

XF Camera Systems

Technical Specifications



PHASE**ONE**

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HARWIN CAMERA INC.
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Imaging Sensor

Imaging Sensors



Digital Back Options	IQ3 50-80MP & IQ1 40-80MP with XF mounts (See specification for Digital Backs)
Backwards Compatibility	IQ1 & IQ2 with P mounts

Controls & OS

Camera OS



User Interface	OneTouch UI
Screen layouts	2 standard layouts
Custom modes	3 configurations
Custom settings	80+ settings
User upgradeable via Back	yes

Focus & Autofocus

HAP-1



Autofocus Sensor	HAP-1 1MP CMOS Sensor
Autofocus Processor	HAP-1 Processor with Floating Point Architecture
Autofocus Assist light	HAP-1 Precision White light
Hyperfocal Point Focusing	yes
Upgradeable Autofocus configurations & Patterns	yes
Autofocus modes	Spot, Average, Hyperfocal
Interchangeable focusing screens	Matte (default), Split, Center prism

Imaging software

Software



RAW converter	Capture One PRO 8.3 or newer
Tethered support	yes
Workflow options	Sessions and Catalogues
Lens Corrections	Phase One Focal Plane lenses & Schneider Kreuznach Leaf Shutter lenses
Imaging Tools	25+
Local adjustments	Adjustment & Clone Layers
Batch output	yes, using recipes and multiple destinations
Output formats	8 & 16 bit TIFF-RGB, TIFF-CMYK, JPEG incl. XR/2000/QuickProof tm, DNG, PNG, PSD

Viewfinder



90° Prism

Waist level

	90° Prism	Waist level
Modular viewfinders	Yes	
Frame Coverage	97%	97%
Exchangeable diopter	3 options	7 options
Diopter range	Range from -5 to +3	Range from -3 to +2
Default diopter magnification	-2.5 to +2.5	0
Collapsible diopter	no	yes
Visible Exp. information	yes	no

Lenses & Shutters



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Lens Range

35mm Equivalent

Focal Plane lenses	8 lenses	
Focal Length range	28mm - 150mm	17mm - 93mm

Leaf Shutter lenses	12 lenses	
Focal Length Range	28mm - 240mm	17mm - 149mm

Legacy Lens support	60+ lenses	
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Shutter

Integrated Focal Plane shutter	yes
Support for Leaf Shutters	yes
Shutter priority selection	LS or FPS
Longest shutter time (recommended)	60 Minutes
Fastest shutter speed	1/4000s
Flash sync speed focal plane shutters (max)	1/125s
Flash sync speed leaf shutters (max)	1/1600s

Capture & Light metering



Features

Frames per second	Variable following digital back			
Capture Drive Modes	Single yes	Continuous yes	Low vibration yes	Exposure bracketing 2-5 frames
Toggle Mirror-up	yes			
Capture from liveview	yes			
TTL Light metering	Average, spot and auto			
HAP-1 Light Metering	used with waist level finder			
Viewfinder black-out time	150ms (FPS), 400ms (LS)			
AE Lock	yes			
Exposure compensation	+/- 5 EV			

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What's in the box



	XF IQ3 Camera System	XF IQ1 Camera System
Phase One XF Camera with Prism viewfinder	yes	yes
IQ Digital Back	Choice of 50MP, 60MP, 80MP	Choice of 40MP, 50MP, 60MP, 80MP
Waist level viewfinder	optional	optional
Schneider Kreuznach 80mm LS f/2.8	yes	yes
Capture One Pro 8	yes	yes
Pelican Storm Carry On Case	yes	no
F-stop Phase One flexible ICU	yes	no
F-stop Phase One Laptop Sunshade	yes	no
Charger for IQ3 and XF	yes	yes
3400 mAh Batteries	4	2
16 GB CF-Card and Reader	yes	no
Gray Cards & LCC calibration kit	yes	yes
Sensor Cleaning Kit	yes	yes
FW and USB cable	yes	yes
Focusing screen	yes	yes

Size & Weight



	Dimensions (WxHxD)	Weight
XF Camera System* w/ 90° Prism viewfinder	152 x 135 x 160 (mm)	1390g
XF Camera System* w/ Waist level finder	152 X 173 X 160 (mm)	1020g
XF Camera Body w/o battery	152 x 108 x 85 (mm)	790g
IQ3 Digital back	98,5 x 88,5 x 62,3 (mm)	695g
90° Prism Viewfinder	68 x 52 x 152 (mm)	500g
Waist level finder	67 x 17 x 57mm (closed) 67 x 65 x 57 (open)	130g

* without lens

Battery

Battery	BP-911/914/915 3400 mAh
Powershare	IQ3 only
Battery Charger	Integrated
Support for USB 3 Charging hub (1.5 A)	IQ3 only
High capacity back interface	IQ3 only

Flash

Flash trigger	Integrated Profoto wireless
Wireless trigger range	20m (outside)
Back flash sync	Yes
Flash sync speed focal plane shutters (max)	1/125s
Flash sync speed leaf shutters (max)	1/1600s

