C$ $75^{\circ}C$ o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA 20mA) 1xMOPP for 1 20%RH Output - FG $62368-1$ (Altitude \leq $60601-1$ (Altitude \leq $60601-1$ (Altitude \leq $60601-1$ (Altitude \leq $60601-1$ (Altitude \leq 100VAC (creepage distation 5032-B, FCC-ClassB 5032-A, FCC-ClassB 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA	AC (10mA) 2xM0 min : 500VDC 5,000m) 4,000m) 2,000m) nece and clearance only 6, VCCI-B 4, VCCI-A 5, VCCI-A 5, -6, -8, -11
SOLA SOLA SOLA SOLA SOLA SOLA SOLA SOLA	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity /ibration Shock Cooling XTION Withstand Voltage solation Resistance DARD AND COMPLL Safety Conducted Emission Radiated Emission mmunity _ine DIP		Convection cooli Forced air coolin Convection cooli	(*13) (*17) (*17) (*13) (*13) g (*14) g (*14) g (*14) g (*14)	- - - - - - - - - - - - - - - - - - -	Input - FG : 2.0kVAC Outy More than Approved Approved Designed to meet 1 Designed to Designed to Designed to Designed to	5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N tt no operating, 10 - 5: 19.6m/s ² Constant, Less than 196.1m/s ² Convection Cooling C (10mA) 1xMOPP, In put - FG : 1.5kVAC (2 100MΩ at 25°C and 7 d by IEC/EN/UL/CSA d by IEC/EN/UL/CSA d by IEC/EN/ES/CSA l by IEC/EN/ES/CSA l by IEC/EN62477-1 (Den-an appendix 8 at to meet EN55011/EN5 to meet EN55011/EN5 to meet EN55011/EN5 meet IEC61000-6-2 IB	0.3A $70^{\circ}C$ $75^{\circ}C$ o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA 20mA) 1xMOPP for 1 20%RH Output - FG $62368-1$ (Altitude \leq $60601-1$ (Altitude \leq $60601-1$ (Altitude \leq $60601-1$ (Altitude \leq $60601-1$ (Altitude \leq 100VAC (creepage distation 5032-B, FCC-ClassB 5032-A, FCC-ClassB 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA 5032-A, FCC-ClassA	AC (10mA) 2xM0 min : 500VDC 5,000m) 4,000m) 2,000m) nece and clearance only 6, VCCI-B 4, VCCI-A 5, VCCI-A 5, -6, -8, -11
SOLA TANI TANI TANI TANI	Standby Supply RONMENT Operating Temperature Storage Temperature Operating Humidity Storage Humidity /ibration Shock Cooling XTION Withstand Voltage solation Resistance DARD AND COMPLL Safety Conducted Emission Radiated Emission mmunity		Convection cooli Forced air coolin Convection cooli	(*13) (*17) (*17) (*13) (*13) g (*14) g (*14) g (*14) g (*14)		Input - FG : 2.0kVAC Outy More than Approved Approved Designed to meet 1 Designed to Designed to Designed to Designed to	5V / 0 -20 - + -30 - + 30 - 90%RH (N 30 - 90%RH (N 30 - 90%RH (N theorem is a straight of the straight	0.3A 70°C 75°C o Condensing) o Condensing) 5Hz (Sweep for 1min) X,Y,Z 1hour each. (time : 11 ± 5 ms) / Forced air cooling put - Output : 4.0kVA 20mA) 1xMOPP for 1 70%RH Output - FG 4.62368-1 (Altitude \leq 60601-1 (Altitude \leq 60601-1 (Altitude \leq 60601-1 (Altitude \leq 60601-1 (Altitude \leq 60601-1 (Altitude \leq 60502-B, FCC-ClassB 5032-B, FCC-ClassB 5032-A, FCC-ClassB 5032-A, FCC-ClassA 5032-B, FCC-ClassA 5032-A, F	AC (10mA) 2xM0 min : 500VDC 5,000m) 4,000m) 2,000m) nece and clearance only 6, VCCI-B 4, VCCI-A 5, VCCI-A 5, -6, -8, -11

CUS350MP-1000

SPECIFICATIONS (2/2)

