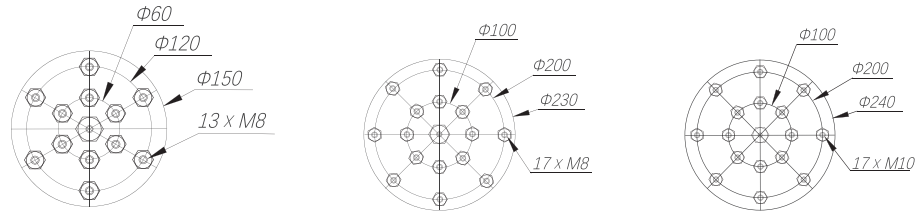


# Air-cooled Series

## Armature pattern

Notes:

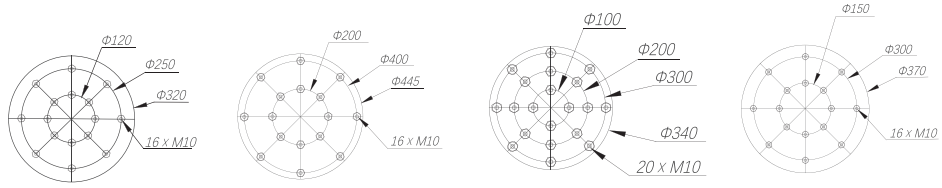
Default metric armature pattern (mm)  
Contact sales people for optional imperial armature pattern and special requirements.



System model	TS1-150	TS1.5-150	TS2-150	TS3-150	TS6-230	TS10-240	TS10D-240
Sine/Random (kN)	1	1.5	2	3	6	10	10
Shock force (kN)	2	3	4	6	12	20	20
Frequency range (Hz)	5-4,500	5-4,500	5-4,500	5-4,000	5-3,500	5-3,000	5-4,500
Max. acceleration (m/s <sup>2</sup> )	500	750	1,000	1,000	1,000	1,000	1,000
Max. velocity (m/s)	2	2	2	2	1.8	1.8	1.8
Max. displacement (mm)	25	25	25	25	51	51	51
Max. load (kg)	70	70	70	120	300	300	300
Armature mass (kg)	2	2	2	3	6	10	10
Armature diameter (mm)	150	150	150	150	230	240	240
Body suspension Fre. (Hz)	3	3	3	3	3	2.5	2.5
Armature inserts (standard)	13 * M8	13 * M8	13 * M8	13 * M8	17 * M8	17 * M10	17 * M10
Stray flux density	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)
Fund. resonance Fre. (Hz)	3,400 (nom.) ± 5%	3,400 (nom.) ± 5%	3,400 (nom.) ± 5%	2,900 (nom.) ± 5%	2,800 (nom.) ± 5%	2,400 (nom.) ± 5%	3,200 (nom.) ± 5%
Weight (kg)	420	420	420	510	615	930	950
Dimension (mm)	745*560*658	745*560*658	745*560*658	805*560*663	875*560*727	966*640*786	1016*640*843
Power amplifier model	PWA1	PWA1.5	PWA 2	PWA 3	PWA 6	PWA 10	PWA 10
Power (kVA)	1	1.5	2	3	6	10	10
Max. output voltage (V)	50	60	60	60	90	120	120
Max. output current (A)	20	25	35	50	70	110	110
Power requirement (kVA)	4	4.5	5.5	6.5	16	21	21
Weight (kg)	285	285	285	285	320	320	320
Dimension (mm)	600*870*1520	600*870*1520	600*870*1520	600*870*1520	600*870*1520	600*870*1520	600*870*1520
Cooling type	Air cooling						
Blower model	CD200	CD200	CD200	CD200	CD1000	CD1000	CD1000
Power (kW)	0.75	0.75	0.75	0.75	4	4	4
Air flow (m <sup>3</sup> /s)	0.1	0.1	0.1	0.1	0.33	0.33	0.33
Air pressure (kPa)	1	1	1	1	3.5	3.5	3.5
Weight (kg)	25	25	25	25	120	120	120
Dimension (mm)	460*382*1005	460*382*1005	460*382*1005	460*382*1005	792*557*1260	792*557*1260	792*557*1260

## Armature pattern

Notes:  
 Default metric armature pattern (mm)  
 Contact sales people for optional imperial armature pattern and special requirements.

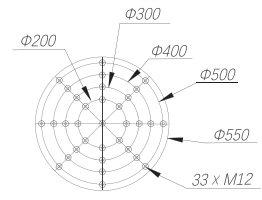
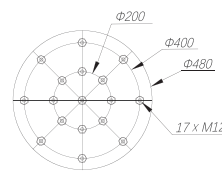
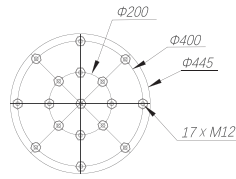


