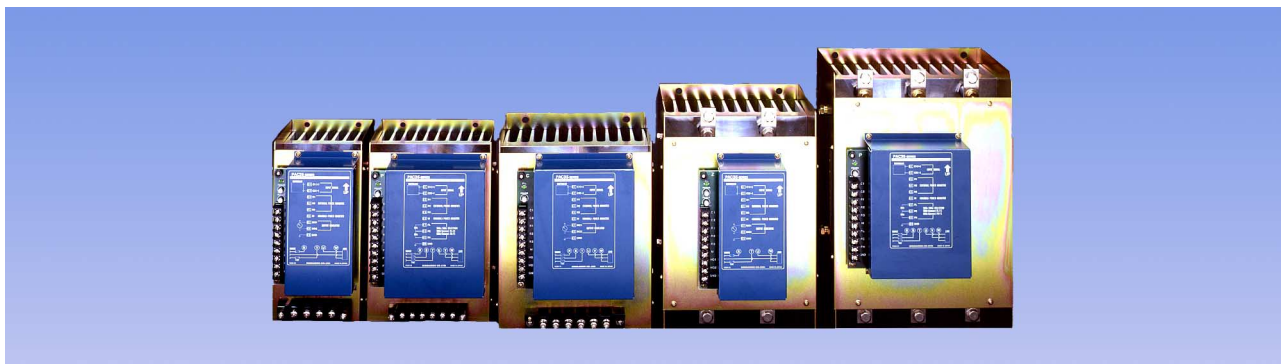


°C	<b>SERIE PAC35</b>
%RH	
<b>SHIMADEN</b>	

# TREFASE EFFEKTREGULATOR

## Basisfunksjoner



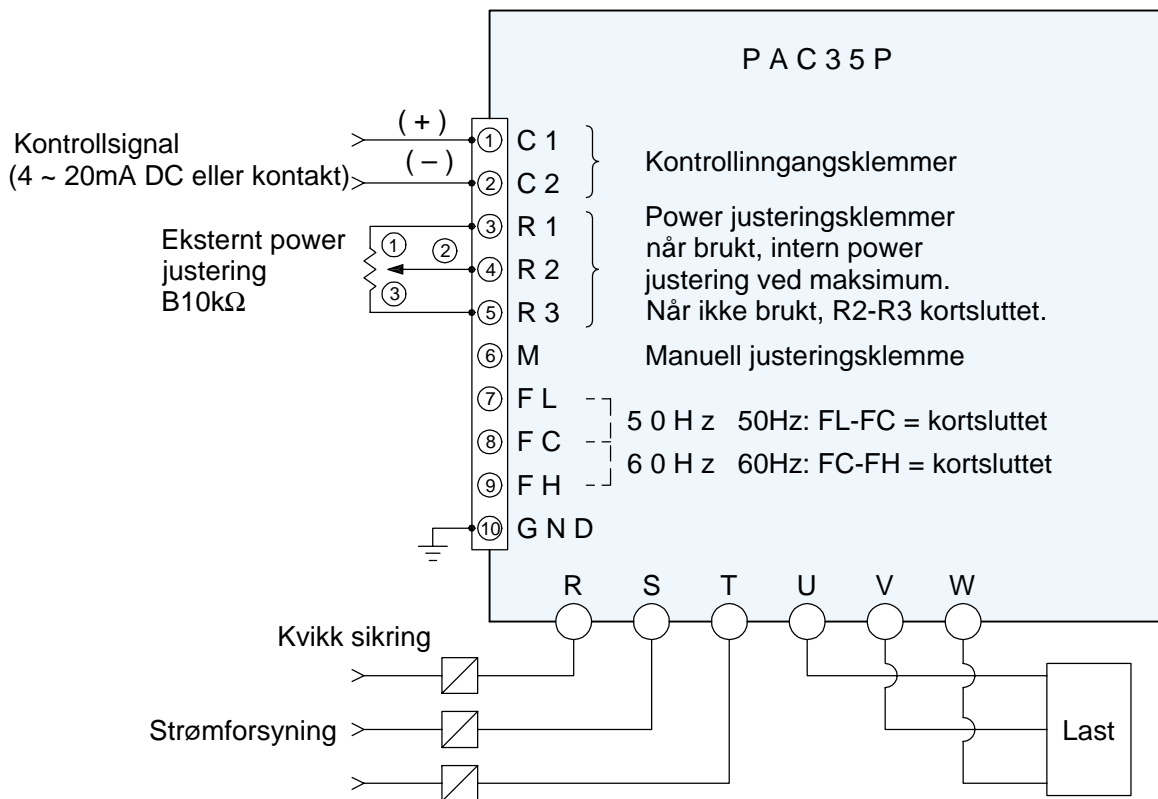
- Fasevinkel eller null-volt-gjennomgangs switching**
- Strømkapasitet: 20, 30, 45, 60, 90, 135A**
- Spenningsforsyning: 200~240 or 380~440V AC**

