



**SPECIFICATION** 

# 375W Quad Output with PFC Function

QP-375 series

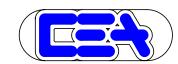


### Features:

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- CH3,4 are isolated from other outputs and the polarity can be reversed
- No minimum load requirement for CH2,3,4
- All output can be adjustable from -5~+10%
- With power good and fail signal output
- Built-in remote ON-OFF control
- Fixed switching frequency at 100KHz
- 3 years warranty



MODEL		QP-375-5A			QP-375-5B				QP-375-5C				
	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	DC VOLTAGE	+5V	+12V	12V	12V	+5V	+12V	12V	5V	+5V	+12V	15V	15V
	RATED CURRENT	30A	10A	6A	3A	30A	10A	6A	3A	30A	9A	4A	4A
	CURRENT RANGE	3.5 ~ 40A	0 ~ 16A	0 ~ 6A	0 ~ 3A	3.5 ~ 40A	0 ~ 16A	0 ~ 6A	0 ~ 3A	3.5 ~ 40A	0 ~ 16A	0 ~ 4A	0 ~ 4A
	RATED POWER(max.)	378W			'	357W				378W			
CUITRUIT	RIPPLE & NOISE (max.) Note.2	100mVp-p	150mVp-p	150mVp-p	50mVp-p	100mVp-p	120mVp-p	120mVp-p	50mVp-p	100mVp-p	150mVp-p	150mVp-p	240mVp
OUTPUT	VOLTAGE ADJ. RANGE	4.75 ~ 5.5V	11.4 ~ 13.2V	11.4 ~ 13.2V	11.4 ~ 13.2V	4.75 ~ 5.5V	11.4 ~ 13.2V	11.4 ~ 13.2V		4.75 ~ 5.5V	11.4 ~ 13.2V	14.3 ~ 16.5V	14.3 ~ 16.
	VOLTAGE TOLERANCE Note.3	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%
	SETUP, RISE TIME	800ms, 50	ms at full lo	oad									
	HOLD UP TIME (Typ.)	36ms at full load											
	VOLTAGE RANGE Note.7	85 ~ 264V	AC 12	20 ~ 370VD	С								
	FREQUENCY RANGE	47 ~ 63Hz											
	POWER FACTOR (Typ.)	PF>0.95/2	30VAC	PF>0.98/	115VAC at	full load							
INPUT	EFFICIENCY (Typ.)	77%				77%				77%			
	AC CURRENT (Typ.)	6A/115VA	C 3A/	230VAC						I			
	INRUSH CURRENT (Typ.)	COLD START 45A											
	LEAKAGE CURRENT	<2mA / 24	0VAC										
	OVERLOAD	105 ~ 135% rated output power  Protection type: Hiccup mode, recovers automatically after fault condition is removed											
PROTECTION		CH1:5.75 ~ 6.75V											
PROTECTION	OVER VOLTAGE	Protection type: Shut down o/p voltage, re-power on to recover											
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down											
	POWER GOOD / POWER FAIL (OPTIONAL)			je, recover	3 automati	ically alter	temperatur	e goes do	WII				
FUNCTION	REMOTE CONTROL			OWFR ON:	4V ~ 10V I	POWER OF	F						
	WORKING TEMP.	RC+/RC-:0 ~ 0.8V POWER ON; 4V ~ 10V POWER OFF  -10 ~ +60°C (Refer to "Derating Curve")											
	WORKING HUMIDITY	20 ~ 90% RH non-condensing											
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-20 ~+85°C, 10 ~ 95% RH non-condensing											
LIVINORIILAT	TEMP. COEFFICIENT	±0.03%°C (0~50°C)											
	VIBRATION	±0.03%/ C (0~50 C)  10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes											
	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved											
SAFETY &	WITHSTAND VOLTAGE		·		·	FG:0.5KVA	C						
EMC	ISOLATION RESISTANCE	I/P-O/P:3KVAC   I/P-FG:1.5KVAC   O/P-FG:0.5KVAC   I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH											
(Note 4)	EMC EMISSION	Compliance to EN61000-3-2,-3											
,	EMC IMMUNITY				1 5 6 8 11	EN55024, li	aht industr	v level crit	eria A				
	MTBF			L-HDBK-21		L1400024, II	giitiiidusti	y level, citt	CII A				
OTHERS	DIMENSION		33.5mm (L*		(ZJC)								
OTTILING	PACKING												
NOTE	All parameters NOT specia     Ripple & noise are measure     Tolerance : includes set up     The power supply is consid     EMC directives. For guidan     (as available on http://www.     Peak current can not excee     Isolated CH3 & CH4 maybe	All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.  Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  Tolerance: includes set up tolerance, line regulation and load regulation.  The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)  Peak current can not exceed 60 sec.  Isolated CH3 & CH4 maybe series connected or can be used as positive or negative outputs.  Derating may be needed under low input voltages. Please check the derating curve for more details.											





