TPR-3P

3-Phase Power Regulator

Selection Guide

Control constant	Power voltage	Rated current	Model
3-phase	220 V.a.c. [220]	200 A [200]	TPR-3P220V200A
		250 A [250]	TPR-3P220V250A
		320 A [320]	TPR-3P220V320A
		500 A [500]	TPR-3P220V500A
	380 V a.c. / 440 V a.c. [380/440]	200 A [200]	TPR-3P380V/440V200A
		250 A [250]	TPR-3P380V/440V250A
		320 A [320]	TPR-3P380V/440V320A
		500 A [500]	TPR-3P380V/440V500A

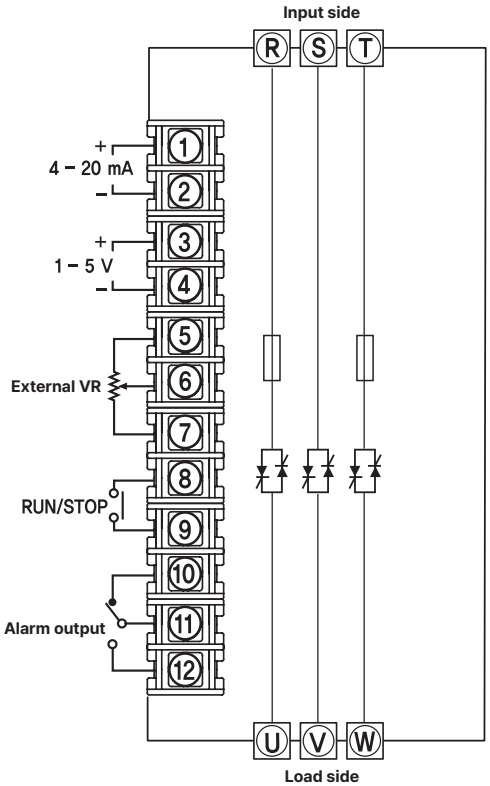
Suffix code

Category	Code		Description
TPR-3P	▢	▢	Three-phase power regulator
Power voltage	220		220 V a.c..
	380/440		380 V a.c. / 440 V a.c.
Rated current		200	200 A
		250	250 A
		320	320 A
		500	500 A

Specifications

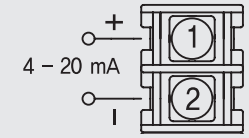
Category		Description			
Power voltage		220 V a.c. / 380 V a.c. / 440 V a.c.			
Power frequency		50/60 Hz (compatible)			
Rated current		200 A	250 A	320 A	500 A
Protection circuit		Alarms for fuse break, overcurrent detection, and heat sink overheat			
Applied load		Resistive load			
Control input	Current input	4 - 20 mA d.c.			
	Voltage input	0 - 5 V d.c., 1 - 5 V d.c., 0 - 10 V d.c.			
	Contact input	ON/OFF			
	External VR	External variable resistor (10 kΩ)			
Control method		Phase control, ON/OFF control, cycle control			
Starting method		Soft start / Soft down			
Output voltage		95% of the power voltage or higher (at maximum current input)			
Cooling method		Forced cooling Apply separate power to drive fans			
Display method		Output display via LED			
Insulation resistance		100 MΩ or higher (500 V d.c. in megaohms)			
Adjustable output range		0 to 100%			
Dielectric strength		2,000 V a.c. (1 minute at 50/60 Hz)			
Line noise		Noise generated by a noise simulator (2 kV)kV			
Ambient temperature/ humidity		0 to 40 °C, 35 to 85% RH (however, there should be no condensation)			
Storage temperature		-25 to 70 °C			
Weight		200/250 A: Approximately 1,500 g / 320 A: Approximately 2,200 g / 500 A: Approximately 3,500 g			

Connection diagram

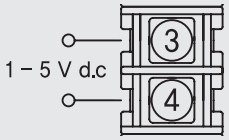


How to wire input signal terminals

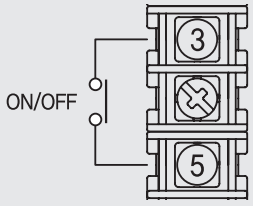
When using 4-20 mA d.c.