System model	TS20-320	TS20-445	TS20LS3-340	TS30-370	TS30LS4-445	TS40-370	TS40LS4-445
Sine/Random (kN)	20	20	20	30	30	40	40
Shock force (kN)	40/60	40/60	40/60	60/90	60/90	80/120	80/120
Frequency range (Hz)	5-3,000	5-2,800	5-3,000	5-2,800	5-2,600	5-2,800	5-2,600
Max. acceleration (m/s <sup>2</sup> )	1,000	700	800	1,000	750	1,300	900
Max. velocity (m/s)	2	2	2	2	1.8	2	1.8
Max. displacement (mm)	51	51	76	51	100	51	100
Max. load (kg)	300	300	300	500	500	500	500
Armature mass (kg)	20	28	25	30	40	31	45
Armature diameter (mm)	320	445	340	370	445	370	445
Body suspension Fre. (Hz)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Armature inserts (standard)	16 * M10	16 * M10	20 * M10	16 * M10	16 * M10	16 * M10	16 * M10
Stray flux density	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)
Fund. resonance Fre. (Hz)	2,600 (nom.) ± 5%	2,600 (nom.) ± 5%	2,600 (nom.) ± 5%	2,400 (nom.) ± 5%	2,400 (nom.) ± 5%	2,400 (nom.) ± 5%	2,400 (nom.) ± 5%
Weight (kg)	1750	1750	1750	2550	2550	2550	2550
Dimension (mm)	1136*710*1052	1136*710*1052	1136*710*1066	1230*790*1155	1230*790*1216	1230*790*1155	1230*790*1216
<b>Power amplifier model</b>	<b>PWA20</b>	<b>PWA20</b>	<b>PWA20</b>	<b>PWA30</b>	<b>PWA30</b>	<b>PWA40</b>	<b>PWA40</b>
Power (kVA)	20	20	20	30	30	40	40
Max. output voltage (V)	120	120	120	120	120	120	120
Max. output current (A)	230	230	230	300	300	400	400
Power requirement (kVA)	44	44	44	54	54	73	73
Weight (kg)	330	330	330	585	585	700	700
Dimension (mm)	600*870*1720	600*870*1720	600*870*1720	600*870*1720	600*870*1720	600*1000*2020	600*1000*2020
<b>Cooling type</b>	<b>Air cooling</b>						
<b>Blower model</b>	<b>CD3000</b>	<b>CD3000</b>	<b>CD3000</b>	<b>CD3000</b>	<b>CD3000</b>	<b>CD5000</b>	<b>CD5000</b>
Power (kW)	7.5	7.5	7.5	7.5	7.5	15	15
Air flow (m <sup>3</sup> /s)	0.46	0.46	0.46	0.46	0.46	1.1	1.1
Air pressure (kPa)	8.8	8.8	8.8	8.8	8.8	7.7	7.7
Weight (kg)	235	235	235	235	235	285	285
Dimension (mm)	855*675*1390	855*675*1390	855*675*1390	855*675*1390	855*675*1390	947*753*1469	947*753*1469

## Armature pattern

### Notes:

Default metric armature pattern (mm)  
Contact sales people for optional imperial armature pattern and special requirements.



System model	TS50-445	TS50LS3-445	TS50LS4-445	TS60-445	TS60LS3-445	TS60LS4-445	TS65LS3-480	TS70LS3-550
Sine/Random (kN)	50	50	50	60	60	60	65	70
Shock force (kN)	100/150	100/150	100/150	120/180	120/180	120/180	130/195	140/210
Frequency range (Hz)	5-2,600	5-2,600	5-2,500	5-2,600	5-2,600	5-2,500	5-2,700	5-2,500
Max. acceleration (m/s <sup>2</sup> )	1,000	900	850	1,000	1,000	1,000	920	850
Max. velocity (m/s)	2	2	2	2	2	2	2	2
Max. displacement (mm)	51	76	100	51	76	100	76	76
Max. load (kg)	800	800	800	800	800	800	1,000	1,000
Armature mass (kg)	50	55	59	60	55	60	70	82
Armature diameter (mm)	445	445	445	445	445	445	480	550
Body suspension Fre. (Hz)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Armature inserts (standard)	17 * M12	17 * M12	17 * M12	17 * M12	17 * M12	17 * M12	17 * M12	33 * M12
Stray flux density	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)	<1mT (10Gs)
Fund. resonance Fre. (Hz)	2,400 (nom.) ± 5%	2,300 (nom.) ± 5%	2,200 (nom.) ± 5%	2,400 (nom.) ± 5%	2,400 (nom.) ± 5%	2,200 (nom.) ± 5%	2,300 (nom.) ± 5%	2,300 (nom.) ± 5%
Weight (kg)	4550	4550	4550	4550	4550	4550	4550	7300
Dimension (mm)	1636*1104*1274	1636*1104*1285	1636*1104*1340	1636*1104*1274	1636*1104*1285	1636*1104*1340	1636*1104*1276	1636*1104*1276
<b>Power amplifier model</b>	<b>PWA50</b>	<b>PWA50</b>	<b>PWA50</b>	<b>PWA60</b>	<b>PWA60</b>	<b>PWA60</b>	<b>PWA70</b>	<b>PWA70</b>
Power (kVA)	50	50	50	60	60	60	70	70
Max. output voltage (V)	120	120	120	120	120	120	120	120
Max. output current (A)	500	500	500	550	550	550	580	580
Power requirement (kVA)	82	82	82	95	95	95	108	110
Weight (kg)	780	780	780	850	850	850	900	900
Dimension (mm)	600*1000*2020	600*1000*2020	600*1000*2020	600*1000*2020	600*1000*2020	600*1000*2020	600*1000*2020	600*1000*2020
<b>Cooling type</b>	<b>Air cooling</b>							
<b>Blower model</b>	<b>CD5000</b>	<b>CD5000</b>	<b>CD5000</b>	<b>CD7000</b>	<b>CD7000</b>	<b>CD7000</b>	<b>CD7000</b>	<b>CD7000</b>
Power (kW)	15	15	15	22	22	22	30	23
Air flow (m <sup>3</sup> /s)	1.1	1.1	1.1	1.6	1.6	1.6	1.6	1.6
Air pressure (kPa)	7.7	7.7	7.7	7.5	7.5	7.5	7.5	7.5
Weight (kg)	285	285	285	390	390	390	390	340
Dimension (mm)	947*753*1469	947*753*1469	947*753*1469	1037*927*1555	1037*927*1555	1037*927*1555	1265*1004*1855	1265*1004*1855