

# SERIES DFR DYNAMIC FREQUENCY REGULATOR

The **Series DFR** has been designed for poor or “constant” frequency deviations which do not allow today’s “High Tech” equipment to operate properly. The **Series DFR** will provide the same uncompromising reliability as all of Power Systems & Controls’ equipment, from 25 to 500kVA utilizing the latest in technology. PS&C’s commitment to power quality supported the developed of an industrial grade product that will correct the frequency and voltage simultaneously. This, coupled with the long life design, gives the Series DFR a distinct advantage over all other conventional regulators available today.

- Touch screen interface
- Frequency regulation to .1%
- Voltage regulation to .5%
- Digital metering and controls
- 100% load isolation



## Standard Equipment Features

- +10% output voltage adjustment
- Over/under output voltage protection
- Superior motor starting capability
- Auto Restart
- Overload protection
- Touch screen interface
- Manual wrap around bypass
- Frequency regulation to .1%
- Voltage regulation to .5%
- 100% on-line operation
- Digital metering and controls
- 100% load isolation
- Low starting inrush
- PLC control and internal fault monitors
- Input voltage tolerance of +10%, -15%
- Electrically operated input and output circuit breakers
- Input frequency tolerance from 45 Hz to 65 Hz

## Optional Features

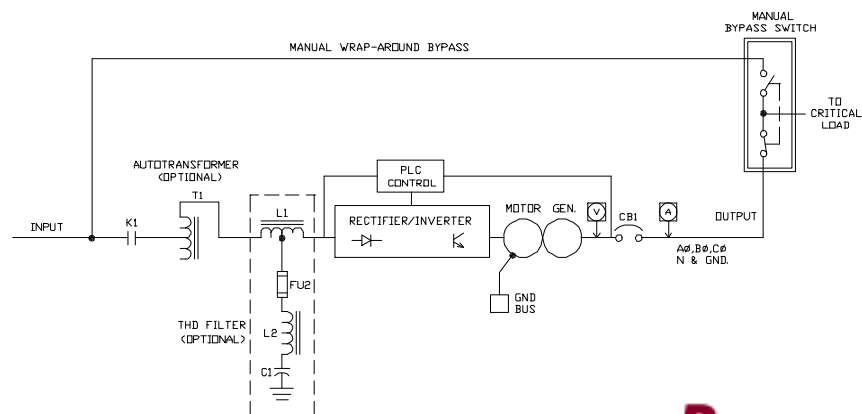
- Single phase output
- Remote Communications
- “Turn Key” Installation services
- Input THD filter -- meets IEEE 519
- Containerized
- Automatic lubrications



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# System Specifications

INPUT		OUTPUT	
Nominal Voltage Available		Nominal Voltage Available	
➤ @ 60 Hz	208, 240	➤ @ 60 Hz	208, 240, 480
➤ Phase	1 Phase 2 Wire+ Ground	➤ Phase	3 Phase 4 Wire + Ground
➤ Frequency Tolerance	55 to 65 or 45 to 55	➤ Frequency Regulation	+/- .1Hz
➤ Magnitude Tolerance		➤ Voltage Adjustment	± 10%
➤ Continuous	+10%, -15%	➤ Voltage Regulation	
➤ Transient	1500v for 10 ms	➤ Transients	50% Block Load +/-8%
Power Factor		➤ Recovery Time	0.5 within 0.5 seconds
➤ Power Factor	0.95 lagging @ full load	➤ Steady State	+/-0.5% Δ 90° F
THD (Total Harmonic Distortion)			
		➤ Single	2% Max
		➤ Total	3% Max
Phase Separation			
		➤ Balanced Load	120° +/- 1°
		➤ 25% Unbalanced	120° +/- 3°
Overload Capacity			
		➤ 100% Rating	Continuous
		➤ 110%	2 Hours
		➤ 125%	10 Minutes
		➤ 150%	1 Minutes
		➤ Power Factor	0.8
ENVIRONMENT			
		➤ Temperature	0° -104° F (0° -40° C)
		➤ MG	0° -120° F
		➤ Console	32° -104° F
		➤ Altitude	3,300 ft
		➤ Humidity	0 to 95% non-condensing
		➤ Noise Level	65 dBa at 1.5 meters (5 ft)



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