



G320



G640

When it comes to power and flexibility, Darfon has the micro inverters you've been looking for. The G-series micro inverters, G320 and G640 are the solution for the constantly evolving landscape of larger PV modules by handling up to 350WDC of power per input. The G-series can handle both 60 or 72 cell modules and have outstanding efficiency, THD and Power Factor. Even the choice of cabling is up to you. These micro inverters also features a high reliability design that continues working even if the electrolytic capacitors have problems over time. The G640 is a dual-input micro inverter with just one AC connector and the cost-per-watt of a string inverter. The G320 and G640 come in four voltage options, so it can be installed in residential, commercial, or utility applications.

MAXIMIZED ENERGY PRODUCTION

- Superior power factor > 0.99 and THD < 2%
- Module-level MPPT limits shading impact on array's power production
- Cloud-based monitoring via web portal and mobile app

FLEXIBILITY

- Installation on either 20A or 30A circuit
- Multiple voltage/phase configurations for residential, commercial or utility application
- Compatible with high-powered 60- and 72-cell modules
- Cable configuration up to the installer

IMPROVED SAFETY

- No external Rapid Shutdown required
- Eliminates the need for high voltage DC wiring
- Integrated grounding

RELIABILITY

- Redundancy capacitor design
- Case designed for better thermal dissipation
- Warranty¹: 10- or 25-year options

APPLICATION TO MULTI-PHASE SYSTEMS

With the continued usage of micro inverters in commercial and industrial applications, Darfon now offers micro inverters in all the commercial voltages and phases.

APPLICATION	MODEL VOLTAGE ²	CONFIGURATION	G320 PART NO.	G640 PART NO.
120/208V 3-Phase	208V AC	DELTA Link	JK.M320A.D01	JK.M35LA.D01
120/240V Split-Phase	240V AC	L-L Direct	JK.M3201.D01	JK.M35L1.D01
220/380V 3-Phase	220V AC	WYE Link	Call	Call
277/480V 3-Phase	277V AC	WYE Link	JK.M320C.D01	JK.M35LC.D01

CABLE OPTIONS

Darfon G-series micro inverters have multiple cable options for gauge and configuration. The tree cables come in 10 AWG and can be used for either 20A or 30A circuits. The tee cables are one drop sections with BMC connectors for daisy chaining.

PART NUMBER	GAUGE	TYPE	USAGE	DROPS
5K.WKP01.234	10 AWG	Tree	G320 Portrait	50
5K.WKP01.20G	10 AWG	Tree	G320 Landscape, G640 Portrait	50
5K.WKP01.203	12 AWG	Tee	G320 Portrait	1
5K.WKP01.21E	12 AWG	Tee	G320 60C Landscape	1
5K.WKP01.21B	12 AWG	Tee	G320 72C Landscape	1

SPECIFICATIONS

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INPUT DATA (DC)			
Number of Modules per Inverter		One	Two
Nominal Input Power		320W	320W per Input
STC Module Input Power Range		200 to 350W	200 to 350W per Input
Maximum Input DC Voltage		60V	60V
Operating Voltage Range		22 to 60V	22 to 60V
Peak Power Tracking Voltage		24 to 45V	26 to 45V
Minimum Start Voltage		24V	24V
Maximum DC Short Circuit Current		14A	14A
OUTPUT DATA (AC)			
Continuous Output Power		300W	600W
Nominal Frequency (Range)		50 (47 to 53) Hz or 60 (57 to 63) Hz [Extended frequency range available to serve local markets]	
Power Factor at Rated Power		> 0.99	> 0.99
Total Harmonic Distortion (THD)		< 2%	< 2%
@208V (184-228V)	Nominal Output Current	1.44A	2.88A
	Max Units per 20/30A Circuit	33/48 Balanced (DELTA)	15/24 Balanced (DELTA)
@220V (198-242V)	Nominal Output Current	1.36A	2.73A
	Max Units per 20/30A Circuit	33/51 Balanced (WYE)	15/24 Balanced (WYE)
@240V (211-264V)	Nominal Output Current	1.25A	2.50A
	Max Units per 20/30A Circuit	12/19	6/9
@277V (244-304V)	Nominal Output Current	1.08A	2.17A
	Max Units per 20/30A Circuit	42/66 Balanced (WYE)	21/33 Balanced (WYE)
EFFICIENCY			
Peak Inverter Efficiency		96.5%	96.0%
CEC Weighted Efficiency		96.0%	95.5%
Nominal MPP Tracking		> 99.5%	> 99.0%
Night Time Power Consumption		< 20mW	< 50mW
MECHANICAL DATA			
Ambient Operating Temp. Range		-40 to 65°C (-40 to 149°F)	-40 to 65°C (-40 to 149°F)
Internal Operating Temp. Range		-40 to 85°C (-40 to 185°F)	-40 to 85°C (-40 to 185°F)
Dimensions (WxHxD)		195 x 268 x 34mm (7.7 x 10.6 x 1.3in)	313 x 242 x 34mm (12.3 x 9.5 x 1.3in)
Weight		1.3kg (2.9lbs)	2.8kg (6.2lbs)
Cooling		Natural Convection - No Fans	Natural Convection - No Fans
Enclosure Environmental Rating		NEMA 6 / IP67	NEMA 6 / IP67
FEATURES			
Communication		PLC	PLC (Van Gogh)
Safety Compliances		UL 1741, CSA C22.2, FCC Part15 Class B, IEEE 1547	UL 1741, CSA C22.2, FCC Part15 Class B, IEEE 1547

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