**SPECIFICATION** 

# 375W Quad Output with PFC Function

QP-375 series



### Features:

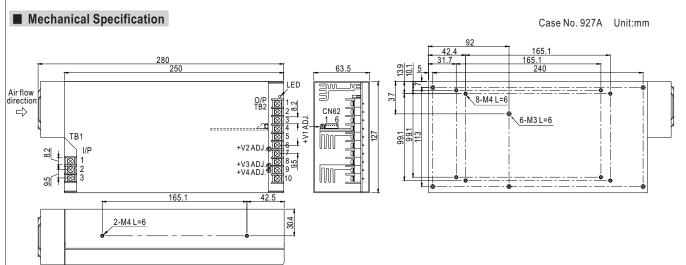
- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections:Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- CH3,4 are isolated from other outputs and the polarity can be reversed
- No minimum load requirement for CH2,3,4
- All output can be adjustable from -5~+10%
- With power good and fail signal output
- Built-in remote ON-OFF control
- Fixed switching frequency at 100KHz
- 3 years warranty



MODEL		QP-375-5D				QP-375-5E					
	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4		
	DC VOLTAGE	+5V	+12V	12V	24V	+5V	+12V	24V	24V		
	RATED CURRENT	30A	9A	4A	3A	30A	9A	3A	2A		
	CURRENT RANGE	3.5 ~ 40A	0 ~ 16A	0 ~ 6A	0 ~ 3A	3.5 ~ 40A	0 ~ 16A	0 ~ 4A	0 ~ 3A		
	RATED POWER(max.)	378W	·		1	378W		<u>'</u>			
	RIPPLE & NOISE (max.) Note.2	100mVp-p	120mVp-p	120mVp-p	240mVp-p	100mVp-p	120mVp-p	120mVp-p	240mVp-p		
OUTPUT	VOLTAGE ADJ. RANGE	4.75 ~ 5.5V	11.4 ~ 13.2V	11.4 ~ 13.2V	22.8 ~ 26.4V	4.75 ~ 5.5V	11.4 ~ 13.2V	22.8 ~ 26.4V	22.8 ~ 26.4\		
	VOLTAGE TOLERANCE Note.3	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	LOAD REGULATION	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%		
	SETUP, RISE TIME	800ms, 50ms a	800ms, 50ms at full load								
	HOLD UP TIME (Typ.)	36ms at full load									
	VOLTAGE RANGE Note.7	85 ~ 264VAC	120 ~ 370VE	OC .							
	FREQUENCY RANGE	47 ~ 63Hz									
	POWER FACTOR (Typ.)	PF>0.95/230VA	AC PF>0.98/	/115VAC at full lo	oad						
INPUT	EFFICIENCY (Typ.)	78%				78%					
	AC CURRENT (Typ.)	6A/115VAC									
	INRUSH CURRENT (Typ.)	COLD START 45A									
	LEAKAGE CURRENT	<pre><pre><pre></pre></pre><pre><pre><pre></pre></pre><pre></pre></pre><pre><pre></pre></pre><pre></pre></pre> <pre></pre> <pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre><!--</td--></pre></pre>									
	OVERLOAD	105 ~ 135% rated output power									
PROTECTION		Protection type: Hiccup mode, recovers automatically after fault condition is removed  CH1:5.75 ~ 6.75V									
PROTECTION	OVER VOLTAGE	Protection type: Shut down o/p voltage, re-power on to recover									
	OVED TEMPEDATURE	Protection type: Shut down o/p voltage, re-power on to recover  Shut down o/p voltage, recovers automatically after temperature goes down									
	OVER TEMPERATURE		voitage, recove	rs automatically	y after temperati	ire goes down					
FUNCTION	POWER GOOD / POWER FAIL (OPTIONAL)										
	REMOTE CONTROL										
	WORKING TEMP.	-10 ~ +60°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20 ~ 90% RH non-condensing									
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH non-condensing									
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)									
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes  UL60950-1, TUV EN60950-1 approved									
	SAFETY STANDARDS			•	) FICUA C						
SAFETY &	WITHSTAND VOLTAGE			/AC							
EMC (Note 4)	ISOLATION RESISTANCE		-		/ 25°C / 70% RH						
(Note 4)	EMC EMISSION		EN61000-3-2,-3								
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A									
	MTBF		MIL-HDBK-2	17F (25℃)							
OTHERS	DIMENSION	280*127*63.5n									
<b>PACKING</b> 2.4Kg; 6pcs/14.8Kg/0.89CUFT											
NOTE	<ol> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>Tolerance: includes set up tolerance, line regulation and load regulation.</li> <li>The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meer EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)</li> <li>Peak current can not exceed 60 sec.</li> <li>Isolated CH3 &amp; CH4 maybe series connected or can be used as positive or negative outputs.</li> <li>Deratting may be needed under low input voltages. Please check the derating curve for more details.</li> </ol>					it still meets					



