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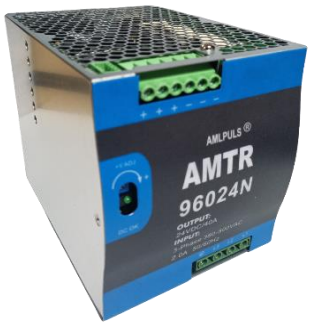
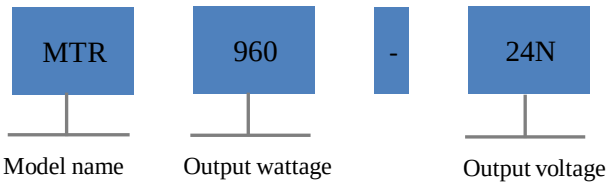
AMTR960□N Series



▲ Features

Three-Phase 340-550VAC wide range input
(Dual phase operation possible)
Width only 110mm
Built-in active PFC function compliance to BS EN/EN61000-3-2
High efficiency 94.5% and low power dissipation
Protections:Short circuit/Overload/Over voltage/Over temperature
Cooling by free air convection
Built-in constant current limiting circuit
Current sharing up to 3840W(3+1)
can be installed on DIN rail TS-35/7.5 or 15
Built DC OK relay contact
100% full load burn-in contact
3 years warranty

▲ Model Encoding



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Specification

Input		
Voltage range Note.1	Three-Phase 340 ~ 550VAC (Dual phase operation possible) 480 ~ 780VDC	
Leakage current	<3.5mA / 530VAC	
Frequency range	47-63Hz	
Inrush current (Typ.)	Cold start :60A	
Power factor(Typ.)	PF≧0.88/400VAC PF≧0.86/500VAC at full load	
AC Current(Typ.)	2A/400VAC 1.4A/500VAC	
Output		
DC voltage (V)	24V	48V
Efficiency(TYP.)	94%	94.5%
Rated Current (A)	40A	20A
Current range(A)	0-40A	0-20A
Rated power(W)	960W	960W
Ripple & noise(max) Note.2	180mVp-p	250mVp-p
Voltage ADJ.range	24-28V	48-55V
Voltage tolerange Note.3	±1%	±1%
Line regulation	±0.5%	±0.5%
Load regulation	±1%	±1%
Setup，rise time	1000ms 100ms/400VAC 800ms 100ms/500VAC(at full load)	
Hold up time(Typ.)	12ms/400VAC 14ms/500VAC(at full load)	
Status indicator	Green LED	
Protection		
Overload	105 ~ 130% rated output power	
	Protection type : Constant current limiting, unit will shut down after 3 sec. ,re-power on to recover	
Over voltage(V)	29 ~ 33V	56 ~ 65V
	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	
DC OK Realy contact ratings(max.)	60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load	
Current sharing	Please refer to function manual	
Safety and EMC		
Withstand voltage	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC	
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25°C/ 70% RH	
Safety standards	Design reference UL508, AS/NZS62368.1, EAC TP TC 004 approved, IEC62368-1 CB approved by SIQ; Design refer to BS EN/EN62368-1	
EMC emission	Design reference BS EN/EN55032 (CISPR32), BS EN/EN61204-3 Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020	
EMC immunity	Design reference BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024, BS EN/EN61000-6-2 (BS EN/EN50082-2), BS EN/EN61204-3, heavy industry level, EAC TP TC 020	
Environmental		
Working temperature Note.5	- 30～+70 °C （Refer to "Derating curve "）	
Storage TEMP.humidity	-40～+85°C 10 ~ 95% RH non-condensing	
Working humidity	20 ~ 95% RH non-condensing	
TEMP.coefficient	±0.03%/°C (0 ~ 50°C)	
Vibration	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6	
Others		
Mean time between failure	647.1K hrs min MIL-HDBK-217F(25°C)	
Installation	Install on DIN rail TS35	
Weight	About 2.47kg	
Length*width*height	110*125.2*150mm	
Data	**Details**	**Model name**
	AMTR 960W 40A/24V	AMTR96024N
	AMTR 960W 20A/48V	AMTR96048N