## SPESIFIKASJON

Spenningsforsyning:	Se ordreinformasjon.
Strømkapasitet:	Se ordreinformasjon.
Regulerings input:	
Strøm:	4~20mA DC/Receiving impedance: 100Ω
Kontakt:	Potensialfri kontakt signal
Tyristorregulering:	Fasevinkel, nullvolt-gjennomgangswitching
Mulige laster:	
Fasevinkel:	Ohmsk last (mulig med primærsidekontroll på transformator)
Nullgjennongangswitching:	Konstant last
Proporsjonal frekvens:	
Fasevinkel:	Ingen
Frekvens basert	
Nullgjennongangswitching:	Ingen
Tidsbasert	
Nullgjennongangswitching:	Ca. 3 sek. (internt justerbar 2~4 sek.)
Reguleringsområde ut:	
Fasevinkel:	0~95% min. avinngangsspenning
Nullgjennongangswitching:	0~95% min. avinngangsspenning
Effektjustering:	
Inngangsstrømtype:	Internt oppsett er standard (Eksternt oppsett er mulig som opsjon)
Kontakt input type:	Eksternt oppsett er standard
SCR Element:	
Fasevinkel:	SCR × 3 og diode × 3 3-fase anti-parallell kobling
Nullgjennongangswitching:	SCR × 2 2-fase anti-parallell kobling
Power-lampe:	Grønn LED
Power frekvens:	50/60Hz
Overstrømsbeskyttelse:	Ingen tilgjengelig (Bruk sikring for halvledere.)
Tyristorelementkjøling:	20~90A (naturlig luft), 135A (vifte kjølet)
Minimum last:	0.5A min.
Operating Ambient	
Temperaturområde:	-10~+50°C
Operating Ambient	
Fuktighet:	90% RH maks.
Isolasjonsmotstand:	20MΩ min. ved 500V DC mellom regulerings-input og strømsforsyningsklemmer 20MΩ min. ved 500V DC mellom strømsforsyningsklemmer og chassis
Dielektrisk styrke:	1 min. ved 1000V AC mellom regulerings-input og strømsforsyningsklemmer 1 min. ved 2000V AC mellom strømsforsyningsklemmer og chassis
Ytre mål	Se side 6.