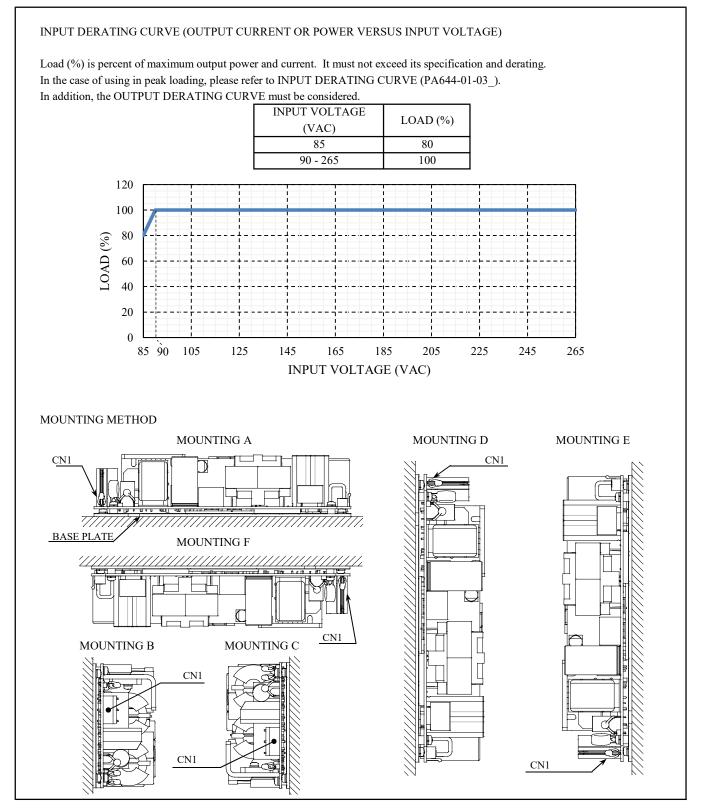
PA644-01-01B

*Read instruction manual carefully, before using the power supply unit. =NOTES= *1. Continuous peak output duration must be less than or equal to 5 sec with duty not more than 45%. Peak output power for more than 5 sec will cause output to shut down and. manual reset of power supply or remote control off/on is required to re-power on. Peak loading is applicable for convection and forced air cooling. When the peak loading condition, output derating is required. For details, refer to peak output condition (PA644-01-03). *2. At Ta=25°C, nominal output voltage, maximum output power at convection cooling and standby supply is at no load. *3. At Ta=25°C, nominal output voltage, maximum output power at forced air cooling and standby supply is at no load. For details, refer to INPUT DERATING CURVE and OUTPUT DERATING CURVE (PA644-01-02). *4. At Ta=25°C, nominal output voltage, maximum output power at convection cooling and forced air cooling, and standby supply is at no load. *5. For cases where conformance is required to meet various safety specs (UL, CSA, EN), input voltage range shall be from 100 - 240VAC (50-60Hz). *6. Not applicable for the in-rush current to Noise Filter for less than 0.2ms. *7. Refer to Fig. A for measurement of Vo, line and load regulation, and ripple voltage. *8. Input voltage from 90 to 265VAC at constant output current. *9. Constant input voltage and output current from no load to maximum output current. *10. Constant current mode protection with automatic recovery. Over current condition for more than 1 sec will cause output to shut down. Avoid to operate at over load or short circuit condition. *11. Inverter shut down method. When OVP is triggered, output will be shut down, and manual reset of power supply or remote control off/on is required to re-power on. *12. Apply the appropriate measurement method according to the required standard: UL, CSA, EN and DENAN (at 60Hz), Ta=25°C. *13. For details, Refer to OUTPUT DERATING CURVE (PA644-01-02). *14. The result is evaluated by TDK-Lambda standard measurement condition. The power supply is considered as a component installed to an equipment. The equipment should be re-evaluated to meet its EMC directives. *15. When the input voltage is less than 90VAC, output derating is required. Refer to INPUT DERATING CURVE (PA644-01-02). *16. Refer to instruction manual (PA644-04-01). *17. Using 4 mounting holes on baseplate. The result is evaluated by TDK-Lambda standard measurement condition. The equipment should be re-evaluated to meet its vibration and shock requirement. *18. Output voltage setting at the time of shipment. At 100VAC, nominal output voltage and maximum output current. Fig. A Measuring Point for Ripple and Noise Measure by JEITA probe 150mm Bandwidth of Oscilloscope : 100MHz +VC1C2TLoad -V C1: Cap., Film 0.1µF Measuring Point for C2 : Cap., Elect 100µF Vo, Line and Load Regulation

CUS350MP-1000

INPUT DERATING and OUTPUT DERATING (1/3)

PA644-01-02A



CUS350MP-1000

INPUT DERATING and OUTPUT DERATING (2/3)