IQ Digital Back range

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IQ3



IQ1



IQ2



Specifications

	IQ3 80MP	IQ3 60MP	IQ3 50MP	IQ1 80MP	IQ1 60MP	IQ1 50MP	IQ1 40MP	IQ2 60MP Acromatic
Resolution	80 Megapixel	60 Megapixel	50 Megapixel	80 Megapixel	60 Megapixel	50 Megapixel	40 Megapixel	60 Megapixel
Long exposure	60 minutes	60 minutes	60 minutes	2 minutes	2 minutes	60 minutes	2 minutes	2 minutes
16 bit Opticolor+	yes	yes	no	yes	yes	no	yes	no
Dynamic range	13 f-stops	13 f-stops	14 f-stops	13 f-stops	13 f-stops	14 f-stops	13 f-stops	13 f-stops
Sensitivity (ISO)	50-800	50-800	100-6400	35-800	50-800	100-6400	50-800	200 - 3200
Sensitivity (ISO) - Long Exp.	200-3200	140-3200	100-6400	no	no	100-6400	no	no
Sensor+ (ISO) - 1/2 res.	200-3200	200-3200	no	140-3200	200-3200	no	200-3200	no
Lens factor	1	1	1,3	1	1	1,3	1,3	1
Sensor type	CCD	CCD	CMOS	CCD	CCD	CMOS	CCD	CCD
Sensor Size	53.7 x 40.4	53.9 x 40.4	44 x 33	53.7 x 40.4	53.9 x 40.4	44 x 33	43.9 x 32.9	53.7 x 40.3
Active pixels	10328 x 7760	8984 x 6732	8280 x 6208	10328 x 7760	8984 x 6732	8280 x 6208	7320 x 5484	8964 x 6716
Pixel size (micron)	5.2 x 5.2	6.0 x 6.0	5.3 x 5.3	5.2 x 5.2	6.0 x 6.0	5.3 x 5.3	6.0 x 6.0	6.0 x 6.0
Output image dim. 300 DPI	87.4 x 65.6 cm	76.1 x 57 cm	70.1 x 52.6 cm	87.4 x 65.6 cm	76.1 x 57 cm	70.1 x 52.6 cm	61.9 x 46.4 cm	76.1 x 57 cm
Output image dim. 600 DPI	43.7 x 32.8 cm	38 x 28.5 cm	35.0 x 26.3 cm	43.7 x 32.8 cm	38 x 28.5 cm	35.0 x 26.3 cm	30.1 x 23.2 cm	38 x 28.5 cm
Mount options	XF/H/V	XF (IQ2 available for H/V)	XF (IQ2 available for H/V)	P/H/V	P/H/V	P/H/V	P/H/V	P/M/H/V
3.2" Touch Display	yes	yes	yes	yes	yes	yes	yes	yes
High Bandwidth port	yes	yes	yes	no	no	no	no	no
XF Powershare	yes	yes	yes	no	no	no	no	no
Wi-Fi 802.11 n	yes	yes	yes	no	no	no	no	yes

Captures per second

Focal Plane (Full res.)	0,8	0,9	1,8	0,8	0,9	1,8	1,2	0,9
Focal Plane (Sensor+)	1,1	1,2	n/a	1,1	1,2	n/a	1,7	n/a
Leaf shutter (Full res.)	0,7	0,8	1,4	0,7	0,8	1,4	1	0,8
Leaf shutter (Sensor+)	1	1,4	n/a	1	1,4	n/a	1,4	n/a

Images

IQ3 80MP © David LaChapelle

IQ3 60MP © Richard Thompson

IQ3 50MP © Anja Poulsen

Camera Controls & One Touch UI

NEW FEATURES	XF IQ3 Camera System	XF IQ1 Camera System
OneTouch UI including functionality from prev. generation systems	Yes w/ high-bandwidth DB integration	Yes w/limited functionality
Screen layouts	Simple/Classic	Simple/Classic
Custom setups	3 configurations, 80+ settings	3 configurations, 80+ settings
Wireless remote control with Capture Pilot	yes	no
Exposure Calculator	yes	no
Temperature graph tool	yes	no
Exposure zone tool	yes	no
Clip warning (supplement to highlight warning)	yes	no
Auto ISO & ISO control	yes	no
Histogram on XF	yes	no
Virtual horizon on XF	yes	no
Prepared for future feature upgrades	yes	no
Camera Menu	yes, advanced	yes, basic
Vibration data in image file	yes	yes
Wake-up XF from Back	yes	yes
Focus Mask	yes	yes
Virtual Horizon	yes	yes
Black & white Composition Display	yes	yes
Live View for instant focus	yes	yes
Tap, Pan and Browse	yes	yes
Tethered Capture in Capture One PRO	yes	yes

Storage & Connectivity

Integrated Wi-Fi	802.11 n
USB 3	Yes
Firewire 800	Yes
Flash Sync port	Yes, on Prism and Back
High capacity back interface	Yes
Storage Media	UDMA 7, CF-card slot with spring loaded cover
Secure Storage System	3S Technology
Tripod socket	1/4 inch & 3/8 inch
Storage Engine	1GB Image buffer

Operating Requirements

Temperature	-10° to 50° C 14° to 122° F
Humidity	0 to 80 % (non-condensing)

Battery

Battery	BP-911/914/915 3400 mAh
XF Powershare	IQ3 only
Support for USB 3 Charging hub (1.5 A)	IQ3 only

Warranty

	XF IQ3 Camera System	XF IQ1 Camera System
IQ3 digital back	5 Years	1 Year
XF camera body	5 Years	1 Year
Schneider Kreuznach lenses	5 Years	1 Year
Phase One Lenses	5 Years	1 Year
Viewfinders	5 Years	1 Year
Ultimate Guarantee Incl. Loaners during repairs	5 Years	1 year
Access to world-wide service network	yes	yes
24/7 Knowledge Base & Online Support Forum	yes	yes



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