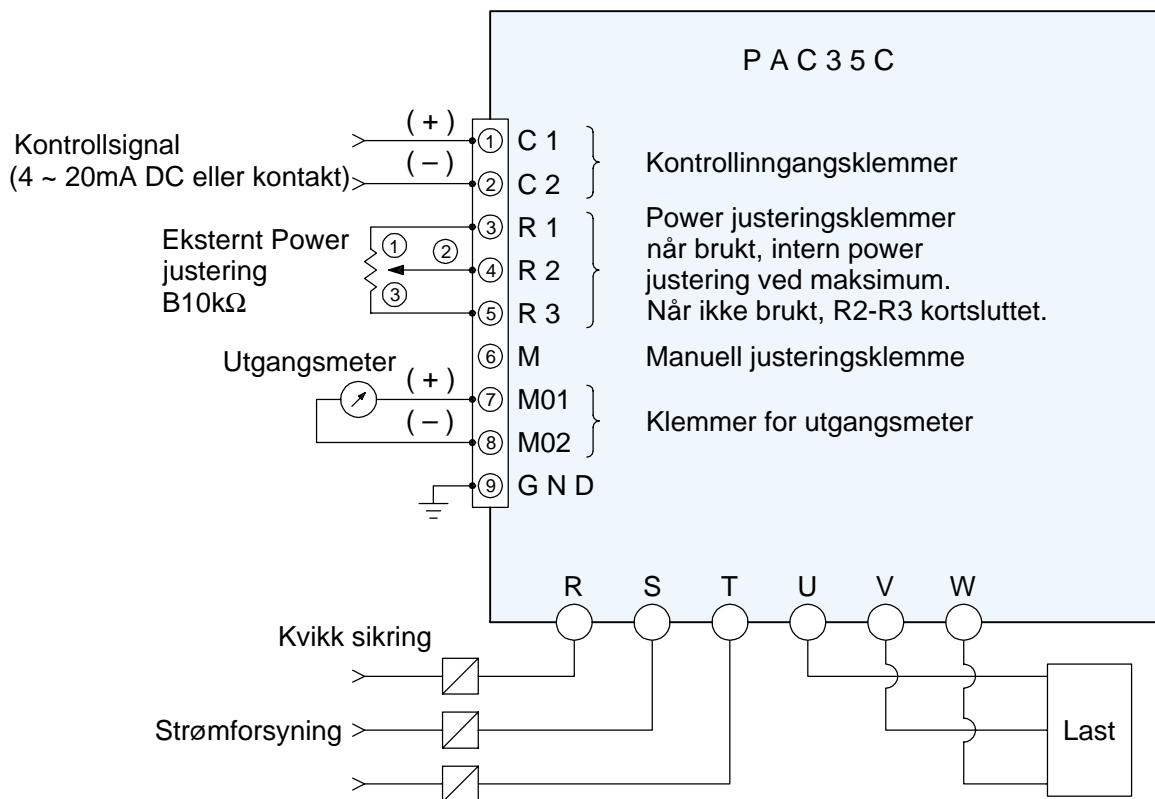
SERIE		KODE	SPESIFIKASJONER	
PAC35P			Fasevinkel 3-fase effektregulator med mykstart	
KONTROLL INPUT	0		4~20mA DC impedanse: 100Ω	
	2		Potensialfri kontakt	
	9		Annet (Konsultér før bestilling.)	
STRØMKAPASITET	020		20A	
	030		30A	
	045		45A	
	060		60A	
	090		90A	
	135		135A	
STRØMFORSYNING	37-		200~240V AC±10% 50/60Hz	
	35-		380~440V AC±10% 50/60Hz	
	99-		Annet (Konsultér før bestilling.)	
EKSTERN POWER JUSTERING	N		Ingen(Intern standard)	Strømsignal input
	P		Ekstern power justering	
	M		Manuell power justering	
	B		Basis power justering	
	W		Ekstern power justering + Manuell power justering	Potensialfri input
	Y		Ekstern power justering + Basis power justering	
	P		Høyeffekt justering (standard)	
	B		Høyeffekt justering (standard) + laveffekt justering	
X		Annet (Konsultér før bestilling.)		
ANMERKING	0		Uten	
	9		Med (Konsultér før bestilling.)	