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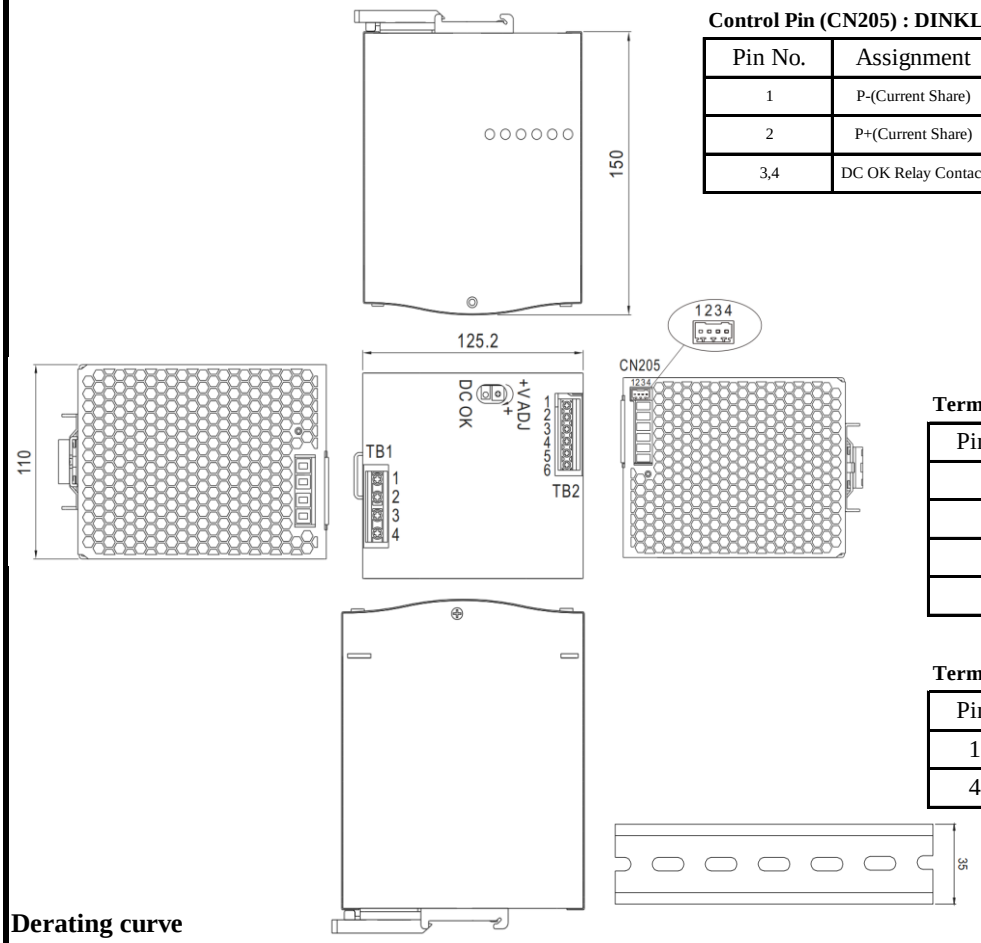
Installation Instruction



Control Pin (CN205) : DINKLE ECH250R-04P or equivalent

Pin No.	Assignment	Mating Housing	Wire Diameter
1	P-(Current Share)	DINKLE ESC250V-04P or equivalent (Including in the single package)	0.081~0.517mm^2 (28~20AWG)
2	P+(Current Share)		
3,4	DC OK Relay Contact		

Terminal Pin No. Assignment (TB1)

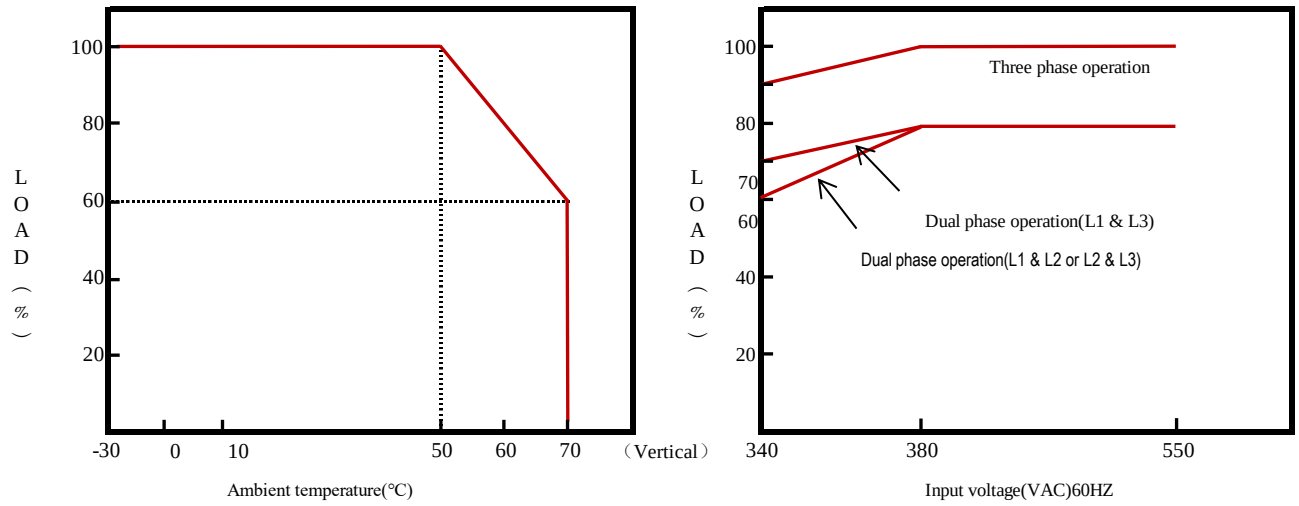
Pin No.	Assignment
1	FG ⏚
2	AC/L3
3	AC/L2
4	AC/L1

Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1,2,3	DC OUTPUT +V
4,5,6	DC OUTPUT -V

ADMISSIBLE DIN-RAIL:TS35/7.5 OR TS35/15

Derating curve



Note:

1.Dual phase operation is allowed under certain derating to output load.
Please refer to derating curves for details.
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.All parameters NOT specially mentioned are measured at 230VAC input,rated load and 25℃ of ambient temperature.
5.Installation clearances:40mm on top,20mm on the bottom,5mm on the left and right side are recommended when loaded permanently with full power.
In case the adjacent device is a heat source,15mm clearance is recommended.
6.The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).