

# SPECIFICATIONS

FM-100 / 300series

FM-800series

MODEL		FM-100e	FM-100	FM-300e	FM-300	FM-800e	FM-800							
TEST LOAD	TYPE A	mN : gf :	49.03 5	98.07 10	245.2 25	490.3 50	980.7 100	1,961 200	2,942 300	4,903 500	9,807 1,000	19,614 2,000		
	TYPE B	mN : gf :	9.807 1	29.42 3	49.03 5	98.07 10	245.2 25	490.3 50	980.7 100	1,961 200	2,942 300	4,903 500	9,807 1,000	
	TYPE C	mN : gf :	9.807 1		49.03 5	98.07 10	245.2 25	490.3 50	980.7 100	1,961 200	2,942 300	4,903 500	9,807 1,000	19,614 2,000
	TYPE D	mN : gf :	9.807 1		49.03 5	98.07 10	245.2 25	490.3 50	980.7 100		2,942 300	4,903 500	9,807 1,000	19,614 2,000
	TYPE E	mN : gf :	9.807 1	29.42 3	49.03 5	98.07 10	245.2 25	490.3 50	980.7 100		2,942 300	4,903 500	9,807 1,000	
LOADING MECHANISM		Automatic Load and Release Method												
LOAD APPLYING SPEED		60 $\mu$ m/ sec												
DWELL TIME		5 ~ 40 sec					5 ~ 99 sec							
TURRET MECHANISM		Manual	Automatic	Manual	Automatic	Manual	Automatic	Manual	Automatic	Manual	Automatic	Manual	Automatic	
DIAMOND INDENTER	Standard	Vickers Indenter (HV)												
	Option	— <small>Knop Indenter (HK) / Two Indenters (HV + HK) are available on the special Dual Indenter Turret simultaneously</small>												
OBJECT LENS	Standard	2 Lenses (X 50 & X 10)												
	Option	Max. 3 Lenses (X 50 & X 10 plus 1 Lenses)					Max. 4 Lenses (X 50 & X 10 plus 2 Lenses)							
EYEPIECE		X 10												
MEASURING MICROSCOPE	Type	Mechanical					Electronic							
	Max. measurement length	In case of X 100: 850 $\mu$ m / In case of X 500: 170 $\mu$ m												
	Min. graduation	Micrometer : 0.5 $\mu$ m					Digital : 0.01 $\mu$ m (In case of X 500)							
	Min. measurement unit	Eye judgement : 0.1 $\mu$ m					Digital : 0.01 $\mu$ m (In case of X 500)							
X-Y STAGE	Type	Manual												
	Dimensions	100 x 100 mm												
	Max. movement	(X) 25 x (Y) 25 mm												
	Min. micro graduation	1/100 mm												
	Option	Digital microhead					Digital microhead (Panel display)							
PRECISION VISE	Max. opening	50 mm												
MAX. HEIGHT OF SPECIMEN		95 mm												
MAX. DEPTH OF SPECIMEN		115 mm												
TEST PARAMETER		—			HV / HK			HV / HK / HBS / HBW / Kc						
FRACTURE TOUGHNESS TEST (Kc)		—			—						Conform to JIS R1807 / IF Method			
HARDNESS CONVERSION		—			—						Conform to SAE (J-417b) & ASTM (E-140)			
OPERATION PANEL (SHEET SW for FM-100 / 300 Series & TOUCH PANEL SW for FM-800 Series)		START / LIGHT UP-DOWN / TURRET ROTATION (For Auto-Turret Type)			START / RESET / DWELL TIME / LIGHT UP-DOWN / TURRET ROTATION (For Auto-Turret Type)			START / RESET / DWELL TIME / LIGHT UP-DOWN / TEST LOAD / CONVERSION SCALE / TURRET ROTATION (For Auto-Turret Type) / CLEAR						
DATA DISPLAY (LED for FM-100 / 300 Series & LCD for FM-800 Series)		POWER / LOADING (Pilot Lamp)			D1 / D2 / HV-HK / HARDNESS VALUE / LOADING / OK-NG CRITERIA			D1 / D2 / HV-HK / HARDNESS VALUE / CONVERSION DATA / OK-NG CRITERIA / START (Blinking for Loading) / TEST TIMES / etc.						
DATA OUTPUT & PRINT OUT		—			RS232C (HV-HK / HARDNESS VALUE / OK-NG) / CENTRONICS (D1 / D2 / HV-HK / HARDNESS VALUE / TEST LOAD / OK-NG)			RS232C / CENTRONICS (D1 / D2 / HV-HK / HARDNESS VALUE / TEST LOAD / OK-NG / CONVERSION SCALE / CONVERSION DATA / STATISTIC DATA / etc.)						
OK / NG CRITERIA		—			Limit setting and HI / OK / LO display									
SELF DIAGNOSIS		—			—						Display troubles with motors and switches			
LIGHT SOURCE		6V / 18W (Auto-iris mechanism)												
OPTICAL FUNCTION		Aperture diaphragm / Field aperture / Color filter : Replaceable												
ACCURACY		Conform to JIS B-7734 / B-7725, ASTM E-384, and ISO / DIS 6507-2												
PHOTOGRAPHIC DEVICE		Capable to mount at anytime on top of the machine (Camera / Attachment : Option)												
DIMENSIONS		(W) 186 x (D) 450 x (H) 504 mm												
WEIGHT		Approx. 40 kg (Including Standard Accessories)												
POWER SUPPLY		Japan : Single phase AC 100V 50 / 60Hz Overseas : Single phase AC 100 ~ 240V 50 / 60Hz (Should be specified before shipment)												