**KLEMMEARRANGEMENT PAC35P (Fasevinkel)**



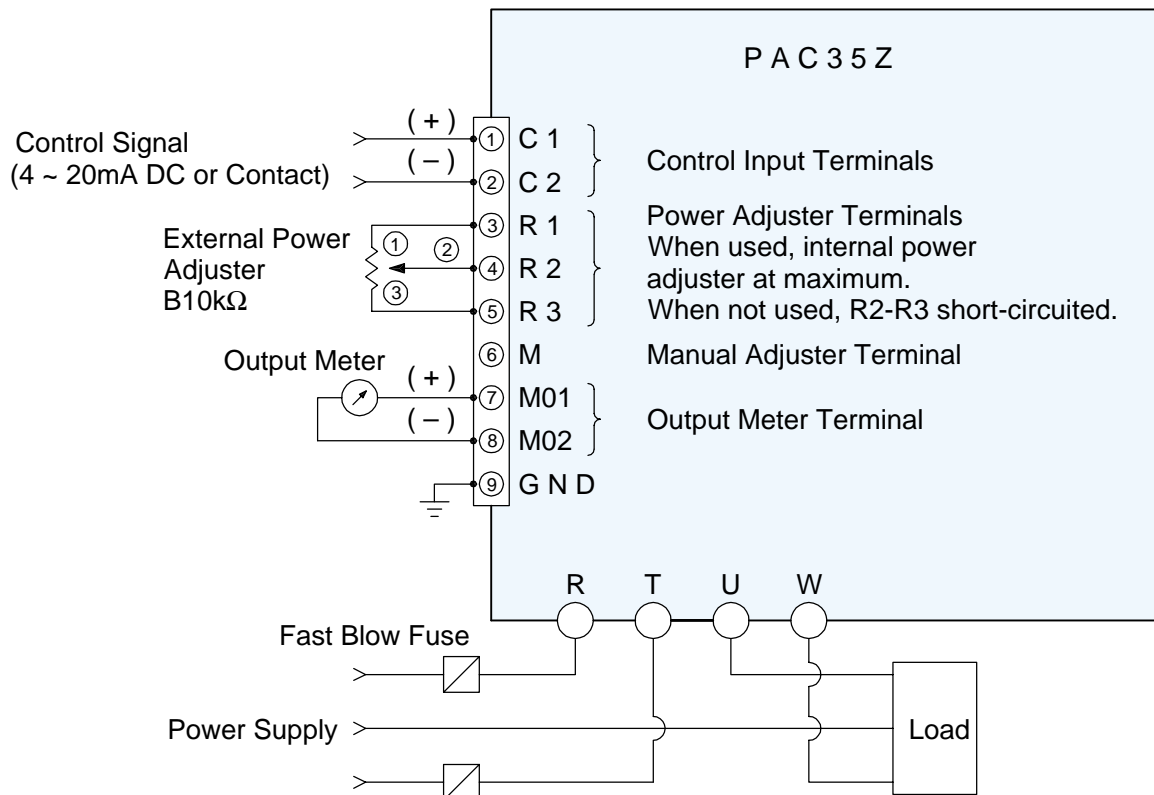
SERIE		KODE	SPESIFIKASJONER	
PAC35C			Syklusbasert nullvoltgjennomgangsswitching (3-fase)	
KONTROLL INPUT	0		4~20mA DC inngangsimpedanse: 100Ω	
	2		Potensialfri kontakt	
	9		Annet (Konsultér før bestilling.)	
STRØMKAPASITET	020		20A	
	030		30A	
	045		45A	
	060		60A	
	090		90A	
	135		135A	
STRØMFORSYNING	37-		200~240V AC±10% 50/60Hz	
	35-		380~440V AC±10% 50/60Hz	
	99-		Annet (Konsultér før bestilling.)	
EXTERNAL POWER ADJUSTER	N		Ingen(Intern standard)	
	P		Ekstern power justering	Strømsignal input
	M		Manuell power justering	
	B		Basis power justering	
	W		Ekstern power justering + Manuell power justering	
	Y		Ekstern power justering + Basis power justering	
	P		Høyeffekt justering (standard)	Potensialfri input
	B		Høyeffekt justering (standard) + laveffekt justering	
X		Annet (Konsultér før bestilling.)		
MANIPULERT VARIABEL (POWER) UTGANG OG/ELLER INDIKATOR	0		Uten	
	1		Manipulert variabel utgang	
	2		Manipulert variabel + indkator	
ANMERKNING	0		Uten	
	9		Med (Konsultér før bestilling.)	