# QP-375 series



AC Input Terminal Pin No. Assignment

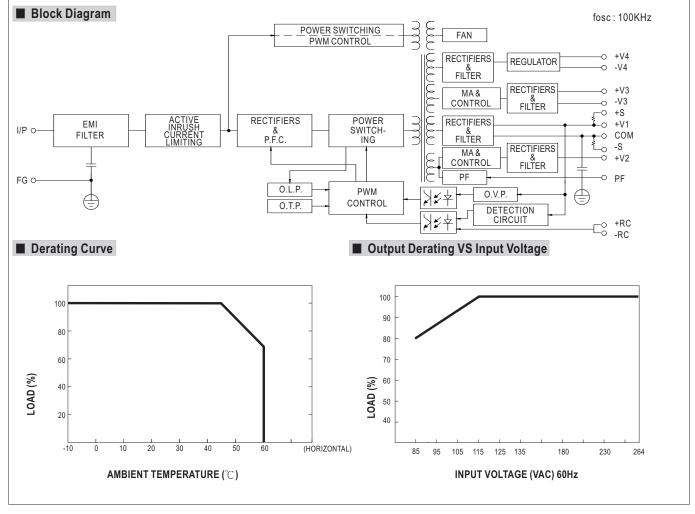
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Pin No.	Assignment				
1	AC/L				
2	AC/N				
3	FG ±				

DC Output Terminal Pin No. Assignment

	Pin No.	Assignment	Pin No.	Assignment
	1,2	+V1	8	-V3
	3,4,5	3,4,5 COM(V1 and V2)		+V4
	6	+V2	10	-V4
ı	7	. 1/0		

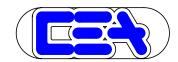
CN62 Pin No. Assignment: JST S6B-XH or equivalent

Pin No.	Assignment	Mating Housing	Terminal			
1	PF(Power good / Fail signal)					
2	GND					
3	RS-	JST XHP	JST SXH-001T-P0.6 or equivalent			
4	RS+	or equivalent				
5	RC-					
6	RC+					





File Name:QP-375-SPEC 2017-07-14



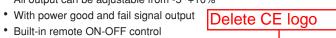


**QP-375-24** series



### Features:

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- CH3,4 are isolated from other outputs and the polarity can be reversed
- No minimum load requirement for CH2,3,4
- All output can be adjustable from -5~+10%
- Built-in remote ON-OFF control
- Fixed switching frequency at 100KHz
- 3 years warranty