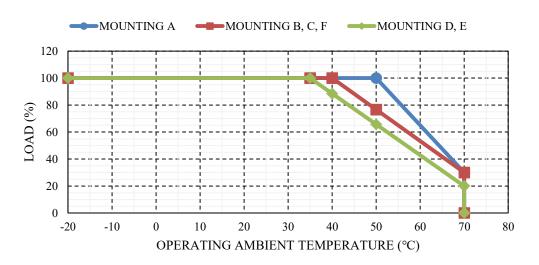
PA644-01-02A

OUTPUT DERATING CURVE (OUTPUT CURRENT OR POWER VERSUS OPERATING AMBIENT TEMPERATURE)

1. CONVECTION COOLING

Load (%) is percent of maximum output power and current. It must not exceed its specification and derating. The OUTPUT DERATING CURVE also must be considered at peak loading.

Ta (°C)	LOAD (%)					
1a(C)	MOUNTING A	MOUNTING B, C, F	MOUNTING D, E			
-20 - +20	100	100	100			
35	100	100	100			
40	100	100	88			
50	100	76	65			
70	30	30	20			

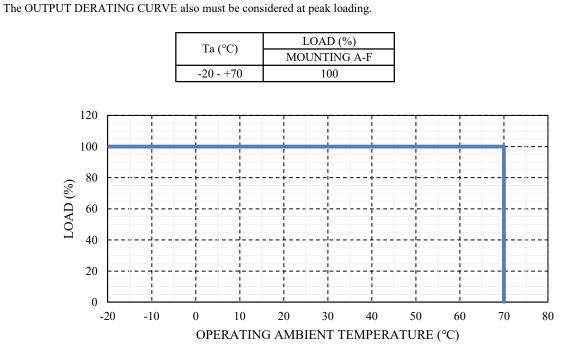


CUS350MP-1000

INPUT DERATING and OUTPUT DERATING (3/3)

PA644-01-02A

OUTPUT DERATING CURVE (OUTPUT CURRENT OR POWER VERSUS OPERATING AMBIENT TEMPERATURE)
2. FORCED AIR COOLING
Load (%) is percent of maximum output power and current. It must not exceed its specification and derating.
The OUTPUT DERATING CURVE also are the period.



Forced air cooling requires air velocity of more than 2.2m/s and air flow must be towards to C8, C9 and T1. The components must be cooled by forced air.

The power supply is considered as a component installed, to an equipment.

The equipment should be re-evaluated and make sure to meet allowable component temperature.

For allowable component temperature and further detail, refer to instruction manual (PA644-04-01_).

CUS350MP-1000

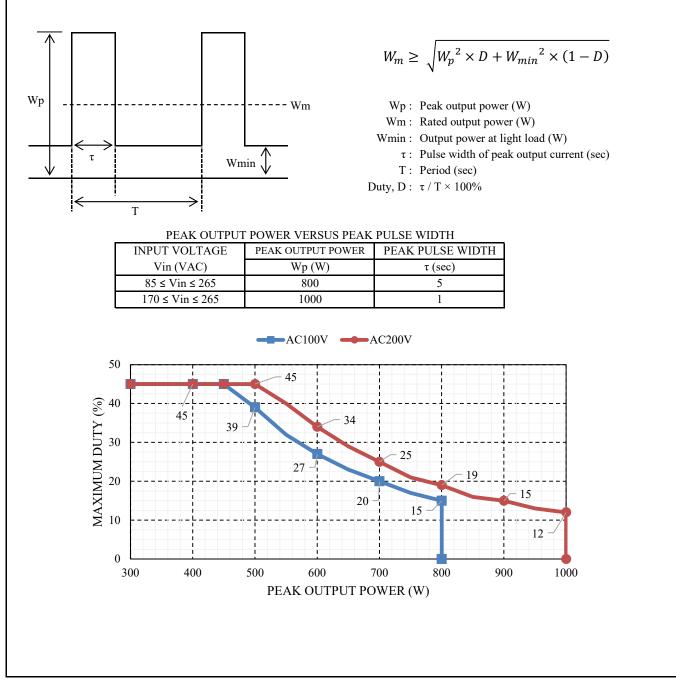
PEAK OUTPUT CONDITION (1/2)

PA644-01-03A

PEAK OUTPUT CONDITION

Use this product to achieve its peak output power capability according to the following expression: When the peak output power is more than 800W, pulse width of peak power (τ) must be less than or equal to 1 sec. When input voltage is less than 170VAC, output derating is required. Refer input derating curve.

Peak output codition must be considered as per following expression, input derating curve and output derating curve.



CUS350MP-1000

PEAK OUTPUT CONDITION (2/2)

PA644-01-03A