**KLEMMEARRANGEMENT PAC35C (Syklusbasert nullvoltgjennomgangsswitching)**



SERIE		KODE	SPESIFIKASJONER	
PAC35Z			Tidsbasert nullvoltgjennomgangsswitching (3-fase)	
CONTROL INPUT	0		4~20mA DC Receiving impedance: 100Ω	
	2		Non-voltage contact	
	9		Others (Please consult before ordering.)	
CURRENT CAPACITY	020		20A	
	030		30A	
	045		45A	
	060		60A	
	090		90A	
	135		135A	
POWER SUPPLY	37-		200~240V AC~10% 50/60Hz	
	35-		380~440V AC~10% 50/60Hz	
	99-		Others (Please consult before ordering.)	
EXTERNAL POWER ADJUSTER	N		None (Internal standard)	
	P		External power adjuster	
	M		Manual power adjuster	
	B		Base power adjuster	
	W		External power adjuster + Manual power adjuster	
	Y		External power adjuster + Base power adjuster	
	X		Others (Please consult before ordering.)	
MANIPULATED VARIABLE (POWER) OUTPUT AND/OR INDICATOR	0		None	
	1		Manipulated variable output	
	2		Manipulated variable + indicator	
REMARKS	0		Without	
	9		With (Please consult before ordering.)	

**TERMINAL ARRANGEMENT PAC35Z (Time Base Zero Voltage Switching)**



**Base Power Control (Current Input Type)**

**External Power Adjust / Base Power Adjust (Current Input Type)**

\*External power adjuster and base power adjuster correspond with each other.  
\*Internal power adjuster = at maximum

**Auto / Manual Selectable (Current / Contact Type)**

**High / Low Adjust (Contact Input Type)**

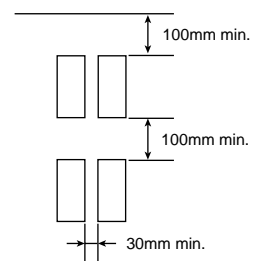
0~100% output adjustment is available with high and low power adjusters.

**CONTROL MODE & WAVE FORM**

Control Mode	Noise	Output Voltmeter Deflection	Output Wave Form		
			10% Output	50% Output	90% Output
Phase angle control (P)	Little	Continuous			
Cycle base zero voltage switching (C)	None	Large deflection (with low output) Almost continuous (with mid & high output)	 1 cycle ON and 9 cycles OFF	 1 cycle ON and 1 cycle OFF	 9 cycles ON and 1 cycle OFF
Time base zero voltage switching (Z)	None	intermittent	 T	 T ≈ 3 sec.	 T = Proportional Cycle

Capacity (A)		20	30	45	60	90	135
Heating Value (W)	PAC35P/C	69	105	141	172	270	445
	PAC35Z	45	69	93	125	175	300

**Mounting Space**



\* Care must be taken for air ventilation.  
\* Vertical mounting is recommended. Refer to the mounting space diagram.  
When mounting horizontally, use at 60% maximum of the capacity.

**EXTERNAL OPTIONS**

External (High) Power Adjuster (0~100%)  
 Base (Low) Power Adjuster (0~100%)  
 Manual Power Adjuster (0~100%)  
 Current Limiter (50~100%)