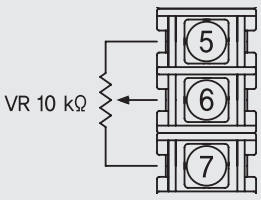
When using 1-5 V, 0-5 V, 0-10 V d.c.



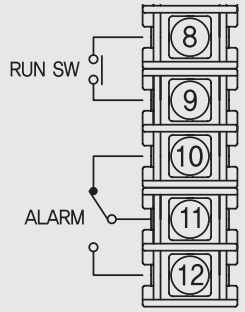
When using ON/OFF



When using an external manual VR



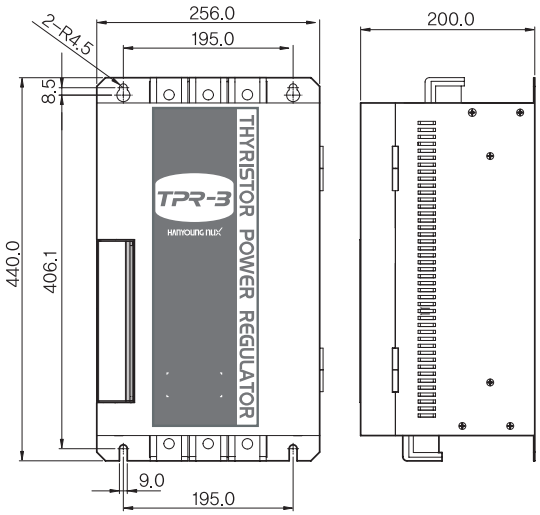
When using RUN S/W, ALARM RELAY



External dimensions

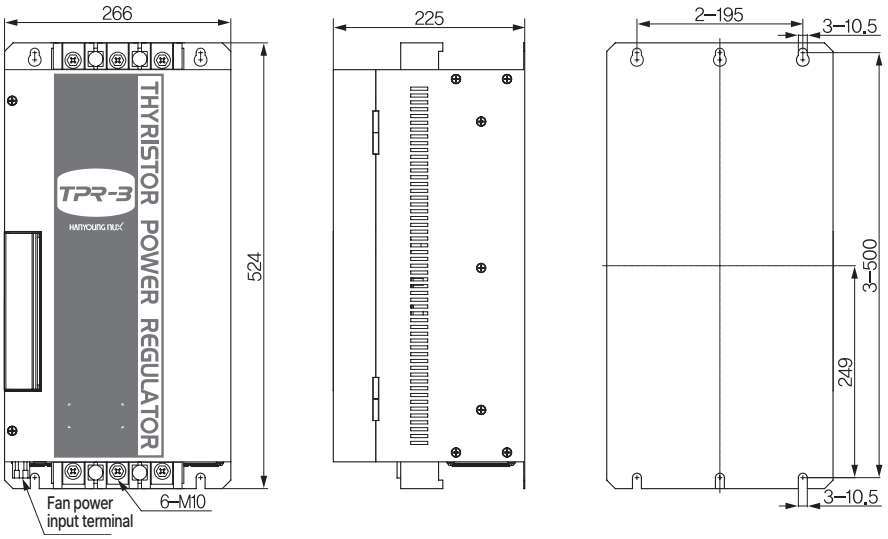
200 A, 250 A

[Unit: mm]