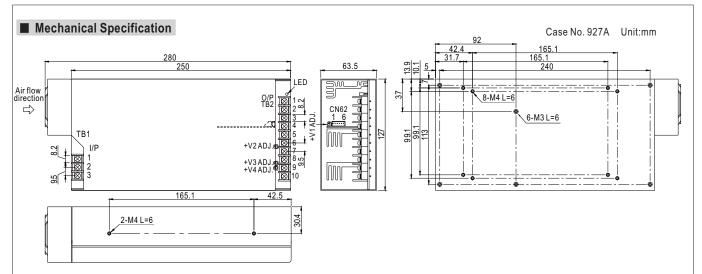


### **SPECIFICATION**

MODEL		QP-375-24B				QP-375-24C					
	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4		
	DC VOLTAGE	+24V	+5V	12V	12V	+24V	+5V	15V	15V		
	RATED CURRENT	10A	10A	4A	4A	10A	10A	4A	4A		
	CURRENT RANGE	1 ~ 10A	0 ~ 16A	0 ~ 4A	0 ~ 4A	1 ~ 10A	0 ~ 10A	0 ~ 4A	0 ~ 4A		
	RATED POWER(max.)	386W	0 10/1	10 171	10 171	410W	0 10/1	0 171	10 111		
	RIPPLE & NOISE (max.) Note.2		50mVp-p	120mVp-p	120mVp-p	240mVp-p	50mVp-p	150mVp-p	150mVp-p		
OUTPUT	VOLTAGE ADJ. RANGE	21.6 ~ 26.4V	4.5 ~ 5.5V	10.8 ~ 13.2V	10.8 ~ 13.2V	21.6 ~ 26.4V	4.5 ~ 5.5V	13.5 ~ 16.5V	13.5 ~ 16.5V		
	VOLTAGE TOLERANCE Note.3		±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	LOAD REGULATION	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%	±0.8%		
	SETUP, RISE TIME			1 = 0.0 / 0	1 = 0.070	20.070	1 20.070	20.070	20.070		
	,	800ms, 50ms at full load									
	HOLD UP TIME (Typ.)  VOLTAGE RANGE Note.7	36ms at full load									
		85 ~ 264VAC 120 ~ 370VDC									
	FREQUENCY RANGE	47 ~ 63Hz									
	POWER FACTOR (Typ.)		PF>0.95/230VAC								
NPUT	EFFICIENCY (Typ.)	78%	0.4.100.00.14.0			80%					
	AC CURRENT (Typ.)	6A/115VAC 3A/230VAC									
	INRUSH CURRENT (Typ.)	COLD START 45A									
	LEAKAGE CURRENT	<pre><ma 240vac<="" pre=""></ma></pre>									
	OVERLOAD	105 ~ 135% rated output power									
	OVERLOAD	Protection type: Hiccup mode, recovers automatically after condition is removed									
PROTECTION	OVER VOLTAGE		CH1:27.6 ~ 32.4V								
		Protection type : Shut down o/p voltage, re-power on to recover									
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down									
UNCTION	POWER GOOD / POWER FAIL (OPTIONAL)										
	REMOTE CONTROL	RC+/RC-:0 ~ 0.8V POWER ON; 4V ~ 10V POWER OFF									
	WORKING TEMP.	-10 ~ +60°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20 ~ 90% RH non-condensing									
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH non-condensing									
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)									
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes									
	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved									
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:3KVAC	I/P-FG:1.5K	VAC O/P	Loto ENG	5E022 (C	ICDD33\	Class B			
EMC	ISOLATION RESISTANCE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:2.5KVAC O/P-FG:1.5KVAC O/P-FG:									
Note 4)	EMC EMISSION	Compliance to	EN61000-3-2,-3								
	EMC IMMUNITY	Compliance to	EN61000-4-2,3	4,5,6,8,11, EN5	5024, light indus	try level, criteria	A				
	MTBF	75.9K hrs min.	MIL-HDBK-2	17F (25°C)							
OTHERS	DIMENSION	280*127*63.5n									
	PACKING		.8Kg/0.89CUFT								
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.  2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  3. Tolerance: includes set up tolerance, line regulation and load regulation.  4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."  (as available on http://www.meanwell.com)  5. Peak current can not exceed 60 sec.  6. Isolated CH3 & CH4 maybe series connected or can be used as positive or negative outputs.  7. Derating may be needed under low input voltages. Please check the derating curve for more details.										



# **QP-375-24** series



AC Input Terminal Pin No. Assignment

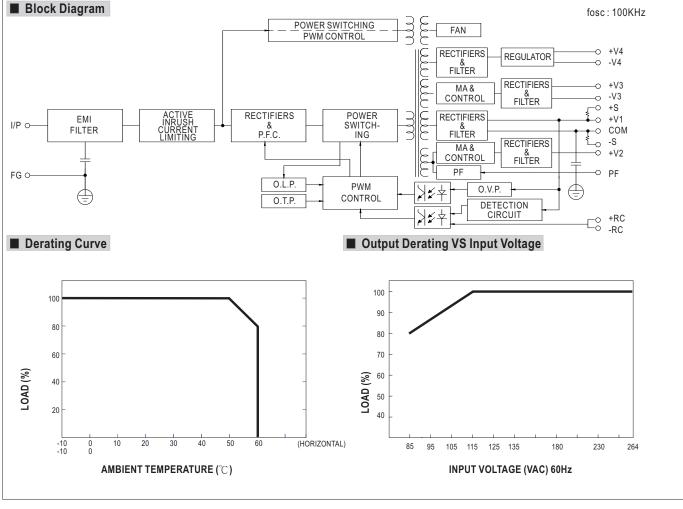
Pin No.	Assignment				
1	AC/L				
2	AC/N				
3	FG ±				