**External Power adjuster**

Resistance: B10kΩ 1W  
 Lead wire length: 1m

**Power Adjuster Dimensions**

**Panel cutout**

**Manipulated Variable Output Indicator (Zero Voltage Switching Models Only)**

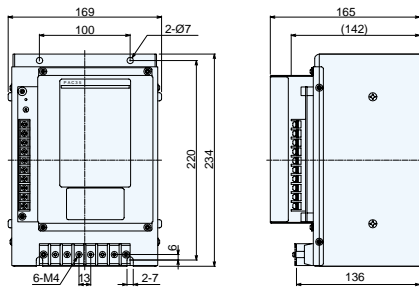
**Output Indicator**

Range: 0~100%  
 Sensitivity: 1mA FS

**Indicator Dimensions**

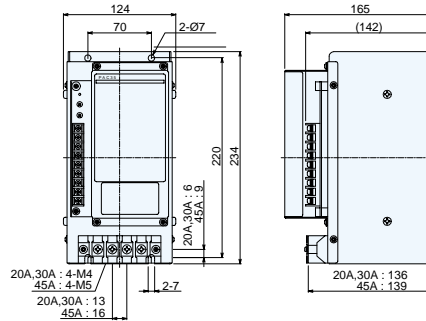
Unit: mm

□ PAC35P / PAC35C 20A, 30A



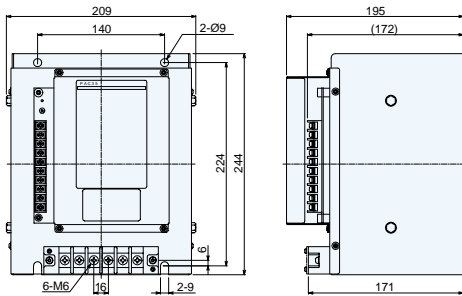
Weight: Approx. 3.0kg / 20A  
Approx. 5.2kg / 30A

□ PAC35Z 20A, 30A, 45A



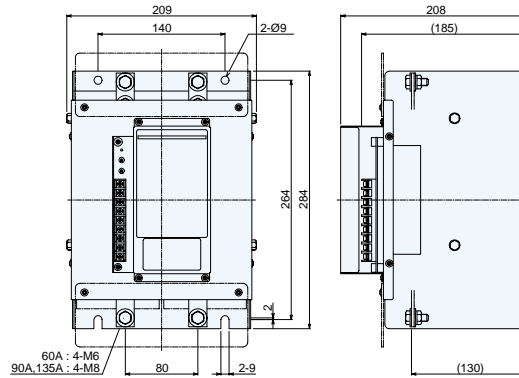
Weight: Approx. 2.5kg / 20A  
Approx. 3.8kg / 30A, 45A

□ PAC35P / PAC35C 45A, 60A



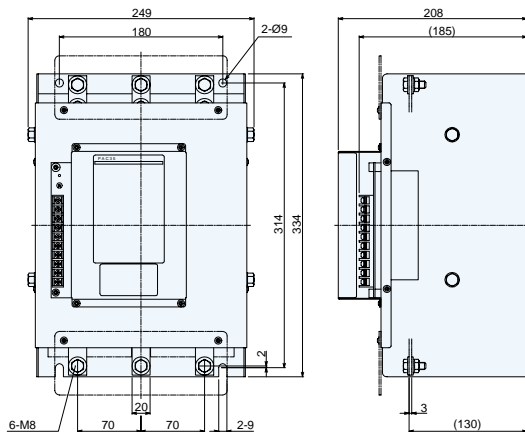
Weight: Approx. 7.6kg

□ PAC35Z 60A, 90A, 135A



Weight: Approx. 8.4kg / 60, 90A  
Approx. 9.4kg / 135A

□ PAC35P / PAC35C 90A, 135A



Weight: Approx. 12kg / 90A  
Approx. 13kg / 135A

Unit : mm

**Warning**

- The PAC35 series is designed for controlling the power of a heater or similar equipment used in a general industrial facilities. (It is not to be used for any purpose which regulates the prevention of serious effects on human life or safety.)

**Caution**

- If the possibility of loss or damage to your system or property as a result of failure of any part of the process exists, proper safety measures must be made before the instrument is put into use so as to prevent the occurrence of trouble.



ISO 9001

(The contents of this brochure are subject to change without notice.)

Temperature and Humidity Control Specialists

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