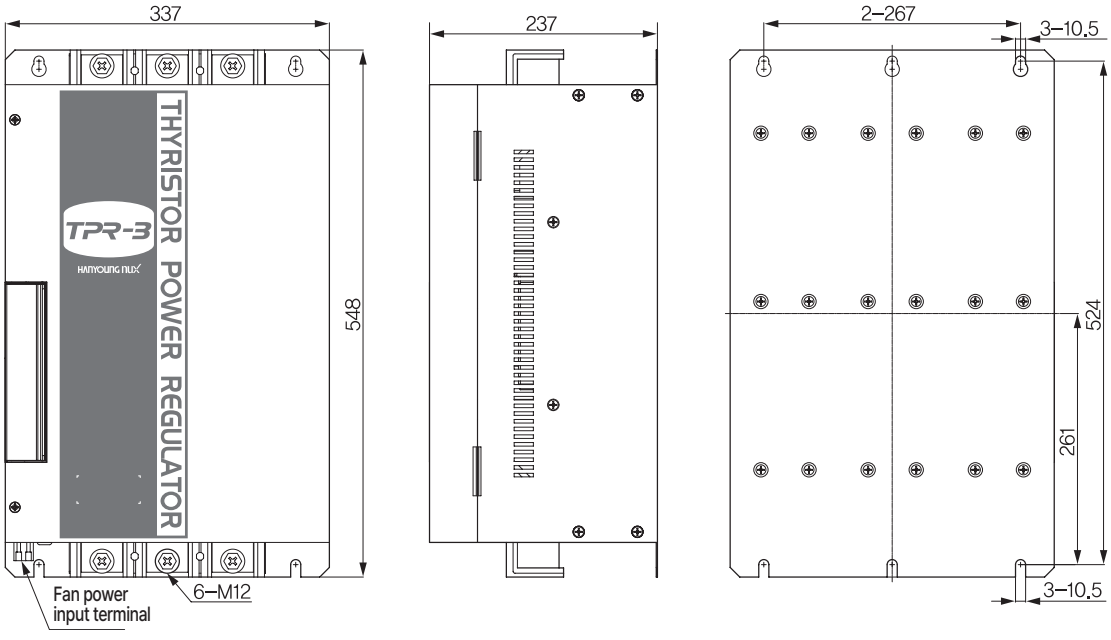
320 A

[Unit: mm]



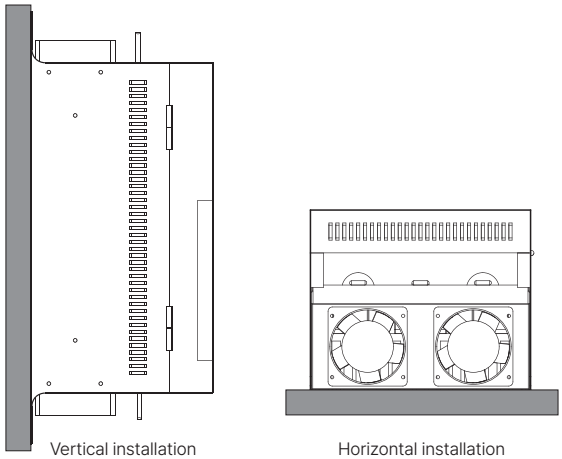
500 A

[Unit: mm]



Installation guide and precautions

Installation method

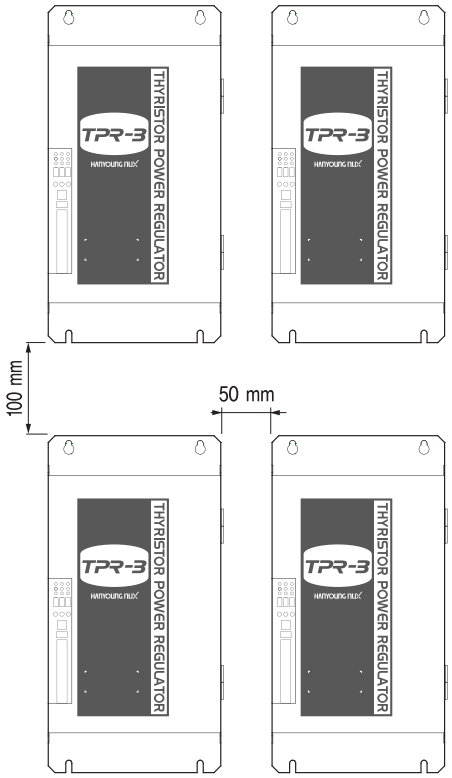


Vertical installation

Horizontal installation

Install the product vertically.
If the product needs to be installed horizontally due to limited space, make sure to use only 50% of the product's load current.

Installation spacing



When installing multiple products in close proximity, please ensure that they are at least 50 mm apart horizontally and at least 100 mm apart vertically.

Installing the control panel

1. Take airflow into consideration when installing the product.
2. The lower the ambient temperature inside, the more durable and reliable the product will be.
3. Remove any element that could obstruct the airflow over the product as much as possible.
4. Ensure the product is properly ventilated to keep the temperature inside the panel below 40 °C.
5. When the OT LED lights up, please check the temperature inside the panel and ensure that the cooling fan located below the TPR heat sink is operating properly.
6. Make sure that the R, S, and T phases are wired correctly.