DC Output Terminal Pin No. Assignment

Pin No.	Pin No. Assignment		Assignment
1,2 +V1		8	-V3
3,4,5	COM(V1 and V2)	9	+V4
6	+V2	10	-V4
7	+V3		

CN62 Pin No. Assignment: JST S6B-XH or equivalent

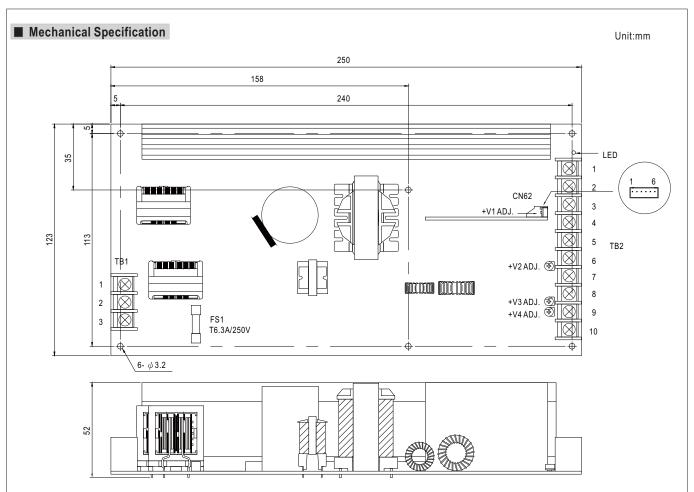
Pin No.	Assignment	Mating Housing	Terminal		
1	PF(Power good / Fail signal)				
2	GND				
3	RS-	JST XHP	JST SXH-001T-P0.6		
4	RS+	or equivalent	or equivalent		
5	RC-				
6	RC+				







# QP-375P series



AC Input Terminal Pin No. Assignment

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Pin No.	Assignment				
1	AC/L				
2	AC/N				
3	FG ±				

#### DC Output Terminal Pin No. Assignment

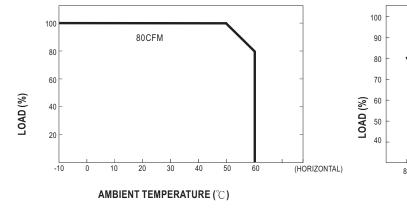
Pin No.	Assignment	Pin No.	Assignment
1,2 +V1		8	-V3
3,4,5	COM(V1 and V2)	9	+V4
6	+V2	10	-V4
7	+V3		

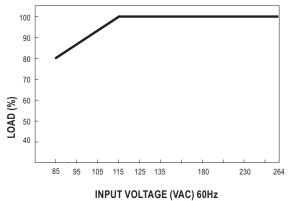
#### CN62 Pin No. Assignment: JST S6B-XH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	PF(Power good / Fail signal)		
2	GND		
3	RS-	JST XHP	JST SXH-001T-P0.6
4	RS+	or equivalent	or equivalent
5	RC-		
6	RC+		

### ■ Derating Curve

### ■ Output Derating VS Input Voltage



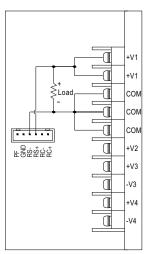


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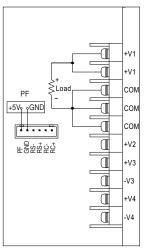


QP-375 series

### ■ Control terminal instruction manual

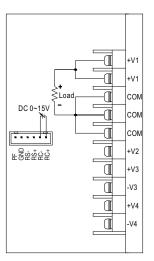


Remote Sensing



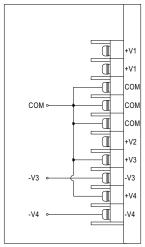
Power Fail Signal

PF Signal is the voltage difference between "GND" and "PF" pin output

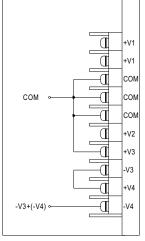


Power Fail Signal

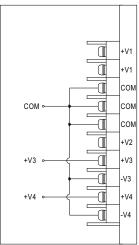
Power ON: When VRC+,RC-=0  $\sim$  0.8V or Open Power OFF: When VRC+,RC-=4  $\sim$  10V



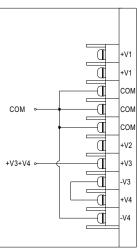
V3,V4 All Negative(-)



V3 Puls Negative(-)



V3,V4 All Positive(+)



V3 Plus V4 Positive(+)

